

Cartesian RCP6 RoboCylinder System





Newest Additions to the Series

Z-axis Table Type

Type with ZR Unit (Vertical/Rotation)

GB

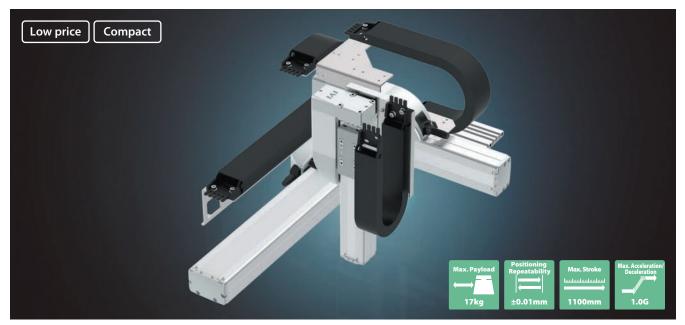


www.robocylinder.de

Cartesian RoboCylinder have never been more affordable.

The RoboCylinder equipped as standard with a Battery-less Absolute Encoder has been added to the "IK Series". It helps reduce the design and assembly steps.

The RoboCylinder RCP6 Series has been adopted to achieve even higher speeds compared with conventional models.



Diverse Combinations

The available combinatations have been greatly expanded from the conventional models, allowing the ideal selection to suit your needs from 516 options.

New configuration types include a table type (TA) with the Z-axis and a model with ZR unit (vertical/rotation).



P Equipped with high resolution Battery-less Absolute Encoder as standard.

Equipped as standard with Battery-less Absolute Encoder for all configuration axes. No battery maintenance is required since there is no battery. Homing operation is not required at startup or after emergency stop or malfunction. This reduces your operation time, resulting in reduced production costs.



The advantages of using an absolute encoder.

- (1) With an absolute encoder, home return is not required.
- (2) No external home sensor is required since home return is not necessary.
- (3) Removal of workpieces is not necessary, even after an emergency stop.
- (4) The troublesome creation of home-return programs is not necessary even when stopping inside of a complex machine.

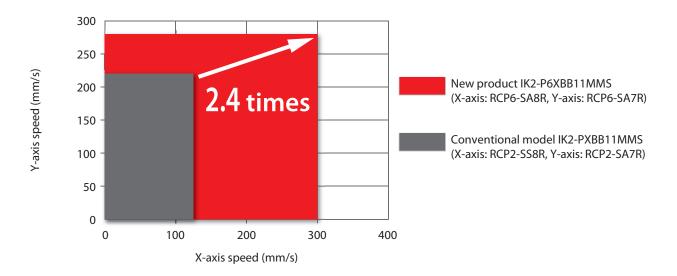
The advantages of battery-less.

- (1) No battery maintenance required.
- (2) No installation space for battery required.



Higher Speed

Compatible with PowerCon which is equipped with a high-output driver. The maximum speed has been increased with the use of PowerCon. This can reduce cycle time and help improve productivity.



2-axis combinations 3-axis combinations 4-axis combinations

Configuration Type Descriptions

Each configuration pattern is available with an extensive range of sizes from light load to heavy load and short stroke to long stroke. Select the optimal model for your application.

XYB (Y-axis base mount) type



A basic configuration type in which the base of the Y-axis is fixed to the X-axis slider. It is operated by fixing equipment or a Z-axis on the Y-axis slider.

Point 1

Select from 4 patterns of Y-axis configuration directions. (See the figure at right)

Point 2

A cable track can be selected for Y-axis wiring. Select the cable track size from a maximum of 4 different sizes. You can also select a cable track for wiring by the user.

YZB (Z-axis base mount) type



For this type, the base of the Z-axis (vertical axis) is fixed to the Y-axis slider with the Y-axis side-mounted. The Z-axis slider moves vertically, allowing mounting of jigs or chucks for transport, raising, or lowering of workpieces.

Point 1

Select from 2 patterns of Z-axis configuration directions. (See the figure at right)

Point 2

A cable track can be selected for Z-axis wiring. Select the cable track size from a maximum of 4 different sizes. You can also select a cable track for wiring by the user.

XYB (Y-axis base mount) + Z-axis base mount type

For this type, the base surface of the Z-axis is fixed to the Y-axis slider of XYB type (Y-axis base is fixed to X-axis slider).

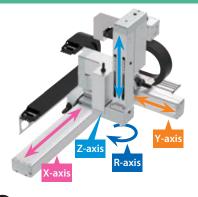
Point 1

The Z-axis body is fixed and the slider moves vertically.

Point 2

Cable tracks can be selected for Y-axis and Z-axis wiring. Select the cable track size from a maximum of 4 different sizes. You can also select a cable track for wiring by the user.

XYB (Y-axis base mount) + ZR (vertical/rotation) unit type



Z-axis

X-axis

This is an XYB (Y-axis base mount) type Y-axis slider equipped with a ZR unit that enables both vertical and rotational operation.

Point 1

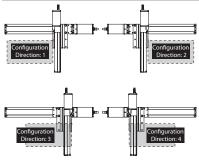
More compact with the integrated Z-axis and rotational axis.

Point 2

Cable tracks can be selected for Y-axis and Z-axis wiring. Select the cable track size from a maximum of 4 different sizes.

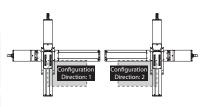
→ 2-axis combinations IK2-P6XB: p5~34

Configuration Direction



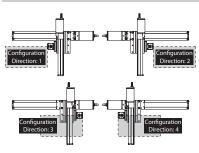
2-axis combinations IK2-P6YB: <u>035~70</u>

Configuration Direction



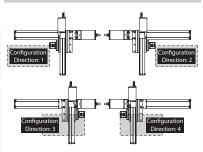
3-axis combinations IK3-P6BB: p71~106

Configuration Direction



4-axis combinations IK4-P6BB: p107~118

Configuration direction



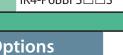
Cartesian RoboCylinder

| RoboC | ylinder 2-axis | Com | oinations | Robo |
|-------------|----------------|-----|-----------|-------------|
| | IK2-P6XBD1□□S | 5 | | |
| | IK2-P6XBD2□□S | 7 | | |
| | IK2-P6XBD3□□S | 9 | | |
| | IK2-P6XBC1□□S | 11 | | |
| | IK2-P6XBC2□□S | 13 | | |
| | IK2-P6XBC3□□S | 15 | | |
| | IK2-P6XBB1□□S | 17 | | |
| | IK2-P6XBB2□□S | 19 | A PARTY | |
| | IK2-P6XBB3□□S | 21 | | IK3 |
| | IK2-P6XBF1□□S | 23 | 4 | Pulse Moto |
| | IK2-P6XBF2□□S | 25 | | |
| | IK2-P6XBF3□□S | 27 | | |
| | IK2-P6XBE1□□S | 29 | | |
| | IK2-P6XBE2□□S | 31 | | |
| | IK2-P6XBE3□□S | 33 | | |
| | IK2-P6YBD1□□S | 35 | | |
| IK2 | IK2-P6YBD2□□S | 37 | | |
| Pulse Motor | IK2-P6YBD3□□S | 39 | | |
| | IK2-P6YBC1□□S | 41 | | |
| | IK2-P6YBC2□□S | 43 | | Robo |
| | IK2-P6YBC3□□S | 45 | | |
| | IK2-P6YBB1□□S | 47 | | |
| | IK2-P6YBB2□□S | 49 | C | IK4 |
| | IK2-P6YBB3□□S | 51 | | Pulse Motor |
| | IK2-P6YBI1□□S | 53 | | |
| | IK2-P6YBI2□□S | 55 | T. | |
| | IK2-P6YBI3□□S | 57 | | |
| | IK2-P6YBH1□□S | 59 | | O |
| | IK2-P6YBH2□□S | 61 | | |
| | IK2-P6YBH3□□S | 63 | | |
| | IK2-P6YBG1□□S | 65 | | MSEL |
| | IK2-P6YBG2□□S | 67 | | PCON |
| | IK2-P6YBG3□□S | 69 | | MCON |

| boC | ylinder 3-axis | Com | oinations |
|-------------------|---|--|-----------|
| boC 3 Motor | ylinder 3-axis IK3-P6BBC1 IK3-P6BBC2 IK3-P6BBC3 IK3-P6BBB3 IK3-P6BBB3 IK3-P6BBB3 IK3-P6BBB3 IK3-P6BBB3 IK3-P6BBB3 IK3-P6BBF1 IK3-P6BBF1 IK3-P6BBF1 IK3-P6BBF2 IK3-P6BBF3 IK3-P6BBE1 IK3-P6BBE1 IK3-P6BBE1 IK3-P6BBE1 IK3-P6BBE1 IK3-P6BBE2 IK3-P6BBE3 IK3-P6BBE3 IK3-P6BBE3 | Comb 71 73 75 77 79 81 83 85 87 89 91 93 95 97 | binations |
| | | 99 | |
| | | | |
| | IK3-P6BBH3□□S | 99 101 | |
| | IK3-P6BBG2 | 103 | |
| | IK3-P6BBG3□□S | 105 | |

RoboCylinder 4-axis Combinations

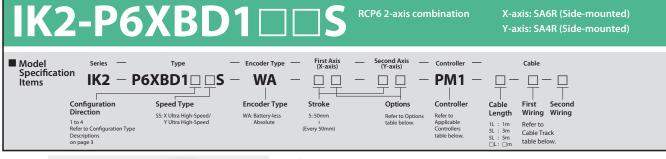
| | IK4-P6BBB1□□S | 107 | |
|-------------|---------------|-----|---|
| | IK4-P6BBB2□□S | 109 | |
| IK4 | IK4-P6BBB3□□S | 111 | |
| Pulse Motor | IK4-P6BBF1□□S | 113 | þ |
| | IK4-P6BBF2□□S | 115 | 4 |
| | IK4-P6BBF3□□S | 117 | |





A LID

| Controller | | | | | | |
|------------|-------------|-----|--|--|--|--|
| MSEL | MSEL | 123 | | | | |
| PCON | PCON-CB/CFB | 133 | | | | |
| MCON | MCON-C/LC | 137 | | | | |





| Payload by Acceleration | | | | | | |
|--|------------------------|--|--|--|--|--|
| SS type: X ultra high-speed/Y ultra high-speed (Unit: kg | | | | | | |
| Y-axis stroke (mm) Acceleration/ deceleration (G) | 50~150 (Every 50mm) | | | | | |
| 0.1 | 3 | | | | | |
| 0.3 | 3 | | | | | |
| 0.5 | 2 | | | | | |
| 0.7 | 1 | | | | | |

* When both X and Y axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

RoHS

| Cable Length | | | | | | | |
|---------------|------------|-----------------------------|--|--|--|--|--|
| | | | | | | | |
| Туре | Cable code | Length | | | | | |
| | 1L | 1m | | | | | |
| Standard type | 3L | 3m | | | | | |
| | 5L | 5m | | | | | |
| | | Specified length (15m max) | | | | | |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Cable Track

Ontions

| cubic Huck | | | | |
|---|-------|-------------------|----------------------------------|-----------------------------------|
| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) |
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | Can D 121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected

Specifications Item X-axis Y-axis RCP6-SA6R RCP6-SA4R Axis model Maximum Stroke 50~800mm 50~150mm Stroke (Every 50mm) Max. speed 640mm/s 560mm/s (X axis) 800 mm Yaxis 150 mm 42 Pulse motor 35 Pulse motor Motor size Ball screw lead 20mm 16mm Ball screw ø10mm Ball screw ø8mm Drive system Max. Speed (Ultra High-speed type) rolled C10 rolled C10 Positioning repeatability ±0.01mm (X axis 640 mm/s) Y axis 560 mm/s Base material Aluminum Ambient operating 0~40°C, 85% RH or less (non-condensing) temperature, humidity

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

□ X-axis: SA6R, Y-axis: SA4R

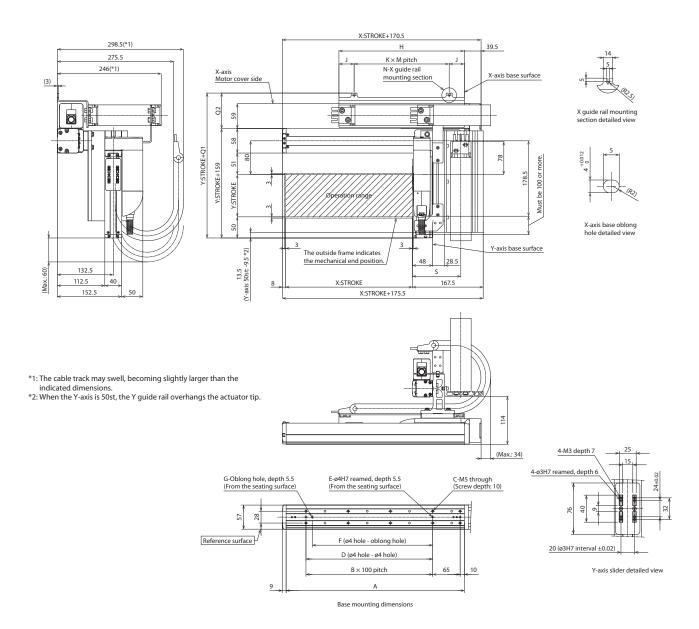
| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Options | | | | |
|-----------------------------|-------------|-------------------|--------|--------|
| Туре | Option code | Reference page | X-axis | Y-axis |
| Brake | В | See P.119 | 0 | 0 |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |
| | | | | |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

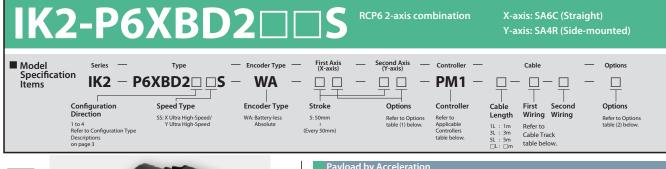
Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|------|-----|------|------|------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|
| A | 172 | 222 | 272 | 322 | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 | 922 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 172 | 197 | 222 | 247 | 272 | 297 | 322 | 347 | 372 | 397 | 422 | 447 | 472 | 497 | 522 | 547 |
| J | 23.5 | 36 | 23.5 | 36 | 23.5 | 36 | 61 | 23.5 | 36 | 48.5 | 26 | 23.5 | 36 | 48.5 | 61 | 48.5 |
| К | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| М | 125 | 125 | 175 | 175 | 225 | 225 | 200 | 100 | 100 | 150 | 185 | 200 | 200 | 200 | 200 | 150 |
| N | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | | | | | 1 | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

 Q1
 243
 256
 269
 286

 Q2
 84
 97
 110
 127

 S
 114.5
 121
 127.5





| SS type: X ultra high-speed/Y ultra high-speed (Unit: kg | | | | | |
|--|------------------------|--|--|--|--|
| Y-axis stroke (mm) Acceleration/ deceleration (G) | 50~150 (Every 50mm) | | | | |
| 0.1 | 3 | | | | |
| 0.3 | 3 | | | | |
| 0.5 | 2 | | | | |
| 0.7 | 1 | | | | |

* When both X and Y axes have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

RoHS

| cabie _engin | | | | | | | |
|---------------|------------|-----------------------------|--|--|--|--|--|
| | | | | | | | |
| Туре | Cable code | Length | | | | | |
| | 1L | 1m | | | | | |
| Standard type | 3L | 3m | | | | | |
| | 5L | 5m | | | | | |
| | | Specified length (15m max) | | | | | |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

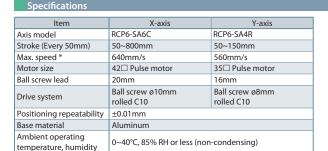
| Туре | Model | page | (X-axis lateral) | (Y-axis lateral) |
|---|-------|-----------|------------------|-------------------------|
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

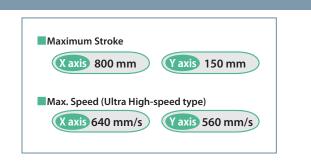
First wiring

Second wirin

* Only the first wiring can be selected

Cable Track





* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

🗆 X-axis: SA6C, Y-axis: SA4R

| Туре | Reference page | | |
|--------------------------------|--|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

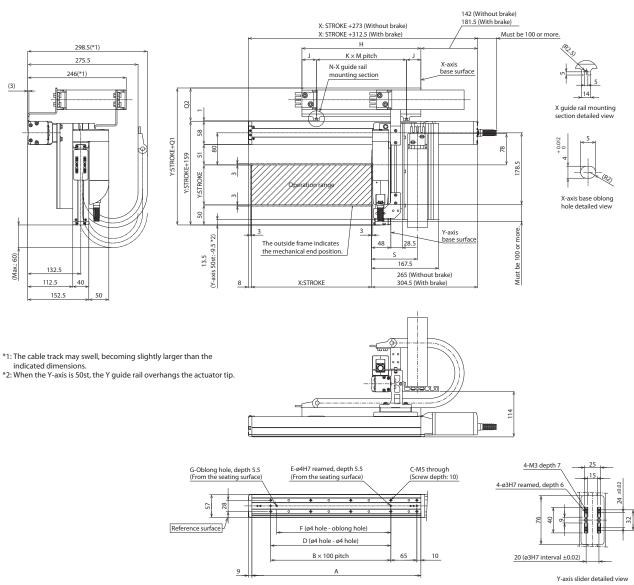
* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | X-axis | Y-axis |
|-------------------------------|-------------|-------------------|--------|-----------|
| Brake | В | See P.119 | 0 | 0 |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

| Options (2) | | |
|-------------|-------------|----------------|
| Туре | Option code | Reference page |
| Foot plate | FTP | See P.119 |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



Base mounting dimensions

(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer. When the foot plate option is selected, the unit will be shipped fixed on the foot

plate. (See P.119)

Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

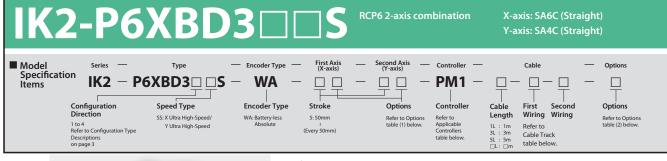
Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|------|-----|------|------|------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|
| A | 172 | 222 | 272 | 322 | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 | 922 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| С | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 172 | 197 | 222 | 247 | 272 | 297 | 322 | 347 | 372 | 397 | 422 | 447 | 472 | 497 | 522 | 547 |
| J | 23.5 | 36 | 23.5 | 36 | 23.5 | 36 | 61 | 23.5 | 36 | 48.5 | 26 | 23.5 | 36 | 48.5 | 61 | 48.5 |
| К | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| М | 125 | 125 | 175 | 175 | 225 | 225 | 200 | 100 | 100 | 150 | 185 | 200 | 200 | 200 | 200 | 150 |
| N | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |

 242
 255
 268
 285

 83
 96
 109
 126

 114.5
 121
 127.5
 Q2





| SS type: X ultra high-speed/Y ultra high-speed (Unit: kg | | | | |
|--|------------------------|--|--|--|
| Y-axis stroke (mm) Acceleration/ deceleration (G) | 50~150 (Every 50mm) | | | |
| 0.1 | 3 | | | |
| 0.3 | 3 | | | |
| 0.5 | 2 | | | |
| 0.7 1 | | | | |

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

RoHS

| Type | Cable code | Length | | | | | |
|---------------|------------|-----------------------------|--|--|--|--|--|
| Standard type | 1L | 1m | | | | | |
| | 3L | 3m | | | | | |
| | 5L | 5m | | | | | |
| | | Specified length (15m max.) | | | | | |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications

| ltem | X-axis | Y-axis | | | |
|--|---|-------------------------------|--|--|--|
| Axis model | RCP6-SA6C | RCP6-SA4C | | | |
| Stroke (Every 50mm) | 50~800mm | 50~150mm | | | |
| Max. speed * | 640mm/s | 560mm/s | | | |
| Motor size | 42□ Pulse motor | 35 Pulse motor | | | |
| Ball screw lead | 20mm | 16mm | | | |
| Drive system | Ball screw ø10mm rolled C10 | Ball screw ø8mm rolled C10 | | | |
| Positioning repeatability | ±0.01mm | | | | |
| Base material | Aluminum | | | | |
| Ambient operating temperature, humidity | 0~40°C, 85% RH or less (non-condensing) | | | | |

Maximum Stroke X axis 800 mm Max. Speed (Ultra High-speed type) X axis 640 mm/s Y axis 560 mm/s

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

🗆 X-axis: SA6C, Y-axis: SA4C

| Туре | Reference page | | |
|--------------------------------|--|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | - See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | X-axis | Y-axis | |
|-------------------------------|-------------|-------------------|--------|-----------|--|
| Brake | В | See P.119 | 0 | 0 | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | |
| Slider roller specification | SR | See P.120 | 0 | 0 | |

| Options (2) | | |
|-------------|-------------|----------------|
| Туре | Option code | Reference page |
| Foot plate | FTP | See P.119 |

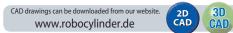
Cable Track

Options (1)

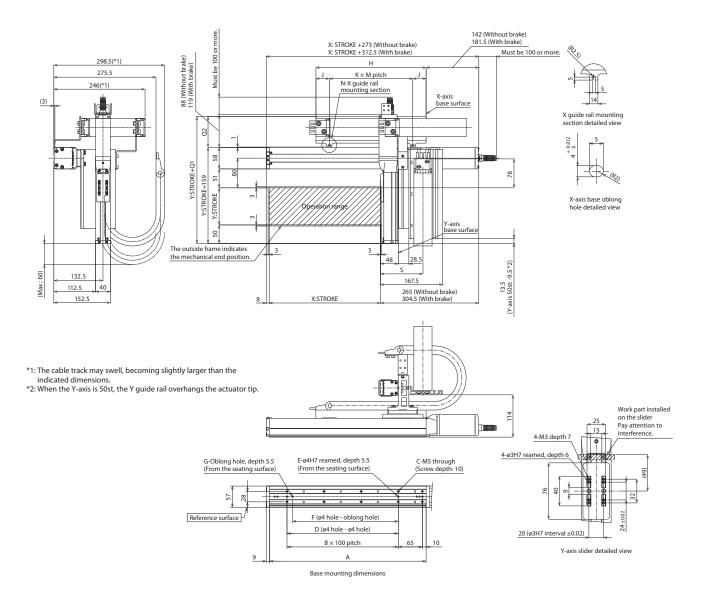
| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) |
|---|-------|-------------------|----------------------------------|-----------------------------------|
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | Jee P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected

IK2-P6XBD3□□S



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

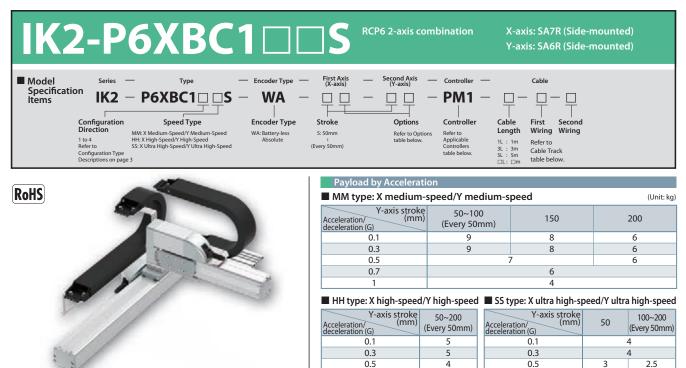
Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|------|-----|------|------|------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|
| A | 172 | 222 | 272 | 322 | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 | 922 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 172 | 197 | 222 | 247 | 272 | 297 | 322 | 347 | 372 | 397 | 422 | 447 | 472 | 497 | 522 | 547 |
| J | 23.5 | 36 | 23.5 | 36 | 23.5 | 36 | 61 | 23.5 | 36 | 48.5 | 26 | 23.5 | 36 | 48.5 | 61 | 48.5 |
| К | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| М | 125 | 125 | 175 | 175 | 225 | 225 | 200 | 100 | 100 | 150 | 185 | 200 | 200 | 200 | 200 | 150 |
| N | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | | | | | 1 | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |

 Call
 <th





The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

| Cable Lengt | h | |
|---------------|------------|-----------------------------|
| Туре | Cable code | Length |
| | 1L | 1m |
| Standard type | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

| Model | Reference page | First wiring (X-axis lateral) |
|-------|-------------------|----------------------------------|
| N | | 0 |
| СТ | | 0 |
| СТМ | See | 0 |
| CTL | P.121 | 0 |
| | N CT CTM | Model page N CT CTM See |

2

0.7

1

| Cable Lengt | h | |
|---------------|------------|-----------------------------|
| Туре | Cable code | Length |
| | 1L | 1m |
| | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used. Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications ltem X-axis Y-axis Axis model RCP6-SA7R RCP6-SA6R Stroke (Every 50mm) 50~800mm 50~200mm MM 280mm/s 400mm/s Max. speed * ΗH 560mm/s 680mm/s SS 640mm/s 800mm/s Motor size 56 Pulse motor 42 Pulse motor MM 8mm 6mm Ball screw HH 16mm 12mm lead SS 24mm 20mm Ball screw ø12mm Ball screw ø10mm Drive system rolled C10 rolled C10 Positioning repeatability ±0.01mm Base material Aluminum Ambient operating 0~40°C, 85% RH or less (non-condensing) temperature, humidity

* Only the first wiring can be selected

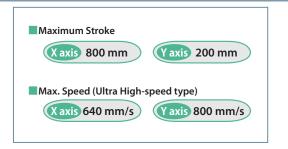
Cable track XL size (inner width: 80mm) *

0.7

Cable Track

* When both X and Y axes have the same acceleration/ deceleration. When there is significant vibration, decrease

the speed and acceleration/deceleration as required.



CTXL

1.5

Second wiring

(Y-axis lateral)

Cannot be

selected ¹

2

0

* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

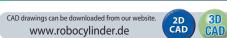
🗆 X-axis: SA7R, Y-axis: SA6R

| Reference page | | | |
|------------------------------|--|--|--|
| | | | |
| Please see the | | | |
| dedicated catalog or manual. | | | |
| acticated catalog of manual. | | | |
| | | | |
| | | | |

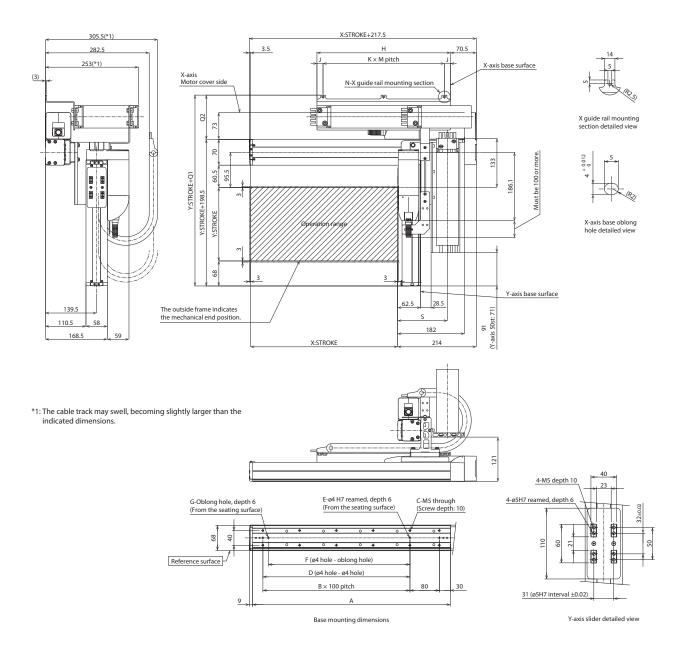
* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options Reference Option code X-axis Y-axis Type page Brake в See P 119 Non-motor end specification NM See P.120 Slider roller specification SR See P.120

IK2-P6XBC1□□S



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

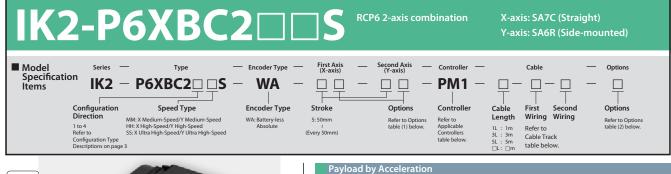
The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|------|------|-----|------|-------|------|-----|------|-----|-----|-----|------|-----|------|-----|-----|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 188 | 213 | 238 | 263 | 288 | 313 | 338 | 363 | 388 | 413 | 438 | 463 | 488 | 513 | 538 | 563 |
| J | 16.5 | 16.5 | 14 | 16.5 | 16.5 | 16.5 | 14 | 16.5 | 14 | 16 | 15 | 66.5 | 44 | 56.5 | 69 | 16 |
| К | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 |
| М | 155 | 180 | 210 | 115 | 127.5 | 140 | 155 | 165 | 180 | 127 | 136 | 110 | 200 | 200 | 200 | 177 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL |] | | | | | | | | | | | |
| 01 | 204 | 210 | 222 | 240 | 1 | | | | | | | | | | | |

Q1 306 319 332 349 Q2 107.5 120.5 133.5 150.5 S 129 135.5 142 -





| Acceleration/ (mn deceleration (G) | (Every 50) | nm) | 150 | | 200 | | |
|--|------------------------|----------|--------------------------------------|---|------------------------|--|--|
| 0.1 | 9 | | 8 | | 6 | | |
| 0.3 | 9 | | 8 | | 6 | | |
| 0.5 | | 7 6 | | | | | |
| 0.7 | | | 6 | | | | |
| 1 | | | 4 | | | | |
| HH type: X high-speed Y-axis stroke | | SS t | ype: X ultra high-s Y-axis stroke | · | <u> </u> | | |
| Acceleration/ (mm) deceleration (G) | 50~200 (Every 50mm) | Accelera | ation/ (mm) | | 100~200 | | |
| 0.1 | | decelera | ation (G) | | (Every 50mm) | | |
| 011 | 5 | decelera | ation (G) 0.1 | _ | (Every 50mm) 4 | | |
| 0.3 | 5 5 | decelera | ation (G) | | (Every 50mm) 4 4 | | |
| | 5 5 4 | decelera | ation (G) 0.1 | 3 | 4 | | |

(Unit: kg)

MM type: X medium-speed/Y medium-speed

50~100

Y-axis stroke

* When both X and Y axes have the same acceleration/ deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

| Cable Lengt | h | |
|---------------|------------|-----------------------------|
| Туре | Cable code | Length |
| | 1L | 1m |
| Standard type | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used. Note 2. The length of the second axis cable is from the exit of the cable track.

A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified

in 1m increments up to 15m.

Specifications

| Item | | X-axis | Y-axis | | | |
|--------------------------------------|-----------|---|--------------------------------|--|--|--|
| Axis model | | RCP6-SA7C | RCP6-SA6R | | | |
| Stroke (Every 50n | nm) | 50~800mm | 50~200mm | | | |
| | MM | 280mm/s | 400mm/s | | | |
| Max. speed * | HH | 560mm/s | 680mm/s | | | |
| | SS | 640mm/s | 800mm/s | | | |
| Motor size | | 56□ Pulse motor | 42 Pulse motor | | | |
| Ball screw | MM | 8mm | 6mm | | | |
| lead | HH | 16mm | 12mm | | | |
| leau | SS | 24mm | 20mm | | | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | | | |
| Positioning repea | atability | ±0.01mm | | | | |
| Base material | | Aluminum | | | | |
| Ambient operatir temperature, hur | | 0~40°C, 85% RH or less (non-condensing) | | | | |

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

🗆 X-axis: SA7C, Y-axis: SA6R

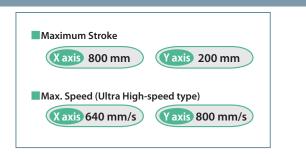
| Туре | Reference page | | | |
|--------------------------------|---|--|--|--|
| PCON-CB/CGB | See P.133 | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | |
| MCON-C/CG | See P.137 | | | |
| MCON-LC/LCG | See P.157 | | | |
| MSEL | See P.123 | | | |

Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Cable Track | | | | |
|---|-------|-------------------|----------------------------------|-----------------------------------|
| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) |
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

1

* Only the first wiring can be selected



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Options (1)

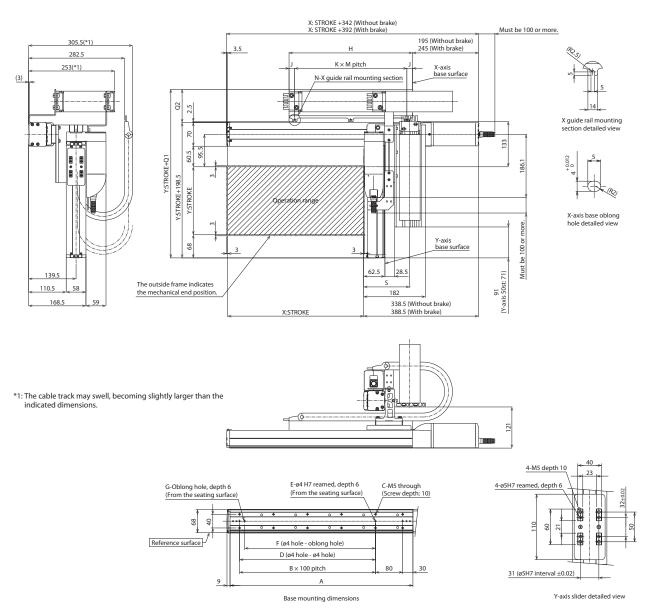
| | | , | | |
|-------------------------------|-------------|-------------------|--------|-----------|
| Туре | Option code | Reference page | X-axis | Y-axis |
| Brake | В | See P.119 | 0 | 0 |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

Options (2)

| Туре | Option code | Reference page |
|------------|-------------|----------------|
| Foot plate | FTP | See P.119 |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

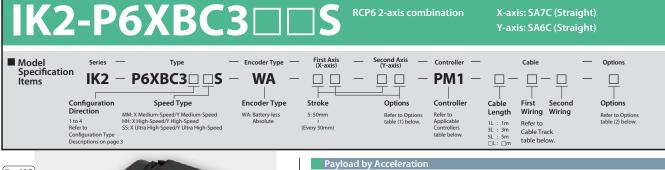
When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

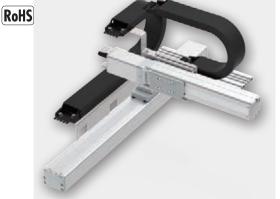
Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| A 188 238 288 338 388 438 488 538 53 B 0 1 1 2 2 3 3 4 4 C 4 6 6 8 8 10 10 12 1 D 0 0 100 200 200 300 300 400 4 E 2 2 3 | 588 638 688 738 788 838 88 | 50 800 88 938 |
|--|----------------------------|------------------|
| B 0 1 1 2 2 3 3 4 4 C 4 6 6 8 8 10 10 12 1 D 0 00 100 200 200 300 300 400 41 E 2 2 3 | | 88 938 |
| C 4 6 6 8 8 10 10 12 1 D 0 0 100 200 200 300 300 400 4 E 2 2 3 | A E E 6 6 7 - | |
| D 0 0 100 200 200 300 300 400 44 E 2 2 3 | 4 5 5 6 6 7 7 | 7 8 |
| E 2 2 3 | 12 14 14 16 16 18 1 | 18 20 |
| F 0 85 85 185 185 285 285 385 33 G 0 1 2 <th2< th=""> <th2< th=""> <th2< th=""> <th< td=""><td>400 500 500 600 600 700 70</td><td>00 800</td></th<></th2<></th2<></th2<> | 400 500 500 600 600 700 70 | 00 800 |
| G 0 1 2 | 3 3 3 3 3 3 3 | 3 3 |
| H 188 213 238 263 288 313 338 363 34 J 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 | 385 485 485 585 585 685 68 | 85 785 |
| J 16.5 16.5 14 16.5 16.5 14 16.5 1 K 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 1 1 15 16.5 140 155 165 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 | 1 1 1 1 1 1 1 | 1 1 |
| K 1 1 1 2 <th2< th=""> <th2< th=""> <th2< th=""> <th2< th=""></th2<></th2<></th2<></th2<> | 388 413 438 463 488 513 53 | 38 563 |
| M 155 180 210 115 127.5 140 155 165 18 | 14 16 15 66.5 44 56.5 6 | 59 16 |
| | 2 3 3 3 2 2 2 | 2 3 |
| | 180 127 136 110 200 200 20 | 00 177 |
| N 2 2 2 3 3 3 3 3 3 | 3 4 4 4 3 3 | 3 4 |
| | | |
| Cable track size CT CTM CTL CTXL | | |

 Class and tack and
 Class a





| Y-axis stroke Acceleration/ (mm) deceleration (G) | | | | | 200 |
|---|------------------------|----------|---|-----------|-------------------------|
| 0.1 | 9 | | 8 | | 6 |
| 0.3 | 0.3 9 | | 8 | | 6 |
| 0.5 | 7 6 | | | | |
| 0.7 | | | 6 | | |
| 1 | 4 | | | | |
| HH type: X high-speed/ | 'Y high-speed | SS t | ype: X ultra high-sj | peed/Y ul | tra high-speed |
| Y-axis stroke Acceleration/ (mm) deceleration (G) | 50~200 (Every 50mm) | Accelera | Y-axis stroke ation/ (mm) ation (G) | 50 | 100~200 (Every 50mm) |
| 0.1 | 5 | | 0.1 | | 4 |
| 0.3 | 5 | | 0.3 | | 4 |

0.5

0.7

1

3

2

(Unit: kg)

2.5

1.5

MM type: X medium-speed/Y medium-speed

4

2

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

| cubic Lenge | | |
|---------------|------------|-----------------------------|
| | | |
| Туре | Cable code | Length |
| Standard type | 1L | 1m |
| | 3L | 3m |
| | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used.

- Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified
- Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specifie in 1m increments up to 15m.

Specifications

| ltem | | X-axis | Y-axis | |
|--|----|---|--------------------------------|--|
| Axis model | | RCP6-SA7C | RCP6-SA6C | |
| Stroke (Every 50mm) | | 50~800mm | 50~200mm | |
| | MM | 280mm/s | 400mm/s | |
| Max. speed * | HH | 560mm/s | 680mm/s | |
| SS | | 640mm/s | 800mm/s | |
| Motor size | | 56 Pulse motor | 42 Pulse motor | |
| Ball screw MM | | 8mm | 6mm | |
| lead | HH | 16mm | 12mm | |
| leau | SS | 24mm | 20mm | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | |
| Positioning repeatability | | ±0.01mm | | |
| Base material | | Aluminum | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | |

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

🗆 X-axis: SA7C, Y-axis: SA6C

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P 123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

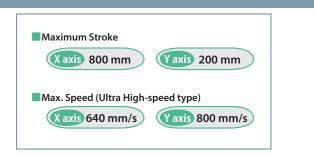
| Cable Track | | | | |
|---|-------|-------------------|----------------------------------|-----------------------------------|
| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) |
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | C D 121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected

0.5

0.7

When both X and Y axes have the same acceleration/ deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

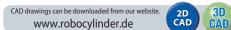
Options (1)

| Туре | Option code | Reference page | X-axis | Y-axis |
|-------------------------------|-------------|-------------------|--------|-----------|
| Brake | В | See P.119 | 0 | 0 |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

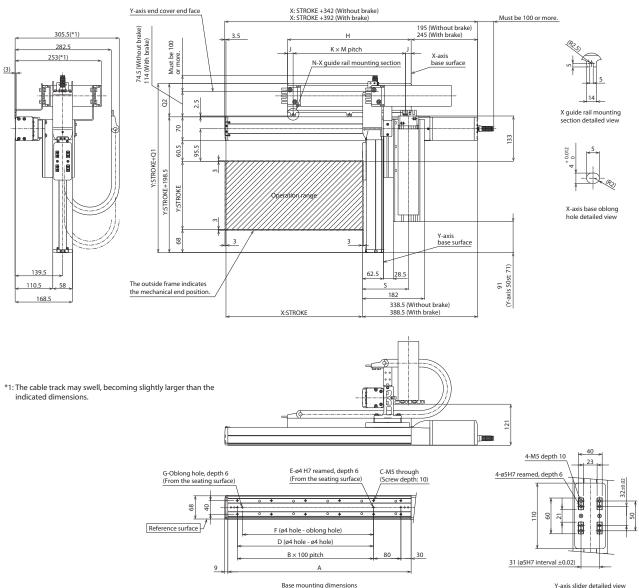
Options (2)

| Туре | Option code | Reference page |
|------------|-------------|----------------|
| Foot plate | FTP | See P.119 |

15 IK2-P6XBC3□□S



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



Y-axis slider detailed view

(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

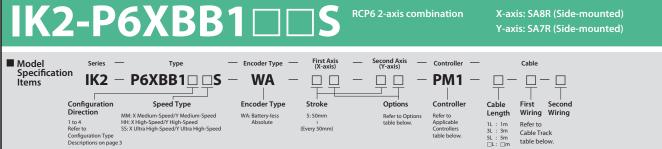
Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| A 188 238 288 338 388 438 488 538 53 B 0 1 1 2 2 3 3 4 4 C 4 6 6 8 8 10 10 12 1 D 0 0 100 200 200 300 300 400 4 E 2 2 3 | 588 638 688 738 788 838 88 | 50 800 88 938 |
|--|----------------------------|------------------|
| B 0 1 1 2 2 3 3 4 4 C 4 6 6 8 8 10 10 12 1 D 0 00 100 200 200 300 300 400 41 E 2 2 3 | | 88 938 |
| C 4 6 6 8 8 10 10 12 1 D 0 0 100 200 200 300 300 400 4 E 2 2 3 | A E E 6 6 7 - | |
| D 0 0 100 200 200 300 300 400 44 E 2 2 3 | 4 5 5 6 6 7 7 | 7 8 |
| E 2 2 3 | 12 14 14 16 16 18 1 | 18 20 |
| F 0 85 85 185 185 285 285 385 33 G 0 1 2 2 2 1 2 <th2< th=""> <th2< th=""> <th2< th=""> <th< td=""><td>400 500 500 600 600 700 70</td><td>00 800</td></th<></th2<></th2<></th2<> | 400 500 500 600 600 700 70 | 00 800 |
| G 0 1 2 | 3 3 3 3 3 3 3 | 3 3 |
| H 188 213 238 263 288 313 338 363 34 J 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 | 385 485 485 585 585 685 68 | 85 785 |
| J 16.5 16.5 14 16.5 16.5 14 16.5 1 K 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 1 1 15 16.5 140 155 165 14 16.5 16.5 14 16.5 16.5 14 16.5 16.5 14 16.5 | 1 1 1 1 1 1 1 | 1 1 |
| K 1 1 1 2 <th2< th=""> <th2< th=""> <th2< th=""> <th2< th=""></th2<></th2<></th2<></th2<> | 388 413 438 463 488 513 53 | 38 563 |
| M 155 180 210 115 127.5 140 155 165 18 | 14 16 15 66.5 44 56.5 6 | 59 16 |
| | 2 3 3 3 2 2 2 | 2 3 |
| | 180 127 136 110 200 200 20 | 00 177 |
| N 2 2 2 3 3 3 3 3 3 | 3 4 4 4 3 3 | 3 4 |
| | | |
| Cable track size CT CTM CTL CTXL | | |

 283
 296
 309
 326

 84.5
 97.5
 110.5
 127.5
 Q2 129 135.5 142





| | | _ | _ | | | |
|---|------------------------|-------|-----|--------------|------------------------------|------------------------|
| Payload by Accelerat | | | | | | <i></i> |
| MM type: X medium | -speea/ Y | meai | um- | speea | | (Unit: k |
| Y-axis stroke Acceleration/ (mm deceleration (G) | | | | 150 | 200 | 250 |
| 0.1 | 16 | | | 15 | 12.5 | 9 |
| 0.3 | 16 | 16 15 | | 15 | 12.5 | 9 |
| 0.5 | | 10 | | | | 9 |
| 0.7 | | 6 | | | 5 | 5.5 |
| 1 | | | 6 | | 5.5 | |
| HH type: X high-speed/Y high-speed SS type: X ultra high-speed/Y ultra high-speed/Y | | | | | | |
| Y-axis stroke Acceleration/ (mm) deceleration (G) | 50~150 (Every 50mm) | 200 | 250 | Acceleration | Y-axis stroke (mm) (G) | 50~250 (Every 50mm) |
| 0.1 | 11 | 10.5 | 9 | | 0.1 | 3 |
| 0.3 | 8 | | | | 0.3 | 1.5 |

Reference

page

First wiring

(X-axis lateral)

0

0

0

Second wiring (Y-axis lateral)

0

Cannot be

selected *

5

4

vibration, decrease the speed and acceleration/deceleration as required

When both X and Y axes have the same acceleration/deceleration. When there is significant

Model

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

| | Cable Length | | | | | | | |
|--|---------------|------------|-----------------------------|--|--|--|--|--|
| | Type | Cable code | Length | | | | | |
| | Standard type | 1L | 1m | | | | | |
| | | 3L | 3m | | | | | |
| | | 5L | 5m | | | | | |
| | | | Specified length (15m max.) | | | | | |

Note 1 All-axis standard cable is used

MM

HH

SS

MM

ΗH

SS

X-ax

56□ High-thrust pulse motor 10mm

0~40°C, 85% RH or less (non-condensing)

Ball screw ø16mm rolled C10

RCP6-SA8R

300mm/s

400mm/s

650mm/s

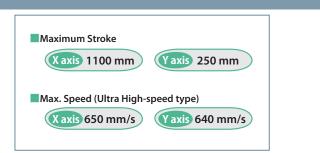
20mm

30mm

±0.01mm Aluminum

50~1100mm

* Only the first wiring can be selected



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

C X-axis: SA8R

Specifications Item

Stroke (Every 50mm)

Axis model

Max. speed

Motor size

Ball screw

Drive system Positioning repeatability

Base material Ambient operating

temperature, humidity

lead

| Туре | Reference page |
|---------------|----------------|
| PCON-CFB/CGFB | See P.133 |
| MSEL-PCF/PGF | See P.123 |

□ Y-axis: SA7R

| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Options | | | | | | | |
|-----------------------------|-------------|-------------------|--------|--------|--|--|--|
| Туре | Option code | Reference page | X-axis | Y-axis | | | |
| Brake | В | See P.119 | 0 | 0 | | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | | | |
| Slider roller specification | SR | See P.120 | 0 | 0 | | | |

Without cable track (cable only)

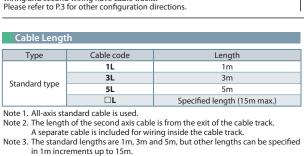
Cable Track

0.5

0.7

Ν Cable track S size (inner width: 38mm) СТ Cable track M size (inner width: 50mm) СТМ See P.121 Cable track L size (inner width: 63mm) CTL Cable track XL size (inner width: 80mm) * CTXL

Type



Y-axi

. RCP6-SA7R 50~250mm

280mm/s

560mm/s

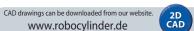
640mm/s

8mm

16mm

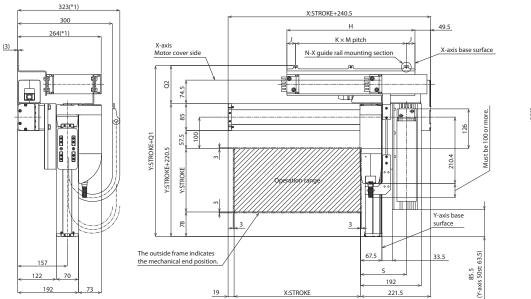
24mm Ball screw ø12mm rolled C10

56 Pulse motor





Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



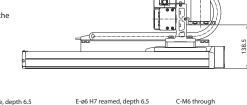


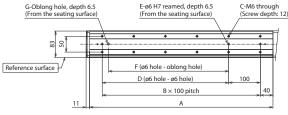
X guide rail mounting section detailed view



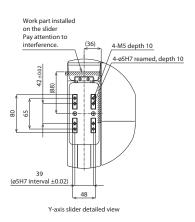
X-axis base oblong hole detailed view

*1: The cable track may swell, becoming slightly larger than the indicated dimensions.





Base mounting dimensions



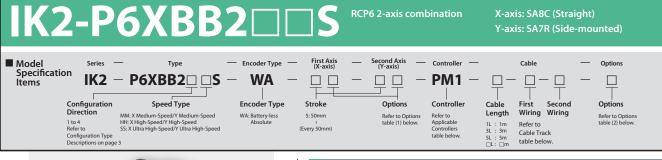
(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|------------------|-----|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| М | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| Cable track size | CT | CTM | CTL | CTXL |] | | | | | | | | | | | | | | | | | |





| Payload by Accelerat | ion | | | | | | | | | |
|---|-----------------------|------|-----|---------------------------|-----------------------|------------------------|--|--|--|--|
| MM type: X medium-speed/Y medium-speed (Unit: kg | | | | | | | | | | |
| Y-axis stroke Acceleration/ (mm deceleration (G) | | - | | 150 | 200 | 250 | | | | |
| 0.1 | 16 | | | 15 | 12.5 | 9 | | | | |
| 0.3 | 16 | | | 15 | 12.5 | 9 | | | | |
| 0.5 | | | | 10 | | 9 5.5 | | | | |
| 0.7 | | (| 5 | | | | | | | |
| 1 | | (| 5 | | 5 | 5.5 | | | | |
| HH type: X high-speed/Y high-speed SS type: X ultra high-speed/Y ultra high-speed | | | | | | | | | | |
| Y-axis stroke Acceleration/ (mm) deceleration (G) | 50~150 Every 50mm) | 200 | 250 | Acceleration deceleration | Y-axis stroke (mm) | 50~250 (Every 50mm) | | | | |
| 0.1 | 11 1 | 10.5 | 9 | | 3 | | | | | |

8

5

4

vibration, decrease the speed and acceleration/deceleration as required

When both X and Y axes have the same acceleration/deceleration. When there is significant

Model

Ν

СТ

стм

CTL

CTXL

1.5

Second wiring (Y-axis lateral)

0

Cannot be

selected *

0.3

First wiring (X-axis lateral)

0

0

Reference

page

See P.121

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

| Cable Length | | | | | | | |
|---------------|------------|-----------------------------|--|--|--|--|--|
| Туре | Cable code | Length | | | | | |
| Standard type | 1L | 1m | | | | | |
| | 3L | 3m | | | | | |
| | 5L | 5m | | | | | |
| | | Specified length (15m max.) | | | | | |

Note 1. All-axis standard cable is used.

MM

HH

SS

MM

ΗH

SS

Specifications Item

Stroke (Every 50mm)

Axis model

Max. speed *

Motor size

Ball screw

Drive system

Positioning repeatability Base material

Ambient operating

temperature, humidity

lead

Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified

X-axi

56 High-thrust pulse motor

0~40°C, 85% RH or less (non-condensing)

Ball screw ø16mm rolled C10

RCP6-SA8C

300mm/s

400mm/s

650mm/s

10mm

20mm

30mm

±0.01mm

Aluminum

50~1100mm

Y-axis

RCP6-SA7R

50~250mm

280mm/s

560mm/s

640mm/s

8mm

16mm

24mm

56 Pulse motor

Ball screw ø12mm rolled C10

in 1m increments up to 15m.

* Only the first wiring can be selected

Without cable track (cable only)

Type

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Cable track XL size (inner width: 80mm) *

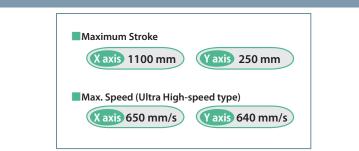
0.3

0.5

0.7

Cable Track

Options (1)



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.121.

| App | licahl | e (on | trolle | 22 |
|-----|--------|--------|--------|----|
| npp | ncubi | | COL | |

Controllers are sold separately.

Please contact IAI for more information.

🗆 X-axis: SA8C

| Type PCON-CFB/CGFB | Reference page |
|--------------------|----------------|
| PCON-CFB/CGFB | See P.133 |
| MSEL-PCF/PGF | See P.123 |

□ Y-axis: SA7R

| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

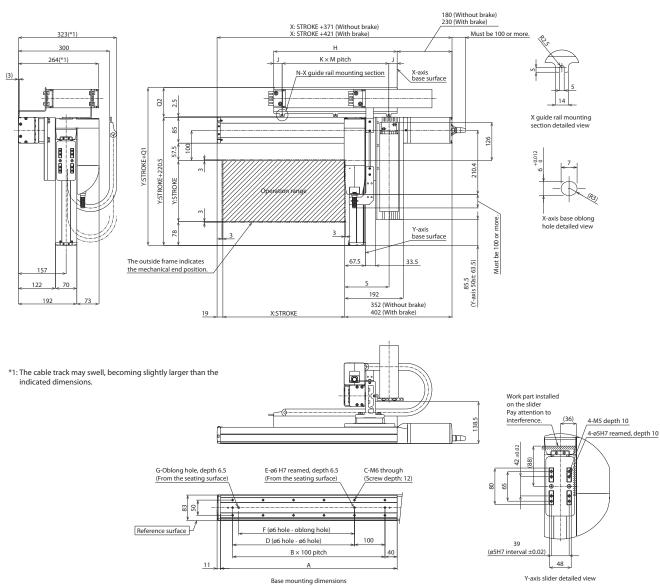
⁶ Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | X-axis | Y-axis | |
|-------------------------------|-------------|-------------------|--------|-----------|--|
| Brake | В | See P.119 | 0 | 0 | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | |
| Slider roller specification | SR | See P.120 | 0 | 0 | |

| Options (2) | | |
|-------------|-------------|----------------|
| Туре | Option code | Reference page |
| Foot plate | FTP | See P.119 |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



Y-axis slider detailed view

(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

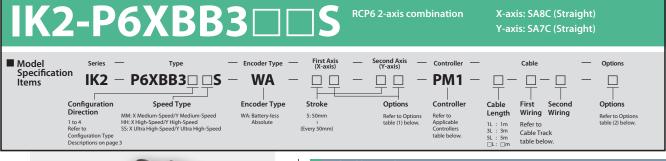
Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|------------------|-----|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| А | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 |
| К | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| М | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| | | | | | | | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | | | | | | | |

 305
 318
 331
 348

 84.5
 97.5
 110.5
 127.5
 Q2 139 145.5 152





| Payload by Acceleration | | | | | | | | | | | | |
|---|-----------------------|------|-----|--------------|------------------------------|------------------------|--|--|--|--|--|--|
| MM type: X medium-speed/Y medium-speed (Unit: kg | | | | | | | | | | | | |
| Y-axis stroke Acceleration/ (mm deceleration (G) | | - | | 150 | 200 | 250 | | | | | | |
| 0.1 | 16 | | | 15 | 12.5 | 9 | | | | | | |
| 0.3 | 16 | | | 15 | 12.5 | 9 | | | | | | |
| 0.5 | | | | 10 | | 9 | | | | | | |
| 0.7 | | (| 5 | | 5 | 5.5 | | | | | | |
| 1 | | (| 5 | | 5 | 5.5 | | | | | | |
| HH type: X high-spee | ed/Y high- | spee | d | SS type: | X ultra high-speed | l/Y ultra-high spee | | | | | | |
| Y-axis stroke Acceleration/ (mm) deceleration (G) | 50~150 Every 50mm) | 200 | 250 | Acceleration | Y-axis stroke (mm) (G) | 50~250 (Every 50mm) | | | | | | |
| 0.1 | 11 | 10.5 | 9 | | 0.1 | 3 | | | | | | |
| 0.3 | 8 | | | | 0.3 | 1.5 | | | | | | |

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

| Cable Lengt | h | |
|---------------|------------|-----------------------------|
| Туре | Cable code | Length |
| | 1L | 1m |
| Standard type | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used. Note 2. The length of the second axis cable is from the exit of the cable track.

Y-axis RCP6-SA7C 50~250

56 Pulse motor

Ball screw ø12mm rolled C10

280mm/s 560mm/s 640mm/s

8mm

16mm

24mm

A separate cable is included for wiring inside the cable track.

X-axi

56 High-thrust pulse motor

0~40°C, 85% RH or less (non-condensing)

Ball screw ø16mm rolled C10

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

RCP6-SA8C

400mm/s

650mm/s

10mm

20mm

30mm

±0.01mm Aluminum

50~1100mm 300mm/s

| | Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) |
|---|---|-------|-------------------|----------------------------------|-----------------------------------|
| | Without cable track (cable only) | N | | 0 | 0 |
| | Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| | Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| | Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| b | Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

5

4

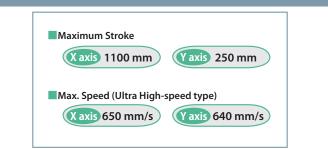
vibration, decrease the speed and acceleration/deceleration as required

When both X and Y axes have the same acceleration/deceleration. When there is significant

* Only the first wiring can be selected

0.5

0.7



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

| | | 1 |
|--|--|---|

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

🗆 X-axis: SA8C

Specifications

Axis model Stroke (Every 50mm)

Max. speed

Motor size

Ball screw

Drive system

Base material Ambient operating

Positioning repeatability

temperature, humidity

lead

ltem

HH

MM

ΗH

SS

SS

| Туре | Reference page |
|---------------|----------------|
| PCON-CFB/CGFB | See P.133 |
| MSEL-PCF/PGF | See P.123 |

□ Y-axis: SA7C

| Туре | Reference page | | | | |
|--------------------------------|---|--|--|--|--|
| PCON-CB/CGB | See P.133 | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | | |
| MCON-C/CG | 6 0.427 | | | | |
| MCON-LC/LCG | See P.137 | | | | |
| MSEL | See P.123 | | | | |

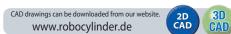
* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | X-axis | Y-axis |
|-------------------------------|-------------|-------------------|--------|-----------|
| Brake | В | See P.119 | 0 | 0 |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

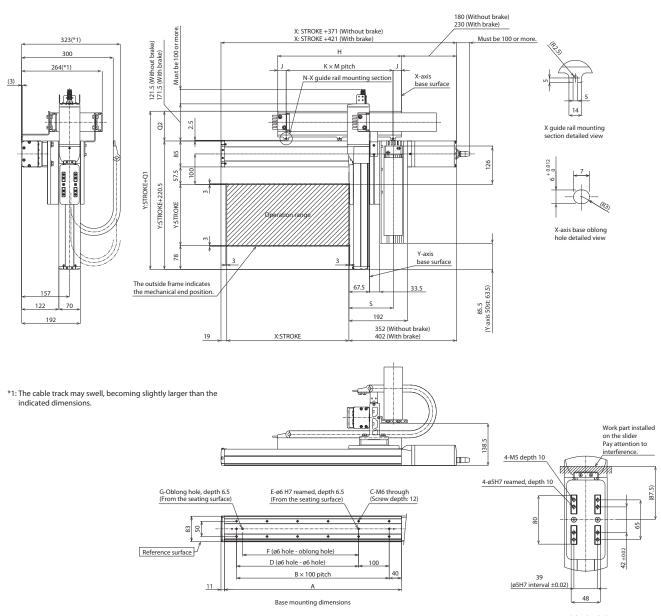
Options (2)

Options (1)

| Туре | Option code | Reference page |
|------------|-------------|----------------|
| Foot plate | FTP | See P.120 |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



Y-axis slider detailed view

(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

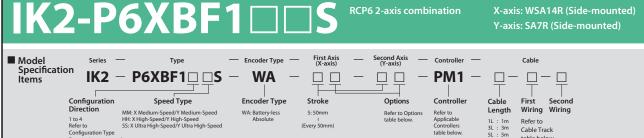
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|------------------|-----|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 |
| К | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| М | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| | _ | | | | 1 | | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | | | | | | | |

 Cable track size
 C1
 CIM
 CIL
 CIX

 Q1
 305
 318
 331
 348

 Q2
 84.5
 97.5
 110.5
 127.5

 S
 139
 145.5
 152



MM: X Medium-Speed/Y Medium-Speed HH: X High-Speed/Y High-Speed SS: X Ultra High-Speed/Y Ultra High-Speed 1 to 4 H Refer to S Configuration Type Descriptions on page 3

Refer to Options table below (Every 50mm)

0.1

0.3

0.5

Cable Track

Payload by Acceleration

1L : 1m 3L : 3m 5L : 5m □L: □m Refer to Cable Track table below

6

5.5

3

First wiring

(X-axis lateral)

0

0

0

0

5.5

5

2.5

5

4.5

2

Second wiring

(Y-axis lateral)

0

Ο

0

Cannot be

selected *



| MM type: X mediu | MM type: X medium-speed/Y medium-speed (Unit: kg | | | | | | | | | | | | |
|---|---|-----------------------------------|--------------------------------------|-----|----------------------------|----------------------------|--|--|--|--|--|--|--|
| Y-axis strok Acceleration/ (mm deceleration (G) | 50~100 | 150~200 (Every 50mm) | 250~300 (Every 50mm) | 350 | 4 | 100 | | | | | | | |
| 0.1 | 16 | 15 | 12.5 | 12 | 1 | 0.5 | | | | | | | |
| 0.3 | 16 | 15 | 12.5 | 12 | 1 | 0.5 | | | | | | | |
| 0.5 | | 1 | 2 | 1 | 0.5 | | | | | | | | |
| 0.7 | | | 9.5 | | | | | | | | | | |
| HH type: X high-sp | HH type: X high-speed/Y high-speed SS type: X ultra high-speed/Y ultra high-speed | | | | | | | | | | | | |
| Acceleration/ (mm) (| Every (Every | 350~400 (Every 50mm) Accele | Y-axis stro ration/ ration (G) | | 150~300 (Every 50mm) | 350~400 (Every 50mm) | | | | | | | |

7.5

7.5

4

4.5 0.7 3 2.5 2

8

8

5

When both X and Y axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Model

Ν

СТ

СТМ

CTL

CTXL

Reference

page

See P.121

0.1

0.3

0.5

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

| | Cable Length | | | | | | | | | | | |
|--|---------------|------------|-----------------------------|--|--|--|--|--|--|--|--|--|
| | Туре | Cable code | Length | | | | | | | | | |
| | | 1L | 1m | | | | | | | | | |
| | Standard type | 3L | 3m | | | | | | | | | |
| | | 5L | 5m | | | | | | | | | |
| | | | Specified length (15m max) | | | | | | | | | |

Note 1. All-axis standard cable is used. Note 2. The length of the second axis cable is from the exit of the cable track.

Specifications

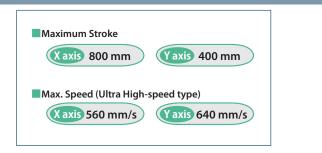
A separate cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1m. 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| opeemeuto | | | | | | |
|--------------------------------------|----------|---|--------------------------------|--|--|--|
| Item | | X-axis | Y-axis | | | |
| Axis model | | RCP6-WSA14R | RCP6-SA7R | | | |
| Stroke (Every 50n | าm) | 50~800mm | 50~400mm | | | |
| | MM | 210mm/s | 280mm/s | | | |
| Max. speed * | HH | 420mm/s | 560mm/s | | | |
| | SS | 560mm/s | 640mm/s | | | |
| Motor size | | 56 Pulse motor | 56 Pulse motor | | | |
| Ball screw | MM | 8mm | 8mm | | | |
| lead | HH | 16mm | 16mm | | | |
| leau | SS | 24mm | 24mm | | | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø12mm rolled C10 | | | |
| Positioning repea | tability | ±0.01mm | | | | |
| Base material | | Aluminum | | | | |
| Ambient operatir temperature, hur | | 0~40°C, 85% RH or less (non-condensing) | | | | |

* Only the first wiring can be selected

Without cable track (cable only)



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke.

For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

🗆 X-axis: WSA14R, Y-axis: SA7R

| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Option code | Reference page | X-axis | Y-axis |
|-------------|-------------------|---|--|
| В | See P.119 | 0 | 0 |
| NM | See P.120 | 0 | 0 |
| SR | See P.120 | 0 | 0 |
| | B | Option code page B See P.119 NM See P.120 | Option code page X-axis B See P.119 O NM See P.120 O |

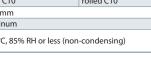
Cable track XL size (inner width: 80mm) *

Type

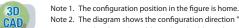
Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

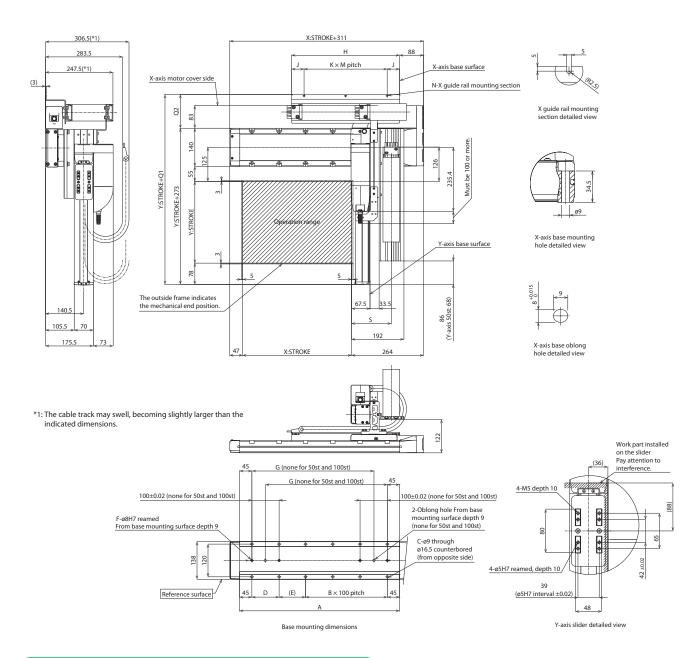
Cable track L size (inner width: 63mm)







Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

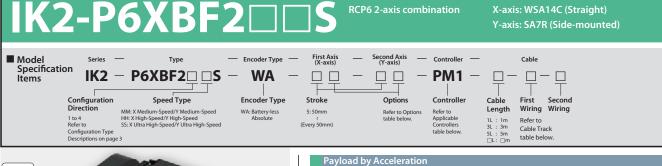
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|--------------------|------|------|------|-------|------|-------|------|-------|------|-----|-----|------|-----|-----|------|-------|
| A | 237 | 287 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 937 | 987 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| C | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 147 | 197 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 |
| Н | 221 | 246 | 271 | 296 | 321 | 346 | 371 | 396 | 421 | 446 | 471 | 496 | 521 | 546 | 571 | 596 |
| J | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 43 | 48 | 45.5 | 43 | 43 | 45.5 | 43 |
| К | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| М | 130 | 155 | 90 | 102.5 | 115 | 127.5 | 140 | 152.5 | 110 | 120 | 125 | 135 | 145 | 115 | 120 | 127.5 |
| N | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| | | | | | 1 | | | | | | | | | | | |
| Colula Annaly sime | CT | CTM | CTI | CTVI | | | | | | | | | | | | |

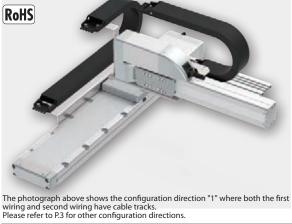
 Cable track size
 CT
 CTM
 CTL
 CTXL

 Q1
 383.5
 396.5
 426.5

 Q2
 110.5
 123.5
 136.5
 153.5

 S
 139
 145.5
 152.5





| Y-axis stro Acceleration/ (m deceleration (G) | m) - | 50~100 ery 50mm) | 150~200 (Every 50mm) | 250~300 (Every 50mm) | 350 | 4 | 100 |
|---|------------------|----------------------|----------------------------------|---|---|-----------------------------------|---------------------------------|
| 0.1 | | 16 | 15 | 12.5 | 12 | 1 | 0.5 |
| 0.3 | | 16 | 15 | 12.5 | 12 | 1 | 0.5 |
| 0.5 | | | 1 | 2 | | 1 | 0.5 |
| 0.7 | | | | 9.5 | | | |
| HH type: X high- | peed | /Y high-s | speed 🔳 SS | type: X ultra h | iah-speed/Y | ultra hic | 1h-sneed |
| Y-axis stroke Acceleration/ (mm) | 50~100 (Every | (Every | | Y-axis stro | oke 50~100 m) (Every | 150~300 (Every | 350~400 (Every |
| Acceleration/ (mm) deceleration (G) | (Every 50mm) | (Every | (Every 50mm) Accele | Y-axis stro eration/ eration (G) | oke 50~100 | 150~300 (Every 50mm) | 350~400 |
| Acceleration/ (mm) | (Every 50mm) | (Every 50mm) | (Every Accele | Y-axis stro | oke 50~100 (Every 50mm) | 150~300 (Every | 350~400 (Every 50mm) |
| Acceleration/ (mm) deceleration (G) 0.1 | (Every 50mm) | (Every 50mm) 8 | (Every 50mm) Accele decele | Y-axis stro eration/ eration (G) 0.1 | bke 50~100 (Every 50mm) 6 6 | 150~300 (Every 50mm) 5.5 | 350~400 (Every 50mm) 5 |

(Unit: kg)

* When both X and Y axes have the same acceleration/deceleration.

MM type: X medium-speed/Y medium-speed

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| cubic Lenge | | |
|---------------|------------|-----------------------------|
| Туре | Cable code | Length |
| | 1L | 1m |
| Standard type | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| | | ca | | |
|--|--|----|--|--|
| | | | | |

| opeemeate | 115 | | | | | |
|--|-----------|---|--------------------------------|--|--|--|
| ltem | | X-axis | Y-axis | | | |
| Axis model | | RCP6-WSA14C | RCP6-SA7R | | | |
| Stroke (Every 50r | nm) | 50~800mm | 50~400mm | | | |
| | MM | 210mm/s | 280mm/s | | | |
| Max. speed * | HH | 420mm/s | 560mm/s | | | |
| | SS | 560mm/s | 640mm/s | | | |
| Motor size | | 56 Pulse motor | 56 Pulse motor | | | |
| Ball screw | MM | 8mm | 8mm | | | |
| lead | HH | 16mm | 16mm | | | |
| leau | SS | 24mm | 24mm | | | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø12mm rolled C10 | | | |
| Positioning repe | atability | ±0.01mm | | | | |
| Base material | | Aluminum | | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | | |

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

□ X-axis: WSA14C, Y-axis: SA7R

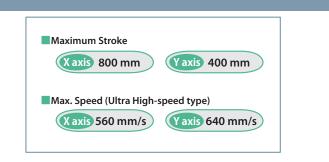
| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Cable Track Type Model Reference page First wiring (X-axis lateral) Second wiring (Y-axis lateral) /ithout cable track (cable only) N O O

| Type | model | page | (X-axis lateral) | (Y-axis lateral) |
|---|----------------------|-----------|------------------|-------------------------|
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | nner width: 38mm) CT | | | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected



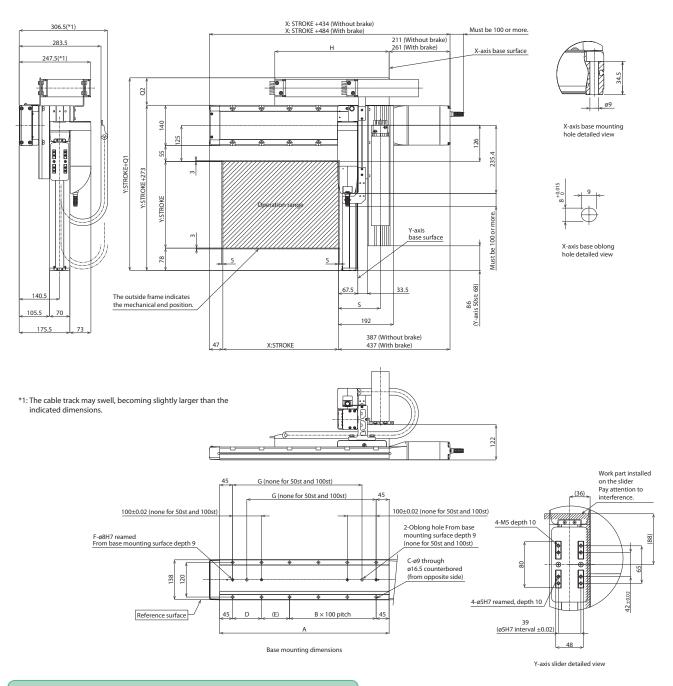
* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Options

| Туре | Option code | Reference page | X-axis | Y-axis |
|-------------------------------|-------------|-------------------|--------|-----------|
| Brake | В | See P.119 | 0 | 0 |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The X-axis cable track guide rail is fixed on the X-axis body. Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

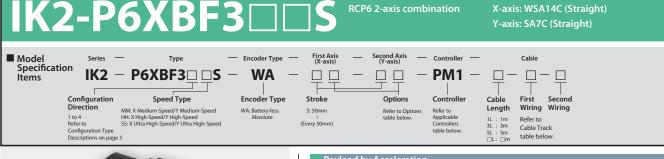
Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A | 237 | 287 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 937 | 987 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| C | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 147 | 197 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 |
| Н | 221 | 246 | 271 | 296 | 321 | 346 | 371 | 396 | 421 | 446 | 471 | 496 | 521 | 546 | 571 | 596 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTI | CTXI | | | | | | | | | | | | |

 Q1
 356
 368
 383
 401

 Q2
 83
 95
 110
 128

 S
 139
 145.5
 152





| Payload by Acceleration | | | | | | | | | | | |
|---|------------------------|----------------------------------|--------------------------------------|-----------|--|--|--|--|--|--|--|
| MM type: X medium | n-speed/Y m | nedium-spe | ed | | (Unit: kg) | | | | | | |
| Y-axis stroke Acceleration/ (mm) deceleration (G) | 50~100 (Every 50mm) | 150~200 (Every 50mm) | 250~300 (Every 50mm) | 350 | 400 | | | | | | |
| 0.1 | 16 | 15 | 12.5 | 12 | 10.5 | | | | | | |
| 0.3 | 16 | 15 | 12.5 | 12 | 10.5 | | | | | | |
| 0.5 | 12 10.5 | | | | | | | | | | |
| 0.7 | | 9.5 | | | | | | | | | |
| HH type: X high-speed/Y high-speed SS type: X ultra high-speed/Y ultra high-speed | | | | | | | | | | | |
| | ery (Every | 50~400 (Every 50mm) Accele | Y-axis stro ration/ ration (G) | m) (Every | 50~300 350~400 (Every (Every 50mm) 50mm) | | | | | | |

4.5

When both X and Y axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

7.5

4

| Cable Length | | | | | | | | | | | |
|----------------|------------|-----------------------------|--|--|--|--|--|--|--|--|--|
| Туре | Cable code | Length | | | | | | | | | |
| | 1L | 1m | | | | | | | | | |
| Cham day day a | 3L | 3m | | | | | | | | | |
| Standard type | 5L | 5m | | | | | | | | | |
| | | Specified length (15m max.) | | | | | | | | | |

Note 1. All-axis standard cable is used.

Specific lte Axis model

Stroke (Every

Max. speed Motor size

Ball screw

Drive system

Base material

Ambient operating

temperature, humiditv

Positioning repeatability

lead

Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

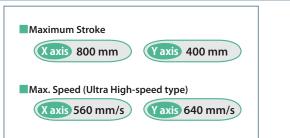
Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m

| mincr | omonto | up to 15m. | | |
|-------|--------|----------------|----------------|--------------------|
| nincr | ements | up to 15m. | | * Only the first v |
| atio | ns | | | |
| em | | X-axis | Y-axis | |
| | | RCP6-WSA14C | RCP6-SA7C | |
| y 50n | าm) | 50~800mm | 50~400mm | |
| | MM | 210mm/s | 280mm/s | |
| * | HH | 420mm/s | 560mm/s | |
| | SS | 560mm/s | 640mm/s | |
| | | 56 Pulse motor | 56 Pulse motor | |
| | MM | 8mm | 8mm | |
| | HH | 16mm | 16mm | |

24mm

rolled C10

Ball screw ø12mm



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

SS

24mm

rolled C10

±0.01mm

Aluminum

Ball screw ø12mm

Controllers are sold separately.

Please contact IAI for more information.

□ X-axis: WSA14C, Y-axis: SA7C

| Туре | Reference page | | | | |
|--------------------------------|---|--|--|--|--|
| PCON-CB/CGB | See P.133 | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | | |
| MCON-C/CG | See P.137 | | | | |
| MCON-LC/LCG | See P.137 | | | | |
| MSEL | See P.123 | | | | |

0~40°C, 85% RH or less (non-condensing)

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Options | | | | |
|-------------------------------|-------------|-------------------|--------|-----------|
| Туре | Option code | Reference page | X-axis | Y-axis |
| Brake | В | See P.119 | 0 | 0 |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

wiring can be selected

| • | | | . 2.0 | | • ~ | | 0.0 |
|------------------------|----------------------------|--------|--------------------------------------|------------|---------------------------|----------------------------|------------------------|
| | | 1 | 2 | | | 1 | 0.5 |
| | | | 9.5 | | | | |
| high | -speed | SS | type: X ultra h | igh∙ | -speed/Y | ultra hig | jh-spe |
| 0~300 Every 0mm) | 350~400 (Every 50mm) | Accele | Y-axis stre ration/ ration (G) | oke 1m) | 50~100 (Every 50mm) | 150~300 (Every 50mm) | 350~4 (Ever 50mr |
| | 7.5 | | 0.1 | | 6 | 5.5 | 5 |

5.5

3

5

2.5

4.5

iring eral)

0.3

0.5

0.7 3 2.5 2

8

8

5

Cable Track

0.1

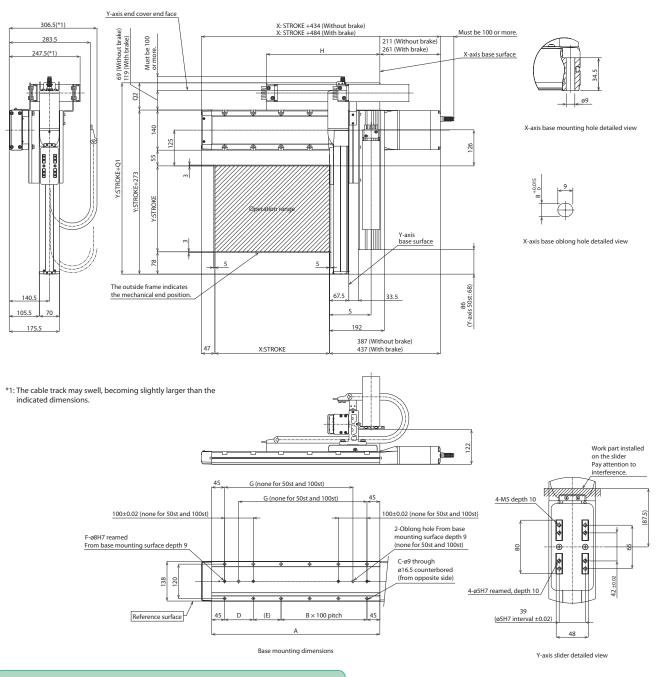
0.3

0.5

| | Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral |
|------|---|-------|-------------------|----------------------------------|----------------------------------|
| | Without cable track (cable only) | N | | 0 | 0 |
| | Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| | Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| | Cable track L size (inner width: 63mm) | CTL | 3ee P.121 | 0 | 0 |
| fied | Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The X-axis cable track guide rail is fixed on the X-axis body. Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-------------|-----|---------|-------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| А | 237 | 287 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 937 | 987 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| С | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 147 | 197 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 |
| Н | 221 | 246 | 271 | 296 | 321 | 346 | 371 | 396 | 421 | 446 | 471 | 496 | 521 | 546 | 571 | 596 |
| | | | | | | | | | | | | | | | | |
| 6 I I . I I | | CTT 1 4 | C 771 | CTT1 (1 | 1 | | | | | | | | | | | |

 Cable track size
 CT
 CTM
 CTL
 CTXL

 Q1
 356
 368
 383
 401

 Q2
 83
 95
 110
 128

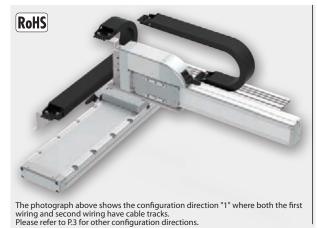
 S
 139
 145.5
 152



RCP6 2-axis combination

X-axis: WSA16R (Side-mounted) Y-axis: SA8R (Side-mounted)

| Model | Series — | Туре | — Encoder Type — | — First Axis (X-axis) | — | Second Axis (Y-axis) | Controller - | - | Cable | |
|------------------------|--------------|---------------------------------|------------------|--------------------------|---|-------------------------|---|---|------------------------------------|--------|
| Specification Items | IK2 – | P6XBE1 S | - WA - | - 🗆 🗆 | — | | PM1 - | - 🗆 - | - 🗆 - | - 🗆 |
| | | | | T-T- | | | | T | T | T |
| | nfiguration | Speed Type | Encoder Type | Stroke | | Options | Controller | Cable | First | Second |
| Dire | ection | MH: X Medium-Speed/Y High-Speed | WA: Battery-less | 5: 50mm | | Refer to Options | Refer to | Length | Wiring | Wiring |
| | 4 | HH: X High-Speed/Y High-Speed | Absolute | (Every 50mm) | | table below. | Applicable Controllers table below. | 1L : 1m 3L : 3m 5L : 5m □L: □m | Refer to Cable Tra table bel | |



| Payload by Accelerati | on | | | | | | | | | |
|--|----|----|----|-----|----|----|--|--|--|--|
| MH type: X medium-speed/Y high-speed | | | | | | | | | | |
| Y-axis stroke (mm) 50~100 150~200 250~300 350~400 Acceleration/ deceleration (G) (Every 50mm) (Every 50mm) 50mm) 50mm) 50mm) | | | | | | | | | | |
| 0.1 | 17 | 16 | 15 | 14 | 12 | 10 | | | | |
| 0.3 | 17 | 16 | 15 | 14 | 12 | 10 | | | | |
| 0.5 | 1 | 1 | 10 |).5 | 10 | | | | | |

HH type: X high-speed/Y high-speed

| Y-axis stroke Acceleration/ deceleration (G) | 50~100 | 150~250 (Every 50mm) | 300~400 (Every 50mm) | 450~500 (Every 50mm) |
|--|--------|-------------------------|-------------------------|-------------------------|
| 0.1 | 10 | 9.5 | 9 | 8.5 |
| 0.3 | 9 | 8.5 | 8 | 7.5 |
| 0.5 | 4 | 3.5 | 3 | 2.5 |

* When both X and Y axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| Cable Length | |
|--------------|--|
|--------------|--|

| Cable Lengt | 11 | |
|---------------|------------|-----------------------------|
| Туре | Cable code | Length |
| | 1L | 1m |
| | 3L | 3m |
| Standard type | 5L | 5m |
| - | | Specified length (15m max.) |

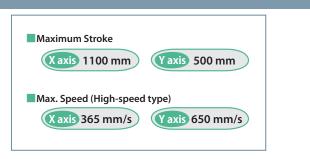
Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track.
 A separate cable is included for wiring inside the cable track.
 Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) | | | | | |
|---|-------|-------------------|----------------------------------|-----------------------------------|--|--|--|--|--|
| Without cable track (cable only) | N | | 0 | 0 | | | | | |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | | | | | |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | | | | | |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 | | | | | |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * | | | | | |

* Only the first wiring can be selected

| Specifications | | | | | | | |
|--|-----|---|--------------------------------|--|--|--|--|
| ltem | | X-axis | Y-axis | | | | |
| Axis model | | RCP6-WSA16R | RCP6-SA8R | | | | |
| Stroke (Every 50n | nm) | 50~1100mm | 50~500mm | | | | |
| Adam and A | MH | 210mm/s | 400mm/s | | | | |
| Max. speed * | HH | 365mm/s | 650mm/s | | | | |
| Motor size | | 56 High-thrust | 56 High-thrust | | | | |
| wotor size | | pulse motor | pulse motor | | | | |
| Ball screw | MH | 10mm | 20mm | | | | |
| lead | HH | 20mm | 2011111 | | | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø16mm rolled C10 | | | | |
| Positioning repeatability Base material | | ±0.01mm | · | | | | |
| | | Aluminum | | | | | |
| Ambient operatir temperature, hur | | 0~40°C, 85% RH or less (non-condensing) | | | | | |



* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

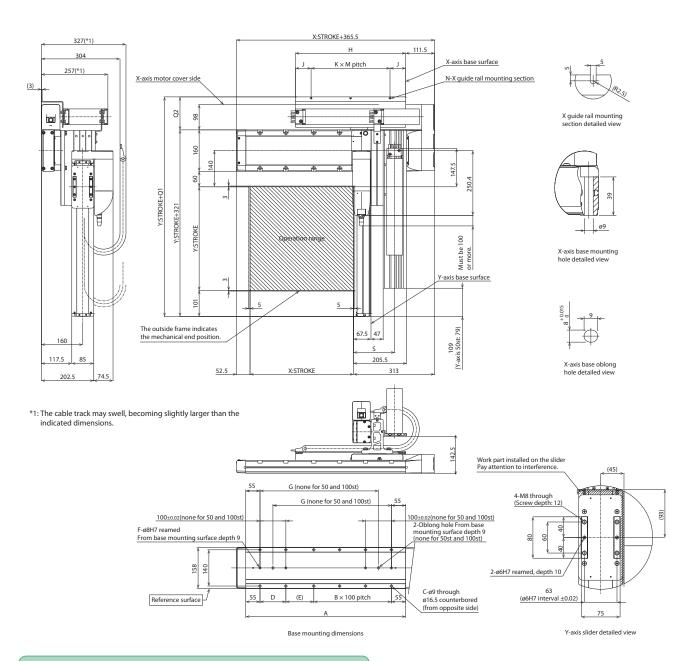
□ X-axis: WSA16R, Y-axis: SA8R

| ļ | Туре | Reference page |
|---|---------------|----------------|
| | PCON-CFB/CGFB | See P.133 |
| | MSEL-PCF/PGF | See P.123 |

| Options | | | | |
|-----------------------------|-------------|-------------------|--------|--------|
| Туре | Option code | Reference page | X-axis | Y-axis |
| Brake | В | See P.119 | 0 | 0 |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|------------------|------|------|------|-------|------|-------|------|-------|------|-----|-----|------|-----|-----|------|-------|-------|------|------|------|------|------|
| A | 268 | 318 | 368 | 418 | 468 | 518 | 568 | 618 | 668 | 718 | 768 | 818 | 868 | 918 | 968 | 1018 | 1068 | 1118 | 1168 | 1218 | 1268 | 1318 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 |
| С | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 158 | 208 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 208 | 258 | 308 | 358 | 408 | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 | 1008 | 1058 | 1108 | 1158 |
| Н | 251 | 276 | 301 | 326 | 351 | 376 | 401 | 426 | 451 | 476 | 501 | 526 | 551 | 576 | 601 | 626 | 651 | 676 | 701 | 726 | 751 | 776 |
| J | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 58 | 63 | 60.5 | 58 | 58 | 60.5 | 58 | 60.5 | 58 | 60.5 | 63 | 63 | 63 |
| К | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| М | 130 | 155 | 90 | 102.5 | 115 | 127.5 | 140 | 152.5 | 110 | 120 | 125 | 135 | 145 | 115 | 120 | 127.5 | 132.5 | 140 | 145 | 120 | 125 | 130 |
| N | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 |
| Cable track size | CT | СТМ | CTI | СТХІ | | | | | | | | | | | | | | | | | | |

 Cable track size
 CT
 CTM
 CTL
 CTL
 CTL

 Q1
 448.5
 448.5
 448.5
 465.5

 Q2
 127.5
 127.5
 127.5
 124.5

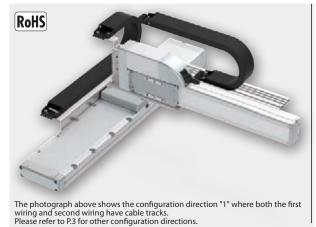
 S
 152.5
 159
 165.5

IK2-P6XBE2

RCP6 2-axis combination

X-axis: WSA16C (Straight) Y-axis: SA8R (Side-mounted)

| Model Series | — Туре | — Encoder Type — | – First Axis (X-axis) | Second Axis (Y-axis) | Controller — | Cable |
|---|-------------------|----------------------------------|--------------------------|-----------------------------|---------------------------------|---|
| Specification Items IK2 | <u>- P6XBE2</u> S | — WA — | | | PM1 – | 무- 무- 무 |
| Configuration Direction | ON Speed Type | Encoder Type WA: Battery-less | Stroke | Options Refer to Options | | Cable First Second Length Wiring Wiring |
| 1 to 4 Refer to Configuration Ty Descriptions on | | Absolute | (Every 50mm) | table below. | Controllers 3 table below. 5 | IL : 1m Refer to 3L : 3m Cable Track 3L : 5m table below. |



| Payload by Accelerati | Payload by Acceleration | | | | | | | |
|--|---------------------------|----------------------------|----------------------------|----------------------------|-----|-----|--|--|
| MH type: X medium-speed/Y high-speed | | | | | | | | |
| Y-axis stroke (mm) deceleration/ deceleration (G) | 50~100 (Every 50mm) | 150~200 (Every 50mm) | 250~300 (Every 50mm) | 350~400 (Every 50mm) | 450 | 500 | | |
| 0.1 | 17 | 16 | 15 | 14 | 12 | 10 | | |
| 0.3 | 17 | 16 | 15 | 14 | 12 | 10 | | |
| 0.5 | 1 | 1 | 10 |).5 | 1 | 0 | | |

HH type: X high-speed/Y high-speed

| Y-axis stroke Acceleration/ deceleration (G) | 50~100 | 150~250 (Every 50mm) | 300~400 (Every 50mm) | 450~500 (Every 50mm) |
|--|--------|-------------------------|-------------------------|-------------------------|
| 0.1 | 10 | 9.5 | 9 | 8.5 |
| 0.3 | 9 | 8.5 | 8 | 7.5 |
| 0.5 | 4 | 3.5 | 3 | 2.5 |

* When both X and Y axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| Cable Lengt | h | |
|-------------|------------|--------|
| Туре | Cable code | Length |

| Туре | Cable code | Length |
|---------------|------------|-----------------------------|
| | 1L | 1m |
| Standard tuna | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track.

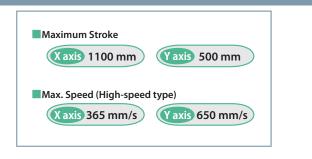
A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) |
|---|------------|-------------------|----------------------------------|-----------------------------------|
| Without cable track (cable only) | le only) N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected

Cable Track

Specifications Item X-axis Y-axis RCP6-WSA16C RCP6-SA8R Axis model 50~1100mm 50~500mm Stroke (Every 50mm) MH 210mm/s 400mm/s Max. speed HH 365mm/s 650mm/s 56 High-thrust 56 High-thrust Motor size pulse motor pulse motor Ball screw MH 10mm 20mm lead HH 20mm Ball screw ø16mm rolled C10 Ball screw ø16mm rolled C10 Drive system Positioning repeatability ±0.01mm Base material Aluminum Ambient operating 0~40°C, 85% RH or less (non-condensing) temperature, humidity



* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

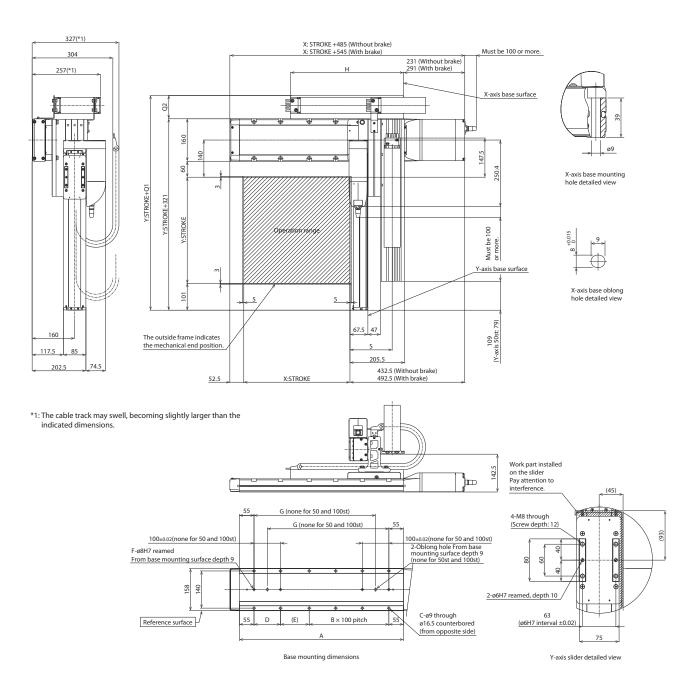
□ X-axis: WSA16C, Y-axis: SA8R

| Туре | Reference page |
|---------------|----------------|
| PCON-CFB/CGFB | See P.133 |
| MSEL-PCF/PGF | See P.123 |

| Options | | | | |
|-------------------------------|-------------|-------------------|--------|-----------|
| Туре | Option code | Reference page | X-axis | Y-axis |
| Brake | В | See P.119 | 0 | 0 |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The X-axis cable track guide rail is fixed on the X-axis body. Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|-----|-------------------------------------|---|--|--|--|---|---|--|--|---|---|---|--|---|--|---|--|--|--|--|---|
| 268 | 318 | 368 | 418 | 468 | 518 | 568 | 618 | 668 | 718 | 768 | 818 | 868 | 918 | 968 | 1018 | 1068 | 1118 | 1168 | 1218 | 1268 | 1318 |
| 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 |
| 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 |
| - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 158 | 208 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 |
| 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| - | - | 208 | 258 | 308 | 358 | 408 | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 | 1008 | 1058 | 1108 | 1158 |
| 251 | 276 | 301 | 326 | 351 | 376 | 401 | 426 | 451 | 476 | 501 | 526 | 551 | 576 | 601 | 626 | 651 | 676 | 701 | 726 | 751 | 776 |
| | 268 0 4 - 158 2 - | 268 318 0 0 4 4 - - 158 208 2 2 - - | 268 318 368 0 0 1 4 4 8 - - 100 158 208 58 2 2 4 - - 208 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 268 318 368 418 468 0 0 1 1 2 4 4 8 8 10 - - 100 100 100 158 208 58 108 58 2 2 4 4 4 - - 208 258 308 | 268 318 368 418 468 518 0 0 1 1 2 2 4 4 8 8 10 10 - - 100 100 100 100 158 208 58 108 58 108 2 2 4 4 4 4 - - 208 258 308 358 | 268 318 368 418 468 518 568 0 0 1 1 2 2 3 4 4 8 8 10 10 12 - - 100 100 100 100 100 158 208 58 108 58 108 58 2 2 4 4 4 4 4 - - 208 258 308 358 408 | 268 318 368 418 468 518 568 618 0 0 1 1 2 2 3 3 4 4 8 8 10 10 12 12 - - 100 100 100 100 100 100 158 208 58 108 58 108 58 108 2 2 4 4 4 4 4 4 - - 208 258 308 358 408 458 | 268 318 368 418 468 518 568 618 668 0 0 1 1 2 2 3 3 4 4 4 8 8 10 10 12 12 14 - - 100 100 100 100 100 100 100 158 208 58 108 58 108 58 108 58 2 2 4 4 4 4 4 4 - - 208 258 308 358 408 458 | 268 318 368 418 468 518 568 618 668 718 0 0 1 1 2 2 3 3 4 4 4 4 8 8 10 10 12 12 14 14 - - 100 | 268 318 368 418 468 518 568 618 668 718 768 0 0 1 1 2 2 3 3 4 4 5 4 4 8 8 10 10 12 12 14 14 6 - - 100 | 268 318 368 418 468 518 568 618 668 718 768 818 0 0 1 1 2 2 3 3 4 4 5 4 4 8 8 10 10 12 12 14 14 16 16 - - 100 | 268 318 368 418 468 518 568 618 668 718 768 818 868 0 0 1 1 2 2 3 3 4 4 5 5 6 4 4 8 8 10 10 12 12 14 14 16 16 18 - - 100 < | 268 318 368 418 468 518 568 618 668 718 768 818 868 918 0 0 1 1 2 2 3 3 4 4 5 5 6 6 4 4 8 8 10 10 12 12 14 14 16 16 18 18 - - 100 | 268 318 368 418 468 518 568 618 668 718 768 818 868 918 968 0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 4 4 8 8 10 10 12 12 14 14 16 16 18 12 - - 100 10 | 268 318 368 418 468 518 568 618 668 718 768 818 868 918 968 1018 0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 4 4 8 8 10 10 12 12 14 14 16 16 18 100 | 268 318 368 418 468 518 568 618 668 718 768 818 868 918 968 1018 1068 0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 4 4 8 8 10 102 12 14 14 16 16 18 100 20 22 - - 100 | 268 318 368 418 468 518 568 618 668 718 768 818 868 918 968 1018 1068 1118 0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 4 4 8 8 10 102 12 14 14 16 16 18 20 20 22 22 - - 100 <td>268 318 368 418 468 518 568 618 668 718 788 818 868 918 968 1018 1068 1118 1168 0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 4 4 8 8 10 10 12 12 14 14 16 16 18 120 20 22 22 24 - - 100</td> <td>268 318 368 418 468 518 568 618 668 718 788 818 868 918 968 1018 1068 1118 1168 1218 0 0 1 1 2 2 3 3 4 4 5 6 6 7 7 8 8 9 9 4 4 8 8 10 10 12 12 14 14 16 18 18 20 22 22 24 24 - - 100</td> <td>268 318 368 418 468 518 568 618 668 718 768 818 868 918 968 1018 1068 1118 1168 1218 1268 0 0 1 1 2 2 3 3 4 4 5 6 6 7 7 8 8 9 9 9 10 4 4 8 8 10 10 12 12 14 14 16 18 18 20 22 22 24 26 - - 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 110 100<!--</td--></td> | 268 318 368 418 468 518 568 618 668 718 788 818 868 918 968 1018 1068 1118 1168 0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 4 4 8 8 10 10 12 12 14 14 16 16 18 120 20 22 22 24 - - 100 | 268 318 368 418 468 518 568 618 668 718 788 818 868 918 968 1018 1068 1118 1168 1218 0 0 1 1 2 2 3 3 4 4 5 6 6 7 7 8 8 9 9 4 4 8 8 10 10 12 12 14 14 16 18 18 20 22 22 24 24 - - 100 | 268 318 368 418 468 518 568 618 668 718 768 818 868 918 968 1018 1068 1118 1168 1218 1268 0 0 1 1 2 2 3 3 4 4 5 6 6 7 7 8 8 9 9 9 10 4 4 8 8 10 10 12 12 14 14 16 18 18 20 22 22 24 26 - - 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 110 100 </td |

 Cable track size
 CT
 CTM
 CTL
 CTXL

 Q1
 396.5
 408.5
 423.5
 441.5

 Q2
 75.5
 87.5
 102.5
 120.5

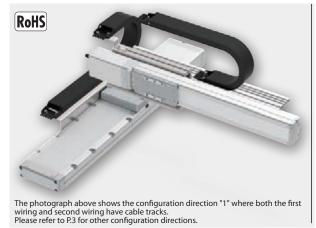
 S
 152.5
 159
 165.5



RCP6 2-axis combination

X-axis: WSA16C (Straight) Y-axis: SA8C (Straight)

| Model Series — | Туре | — Encoder Type — | First Axis (X-axis) | Second Axis (Y-axis) | – Controller – | - | Cable |
|--|---------------------------------|------------------|---|-------------------------|---|---|---|
| Items IK2 - | P6XBE3 | — WA – | | | - PM1 - | | |
| | | | ΤŦ | | | T | \top \top |
| Configuration | Speed Type | Encoder Type | Stroke | Options | Controller | Cable | First Second |
| Direction | MH: X Medium-Speed/Y High-Speed | WA: Battery-less | 5: 50mm | Refer to Options | Refer to | Length | Wiring Wiring |
| 1 to 4 Refer to Configuration Type Descriptions on page 3 | HH: X High-Speed/Y High-Speed | Absolute | (Every 50mm) | table below. | Applicable Controllers table below. | 1L : 1m 3L : 3m 5L : 5m □L: □m | Refer to Cable Track table below. |



| Payload by Accelerati | Payload by Acceleration | | | | | | | | | |
|--|---------------------------|----------------------------|----------------------------|----------------------------|-----|-----|--|--|--|--|
| MH type: X medium-speed/Y high-speed (Unit: kg | | | | | | | | | | |
| Y-axis stroke (mm) deceleration/ deceleration (G) | 50~100 (Every 50mm) | 150~200 (Every 50mm) | 250~300 (Every 50mm) | 350~400 (Every 50mm) | 450 | 500 | | | | |
| 0.1 | 17 | 16 | 15 | 14 | 12 | 10 | | | | |
| 0.3 | 17 | 16 | 15 | 14 | 12 | 10 | | | | |
| 0.5 | 0.5 11 | | | | | 0 | | | | |

HH type: X high-speed/Y high-speed

| Y-axis stroke Acceleration/ deceleration (G) | 50~100 | 150~250 (Every 50mm) | 300~400 (Every 50mm) | 450~500 (Every 50mm) |
|--|--------|-------------------------|-------------------------|-------------------------|
| 0.1 | 10 | 9.5 | 9 | 8.5 |
| 0.3 | 9 | 8.5 | 8 | 7.5 |
| 0.5 | 4 | 3.5 | 3 | 2.5 |

* When both X and Y axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| Cable Lengt | h | |
|---------------|------------|-----------------------------|
| Туре | Cable code | Length |
| | 1L | 1m |
| | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

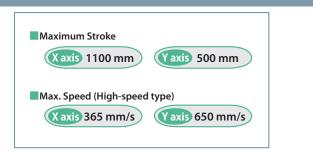
Note 1. All-axis standard cable is used.

Note 2. An analysistation cable is used.
 Note 2. The length of the second axis cable is from the exit of the cable track.
 A separate cable is included for wiring inside the cable track.
 Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Cable Track | | | | |
|---|---|-------------------|----------------------------------|-----------------------------------|
| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) |
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | C D 121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | able track XL size (inner width: 80mm) * CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected

| Specifications | | | | | | | | |
|--|-----------|---|--------------------------------|--|--|--|--|--|
| | | | | | | | | |
| ltem | | X-axis | Y-axis | | | | | |
| Axis model | | RCP6-WSA16C | RCP6-SA8C | | | | | |
| Stroke (Every 50n | าm) | 50~1100mm | 50~500mm | | | | | |
| Max. speed * | MH | 210mm/s | 400mm/s | | | | | |
| Max. speed | HH | 365mm/s | 650mm/s | | | | | |
| Motor size | | 56 High-thrust pulse motor | 56 High-thrust pulse motor | | | | | |
| Ball screw | MH | 10mm | 20mm | | | | | |
| lead | HH | 20mm | 2011111 | | | | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø16mm rolled C10 | | | | | |
| Positioning repea | itability | ±0.01mm | | | | | | |
| Base material | | Aluminum | | | | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | | | | |



* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

□ X-axis: WSA16C, Y-axis: SA8C

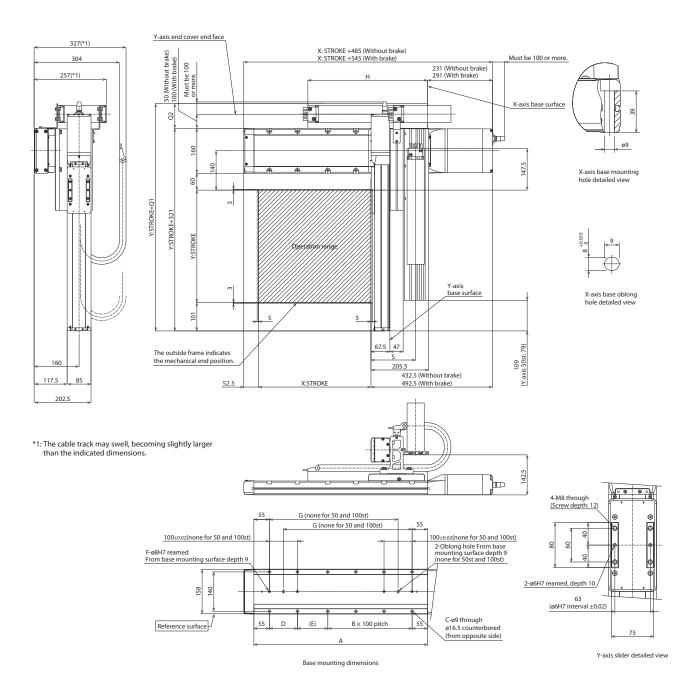
| Туре | Reference page |
|---------------|----------------|
| PCON-CFB/CGFB | See P.133 |
| MSEL-PCF/PGF | See P.123 |

Options

| Туре | Option code | Reference page | X-axis | Y-axis |
|-------------------------------|-------------|-------------------|--------|-----------|
| Brake | В | See P.119 | 0 | 0 |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |



Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121)



(*) Notes

The X-axis cable track guide rail is fixed on the X-axis body. Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.121)

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| A | 268 | 318 | 368 | 418 | 468 | 518 | 568 | 618 | 668 | 718 | 768 | 818 | 868 | 918 | 968 | 1018 | 1068 | 1118 | 1168 | 1218 | 1268 | 1318 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 |
| C | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 158 | 208 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 208 | 258 | 308 | 358 | 408 | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 | 1008 | 1058 | 1108 | 1158 |
| Н | 251 | 276 | 301 | 326 | 351 | 376 | 401 | 426 | 451 | 476 | 501 | 526 | 551 | 576 | 601 | 626 | 651 | 676 | 701 | 726 | 751 | 776 |

 Cable track size
 CT
 CTM
 CTL
 CTXL

 Q1
 396.5
 408.5
 423.5
 441.5

 Q2
 75.5
 87.5
 102.5
 120.5

 S
 152.5
 159
 165.5



Y-axis: SA6R (Side-mounted) Z-axis: SA4R (Side-mounted)

50~150

(Every 50mm)

1.5

1.5

1.5

(Unit: kg)

| Model | Series - | — Туре | — Encoder Type — | First axis (Y-axis) | — | Second axis (Z-axis) | Controller — | | Cable | |
|------------------------|--|--|--|---|---|---|---|---|--|--|
| Specification Items | ' IK2 - | - P6YBD1S | — WA – | | | □B □ - | PM1 - | 무- | | |
| L 1 R C | Configuration Direction I to 2 Refer to Configuration Type Descriptions on page | Speed Type SM: Y Ultra High-Speed/Z Medium-Speed SH: Y Ultra High-Speed/Z High-Speed | Encoder Type WA: Battery-less Absolute | Stroke 5: 50mm (Every 50mm) | | Options Refer to Options table below. | Refer to Applicable Controllers table below. | Length 1L : 1m 3L : 3m 5L : 5m □L: □m | First Second Wiring Wiring Refer to Cable Track table below. | |

Acceleration/ deceleration (G)

Payload by Acceleration

0.1

0.3

0.5

Z-axis stroke

(mm)

RoHS



SH type: Y ultra high-speed/Z high-speed Z-axis stroke 50~150 (mm) Acceleration/ deceleration (G) (Every 50mm) 0.1 0.3 0.5

SM type: Y ultra high-speed/Z medium-speed

* When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| Cable | onath | |
|-------|-------|--|

| Cable Length | | | | | | | |
|---------------|------------|-----------------------------|--|--|--|--|--|
| Туре | Cable code | Length | | | | | |
| | 1L | 1m | | | | | |
| Standard tuna | 3L | 3m | | | | | |
| Standard type | 5L | 5m | | | | | |
| | | Specified length (15m max.) | | | | | |

Note 1. All-axis standard cable is used.

Note 1. An axis standard with a second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

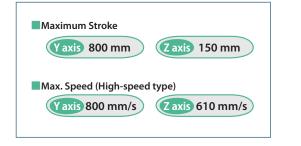
Note 3. The standard lengths are 1 m, 3m and 5m, but other lengths can be specified in 1 m increments up to 15m.

| Cable Track | | | | | | | | |
|---|-------|-------------------|----------------------------------|-----------------------------------|--|--|--|--|
| Туре | Model | Reference page | First wiring (Y-axis lateral) | Second wiring (Z-axis lateral) | | | | |
| Without cable track (cable only) | N | | 0 | 0 | | | | |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | | | | |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | | | | |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 | | | | |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * | | | | |

* Only the first wiring can be selected

Specifications

| ltem | | Y-axis | Z-axis | | | |
|--------------------------------------|-----------|---|-------------------------------|--|--|--|
| Axis model | | RCP6-SA6R | RCP6-SA4R | | | |
| Stroke (Every 50n | าm) | 50~800mm | 50~150mm | | | |
| Max. speed * | SM | 800mm/s | 350mm/s | | | |
| wax. speed | SH | 00011111/5 | 610mm/s | | | |
| Motor size | | 42□ Pulse motor | 35 Pulse motor | | | |
| Ball screw | SM | 20mm | 5mm | | | |
| lead | SH | 2011111 | 10mm | | | |
| Drive system | | Ball screw ø10mm rolled C10 | Ball screw ø8mm rolled C10 | | | |
| Positioning repea | itability | ±0.01mm | | | | |
| Base material | | Aluminum | | | | |
| Ambient operatir temperature, hun | 5 | 0~40°C, 85% RH or less (non-condensing) | | | | |



* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

□ Y-axis: SA6R, Z-axis: SA4R

| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

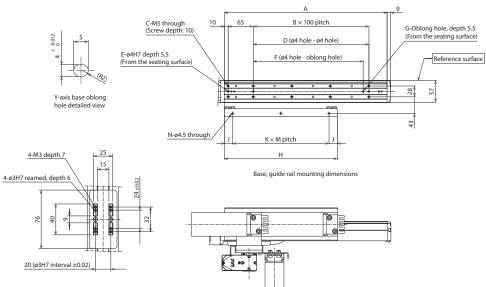
| Options | | | | | | | | |
|--------------------------------|-------------|-------------------|--------|-------------------------|--|--|--|--|
| Туре | Option code | Reference page | Y-axis | Z-axis | | | | |
| Brake | В | See P.119 | 0 | Standard equipment * | | | | |
| Cable exit direction (Outside) | сло | See P.119 | 0 | Cannot be selected | | | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | | | | |
| Slider roller specification | SR | See P.120 | 0 | 0 | | | | |

* Be sure to specify.

CAD drawings can be downloaded from our website.

Note 1. The configuration position in the figure is home.

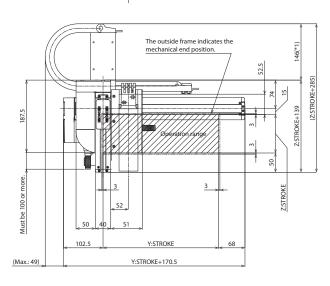
Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.

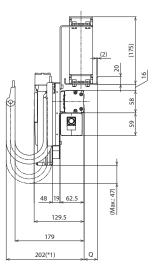


3D CAD

Z-axis slider detailed view

*1: The cable track may swell, becoming slightly larger than the indicated dimensions.





(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|
| А | 172 | 222 | 272 | 322 | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 | 922 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 168 | 193 | 218 | 243 | 268 | 293 | 318 | 343 | 368 | 393 | 418 | 443 | 468 | 493 | 518 | 543 |
| J | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 34 | 9 |
| К | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| Q | 23 | 35 | 50 | 68 | | | | | | | | | | | | |

 S1
 82
 94
 107

 S2
 46
 52.5
 59

 * Dimensions Q, S1 and S2 change depending on the size of the cable track.

IK2-P6YBD2S RCP6 2-axis combination

Y-axis: SA6C (Straight) Z-axis: SA4R (Side-mounted)

(Unit: kg)

| Model Series | — Туре | — Encoder Type — | First axis (Y-axis) | Second axis (Z-axis) | Controller - | | Cable |
|--|---------------------------------------|------------------|---|-------------------------|---|---|---|
| Specification Items IK2 | | — WA – | - 🗆 🗆 | — □B□ — | PM1 - | - 🗆 - | |
| | | | T-T- | | | T | \top \top |
| Configuration | Speed Type | Encoder Type | Stroke | Options | Controller | Cable | First Second |
| Direction | SM: Y Ultra High-Speed/Z Medium-Speed | WA: Battery-less | 5: 50mm | Refer to Options | Refer to | Length | Wiring Wiring |
| 1 to 2 Refer to Configuration Type Descriptions on page | SH: Y Ultra High-Speed/Z High-Speed | Absolute | (Every 50mm) | table below. | Applicable Controllers table below. | 1L : 1m 3L : 3m 5L : 5m □L: □m | Refer to Cable Track table below. |

Payload by Acceleration

SM type: Y ultra high-speed/Z medium-speed



| Z-axis stroke (mm) deceleration/ deceleration (G) | 50~150 (Every 50mm) | | | | | |
|--|------------------------|--|--|--|--|--|
| 0.1 | 1.5 | | | | | |
| 0.3 | 1.5 | | | | | |
| 0.5 | 1.5 | | | | | |
| SH type: Y ultra high-speed/Z high-speed | | | | | | |

| Z-axis stroke (mm) deceleration (G) | |
|---|---|
| 0.1 | 1 |
| 0.3 | 1 |
| 0.5 | 1 |

Reference

page

See P.121

First wiring

(Y-axis lateral)

0

Second wiring

(Z-axis lateral)

Cannot be

selected ⁴

* When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Model

Ν

СТ

СТМ

CTL

CTXL

| C 1 1 1 | | |
|-----------|------|--|
| Cable Ler | nath | |
| | | |

| casic Length | | | | | | | | | |
|-------------------|------------|-----------------------------|--|--|--|--|--|--|--|
| | | | | | | | | | |
| Туре | Cable code | Length | | | | | | | |
| | 1L | 1m | | | | | | | |
| Chan doud to us a | 3L | 3m | | | | | | | |
| Standard type | 5L | 5m | | | | | | | |
| | | Specified length (15m max.) | | | | | | | |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track.

A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Cable track XL size (inner width: 80mm) * |
|---|
| * Only the first wiring can be selected |

Type

Cable track S size (inner width: 38mm)

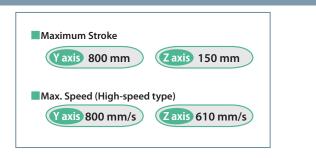
Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Without cable track (cable only)

Cable Track

| Specificatio | ns | | | | | |
|--------------------------------------|-----------|---|-------------------------------|--|--|--|
| ltem | | Y-axis | Z-axis | | | |
| Axis model | | RCP6-SA6C | RCP6-SA4R | | | |
| Stroke (Every 50n | nm) | 50~800mm | 50~150mm | | | |
| Marca and M | SM | 000 | 350mm/s | | | |
| Max. speed * SH | | 800mm/s | 610mm/s | | | |
| Motor size | | 42□ Pulse motor | 35 Pulse motor | | | |
| Ball screw | SM | 20 | 5mm | | | |
| lead | SH | 20mm | 10mm | | | |
| Drive system | | Ball screw ø10mm rolled C10 | Ball screw ø8mm rolled C10 | | | |
| Positioning repea | atability | ±0.01mm | | | | |
| Base material | | Aluminum | | | | |
| Ambient operatir temperature, hur | 5 | 0~40°C, 85% RH or less (non-condensing) | | | | |



* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

□ Y-axis: SA6C, Z-axis: SA4R

| Туре | Reference page | | | | |
|--------------------------------|--|--|--|--|--|
| PCON-CB/CGB | See P.133 | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual | | | | |
| MCON-C/CG | C - D 127 | | | | |
| MCON-LC/LCG | See P.137 | | | | |
| MSEL | See P.123 | | | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options_

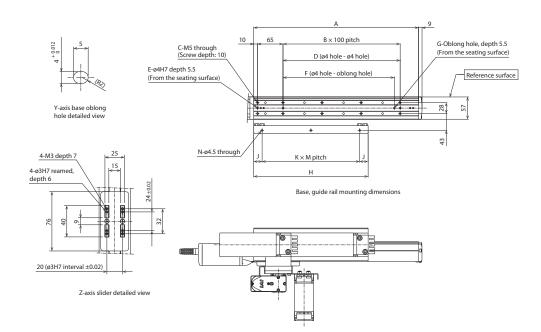
| Туре | Option code | Reference page | Y-axis | Z-axis |
|-------------------------------|-------------|-------------------|--------|-------------------------|
| Brake | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

* Be sure to specify.

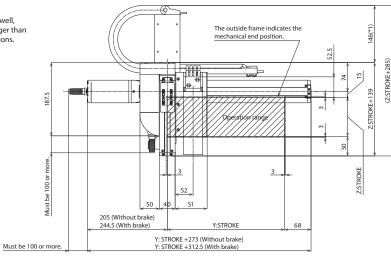
CAD drawings can be downloaded from our website. (2D) (3D) (CAD) (

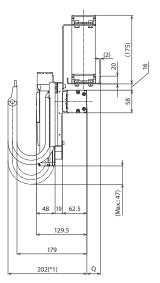
Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



*1: The cable track may swell, becoming slightly larger than the indicated dimensions.





(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

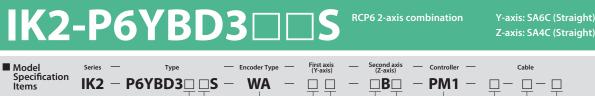
Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|
| A | 172 | 222 | 272 | 322 | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 | 922 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| С | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 168 | 193 | 218 | 243 | 268 | 293 | 318 | 343 | 368 | 393 | 418 | 443 | 468 | 493 | 518 | 543 |
| J | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 34 | 9 |
| К | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| Q | 23 | 35 | 50 | 68 | | | | | | | | | | | | |

 S1
 82
 94
 107

 S2
 46
 52.5
 59

* Dimensions Q, S1 and S2 change depending on the size of the cable track.



Encoder Type

WA: Battery-less Absolute

Configuration Direction Speed Type SM: Y Ultra High-Speed/Z Medium-Speed SH: Y Ultra High-Speed/Z High-Speed 1 to 2 S Refer to Configuration Type Descriptions on page 3

Stroke Options Refer to Options table below 5: 50mm (Every 50mm)

First Wiring Cable econd Wiring Length 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to Cable Track table below



The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

| Cable Length | | | | | | | |
|--------------|------------|--|--|--|--|--|--|
| Туре | Cable code | | | | | | |

| Туре | Cable code | Length | | |
|---------------|------------|-----------------------------|--|--|
| | 1L | 1m | | |
| Standard type | 3L | 3m | | |
| | 5L | 5m | | |
| | | Specified length (15m max.) | | |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track.

A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Payload by Acceleration | | | | | | |
|---|------------------------|--|--|--|--|--|
| SM type: Y ultra high-speed/Z medium-speed (Unit: kg) | | | | | | |
| Z-axis stroke (mm) deceleration (G) | 50~150 (Every 50mm) | | | | | |
| 0.1 | 1.5 | | | | | |
| 0.3 | 1.5 | | | | | |
| 0.5 | 1.5 | | | | | |

Controller

Refer to Applicable Controllers table below

SH type: Y ultra high-speed/Z high-speed

| Z-axis stroke (mm) deceleration/ G) | |
|--|---|
| 0.1 | 1 |
| 0.3 | 1 |
| 0.5 | 1 |

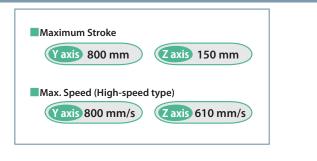
* When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Cable Track

| Туре | Model | Reference page | First wiring (Y-axis lateral) | Second wiring (Z-axis lateral) |
|---|-------|-------------------|----------------------------------|-----------------------------------|
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected

| Specificatio | ns | | | | |
|--|-----|---|----------------|--|--|
| ltem | | Y-axis | Z-axis | | |
| Axis model | | RCP6-SA6C | RCP6-SA4C | | |
| Stroke (Every 50n | nm) | 50~800mm | 50~150mm | | |
| . , | SM | | 350mm/s | | |
| Max. speed * SH | | 800mm/s | 610mm/s | | |
| Motor size | | 42□ Pulse motor | 35 Pulse motor | | |
| Ball screw | SM | 20mm | 5mm | | |
| lead | SH | 20mm | 10mm | | |
| Drive system | | Ball screw ø10mmBall screw ø8mmrolled C10rolled C10 | | | |
| Positioning repeatability | | ±0.01mm | | | |
| Base material | | Aluminum | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | |



* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

□ Y-axis: SA6C, Z-axis: SA4C

| · · · · · · · · · · · · | |
|--------------------------------|---|
| Туре | Reference page |
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options

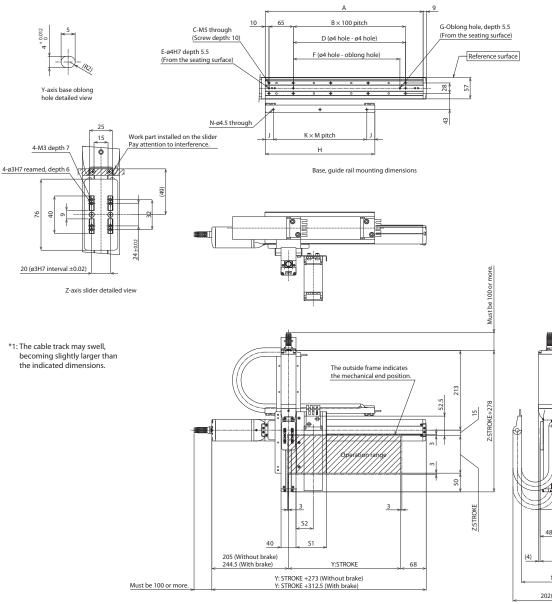
| Туре | Option code | Reference page | Y-axis | Z-axis |
|-------------------------------|-------------|-------------------|--------|-------------------------|
| Brake | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

* Be sure to specify.

CAD drawings can be downloaded from our website.

3D CAD Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(4) 129.5 (4) 179 202(*1) Q

(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

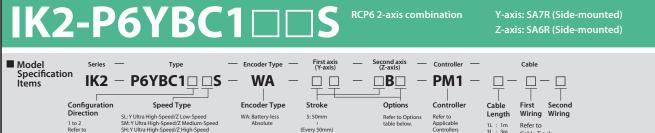
Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|
| A | 172 | 222 | 272 | 322 | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 | 922 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 168 | 193 | 218 | 243 | 268 | 293 | 318 | 343 | 368 | 393 | 418 | 443 | 468 | 493 | 518 | 543 |
| J | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 34 | 9 |
| К | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| Q | 23 | 35 | 50 | 68 | | | | | | | | | | | | |

 S1
 82
 94
 107

 S2
 46
 52.5
 59

 * Dimensions Q, S1 and S2 change depending on the size of the cable track.



SL: Y Ultra High-Speed/Z Low-Speed SM: Y Ultra High-Speed/Z Medium-Speed SH: Y Ultra High-Speed/Z High-Speed SS: Y Ultra High-Speed/Z Ultra High-Speed 1 to 2 S Refer to S Configuration Type S Descriptions on page 3

Refer to Applicable Controllers table below

1L : 1m 3L : 3m 5L : 5m □L: □m Cable Track table below

wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

| | Payload by Accelerati | on | | | | | | |
|---|---|------------------------|--|---|------------------------|--|--|--|
| I | SL type: Y ultra high- Z low-speed | speed/ | | SM type: Y ultra high-speed/ Z medium-speed (Unit: k | | | | |
| | Z-axis stroke (mm) deceleration (G) | 50~200 (Every 50mm) | | Z-axis stroke Acceleration/ (mm) deceleration (G) | 50~200 (Every 50mm) | | | |
| | 0.1 | 3 | | 0.1 | 2 | | | |
| | 0.3 | 3 | | 0.3 | 2 | | | |
| | 0.5 | 2.5 | | 0.5 | 2 | | | |
| I | SH type: Y ultra high- Z high-speed | speed/ | | SS type: Y ultra high- Z ultra high-speed | speed/ | | | |
| | Z-axis stroke (mm) deceleration (G) | 50~200 (Every 50mm) | | Z-axis stroke Acceleration/ (mm) deceleration (G) | 50~200 (Every 50mm) | | | |
| ſ | 0.1 | 1 | | 0.1 | 0.5 | | | |
| | 0.3 | 1 | | 0.3 | 0.5 | | | |
| | 0.5 1 | | | 0.5 | 0.5 | | | |

* When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Cable Length

RoHS

| Туре | Cable code | Length | | | | | | |
|---------------|------------|-----------------------------|--|--|--|--|--|--|
| | 1L | 1m | | | | | | |
| Standard type | 3L | 3m | | | | | | |
| | 5L | 5m | | | | | | |
| | | Specified length (15m max.) | | | | | | |

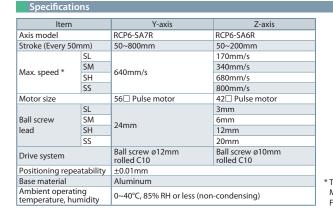
The photograph above shows the configuration direction "1" where both the first

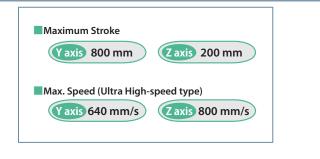
Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Туре | Model | Reference page | First wiring (Y-axis lateral) | Second wiring (Z-axis lateral) |
|---|-------|-------------------|----------------------------------|-----------------------------------|
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected





* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

□ Y-axis: SA7R, Z-axis: SA6R

| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Option code | Reference page | Y-axis | Z-axis |
|-------------|-------------------|---|--|
| В | See P.119 | 0 | Standard equipment * |
| cıo | See P.119 | 0 | Cannot be selected |
| NM | See P.120 | 0 | 0 |
| SR | See P.120 | 0 | 0 |
| | B CJO NM | Option code page B See P.119 CJO See P.119 NM See P.120 | Option code page Y-axis B See P.119 O CJO See P.119 O NM See P.120 O |

* Be sure to specify.

Cable Track

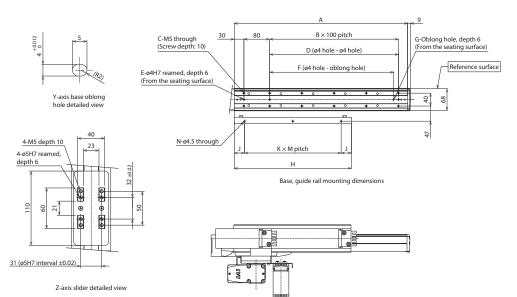
Dimensions

CAD drawings can be downloaded from our website. WWW.robocylinder.de

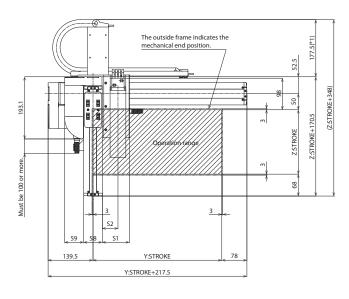
AD 3D CAD

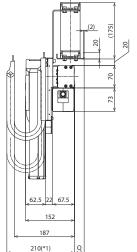
Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



*1: The cable track may swell, becoming slightly larger than the indicated dimensions.





(*) Notes

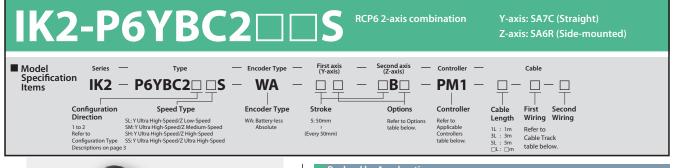
The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|------|-----|------|------|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 189 | 214 | 239 | 264 | 289 | 314 | 339 | 364 | 389 | 414 | 439 | 464 | 489 | 514 | 539 | 564 |
| J | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 44.5 | 19.5 |
| К | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 250 | 250 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL |] | | | | | | | | | | | |
| 0 | 18 | 30 | 45 | 63 | 1 | | | | | | | | | | | |

| Q | 10 | 30 | 45 | 05 |
|----|------|------|-------|----|
| S1 | 84.5 | 96.5 | 109.5 | - |
| S2 | 48.5 | 55 | 61.5 | - |

 * Dimensions Q, S1 and S2 change depending on the size of the cable track.





| Payload by Acceleration | | | | | | | | |
|--|------------------------|--|--------------------------------------|--|--|--|--|--|
| SL type: Y ultra high-s Z low-speed | peed/ | SM type: Y ultra high-speed/ Z medium-speed (Unit | | | | | | |
| Z-axis stroke (mm) deceleration (G) | 50~200 (Every 50mm) | Z-axis stroke Acceleration/ (mm) deceleration (G) | 50~200 (Every 50mm) | | | | | |
| 0.1 | 3 | 0.1 | 2 | | | | | |
| 0.3 | 3 | 0.3 | 2 | | | | | |
| | | 0.5 2 | | | | | | |
| 0.5 | 2.5 | 0.5 | 2 | | | | | |
| 0.5 ■ SH type: Y ultra high-s Z high-speed | | 0.5 SS type: Y ultra high- Z ultra high-speed | 2 speed/ | | | | | |
| SH type: Y ultra high- | | SS type: Y ultra high- | 2 speed/ 50~200 (Every 50mm | | | | | |
| SH type: Y ultra high-s Z high-speed Z-axis stroke (mm) | speed/ 50~200 | SS type: Y ultra high-s Z ultra high-speed Z-axis stroke Acceleration/ | 50~200 | | | | | |
| SH type: Y ultra high- Z high-speed Z-axis stroke Acceleration/ deceleration (G) | speed/ 50~200 | SS type: Y ultra high- Z ultra high-speed Z-axis stroke Acceleration/ deceleration (G) | 50~200 (Every 50mm | | | | | |

vibration, decrease the speed and acceleration/deceleration as required.

Model

Reference

First wiring

Second wiring

(Z-axis lateral)

Cannot be

selected *

| Cala | e l enath | |
|------|-----------|--|
| Cabl | e i enarn | |
| | e _e | |

wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

| cubic Lenge | | |
|-------------------|------------|-----------------------------|
| | | |
| Туре | Cable code | Length |
| | 1L | 1m |
| Chan doud to us a | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used.

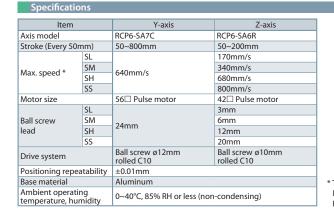
Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

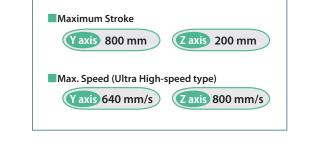
Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Туре | Model | page | (Y-axis lateral) |
|---|-------|-----------|------------------|
| Without cable track (cable only) | N | | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See F.121 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 |

* Only the first wiring can be selected

Cable Track





The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information

🗆 Y-axis: SA7C, Z-axis: SA6R

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Reference Type Option code Y-axis page 0 Brake в See P.119 0 Cable exit direction (Top) CJT See P.119 Cable exit direction (Right) CJR See P.119 Cable exit direction (Left) CJL See P.119 0 selected Cable exit direction (Bottom) CJB See P.119 0

NM

SR

Slider roller specification

For details, refer to the Maximum Speed by Stroke table on P.122. Options Z-axis Standard equipment * Cannot be

See P.120

See P.120

* Be sure to specify.

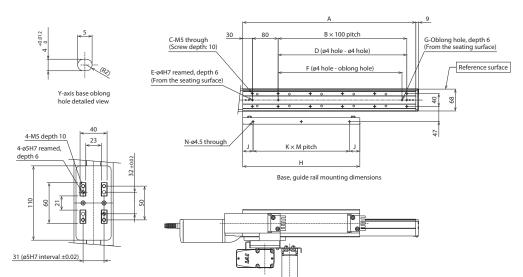
Non-motor end specification

Dimensions

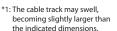
CAD drawings can be downloaded from our website. WWW.robocylinder.de

Note 1. The configuration position in the figure is home.

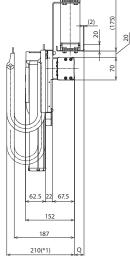
Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



Z-axis slider detailed view



The outside frame indicates the 77.5(*1 mechanical end position 52.5 1.00.1 (Z:STROKE+348) 50 193.1 Z:STROKE+170.5 Z:STROKE Must be 100 or more 89 3 S2 S1 264 (Without brake) 314 (With brake) Y:STROKE 78 Y: STROKE +342 (Without brake) Must be 100 or more Y: STROKE +392 (With brake)



(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

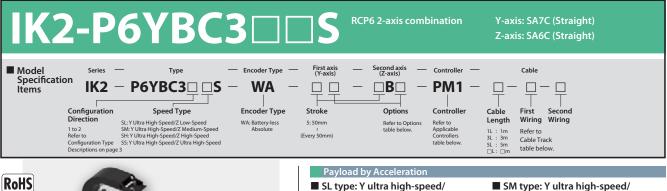
Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|------|-----|------|------|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 189 | 214 | 239 | 264 | 289 | 314 | 339 | 364 | 389 | 414 | 439 | 464 | 489 | 514 | 539 | 564 |
| J | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 44.5 | 19.5 |
| К | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 250 | 250 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | _ | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| 0 | 18 | 30 | 45 | 63 | 1 | | | | | | | | | | | |

 S1
 84.5
 96.5
 109.5

 S2
 48.5
 55
 61.5

* Dimensions Q, S1 and S2 change depending on the size of the cable track.





| SL type: Y ultra high-s Z low-speed | peed/ | SM type: Y ultra high-speed/ Z medium-speed (Unit: | | | |
|--|------------------------|--|------------------------|--|--|
| Z-axis stroke (mm) deceleration (G) | 50~200 (Every 50mm) | Z-axis stroke Acceleration/ (mm) deceleration (G) | 50~200 (Every 50mm) | | |
| 0.1 | 3 | 0.1 | 2 | | |
| 0.3 | 3 | 0.3 | 2 | | |
| 0.5 | 2.5 | 0.5 | 2 | | |
| | | | | | |
| SH type: Y ultra high- Z high-speed | speed/ | SS type: Y ultra high- Z ultra high-speed | speed/ | | |
| SH type: Y ultra high- Z high-speed Z-axis stroke Acceleration/ deceleration (G) | 50~200 (Every 50mm) | | 50~200 (Every 50mm) | | |
| Z high-speed Z-axis stroke (mm) | 50~200 | Z ultra high-speed Z-axis stroke Acceleration/ (mm) | 50~200 | | |
| Z high-speed Z-axis stroke Acceleration/ deceleration (G) | 50~200 | Z ultra high-speed Z-axis stroke Acceleration/ deceleration (G) | 50~200 (Every 50mm | | |

on/deceleration. W here is significant vibration, decrease the speed and acceleration/deceleration as required.

Cable Length

| Cubic Lenge | | |
|----------------|------------|-----------------------------|
| | | |
| Туре | Cable code | Length |
| | 1L | 1m |
| Chan doud huma | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used.

wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

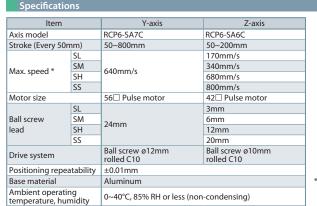
Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1 m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Cable Hack | | | | | | | | | | |
|---|-------|-------------------|----------------------------------|-----------------------------------|--|--|--|--|--|--|
| Туре | Model | Reference page | First wiring (Y-axis lateral) | Second wiring (Z-axis lateral) | | | | | | |
| Without cable track (cable only) | N | | 0 | 0 | | | | | | |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | | | | | | |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | | | | | | |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 | | | | | | |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * | | | | | | |

* Only the first wiring can be selected

Cable Track



Maximum Stroke Yaxis 800 mm Zaxis 200 mm Max. Speed (Ultra High-speed type) Z axis 800 mm/s Y axis 640 mm/s

* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

□ Y-axis: SA7C, Z-axis: SA6C

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options

| Туре | Option code | Reference page | Y-axis | Z-axis |
|-------------------------------|-------------|-------------------|--------|-------------------------|
| Brake | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

* Be sure to specify

20

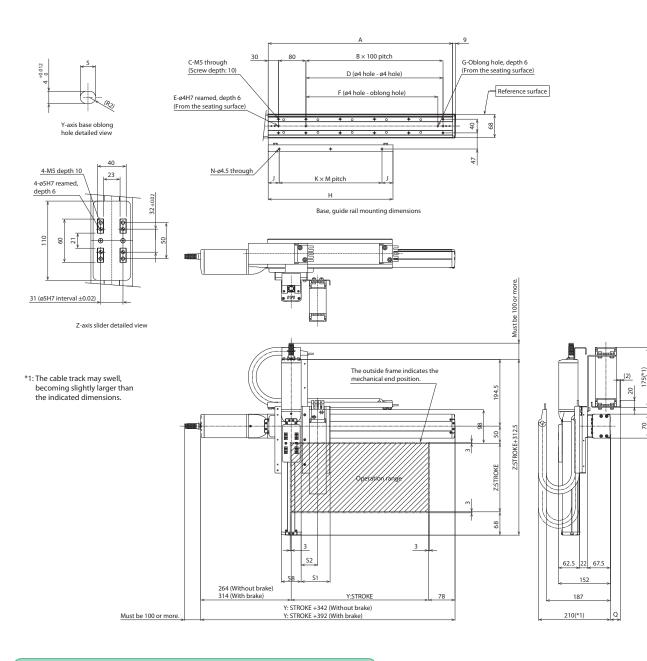


CAD drawings can be downloaded from our website. www.robocylinder.de



Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|------|------|-------|------|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 189 | 214 | 239 | 264 | 289 | 314 | 339 | 364 | 389 | 414 | 439 | 464 | 489 | 514 | 539 | 564 |
| J | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 44.5 | 19.5 |
| К | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 250 | 250 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | 1 | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| Q | 18 | 30 | 45 | 63 | | | | | | | | | | | | |
| C1 | 84.5 | 96.5 | 109.5 | _ | | | | | | | | | | | | |

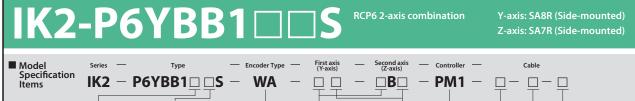
| S1 | 84.5 | 96.5 | 109.5 | - |
|----|------|------|-------|---|
| S2 | 48.5 | 55 | 61.5 | - |

 * Dimensions Q, S1 and S2 change depending on the size of the cable track.

RoHS

Cable Length

Type



 Configuration
 Speed Type

 Direction
 HL: Y High-Speed/Z Low-Speed

 1 to 2
 HM: Y High-Speed/Z Medium-Speed

 Refer to
 Sh: Y Ultra High-Speed/Z Medium-Speed

 Descriptions on page 3
 Sh: Y Ultra High-Speed/Z Ultra High-Speed/Z

Encoder Type Stroke
WA: Battery-less 5:50mm
Absolute t
(Every 50mm)

Second axis Controller
 (Z-axis)
 Options
 Refer to Options
 Refer to Options
 Refer to Options
 Refer to Options
 table below.

Cable First Second Length Wiring Wiring 1L : 1m Refer to 3L : 3m Cable Track

² 1L : 1m Refer to s 3L : 3m Cable Trac w. 5L : 5m table belo □L: □m table belo

> HM type: Y high-speed/ Z medium-speed
> (Unit: kg)
>
>
> Z-axis stroke Acceleration (G)
> 50~300 (Every 50mm)
>
>
> 0.1
> 4.5
>
>
> 0.3
> 4
>
>
> 0.5
> 3.5

SH type: Y ultra high-speed/ Z high-speed Z-axis stroke

Payload by Acceleration

Z-axis stroke

(mm)

(mm

HL type: Y high-speed/

Z low-speed

SS type: Y ultra high-speed/

| 50~300 (Every 50mm) | Z-axis stroke Acceleration/ deceleration (G) | (Every | (Every |
|------------------------|--|---|---|
| 3 | 0.1 | 1 | .5 |
| 2 | 0.3 | 1 | .5 |
| 1.5 | 0.5 | 1.5 | 1 |
| | (Every 50mm) 3 2 | S0~500 (Every 50mm) Acceleration/ deceleration (G) (mm) 3 0.1 2 0.3 0.1 | 50~300 (Every 50mm) Z-axis stroke Acceleration/ deceleration (G) 50~200 (Every 50mm) 3 0.1 1 2 0.3 1 |

* When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

50~300

(Every 50mm)

9

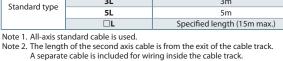
8

7

| Cable Trac | k |
|------------|---|
|------------|---|

| Туре | Model | Reference page | First wiring (Y-axis lateral) | Second wiring (Z-axis lateral) |
|---|-------|-------------------|----------------------------------|-----------------------------------|
| Without cable track (cable only) | N | | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected



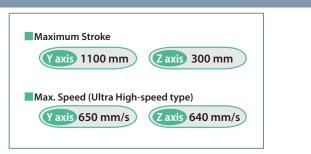
Cable code

1L

3L

A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications Item Z-ax RCP6-SA8R RCP6-SA7R Axis model Stroke (Every 50mm) 50~1100mm 50~300mm 105mm/s HL HM 400mm/s 280mm/s Max. speed SH 560mm/s 650mm/s 640mm/s 56 Pulse motor SS 56 High-thrust pulse motor Motor size HL HM 4mm 20mm Ball screw 8mm SH SS 16mm lead 30mm 24mm Drive system Ball screw ø16mm rolled C10 Ball screw ø12mm rolled C10 Positioning repeatability ±0.01mm Base material Aluminum Ambient operating temperature, humidity 0~40°C, 85% RH or less (non-condensing)



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

□ Y-axis: SA8R

| Туре | Reference page |
|----------------|----------------|
| PCON-CFB/CGFB | See P.133 |
| MSEL-PCF/PGF | See P.123 |
| ☐ Y-axis: SA7R | |

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Options | | | | |
|--------------------------------|-------------|-------------------|--------|-------------------------|
| Туре | Option code | Reference page | Y-axis | Z-axis |
| Brake | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Outside) | сло | See P.119 | 0 | Cannot be selected |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

* Be sure to specify.

Acceleration deceleration decel

Length

1m

3m

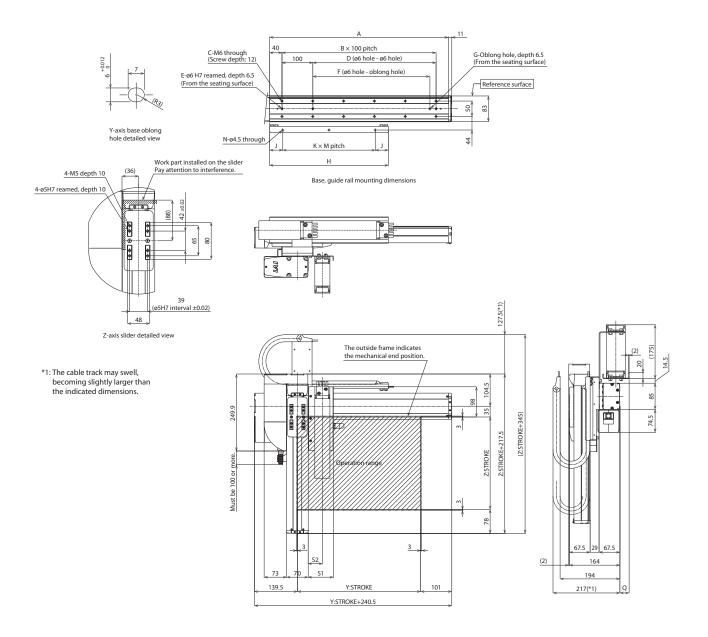
47 IK2-P6YBB1 S



CAD drawings can be downloaded from our website. (2D) (3D) (CAD) (

Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

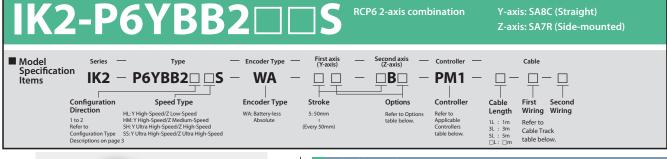
Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|------------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 210 | 235 | 260 | 285 | 310 | 335 | 360 | 385 | 410 | 435 | 460 | 485 | 510 | 535 | 560 | 585 | 610 | 635 | 660 | 685 | 710 | 735 |
| J | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 17.5 |
| K | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| М | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 | 175 | 175 | 200 | 200 | 200 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | | | | | | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | | | | | | | |
| Q | 18 | 30 | 45 | 63 | | | | | | | | | | | | | | | | | | |

 S1
 82
 94
 107

 S2
 46
 52.5
 59

* Dimensions Q, S1 and S2 change depending on the size of the cable track.





| Payload by Accelerati | on | | | | | | | | |
|--|------------------------|--|--|--|--|--|--|--|--|
| HL type: Y high-speed Z low-speed | 1/ | HM type: Y high-speed/ Z medium-speed (Unit: k | | | | | | | |
| Z-axis stroke Acceleration/ deceleration (G) | 50~300 (Every 50mm) | Z-axis stroke Acceleration/ deceleration (G) | 50~300 (Every 50mm) | | | | | | |
| 0.1 | 9 | 0.1 | 4.5 | | | | | | |
| 0.3 | 8 | 0.3 | 4 | | | | | | |
| 0.5 | 7 | 0.5 | 3.5 | | | | | | |
| SH type: Y ultra high- Z high-speed | speed/ | SS type: Y ultra high- Z ultra high-speed | speed/ | | | | | | |
| Z-axis stroke (mm) deceleration (G) | 50~300 (Every 50mm) | Z-axis stroke Acceleration/ deceleration (G) | 50~200 250~300 (Every (Every 50mm) 50mm) | | | | | | |
| 0.1 | 3 | 0.1 | 1.5 | | | | | | |
| 0.3 | 2 | 0.3 | 1.5 | | | | | | |
| 0.5 | 1.5 | 0.5 | 1.5 1 | | | | | | |

* When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| Cable Lengt | h | |
|-------------|------------|--------|
| Туре | Cable code | Length |

| Туре | Cable code | Length |
|----------------|------------|-----------------------------|
| | 1L | 1m |
| Cham day day a | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

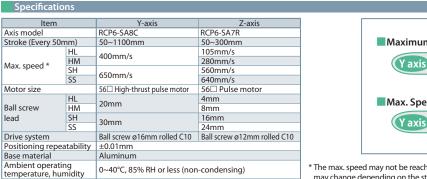
Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

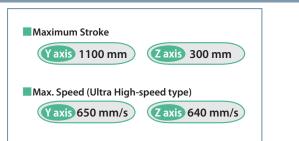
Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Cable Track | | | | | | | | | |
|---|-------|-------------------|----------------------------------|-----------------------------------|--|--|--|--|--|
| Туре | Model | Reference page | First wiring (Y-axis lateral) | Second wiring (Z-axis lateral) | | | | | |
| Without cable track (cable only) | N | | 0 | 0 | | | | | |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | | | | | |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | | | | | |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 | | | | | |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * | | | | | |

* Only the first wiring can be selected



See P.123



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

□ Y-axis: SA8C

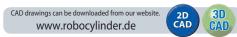
MSEL

| Туре | Reference page | | | | | | | | |
|--------------------------------|---|--|--|--|--|--|--|--|--|
| PCON-CFB/CGFB | See P.133 | | | | | | | | |
| MSEL-PCF/PGF | See P.123 | | | | | | | | |
| □ Y-axis: SA7R | | | | | | | | | |
| Туре | Reference page | | | | | | | | |
| PCON-CB/CGB | See P.133 | | | | | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | | | | | | |
| MCON-C/CG | See P.137 | | | | | | | | |
| MCON-LC/LCG | See P.137 | | | | | | | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

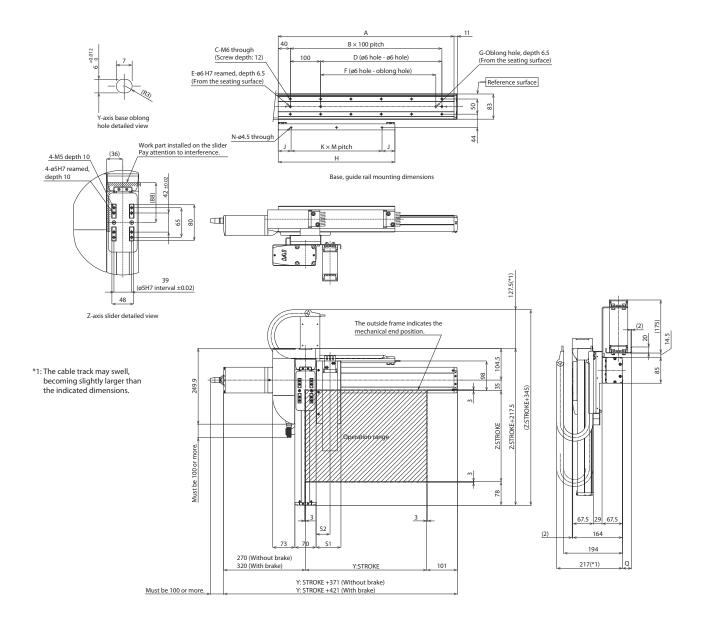
| Туре | Option code | Reference page | Y-axis | Z-axis |
|-------------------------------|-------------|-------------------|--------|-------------------------|
| Brake | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 |

* Be sure to specify.



Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



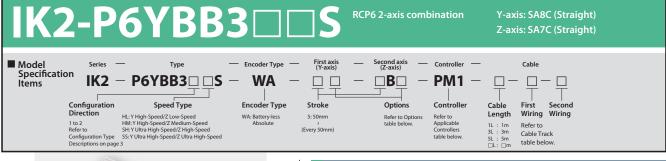
(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|------------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 210 | 235 | 260 | 285 | 310 | 335 | 360 | 385 | 410 | 435 | 460 | 485 | 510 | 535 | 560 | 585 | 610 | 635 | 660 | 685 | 710 | 735 |
| J | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 17.5 |
| K | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| М | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 | 175 | 175 | 200 | 200 | 200 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | | | | | | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | | | | | | | |
| Q | 18 | 30 | 45 | 63 | | | | | | | | | | | | | | | | | | |
| S1 | 82 | 94 | 107 | - | | | | | | | | | | | | | | | | | | |
| S2 | 46 | 52.5 | 59 | - | | | | | | | | | | | | | | | | | | |

* Dimensions Q, S1 and S2 change depending on the size of the cable track.





| Payload by Acceleration | on | | | | |
|--|------------------------|--|--|--|--|
| HL type: Y high-speed Z low-speed | 1/ | HM type: Y high-spee Z medium-speed | d/ (Unit: kg) | | |
| Z-axis stroke (mm) deceleration (G) | 50~300 (Every 50mm) | Z-axis stroke Acceleration/ deceleration (G) | 50~300 (Every 50mm) | | |
| 0.1 | 9 | 0.1 | 4.5 | | |
| 0.3 | 8 | 0.3 | 4 | | |
| 0.5 | 7 | 0.5 | 3.5 | | |
| SH type: Y ultra high- Z high-speed | speed/ | SS type: Y ultra high- Z ultra high-speed | speed/ | | |
| Z-axis stroke Acceleration/ deceleration (G) | 50~300 (Every 50mm) | Z-axis stroke Acceleration/ deceleration (G) | 50~200 250~300 (Every (Every 50mm) 50mm) | | |
| 0.1 | 3 | 0.1 | 1.5 | | |
| | 2 | 0.3 | 1.5 | | |
| 0.3 | | | | | |

* When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| Cable Length | | | | | | | |
|--------------|------------|--------|--|--|--|--|--|
| Type | Cable code | Length | | | | | |

| Туре | Cable code | Length |
|---------------|------------|-----------------------------|
| | 1L | 1m |
| Standard type | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

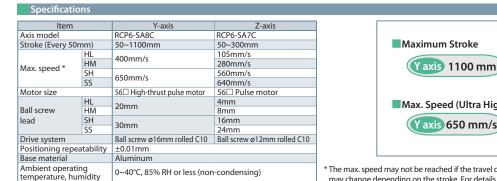
Note 1. All-axis standard cable is used.

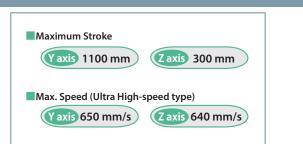
Note 2. The length of the second axis cable is from the exit of the cable track.

A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Cable Track | | | | | | | | | |
|---|-------|-------------------|----------------------------------|-----------------------------------|--|--|--|--|--|
| Туре | Model | Reference page | First wiring (Y-axis lateral) | Second wiring (Z-axis lateral) | | | | | |
| Without cable track (cable only) | N | | 0 | 0 | | | | | |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | | | | | |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | | | | | |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 | | | | | |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * | | | | | |

* Only the first wiring can be selected





* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

□ Y-axis: SA8C

| Reference page | | | | |
|---|--|--|--|--|
| See P.133 | | | | |
| See P.123 | | | | |
| | | | | |
| Reference page | | | | |
| See P.133 | | | | |
| Please see the dedicated catalog or manual. | | | | |
| See P.137 | | | | |
| See P.157 | | | | |
| | | | | |

MSEL See P.123 * Operation is possible with the high-output setting specification. When connecting
to the MCON controller, "High-output setting specification" must be selected.
Please contact IAI regarding use with the high-output setting disabled.

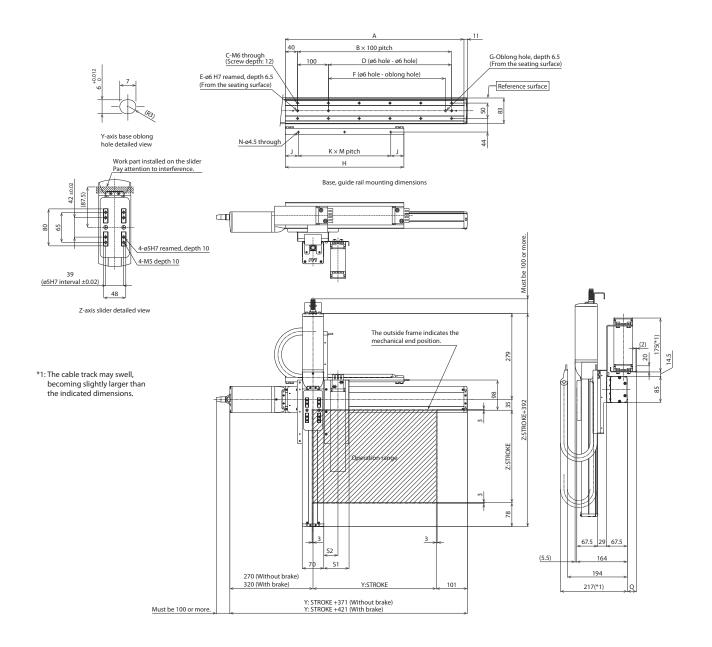
| Options | | | | | | | | | |
|-------------------------------|-------------|-------------------|--------|-------------------------|--|--|--|--|--|
| Туре | Option code | Reference page | Y-axis | Z-axis | | | | | |
| Brake | В | See P.119 | 0 | Standard equipment * | | | | | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | | | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be | | | | | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | | | | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | | | | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | | | | | |
| Slider roller specification | SR | See P.120 | 0 | 0 | | | | | |

* Be sure to specify.

CAD drawings can be downloaded from our website. (2D) (3D) (CAD) (

Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

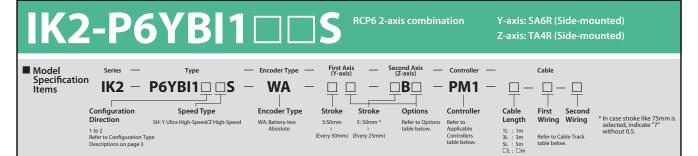
Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|------------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 210 | 235 | 260 | 285 | 310 | 335 | 360 | 385 | 410 | 435 | 460 | 485 | 510 | 535 | 560 | 585 | 610 | 635 | 660 | 685 | 710 | 735 |
| J | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 17.5 |
| К | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| M | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 | 175 | 175 | 200 | 200 | 200 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | | | | | | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | | | | | | | |
| Q | 18 | 30 | 45 | 63 | | | | | | | | | | | | | | | | | | |

 S1
 82
 94
 107

 S2
 46
 52.5
 59

* Dimensions Q, S1 and S2 change depending on the size of the cable track.



RoHS



Payload by Acceleration SH type: Y ultra high-speed/Z high-speed (Unit: ka) Z-axis stroke 50~150 (mm) Acceleration/ deceleration (G) (Every 25mm) 0.1 1 0.3 1 0.5 1

When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

Stroke Max speed *

Motor size

Drive system

Base material

| Туре | Cable code | Length |
|---------------|------------|-----------------------------|
| | 1L | 1m |
| Standard type | 3L | 3m |
| Stanuaru type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track.

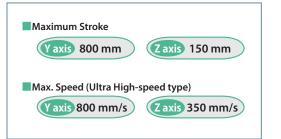
Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Cable Track

| Туре | Model | Reference page | First wiring (Y-axis side) | Second wiring (Z-axis side) |
|---|-------|-------------------|-------------------------------|--------------------------------|
| Without cable track (cable only) | N | | - | - |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected





The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Reference page

Applicable Controllers

Controllers are sold separately.

Please refer to each controller page.

□Y-axis: SA6R, Z-axis: TA4R Туре

| | PCON-CB/CGB | See P.133 | | | | | |
|---|--------------------------------|---|--|--|--|--|--|
| | PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | | | |
| | MCON-C/CG | See P.137 | | | | | |
| ſ | MCON-LC/LCG | See F.157 | | | | | |
| Γ | MSEL | See P.123 | | | | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options Reference Option code Туре Y-axis Z-axis page Standard 0 Brake в See P.119 equipment * Cannot be 0 Cable exit direction (Outside) CJO See P.119 selected NM See P.120 Non-motor end specification Cannot be 0 Slider section roller specification See P.120 SR selected

* Be sure to specify.

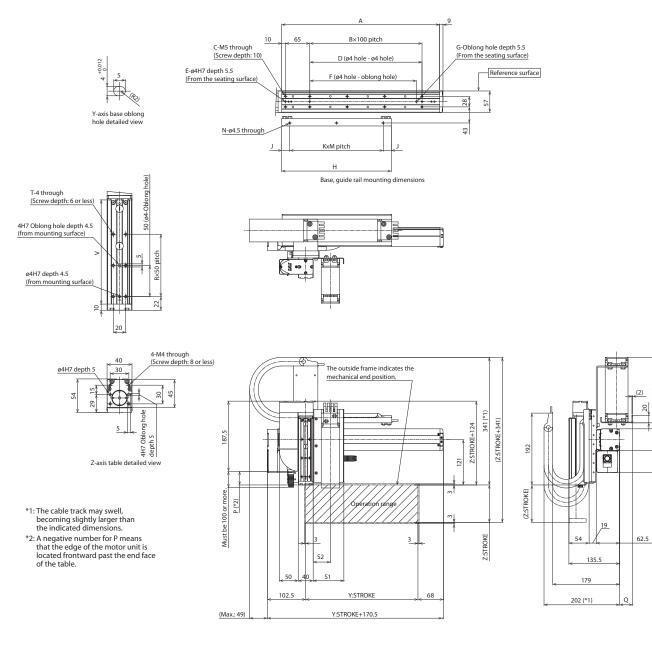
Dimensions

CAD drawings can be downloaded from our website.

AD 3D GAD

Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.

8 8

192 217

142 167

Dimensions by Stroke

4 6 6

117

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|-------|------|------|------|------|------|-----|------|-----|------|-----|------|-----|------|-----|-----|
| A | 172 | 222 | 272 | 322 | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 | 922 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 168 | 193 | 218 | 243 | 268 | 293 | 318 | 343 | 368 | 393 | 418 | 443 | 468 | 493 | 518 | 543 |
| J | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 34 | 9 |
| K | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | , | 1 | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | | | | | | | | | | | |
| P (*2) | -13.5 | 11.5 | 36.5 | 61.5 | 86.5 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

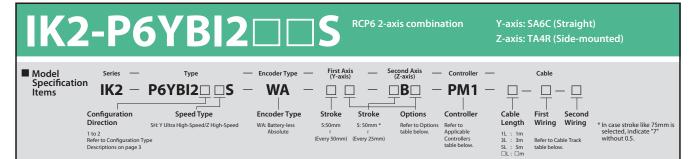
| Cable track size | CT | CTM | CTL | CTXL | | | | | | |
|----------------------|----------|-------|--------|--------|--|--|--|--|--|--|
| Q | 23 | 35 | 50 | 68 | | | | | | |
| S1 | 82 | 94 | 107 | - | | | | | | |
| S2 46 52.5 59 - | | | | | | | | | | |
| * Dimensions Q, S1 a | and S2 d | hange | depend | ing on | | | | | | |

175)

58

59

16





| Payload by Accelerat | ion | |
|--|------------------------|------------|
| SH type: Y ultra high- | speed/Z high-speed | (Unit: kg) |
| Z-axis stroke Acceleration/ deceleration (G) | 50~150 (Every 25mm) | |
| 0.1 | 1 | |
| 0.3 | 1 | |
| 0.5 | 1 | |

* When both Y and Z axes have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

| Туре | Cable code | Length |
|---------------|------------|-----------------------------|
| | 1L | 1m |
| Standard type | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |
| | | |

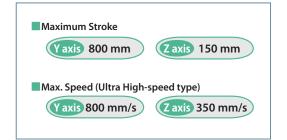
Note 1. All-axis standard cable is used. Note 2. The length of the second axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Cable Track | | | | |
|---|-------|-------------------|-------------------------------|--------------------------------|
| Туре | Model | Reference page | First wiring (Y-axis side) | Second wiring (Z-axis side) |
| Without cable track (cable only) | N | | - | - |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected





The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please refer to each controller page.

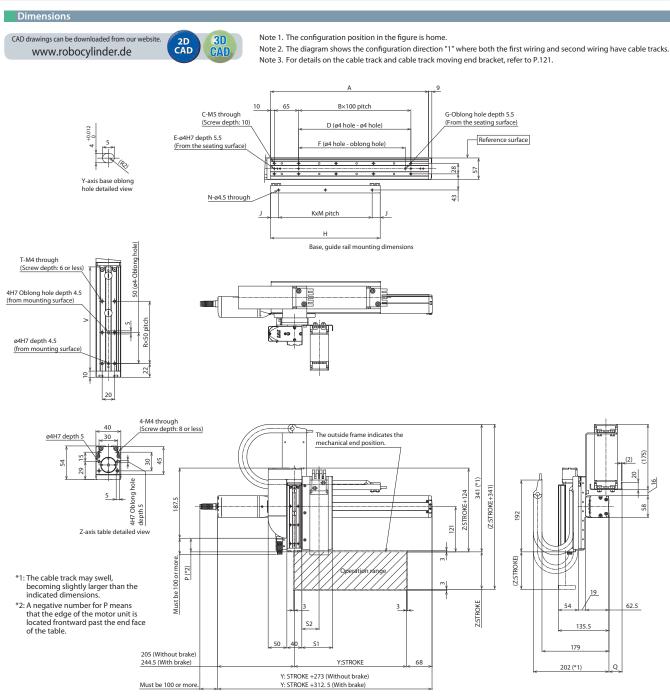
□Y-axis: SA6C, Z-axis: TA4R

| Туре | Reference page | | | | | |
|--------------------------------|---|--|--|--|--|--|
| PCON-CB/CGB | See P.133 | | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manua | | | | | |
| MCON-C/CG | See P.137 | | | | | |
| MCON-LC/LCG | See P.157 | | | | | |
| MSEL | See P.123 | | | | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | Y-axis | Z-axis |
|-------------------------------------|-------------|-------------------|--------|-------------------------|
| Brake * | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | Cannot be selected |

* Be sure to specify. * Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.



(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.

8 8

192 217

142 167

Dimensions by Stroke

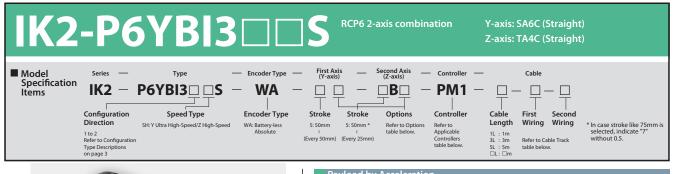
4 6 6

117

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|-------|------|------|------|------|------|-----|------|-----|------|-----|------|-----|------|-----|-----|
| A | 172 | 222 | 272 | 322 | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 | 922 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| С | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 168 | 193 | 218 | 243 | 268 | 293 | 318 | 343 | 368 | 393 | 418 | 443 | 468 | 493 | 518 | 543 |
| J | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 34 | 9 |
| K | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | | | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | | | | | | | | | | | |
| P (*2) | -13.5 | 115 | 36.5 | 61.5 | 86.5 | 1 | | | | | | | | | | |

| Cable track size | CT | CTM | CTL | CTXL | | | |
|--|----|-----|-----|------|--|--|--|
| Q | 23 | 35 | 50 | 68 | | | |
| S1 | 82 | 94 | 107 | - | | | |
| S2 46 52.5 59 - | | | | | | | |
| * Dimensions O S1 and S2 change depending on | | | | | | | |

Dimensions Q, S1 and S2 change depending on the size of the cable track.





| SH type: Y ultra high- | SH type: Y ultra high-speed/Z high-speed (Unit: | | | | | | |
|--|---|------------|--|--|--|--|--|
| Z-axis stroke Acceleration/ deceleration (G) | 50~150 (Every 25mm) | (Unit ity) | | | | | |
| 0.1 | 1 | | | | | | |
| 0.3 | 1 | | | | | | |
| 0.5 | 1 | | | | | | |

* When both Y and Z axes have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

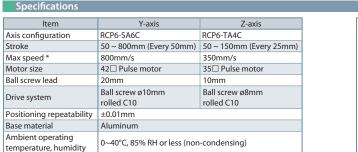
| cable Length | | | | | | | | | |
|--------------------|-------------------------|-----------------------------|--|--|--|--|--|--|--|
| | | | | | | | | | |
| Туре | Cable code | Length | | | | | | | |
| | 1L | 1m | | | | | | | |
| C 1 1 1 | 3L | 3m | | | | | | | |
| Standard type | 5L | 5m | | | | | | | |
| | | Specified length (15m max.) | | | | | | | |
| Nata 1 All avia at | بمماميها ممامام أمينيمم | 4 | | | | | | | |

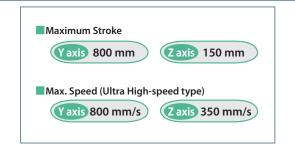
Note 1. All-axis standard cable is used. Note 2. The length of the second axis cable is from the exit of the cable track.

A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Туре | Model | Reference page | First wiring (Y-axis side) | Second wiring (Z-axis side) |
|---|-------|-------------------|-------------------------------|--------------------------------|
| Without cable track (cable only) | N | | - | - |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | CTM | See | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected





The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please refer to each controller page.

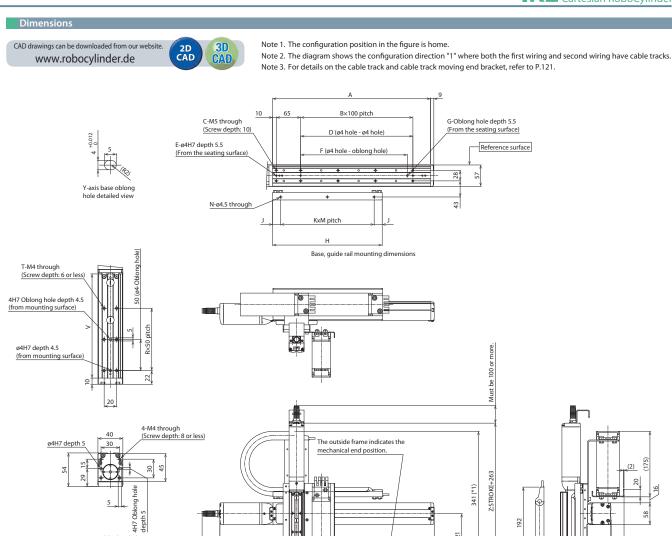
| Y-axis: SA6C, Z-axis: TA4C | | | | | | | | | |
|--------------------------------|---|--|--|--|--|--|--|--|--|
| Туре | Reference page | | | | | | | | |
| PCON-CB/CGB | See P.133 | | | | | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | | | | | | |
| MCON-C/CG | See P.137 | | | | | | | | |
| MCON-LC/LCG | See P.137 | | | | | | | | |
| MSEL | See P.123 | | | | | | | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options

| Туре | Option code | Reference page | Y-axis | Z-axis |
|-------------------------------------|-------------|-------------------|--------|-------------------------|
| Brake * | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | Cannot be selected |

* Be sure to specify. * Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.

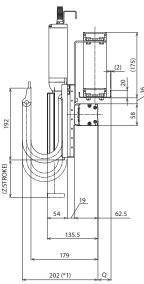


S2

S

Y: STROKE +273 (Without brake) Y: STROKE +312. 5 (With brake)

Y:STROKE



121

3

68

Z:STROKE

(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.

205 (Without brake) 244.5 (With brake)

Must be 100 or more

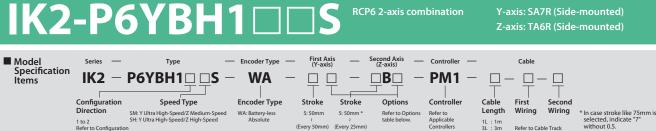
Dimensions by Stroke

Z-axis table detailed view

*1: The cable track may swell, becoming slightly larger than the indicated dimensions.

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|
| A | 172 | 222 | 272 | 322 | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 | 922 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 168 | 193 | 218 | 243 | 268 | 293 | 318 | 343 | 368 | 393 | 418 | 443 | 468 | 493 | 518 | 543 |
| J | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 9 | 21.5 | 34 | 9 |
| K | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | | | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | | | | | | | | | | | |
| R | 1 | 2 | 2 | 3 | 3 | | | | | | | | | | | |
| Т | 4 | 6 | 6 | 8 | 8 | | | | | | | | | | | |
| V | 117 | 142 | 167 | 192 | 217 |] | | | | | | | | | | |

| Cable track size | CT | CTM | CTL | CTXL | | | |
|---|----|-----|-----|------|--|--|--|
| Q | 23 | 35 | 50 | 68 | | | |
| S1 | 82 | 94 | 107 | - | | | |
| S2 46 52.5 59 - | | | | | | | |
| * Dimensions Q. S1 and S2 change depending on | | | | | | | |



Acceleration/

1 to 2 Refer to Configuration Type Desci on page 3

Refer to Option table below Refer to Applicable Controllers table belov 1L : 1m 3L : 3m 5L : 5m □L: □m (Every 50mm) (Every 25mm)

SM type: Y ultra high-speed/Z medium-speed

Payload by Acceleration

Z-axis stroke

(mm)

Refer to Cable Track table below

50~200

(Every 25mm)

(Unit: kg)



The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

Specifications

RoHS

| | Cable Lengal | | | | | | | | |
|---------------|--------------|-----------------------------|--|--|--|--|--|--|--|
| | | | | | | | | | |
| Туре | Cable code | Length | | | | | | | |
| | 1L | 1m | | | | | | | |
| Standard tuna | 3L | 3m | | | | | | | |
| Standard type | 5L | 5m | | | | | | | |
| | | Specified length (15m max.) | | | | | | | |
| | | | | | | | | | |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| deceleration (G) | () |
|------------------------|--------------------|
| 0.1 | 3 |
| 0.3 | 2.5 |
| 0.5 | 2.5 |
| SH type: Y ultra high- | speed/Z high-speed |
| Z-axis stroke | |

| Acceleration/ deceleration (G) | |
|-----------------------------------|-----|
| 0.1 | 1.5 |
| 0.3 | 1.5 |
| 0.5 | 1.5 |

When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| Cable Track | | | | |
|---|-------|-------------------|-------------------------------|--------------------------------|
| Туре | Model | Reference page | First wiring (Y-axis side) | Second wiring (Z-axis side) |
| Without cable track (cable only) | N | | - | - |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected

| Item | | Y-axis | Z-axis | |
|--|-----------|---|--------------------------------|--|
| Axis configuration | | RCP6-SA7R | RCP6-TA6R | |
| Stroke | | 50 ~ 800mm (Every 50mm) | 50 ~ 200mm (Every 25mm) | |
| Max speed * | SM | 640mm/s | 280mm/s | |
| max speed " | SH | 040(11(11)/S | 440mm/s | |
| Motor size | | 56 Pulse motor | 42 Pulse motor | |
| Ball screw | SM | 24 | 6mm | |
| lead | SH | 24mm | 12mm | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | |
| Positioning repe | atability | ±0.01mm | | |
| Base material | | Aluminum | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | |

Maximum Stroke (Yaxis) 800 mm Zaxis 200 mm Max. Speed (Ultra High-speed type) Y axis 640 mm/s Z axis 440 mm/s

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please refer to each controller page.

□Y-axis: SA7R, Z-axis: TA6R

| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | See P 137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options

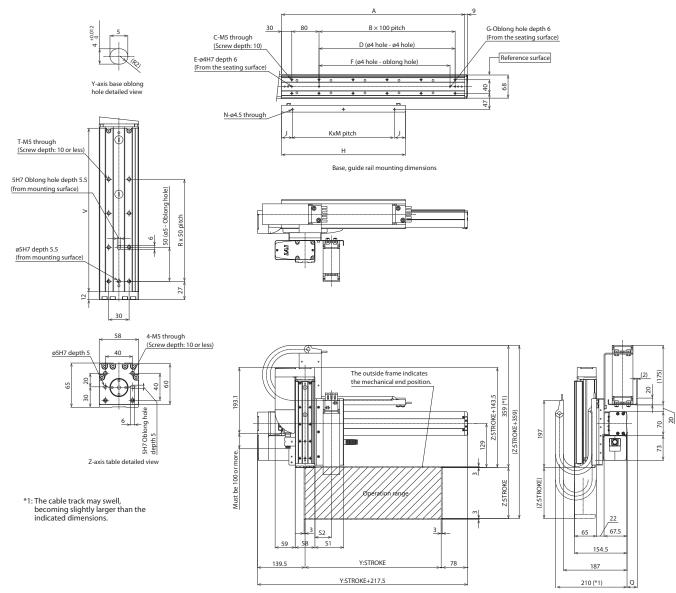
| Туре | Option code | Reference page | Y-axis | Z-axis |
|-------------------------------------|-------------|-------------------|--------|-----------------------|
| Brake | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Outside) | CIO | See P.119 | 0 | Cannot be selected |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | Cannot be selected |

* Be sure to specify.



Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



(*) Notes

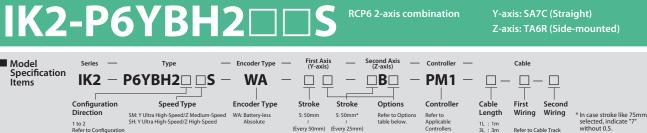
The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.

Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|
| T: SUFORE | | | | | | | | | | | | | | | | |
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| С | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 189 | 214 | 239 | 264 | 289 | 314 | 339 | 364 | 389 | 414 | 439 | 464 | 489 | 514 | 539 | 564 |
| J | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 44.5 | 19.5 |
| K | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 250 | 250 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | | | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | 175 | 200 | | | | | | | | | |
| R | 1 | 2 | 2 | 3 | 3 | 4 | 4 | | | | | | | | | |
| Т | 4 | 6 | 6 | 8 | 8 | 10 | 10 | | | | | | | | | |
| V | 140 | 165 | 190 | 215 | 240 | 265 | 290 | | | | | | | | | |

| Cable track size | CT | CTM | CTL | CTXL | | | | |
|----------------------|---|------|-------|------|--|--|--|--|
| Q | 18 | 30 | 45 | 63 | | | | |
| S1 | 84.5 | 96.5 | 109.5 | - | | | | |
| S2 | 48.5 | 55 | 61.5 | - | | | | |
| * Dimensions O, S1 a | * Dimensions O. S1 and S2 change depending on | | | | | | | |

the size of the cable track.



1 to 2 Refer to Configuratio Type Descriptions on page 3





| rayioud by neceleration | | | | | | |
|--|------------------------|--|--|--|--|--|
| SM type: Y ultra high-speed/Z medium-speed | | | | | | |
| Z-axis stroke Acceleration/ deceleration (G) | 50~200 (Every 25mm) | | | | | |
| 0.1 | 3 | | | | | |
| 0.3 | 2.5 | | | | | |
| 0.5 | 2.5 | | | | | |

SH type: Y ultra high-speed/Z high-speed

| Z-axis stroke (mm) deceleration (G) | |
|---|-----|
| 0.1 | 1.5 |
| 0.3 | 1.5 |
| 0.5 | 1.5 |

When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

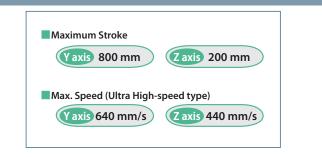
| Туре | Cable code | Length | | | | | | |
|---------------|------------|-----------------------------|--|--|--|--|--|--|
| | 1L | 1m | | | | | | |
| Standard type | 3L | 3m | | | | | | |
| Stanuaru type | 5L | 5m | | | | | | |
| | □L | Specified length (15m max.) | | | | | | |
| | | | | | | | | |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Cable Track | | | | | | | |
|---|-------|-------------------|-------------------------------|--------------------------------|--|--|--|
| Туре | Model | Reference page | First wiring (Y-axis side) | Second wiring (Z-axis side) | | | |
| Without cable track (cable only) | N | | - | - | | | |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | | | |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 | 0 | | | |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 | | | |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * | | | |

* Only the first wiring can be selected



Specifications

| ltem | | Y-axis | Z-axis | |
|--|-----------|---|--------------------------------|--|
| Axis configuration | | RCP6-SA7C | RCP6-TA6R | |
| Stroke | | 50 ~ 800mm (Every 50mm) | 50 ~ 200mm (Every 25mm) | |
| Max speed * | SM | 640mm/s | 280mm/s | |
| Max speed | SH | 04011111/5 | 440mm/s | |
| Motor size | | 56□ Pulse motor | 42 Pulse motor | |
| Ball screw | SM | 24mm | 6mm | |
| lead | SH | 24000 | 12mm | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | |
| Positioning repea | atability | ±0.01mm | | |
| Base material | | Aluminum | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | |

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please refer to each controller page.

□Y-axis: SA7C, Z-axis: TA6R

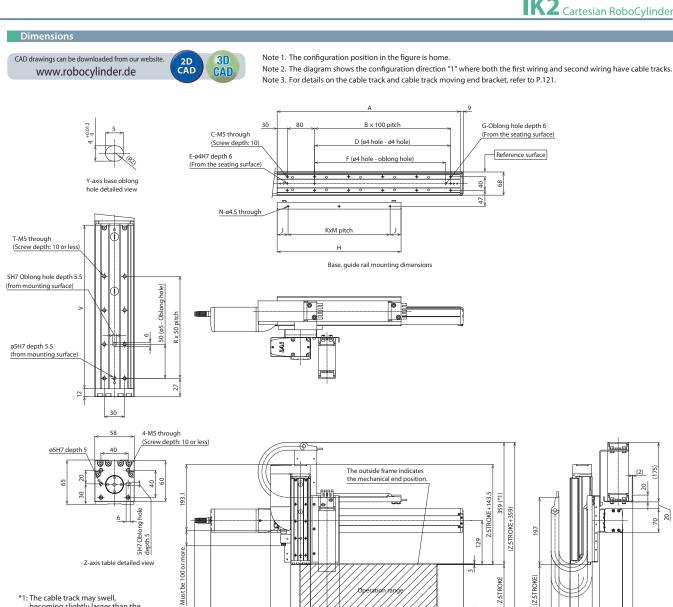
| Туре | Reference page | | |
|--------------------------------|--|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Ontio

| Options | | | | | | |
|-------------------------------------|-------------|-------------------|--------|-------------------------|--|--|
| Туре | Option code | Reference page | Y-axis | Z-axis | | |
| Brake * | В | See P.119 | 0 | Standard equipment * | | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be | | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | | |
| Slider section roller specification | SR | See P.120 | 0 | Cannot be selected | | |

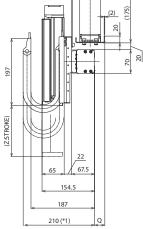
⁶ Be sure to specify. ⁶ Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.



S2

*1: The cable track may swell, becoming slightly larger than the indicated dimensions.





3

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(*) Notes

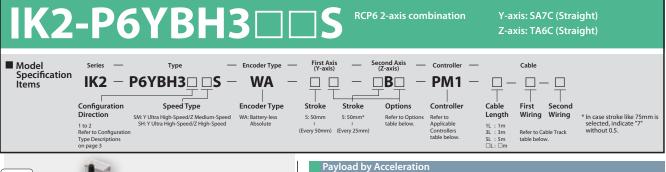
The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.

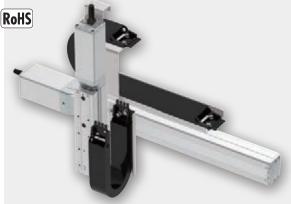
Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 189 | 214 | 239 | 264 | 289 | 314 | 339 | 364 | 389 | 414 | 439 | 464 | 489 | 514 | 539 | 564 |
| J | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 44.5 | 19.5 |
| К | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| M | 150 | 150 | 200 | 200 | 250 | 250 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| 7.6 | 50 | 75 | 400 | 405 | 4.50 | 475 | 200 | 1 | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | 175 | 200 | | | | | | | | | |
| R | 1 | 2 | 2 | 3 | 3 | 4 | 4 | | | | | | | | | |
| Т | 4 | 6 | 6 | 8 | 8 | 10 | 10 | | | | | | | | | |
| V | 140 | 165 | 190 | 215 | 240 | 265 | 290 | | | | | | | | | |

| Cable track size | CT | CTM | CTL | CTXL | | | |
|----------------------|----------|-------|--------|--------|--|--|--|
| Q | 18 | 30 | 45 | 63 | | | |
| S1 | 84.5 | 96.5 | 109.5 | - | | | |
| S2 48.5 55 61.5 - | | | | | | | |
| * Dimensions O, S1 a | and S2 d | hange | depend | ina on | | | |

the size of the cable track.





| SM type: Y ultra high-speed/Z medium-speed (Unit: k | | | | | | | |
|---|------------------------|--|--|--|--|--|--|
| Z-axis stroke Acceleration/ deceleration (G) | 50~200 (Every 25mm) | | | | | | |
| 0.1 | 3 | | | | | | |
| 0.3 | 2.5 | | | | | | |
| 0.5 | 2.5 | | | | | | |

SH type: Y ultra high-speed/Z high-speed

| Z-axis stroke (mm) deceleration/ G) | |
|--|-----|
| 0.1 | 1.5 |
| 0.3 | 1.5 |
| 0.5 | 1.5 |

When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

Specifications

| Cable code | Length | | | | | | | |
|------------|-----------------------------|--|--|--|--|--|--|--|
| 1L | 1m | | | | | | | |
| 3L | 3m | | | | | | | |
| 5L | 5m | | | | | | | |
| | Specified length (15m max.) | | | | | | | |
| | Cable code 1L | | | | | | | |

Note 1. All-axis standard cable is used.

Note 1. An axis standard of the second axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Cable Track | | | | | | | | |
|---|-------|-------------------|-------------------------------|--------------------------------|--|--|--|--|
| Туре | Model | Reference page | First wiring (Y-axis side) | Second wiring (Z-axis side) | | | | |
| Without cable track (cable only) | N | | - | - | | | | |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | | | | |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 | 0 | | | | |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 | | | | |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * | | | | |

* Only the first wiring can be selected



Maximum Stroke Yaxis 800 mm Zaxis 200 mm Max. Speed (Ultra High-speed type) Z axis 440 mm/s Y axis 640 mm/s

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please refer to each controller page.

□Y-axis: SA7C, Z-axis: TA6C

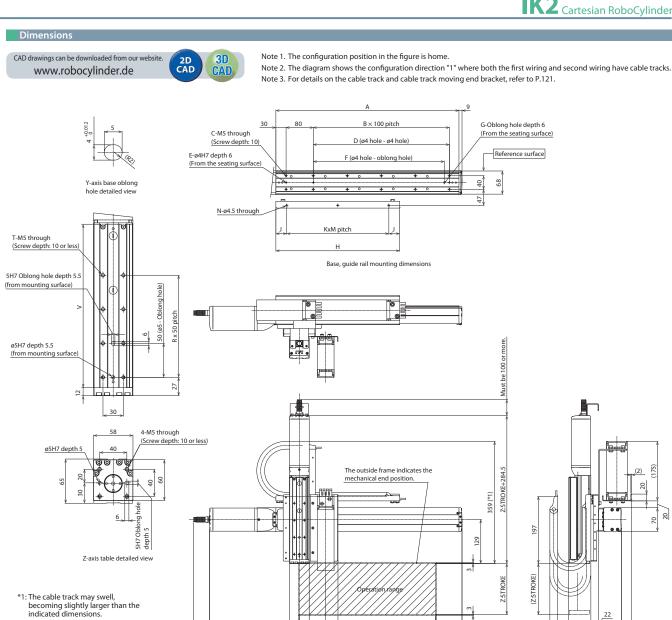
| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.157 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Ontions

| options | | | | |
|-------------------------------------|-------------|-------------------|--------|-------------------------|
| Туре | Option code | Reference page | Y-axis | Z-axis |
| Brake * | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | Cannot be selected |

* Be sure to specify. * Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.



S2

S1

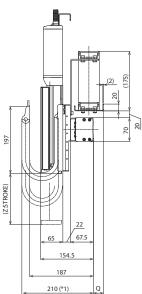
Y: STROKE +342 (Without brake)

Y: STROKE +392 (With brake)

Y:STROKE

264 (Without brake)

314 (With brake)



3

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(*) Notes

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.

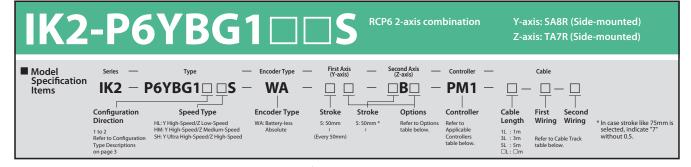
Must be 100 or mo

Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|
| T: SUFORE | | | | | | | | | | | | | | | | |
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| С | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 189 | 214 | 239 | 264 | 289 | 314 | 339 | 364 | 389 | 414 | 439 | 464 | 489 | 514 | 539 | 564 |
| J | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 19.5 | 32 | 44.5 | 19.5 |
| K | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| М | 150 | 150 | 200 | 200 | 250 | 250 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 |
| N | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | | | | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | 175 | 200 | | | | | | | | | |
| R | 1 | 2 | 2 | 3 | 3 | 4 | 4 | | | | | | | | | |
| Т | 4 | 6 | 6 | 8 | 8 | 10 | 10 | | | | | | | | | |
| V | 140 | 165 | 190 | 215 | 240 | 265 | 290 | | | | | | | | | |

| Cable track size | CT | CTM | CTL | CTXL | | | | |
|----------------------|----------|-------|--------|--------|--|--|--|--|
| Q | 18 | 30 | 45 | 63 | | | | |
| S1 | 84.5 | 96.5 | 109.5 | - | | | | |
| S2 48.5 55 61.5 - | | | | | | | | |
| * Dimensions O, S1 a | and S2 d | hange | depend | ina on | | | | |

ep the size of the cable track.



Payload by Acceleration

SH type: Y ultra high-speed/

50~200

(Every 25mm)

50~200

(Every 25mm)

250 300

300 250

8

6

3

HL type: Y high-speed/

Z low-speed

Acceleration/ deceleration (G)

Acceleration/ deceleration (G) 0.1

0.3

Cable Track

0.1

0.3

Z high-speed Z-axis stroke (mm)

Z-axis stroke (mm)

RoHS



The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

| Туре | Cable code | Length |
|---------------|------------|-----------------------------|
| | 1L | 1m |
| Standard tuno | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified

in 1m increments up to 15m.

Specifications

| - | | | | | |
|--|------------|---|-----------------------------------|--|--|
| ltem | | Y-axis | Z-axis | | |
| Axis configura | ition | RCP6-SA8R | RCP6-TA7R | | |
| Stroke | | 50 ~ 1100mm (Every 50mm) | 50 ~ 200 (Every 25mm), 250, 300mm | | |
| | HL | 400mm/s | 140mm/s | | |
| Max speed * | HM | 400mm/s | 280mm/s | | |
| | SH | 650mm/s | 420mm/s | | |
| Motor size | | 56 High thrust pulse motor | 56 Pulse motor | | |
| Ball screw | HL | 20mm | 4mm | | |
| lead | HM | 2011111 | 8mm | | |
| leau | SH | 30mm | 16mm | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | | |
| Positioning rep | eatability | ±0.01mm | | | |
| Base material | | Aluminum | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | |

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

65 IK2-P6YBG1

Controllers are sold separately. Please refer to each controller page.

□ Y-axis: SA8R

| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CFB/CGFB | See P.133 | | |
| MSEL-PCF/PGF | See P.123 | | |
| 🗆 Z-axis: TA7R | | | |
| Туре | Reference page | | |
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | 500 D 127 | | |

MSEL See P.123 * Operation is possible with the high-output setting specification. When connecting

See P.137 MCON-LC/LCG

to the MCON controller, "High-output setting specification" must be selenced. Please contact IAI regarding use with the high-output setting disabled.

| |] |
|------------------------------------|---|
| Maximum Stroke | |
| Yaxis 1100 mm Zaxis 300 mm | |
| Max. Speed (Ultra High-speed type) | |
| Yaxis 650 mm/s Zaxis 420 mm/s | |
| (Yaxis 650 mm/s) (Zaxis 420 mm/s) | |

Ontions

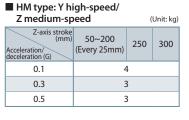
| options | | | | |
|-------------------------------------|-------------|-------------------|--------|-------------------------|
| Туре | Option code | Reference page | Y-axis | Z-axis |
| Brake | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Outside) | clo | See P.119 | 0 | Cannot be selected |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | Cannot be selected |

* Be sure to specify.

2.5 * When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| Туре | Model | Reference page | First wiring (Y-axis side) | Second wiring (Z-axis side) |
|---|-------|-------------------|-------------------------------|--------------------------------|
| Without cable track (cable only) | N | | - | - |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

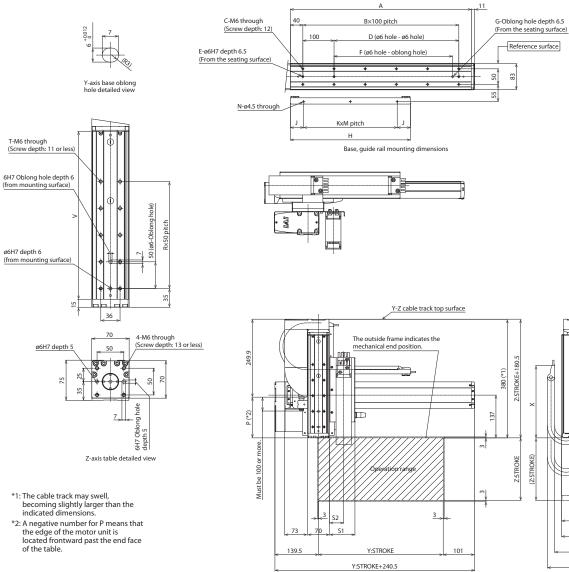
* Only the first wiring can be selected

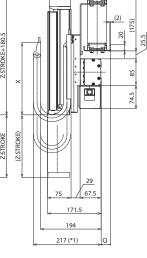


CAD drawings can be downloaded from our website. WWW.robocylinder.de

Note 1. The configuration position in the figure is home.

Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.





(*) Notes

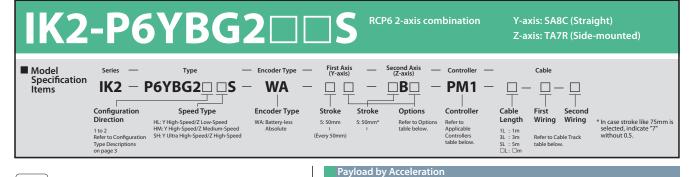
The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.

Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|-----------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| С | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 210 | 235 | 260 | 285 | 310 | 335 | 360 | 385 | 410 | 435 | 460 | 485 | 510 | 535 | 560 | 585 | 610 | 635 | 660 | 685 | 710 | 735 |
| J | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 17.5 |
| K | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| М | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 | 175 | 175 | 200 | 200 | 200 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |

| Z: Stroke | 50 | 75 | 100 | 125 | 150 | 175 | 200 | 250 | 300 |
|-----------|-------|-----|------|------|------|-------|-------|-------|-------|
| P (*2) | -19.4 | 5.6 | 30.6 | 55.6 | 80.6 | 105.6 | 130.6 | 180.6 | 230.6 |
| R | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 6 |
| Т | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 14 |
| V | 164 | 189 | 214 | 239 | 264 | 289 | 314 | 364 | 414 |
| Х | | 188 | | | | 23 | 32 | | |

| track size | СТ | СТМ | CTL | CTXL |
|------------|----|------|-----|------|
| Q | 18 | 30 | 45 | 63 |
| S1 | 82 | 94 | 107 | - |
| S2 | 46 | 52.5 | 59 | - |
| * Dimen | | | | |





| Z-axis stroke (mm) Acceleration/ deceleration (G) | 50~200 (Every 25mm) | 250 | 300 |
|--|---------------------------|------|-----|
| 0.1 | | 8 | |
| 0.3 | | 6 | |
| | | | |
| SH type: Y ult Z high-speed | | eed/ | |
| | | 250 | 300 |

HL type: Y high-speed/

Cable Track

HM type: Y high-speed/

| Z medium-sp | | (| Unit: kg) |
|--|---------------------------|-----|-----------|
| Z-axis stroke (mm) Acceleration/ leceleration (G) | 50~200 (Every 25mm) | 250 | 300 |
| 0.1 | 4 | 4 | |
| 0.3 | - | 3 | |
| 0.5 | 1 | 3 | |
| | | | |

First wiring

(Y-axis side)

0

Second wiring

(Z-axis side)

 \cap

Cannot be

selected *

| Z high-speed | | | | | | | | |
|--|---------------------------|-----|-----|--|--|--|--|--|
| Z-axis stroke (mm) Acceleration/ deceleration (G) | 50~200 (Every 25mm) | 250 | 300 | | | | | |
| 0.1 | : | 3 | | | | | | |
| 0.3 | 2 | .5 | | | | | | |

Туре

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Only the first wiring can be selected

Cable track XL size (inner width: 80mm) *

Without cable track (cable only)

* When both Y and Z axes have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Model

Ν

СТ

СТМ

CTL

CTXL

Reference

page

See

P.121

| _ | | |
|---|-------|--------|
| | Cable | 1 |
| | Caple | Lenath |
| | | |

| Туре | Cable code | Length |
|---------------|------------|-----------------------------|
| | 1L | 1m |
| | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

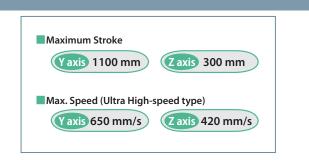
The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

Note 1. All-axis standard cable is used.

Note 2. The length of the second axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications

| ltem | | Y-axis | Z-axis | | | | | |
|---------------------------------|------------|---|-----------------------------------|--|--|--|--|--|
| Axis configura | ation | RCP6-SA8C | RCP6-TA7R | | | | | |
| Stroke | | 50 ~ 1100mm (Every 50mm) | 50 ~ 200 (Every 25mm), 250, 300mm | | | | | |
| | HL | 400mm/s | 140mm/s | | | | | |
| Max speed * | HM | 40011111/5 | 280mm/s | | | | | |
| | SH | 650mm/s | 420mm/s | | | | | |
| Notor size | | 56 High thrust pulse motor | 56 Pulse motor | | | | | |
| Ball screw | HL | 20mm | 4mm | | | | | |
| lead | HM | 2011111 | 8mm | | | | | |
| leau | SH | 30mm | 16mm | | | | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | | | | | |
| Positioning rep | eatability | ±0.01mm | | | | | | |
| Base material | | Aluminum | | | | | | |
| Ambient opera temperature, h | 5 | 0~40°C, 85% RH or less (non-condensing) | | | | | | |



* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please refer to each controller page.

□ Y-axis: SA8C

MSEL

| Туре | Reference page | | | | | | |
|--------------------------------|---|--|--|--|--|--|--|
| PCON-CFB/CGFB | See P.133 | | | | | | |
| MSEL-PCF/PGF | See P.123 | | | | | | |
| 🗆 Z-axis: TA7R | | | | | | | |
| Туре | Reference page | | | | | | |
| PCON-CB/CGB | See P.133 | | | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | | | | |
| MCON-C/CG | See P.137 | | | | | | |
| MCON-LC/LCG | See P.137 | | | | | | |

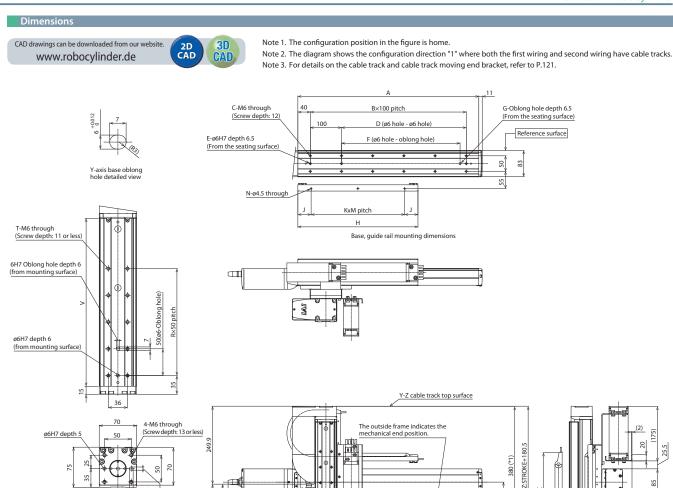
See P.123 * Operation is possible with the high-output setting specification. When connecting

to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options

| Туре | Option code | Reference page | Y-axis | Z-axis |
|-------------------------------------|-------------|-------------------|--------|-------------------------|
| Brake * | В | See P.119 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | |
| Non-motor end specification | NM | See P.120 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | Cannot be selected |

* Be sure to specify. * Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.



270 (Without brake) 320 (With brake)

S2

S

Y: STROKE +371 (Without brake) Y: STROKE +421 (With brake)

Y:STROKE

(*) Notes

of the table.

22

*1: The cable track may swell, becoming slightly larger than the indicated dimensions.

*2: A negative number for P means that the edge of the motor unit is located frontward past the end face 20

6H7 Oblong hole depth 5

Z-axis table detailed view

P (*2)

Must be 100 or more.

The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.

Must be 100 or more

Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|-----------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 210 | 235 | 260 | 285 | 310 | 335 | 360 | 385 | 410 | 435 | 460 | 485 | 510 | 535 | 560 | 585 | 610 | 635 | 660 | 685 | 710 | 735 |
| J | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 17.5 |
| K | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| M | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 | 175 | 175 | 200 | 200 | 200 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |

| Z: Stroke | 50 | 75 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | | | |
|-----------|-------|-----|------|------|------|-------|-------|-------|-------|--|--|--|
| P (*2) | -19.4 | 5.6 | 30.6 | 55.6 | 80.6 | 105.6 | 130.6 | 180.6 | 230.6 | | | |
| R | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 6 | | | |
| Т | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 14 | | | |
| V | 164 | 189 | 214 | 239 | 264 | 289 | 314 | 364 | 414 | | | |
| Х | | 188 | | 232 | | | | | | | | |

| Cable track size | СТ | СТМ | CTL | CTXL |
|---------------------|---------|----------|---------|-------|
| Q | 18 | 30 | 45 | 63 |
| S1 | 82 | 94 | 107 | - |
| S2 | 46 | 52.5 | 59 | - |
| * Dimen | sions (| 2, S1 ai | nd S2 d | hange |

29

67.5

171.5

194

217 (*1)

75

85

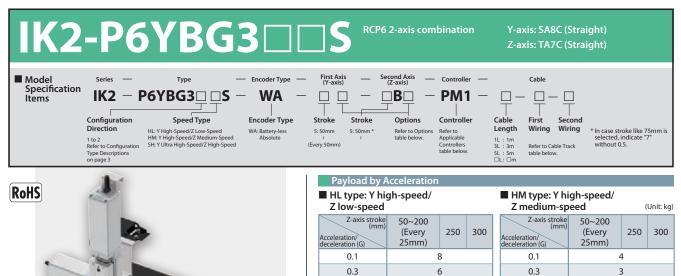
137

3

101

(Z:STROKE) Z:STROKE

depending on the size of the cable track.



SH type: Y ultra high-speed/

Cable Track

| 50~200 (Every 25mm) | 250 | 300 | | | | |
|---------------------------|---------------------------|------------------------------------|--|--|--|--|
| : | 3 | | | | | |
| 2.5 | | | | | | |
| | 50~200 (Every 25mm) | 50~200 (Every 25mm) 250 3 | | | | |

Туре

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

* Only the first wiring can be selected

Cable track XL size (inner width: 80mm) *

Without cable track (cable only)

* When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Model

Ν

СТ

стм

CTL

CTXL

0.5

Reference

page

See

P.121

First wiring

(Y-axis side)

0

3

Second wiring

(Z-axis side)

0

Cannot be

selected

| Cable Lengt | Cable Length | | | | | | | | | | |
|------------------|--------------|-----------------------------|--|--|--|--|--|--|--|--|--|
| Туре | Cable code | Length | | | | | | | | | |
| | 1L | 1m | | | | | | | | | |
| Chan dand have a | 3L | 3m | | | | | | | | | |
| Standard type | 5L | 5m | | | | | | | | | |
| | □L | Specified length (15m max.) | | | | | | | | | |

The photograph above shows the configuration direction "1" where both the first wiring and second wiring have cable tracks. Please refer to P.3 for other configuration directions.

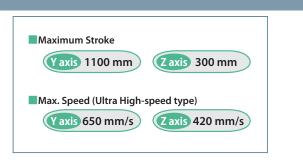
Note 1 All-axis standard cable is used

Note 2. The length of the second axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified

in 1m increments up to 15m.

Specifications

| opeemed | | | | | | | | |
|---------------------------------|------------|--------------------------------|-----------------------------------|--|--|--|--|--|
| ltem | | Y-axis | Z-axis | | | | | |
| Axis configura | ition | RCP6-SA8C | RCP6-TA7C | | | | | |
| Stroke | | 50 ~ 1100mm (Every 50mm) | 50 ~ 200 (Every 25mm), 250, 300mm | | | | | |
| | HL | 400mm/s | 140mm/s | | | | | |
| Max speed * | HM | 400mm/s | 280mm/s | | | | | |
| | SH | 650mm/s | 420mm/s | | | | | |
| Motor size | | 56 High thrust pulse motor | 56 Pulse motor | | | | | |
| Ball screw | HL | 20 | 4mm | | | | | |
| | HM | 20mm | 8mm | | | | | |
| lead | SH | 30mm | 16mm | | | | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | | | | | |
| Positioning rep | eatability | ±0.01mm | | | | | | |
| Base material | | Aluminum | | | | | | |
| Ambient opera temperature, h | 5 | 0~40°C, 85% RH or less (r | non-condensing) | | | | | |



* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please refer to each controller page.

□ Y-axis: SA8C

| Туре | Reference page | | | | | | |
|---|--|--|--|--|--|--|--|
| PCON-CFB/CGFB | See P.133 | | | | | | |
| MSEL-PCF/PGF | See P.123 | | | | | | |
| 🗆 Z-axis: TA7C | | | | | | | |
| | | | | | | | |
| Туре | Reference page | | | | | | |
| Type PCON-CB/CGB | Reference page See P.133 | | | | | | |
| | | | | | | | |
| PCON-CB/CGB | See P.133 Please see the dedicated catalog or manual. | | | | | | |
| PCON-CB/CGB PCON-CYB/PLB/POB (coming soon) | See P.133 | | | | | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options

| Туре | Option code | Reference page | Y-axis | Z-axis | | |
|-------------------------------------|-------------|-------------------|--------|-------------------------|--|--|
| Brake * | В | See P.119 | 0 | Standard equipment * | | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be | | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | | |
| Slider section roller specification | SR | See P.120 | 0 | Cannot be selected | | |

* Be sure to specify. * Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.

T-M6 through (Screw depth: 11 or less)

6H7 Oblong hole depth 6 (from mounting surface)

ø6H7 depth 6 (from mounting surface)

15

ø6H7 depth 5

52

*1: The cable track may swell, becoming slightly larger than the indicated dimensions.

. | 36

50

61 T.

Y-axis base oblong hole detailed view

5-Oblong hole) R×50 pitch

35

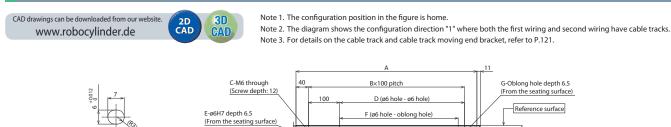
4-M6 through (Screw depth: 13 or less)

S 20

6H7 Oblong hole

Z-axis table detailed view

depth 5



KxM pitch н

Base, guide rail mounting dimensions

The outside frame indicates the

chanical end position

•

6

N-ø4.5 through

.

270 (Without brake) 320 (With brake)

S2

S

Y: STROKE +371 (Without brake) Y: STROKE +421 (With brake)

Y:STROKE

Z

50 83

Must be 100 or more.

Z:STROKE+355

Z:STROKE) Z:STROKE

380 (*1)

137

'n

3

101



The Y-axis cable track guide rail is to be fixed to the Y-axis mounting surface by the customer. Please note that there will be an overhang outside the Y-axis mounting surface. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.

Must be 100 or more.

Dimensions by Stroke

| Y: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|-----------|-----|------|-------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 210 | 235 | 260 | 285 | 310 | 335 | 360 | 385 | 410 | 435 | 460 | 485 | 510 | 535 | 560 | 585 | 610 | 635 | 660 | 685 | 710 | 735 |
| J | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 30 | 42.5 | 55 | 17.5 |
| K | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| M | 150 | 150 | 200 | 200 | 125 | 125 | 150 | 150 | 175 | 175 | 200 | 200 | 150 | 150 | 150 | 175 | 175 | 175 | 200 | 200 | 200 | 175 |
| N | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| 7.6.1 | 50 | 75 | 4.0.0 | 405 | 450 | 475 | 200 | 250 | 200 | 1 | | | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | | | | | | | | | | | | | |
| R | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 6 | | | | | | | | | | | | | |
| Т | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 14 | | | | | | | | | | | | | |
| V | 164 | 189 | 214 | 239 | 264 | 289 | 314 | 364 | 414 | | | | | | | | | | | | | |
| Х | | 188 | | | | 23 | 32 | | | | | | | | | | | | | | | |

| Cable track size | СТ | СТМ | CTL | CTXL |
|----------------------------------|----|------|-----|------|
| Q | 18 | 30 | 45 | 63 |
| S1 | 82 | 94 | 107 | - |
| S2 | 46 | 52.5 | 59 | - |
| * Dimensions Q, S1 and S2 change | | | | |

29

67.5

171.5

194

217 (*1)

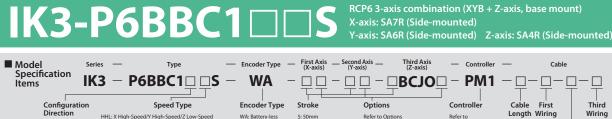
75

175)

ŝ

20 25.5

depending on the size of the cable track.



HHL: X High-Speed/Y High-Speed/Z Low-Speed HHM: X High-Speed/Y High-Speed/Z Medium-Speed HHH: X High-Speed/Y High-Speed/Z High-Speed HHS: X High-Speed/Y High-Speed/Z Ultra High-Speed 1 to 4 Refer to Configuration Type Descriptions on page 3

Encoder Type Stroke Options WA: Battery-less Absolute 5: 50mm Refer to Options (Every 50mm)

Controlle Length Wiring efer to 1L : 1m 3L : 3m 5L : 5m □L: □m Applicable table belov



Payload by Acceleration

■ HHL type: X high-speed/Y high-speed/Z low-speed

- HHM type: X high-speed/Y high-speed/Z medium-speed
- HHH type: X high-speed/Y high-speed/Z high-speed

HHS type: X high-speed/Y high-speed/Z ultra high-speed

| Speed Type Acceleration/ deceleration (G) | HHL | ННМ | ННН | HHS |
|---|-----|-----|-----|-----|
| 0.1 | 3 | 2 | 1 | 0.5 |
| 0.3 | 3 | 2 | 1 | 0.5 |
| 0.5 | - | - | 1 | 0.5 |

Third

Wiring

(Unit: ka)

Second Wiring

Refer to Cable Track table below

* When X, Y and Z axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

Specifications

| | - | | |
|----------|------------|-----------------------------|--|
| Туре | Cable code | Length | |
| Standard | 1L | 1m | |
| | 3L | 3m | |
| type | 5L | 5m | |
| | ٦L | Specified length (15m max.) | |

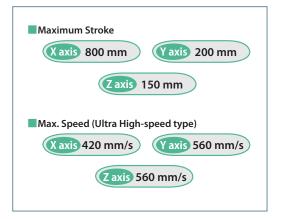
Note 1. All-axis standard cable is used. Note 1. All-axis standard cable is used.
 Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.
 Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Cable Track

| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) | Third wiring (Z-axis lateral) |
|---|-------|-------------------|----------------------------------|-----------------------------------|----------------------------------|
| Without cable track (cable only) | N | | 0 | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ |] | 0 | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | | 0 | 0 | Cannot be selected *1 |
| Cable track XL size (inner width: 80mm) | CTXL |] | 0 | Cannot be | selected *2 |

*1 Only the first and second wiring can be selected *2 Only the first wiring can be selected

| ltem | | X-axis | Y-axis | Z-axis | |
|--|-----|---|--------------------------------|-------------------------------|--|
| Axis model | | RCP6-SA7R | RCP6-SA6R | RCP6-SA4R | |
| Stroke (Every 50mm) | | 50~800mm | 50~200mm | 50~150mm | |
| | HHL | | 560mm/s | 150mm/s | |
| | HHM | 420mm/s | | 305mm/s | |
| Max. speed * | HHH | 420mm/s | | 525mm/s | |
| | HHS | | | 560mm/s | |
| Motor size | | 56 Pulse motor | 42 Pulse motor | 35 Pulse motor | |
| | HHL | | 12mm | 2.5mm | |
| Ball screw | HHM | 16mm | | 5mm | |
| lead | HHH | | | 10mm | |
| | HHS | | | 16mm | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | Ball screw ø8mm rolled C10 | |
| Positioning repeatability : | | ±0.01mm | | | |
| Base material A | | Aluminum | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | |



* The maximum speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

X-axis: SA7R, Y-axis: SA6R, Z-axis: SA4R

| Туре | Reference page | | | |
|--------------------------------|---|--|--|--|
| PCON-CB/CGB | See P.133 | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | |
| MCON-C/CG | | | | |
| MCON-LC/LCG | | | | |
| MSEL | See P.123 | | | |

Options Option Reference Туре X-axis Y-axis Z-axis code page Standard quipmen 0 0 Brake в See P.119 Cannot be Standard quipmen Cable exit direction (Outside) CJO See P.119 selected Non-motor end specification NM See P.120 Slider roller specification SR See P.120

* Be sure to specify.

* Operation is possible with the high-output setting specification.

When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

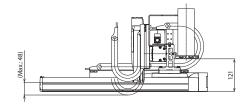




Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.

(Z:STROKE+171) Z:STROKE+139 32(*1) X:STROKE+217.5 63. Z:STROKE 89 50 70.5 Н 253(*1) $K \times M$ pitch X-axis base surface 184.5 52.5 X-axis Motor cover side N-X guide rail mounting sec (3) X guide rail mounting section detailed view 3 0 L Must be 100 or more 2 012 Y:STROKE+Q1 60.5 95.5 8 8 186.1 Y:STROKE+198.5 S2 1 5 Y:STROKE Y:STROKE X-axis base oblong hole detailed view 'n tod Y-axis base surface Operation range 3 The outside frame indicates the mechanical end position 3 3 The outside frame indicates 91 (Y-axis 50st: 71) the mechanical end position 139.5 49.5 129.5 28.5 110.5 _58 72.5(*1) 249 168.5 X:STROKE 281 X:STROKE+281

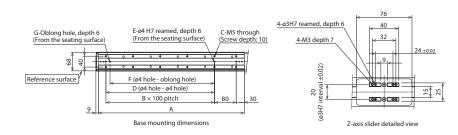
*1: The cable track may swell. becoming slightly larger than the indicated dimensions.



(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.



Dimensions by Stroke

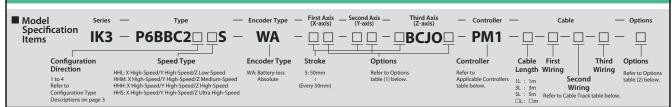
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|------|------|-----|------|-------|------|-----|------|-----|-----|-----|------|-----|------|-----|-----|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 188 | 213 | 238 | 263 | 288 | 313 | 338 | 363 | 388 | 413 | 438 | 463 | 488 | 513 | 538 | 563 |
| J | 16.5 | 16.5 | 14 | 16.5 | 16.5 | 16.5 | 14 | 16.5 | 14 | 16 | 15 | 66.5 | 44 | 56.5 | 69 | 16 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 |
| Μ | 155 | 180 | 210 | 115 | 127.5 | 140 | 155 | 165 | 180 | 127 | 136 | 110 | 200 | 200 | 200 | 177 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 |

| Cable track size | CT | CTM | CTL | CTXL | | | | | | |
|---------------------------------------|-------|-------|-------|-------|--|--|--|--|--|--|
| Q1 | 306 | 319 | 332 | 349 | | | | | | |
| Q2 | 107.5 | 120.5 | 133.5 | 150.5 | | | | | | |
| S1 | 82 | 94 | - | - | | | | | | |
| S2 46 52.5 | | | | | | | | | | |
| * Dimensions O1, O2, S1 and S2 change | | | | | | | | | | |

depending on the size of the cable track.

6BBC2 Ρ

RCP6 3-axis combination (XYB + Z-axis, base mount) X-axis: SA7C (Straight)



Cable Track



| Payload by Acceleration |
|-------------------------|
|-------------------------|

- HHL type: X high-speed/Y high-speed/Z low-speed
- HHM type: X high-speed/Y high-speed/Z medium-speed
- HHH type: X high-speed/Y high-speed/Z high-speed

HHS type: X high-speed/Y high-speed/Z ultra high-speed

| HHS type: X high-speed/Y high-speed/Z ultra high-speed (Unit: kg) | | | | | | | | | | | | |
|---|-----|-----|-----|-----|--|--|--|--|--|--|--|--|
| Speed Type Acceleration/ deceleration (G) | HHL | ННМ | ННН | HHS | | | | | | | | |
| 0.1 | 3 | 2 | 1 | 0.5 | | | | | | | | |
| 0.3 | 3 | 2 | 1 | 0.5 | | | | | | | | |
| 0.5 | - | - | 1 | 0.5 | | | | | | | | |

* When X, Y and Z axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

| Туре | Cable code | Length |
|----------|------------|-----------------------------|
| | 1L | 1m |
| Standard | 3L | 3m |
| type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) | Third wiring (Z-axis lateral) |
|---|-------|-------------------|----------------------------------|-----------------------------------|----------------------------------|
| Without cable track (cable only) | N | | 0 | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | 1 | 0 | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | See P.121 | 0 | 0 | Cannot be selected *1 |
| Cable track XL size (inner width: 80mm) | CTXL | 1 | 0 | Cannot be | selected *2 |

*1 Only the first and second wiring can be selected *2 Only the first wiring can be selected

| Specificati | ons | | | | | | | |
|-----------------------------------|------|---|--------------------------------|-------------------------------|--|--|--|--|
| opeemean | 0115 | | | | | | | |
| ltem | | X-axis | Y-axis | Z-axis | | | | |
| Axis model | | RCP6-SA7C | RCP6-SA6R | RCP6-SA4R | | | | |
| Stroke (Every 50 | mm) | 50~800mm | 50~200mm | 50~150mm | | | | |
| | HHL | | | 150mm/s | | | | |
| May an and * | HHM | 420mm/s | 560mm/s | 305mm/s | | | | |
| Max. speed * | HHH | 420mm/s | Soumm/s | 525mm/s | | | | |
| HHS | | | | 560mm/s | | | | |
| Motor size | | 56 Pulse motor | 42 Pulse motor | 35 Pulse motor | | | | |
| | HHL | | | 2.5mm | | | | |
| Ball screw | HHM | 16mm | 12mm | 5mm | | | | |
| lead | HHH | TOITIIT | 1211111 | 10mm | | | | |
| | HHS | | | 16mm | | | | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | Ball screw ø8mm rolled C10 | | | | |
| Positioning repeatability | | ±0.01mm | ±0.01mm | | | | | |
| Base material | | Aluminum | | | | | | |
| Ambient operat temperature, hu | | 0~40°C, 85% RH or less (non-condensing) | | | | | | |

Maximum Stroke (Xaxis) 800 mm Yaxis 200 mm Z axis 150 mm Max. Speed (Ultra High-speed type) Yaxis 560 mm/s (X axis 420 mm/s) Z axis 560 mm/s

* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

🗆 X-axis: SA7C, Y-axis: SA6R, Z-axis: SA4R

| Туре | Reference page | | | | | | |
|--------------------------------|---|--|--|--|--|--|--|
| PCON-CB/CGB | See P.133 | | | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | | | | |
| MCON-C/CG | See P.137 | | | | | | |
| MCON-LC/LCG | See P.137 | | | | | | |
| MSEL | See P.123 | | | | | | |

* Operation is possible with the high-output setting specification.

When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
|--------------------------------|----------------|-------------------|-----------|-----------------------|-----------------------|
| Brake | В | See P.119 | 0 | 0 | Standard equipment |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cann | ot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | sele | cted |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | |
| Cable exit direction (Outside) | CIO | See P.119 | Cannot be | Standard equipment | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 | 0 |

* Be sure to specify. Options (2)

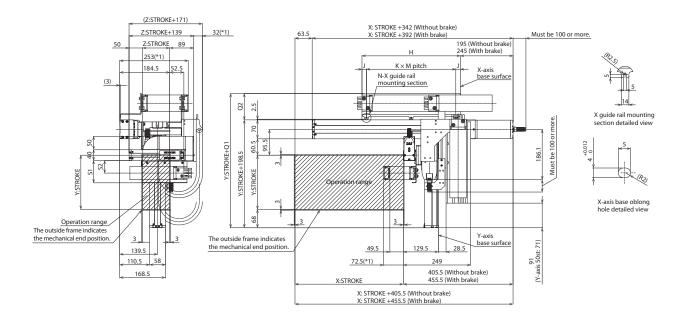
Options (1)

| Туре | Option code | Reference page |
|------------|-------------|----------------|
| Foot plate | FTP | See P.119 |

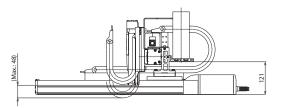


Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



*1: The cable track may swell, becoming slightly larger than the indicated dimensions.

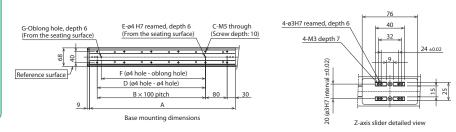


(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.



Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|------|------|-----|------|-------|------|-----|------|-----|-----|-----|------|-----|------|-----|-----|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 188 | 213 | 238 | 263 | 288 | 313 | 338 | 363 | 388 | 413 | 438 | 463 | 488 | 513 | 538 | 563 |
| J | 16.5 | 16.5 | 14 | 16.5 | 16.5 | 16.5 | 14 | 16.5 | 14 | 16 | 15 | 66.5 | 44 | 56.5 | 69 | 16 |
| К | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 |
| М | 155 | 180 | 210 | 115 | 127.5 | 140 | 155 | 165 | 180 | 127 | 136 | 110 | 200 | 200 | 200 | 177 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 |

| Cable track size | CT | CTM | CTL | CTXL | | | | | |
|---------------------------------------|-----|-----|-----|------|--|--|--|--|--|
| Q1 | 283 | 296 | 309 | 326 | | | | | |
| Q2 84.5 97.5 110.5 127. | | | | | | | | | |
| S1 | 82 | 94 | - | - | | | | | |
| S2 46 52.5 | | | | | | | | | |
| * Dimensions Q1, Q2, S1 and S2 change | | | | | | | | | |

depending on the size of the cable track.

IK3-P6BBC3

RCP6 3-axis combination (XYB + Z-axis, base mount) X-axis: SA7C (Straight) Y-axis: SA6C (Straight) Z-axis: SA4C (Straight)

| Specification | eries — Type – K3 — P6BBC3 — — S – | — Encoder Type — WA | First Axis (X-axis) Image: Image of the main sector of the main sector | $- \stackrel{\text{Second Axis}}{(Y-axis)} - \stackrel{\text{Third Axis}}{\Box} - \stackrel{\text{Third Axis}}{\Box} - \stackrel{\text{Third Axis}}{\Box} = \stackrel{\text{Third Axis}}{\Box} - \stackrel{\text{Third Axis}}{\Box} = \text{Third $ | - Controller | Cable | - - 中-두 | - Options - 🔲 |
|---|---------------------------------------|------------------------|---|---|--|-------------|---|--------------------------------------|
| Configuration | Speed Type | Encoder Type | Stroke | Options | Controller | Cable First | Third | Options |
| Direction 1 to 4 Refer to Configuration Type Descriptions on pa | | | 5: 50mm ¿ (Every 50mm) | Refer to Options table (1) below. | Refer to Applicable Controllers table below. | | Wiring cond iring Track table below. | Refer to Options table (2) below. |



Payload by Acceleration

Cable Track Price List (Standard price)

Туре

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Without cable track (cable only)

- HHL type: X high-speed/Y high-speed/Z low-speed
- HHM type: X high-speed/Y high-speed/Z medium-speed
- HHH type: X high-speed/Y high-speed/Z high-speed

HHS type: X high-speed/Y high-speed/Z ultra high-speed

| Speed Type Acceleration/ deceleration (G) | HHL | ННМ | ННН | HHS |
|---|-----|-----|-----|-----|
| 0.1 | 3 | 2 | 1 | 0.5 |
| 0.3 | 3 | 2 | 1 | 0.5 |
| 0.5 | - | - | 1 | 0.5 |

(Unit: kg)

Third wiring (Z-axis lateral)

0

Cannot be

selected *1

Cannot be selected *2

* When X, Y and Z axes all have the same acceleration/deceleration.

Model

Ν

СТ

стм

CTL

CTXL

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

First wiring

(X-axis lateral)

0

0

*2 Only the first wiring can be selected

Reference

page

See P.121

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

| Туре | Cable code | Length | | | |
|--|------------|-----------------------------|--|--|--|
| Standard type | 1L | 1m | | | |
| | 3L | 3m | | | |
| | 5L | 5m | | | |
| | | Specified length (15m max.) | | | |
| Note 1. All-axis standard cable is used. | | | | | |

Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Cable track XL size (inner width: 80mm) *1 Only the first and second wiring can be selected

Specifications

| ltem | | X-axis | X-axis Y-axis | | | |
|--|-----------|---|--------------------------------|-------------------------------|--|--|
| Axis model | | RCP6-SA7C RCP6-SA6C | | RCP6-SA4C | | |
| Stroke (Every 50 | mm) | 50~800mm | 50~200mm | 50~150mm | | |
| | HHL | | | 150mm/s | | |
| Max. speed * | HHM | 420mm/s | 560mm/s | 305mm/s | | |
| wax. speed | HHH | 4201111/5 | 5001111/5 | 525mm/s | | |
| | HHS | | | 560mm/s | | |
| Motor size | | 56□ Pulse motor | 42□ Pulse motor | 35 Pulse motor | | |
| | HHL | | | 2.5mm | | |
| Ball screw | HHM | 16mm | 12mm | 5mm | | |
| lead | HHH | Tomm | 12mm | 10mm | | |
| | HHS | | | 16mm | | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | Ball screw ø8mm rolled C10 | | |
| Positioning repea | atability | ±0.01mm | | | | |
| Base material | | Aluminum | | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | | |

Maximum Stroke X axis 800 mm Yaxis 200 mm Z axis 150 mm Max. Speed (Ultra High-speed type) X axis 420 mm/s Yaxis 560 mm/s Z axis 560 mm/s

Second wiring

(Y-axis lateral)

0

* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

🗆 X-axis: SA7C, Y-axis: SA6C, Z-axis: SA4C

| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | - See P.137 | | |
| MCON-LC/LCG | | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification.

When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis | |
|-------------------------------|----------------|-------------------|--------|-----------|-------------------------|--|
| Brake | В | See P.119 | 0 | 0 | Standard equipment * | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be | | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | - | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 | |
| Slider roller specification | SR | See P.120 | 0 | 0 | 0 | |

* Outside as standard. Be sure to specify.

Options (1)

| Options (2) | | |
|-------------|-------------|----------------|
| Туре | Option code | Reference page |
| Foot plate | FTP | See P.119 |

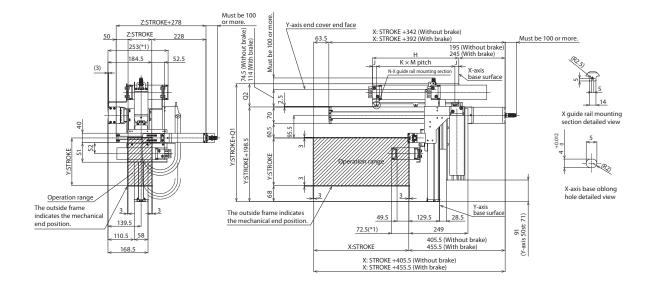




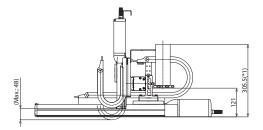
Note 1. The configuration position in the figure is home.

Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



*1: The cable track may swell, becoming slightly larger than the indicated dimensions.

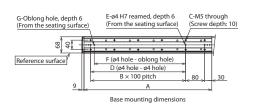


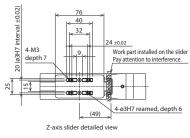
(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.





Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|------|------|-----|------|-------|------|-----|------|-----|-----|-----|------|-----|------|-----|-----|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 188 | 213 | 238 | 263 | 288 | 313 | 338 | 363 | 388 | 413 | 438 | 463 | 488 | 513 | 538 | 563 |
| J | 16.5 | 16.5 | 14 | 16.5 | 16.5 | 16.5 | 14 | 16.5 | 14 | 16 | 15 | 66.5 | 44 | 56.5 | 69 | 16 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 |
| М | 155 | 180 | 210 | 115 | 127.5 | 140 | 155 | 165 | 180 | 127 | 136 | 110 | 200 | 200 | 200 | 177 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 |

| 52 | 46 | 52.5 | _ | _ |
|------------------|------|------|-------|-------|
| S1 | 82 | 94 | - | - |
| Q2 | 84.5 | 97.5 | 110.5 | 127.5 |
| Q1 | 283 | 296 | 309 | 326 |
| Cable track size | CI | CIM | CIL | CIXL |

* Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track.



Ţ +Configuration Direction First Speed Type Encoder Type Stroke Options Controlle Cable HSL: X High-Speed/Y Ultra High-Speed/Z Low-Speed HSM: X High-Speed/Y Ultra High-Speed/Z Medium-Speed HSH: X High-Speed/Y Ultra High-Speed/Z High-Speed HSS: X High-Speed/Y Ultra High-Speed/Z Ultra High-Speed Length Wiring Wiring 5: 50mm Refer to Options efer to WA: Battery-less 1 to 4 Refer to Second Wiring 1L : 1m 3m 5m □rr Applicable able belo (Every 50mm) 3L 5L □L Configuration Type Descriptions on page Refer to Cable Track table below



| Payload by | Acceleration |
|------------|--------------|
|------------|--------------|

- HSL type: X high-speed/Y ultra high-speed/Z low-speed
- HSM type: X high-speed/Y ultra high-speed/Z medium-speed
- HSH type: X high-speed/Y ultra high-speed/Z high-speed

HSS type: X high-speed/Y ultra high-speed/Z ultra high-speed

| | • | 5 . | J . | (= |
|---|-----|-----|------------|-----|
| Speed Type Acceleration/ deceleration (G) | HSL | HSM | HSH | HSS |
| 0.1 | 4 | 2 | 1 | 0.5 |
| 0.3 | 4 | 2 | 1 | 0.5 |
| 0.5 | 4 | 2 | 1 | 0.5 |

(Unit·ka)

Third wiring

(Z-axis lateral)

Cannot be selected *1

Cannot be selected *2

* When X, Y and Z axes all have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required

Reference

page

See

P.121

Model

Ν

СТ

СТМ

CTL

First wiring

(X-axis lateral)

Second wiring

(Y-axis lateral)

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions

Cable Length Type Cable code _enath 11 1m Standard 3L 3m 5m type Specified length (15m max.)

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Cable track XL size (inner width: 80mm) CTXL *1 Only the first and second wiring can be selected *2 Only the first wiring can be selected

Туре

Cable track S size (inner width: 38mm)

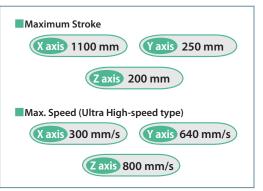
Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Without cable track (cable only)

Cable Track

ltem X-axis Y-axis Z-axis Axis model RCP6-SA8R RCP6-SA7R RCP6-SA6R Stroke (Every 50mm) 50~1100mm 50~250mm 50~200mm HSL 170mm/s HSM 340mm/s 640mm/s Max. speed 300mm/s HSH 680mm/s HSS 800mm/s 56 High-thrust 56 Pulse motor 42 Pulse motor Motor size pulse motor HSL 3mm Ball screw HSM 6mm 20mm 24mm lead HSH 12mm HSS 20mm Ball screw ø16mm Ball screw ø12mm Ball screw ø10mm Drive system rolled C10 rolled C10 rolled C10 Positioning repeatability ±0.01mm Base material Aluminum Ambient operating 0~40°C, 85% RH or less (non-condensing) temperature, humidity



* The max, speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Options Option Reference Туре X-axis Y-axis Z-axis code page Standard Brake в See P.119 uipmei Cable exit direction (Outside) сJО See P.119 Standard Cannot be selected Non-motor end specification NM See P.120 Slider roller specification SR See P.120

Be sure to specify.

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

MCON-LC/LCG MSEL

Specifications

| 🗆 X-axis: SA8R | |
|--------------------------------|---|
| Туре | Reference page |
| PCON-CFB/CGFB | See P.133 |
| MSEL-PCF/PGF | See P.123 |
| 🗆 Y-axis: SA7R, Z-axis: SA6R | |
| Туре | Reference page |
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | |

See P.137

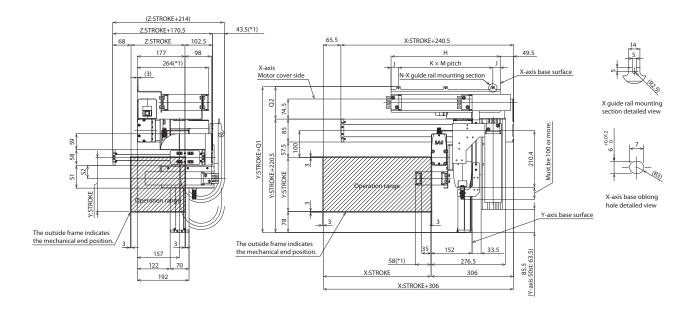
See P.123

* Operation is possible with the high-output setting specification.

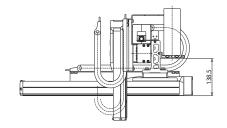
When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



*1: The cable track may swell, becoming slightly larger than the indicated dimensions.



E-ø6 H7 reamed, depth 6.5 (From the seating surface)

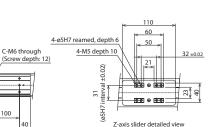
F (ø6 hole - oblong hole)

 $B \times 100$ pitch

А Base mounting dimensions

100

D (ø6 hole - ø6 hole)



(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

| Dime | nsion | s by | Strok | e | | | | | | | | | | | | | | | | | | |
|-----------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| М | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |

G-Oblong hole, depth 6.5 (From the seating surface

20 83

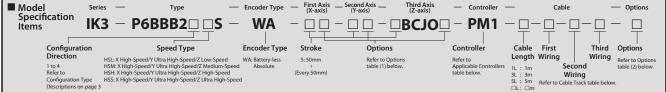
11

Reference surface

| Cable track size | СТ | CTM | CTL | CTXL | | | | | | | |
|--------------------------------|--------|-------|--------|------|--|--|--|--|--|--|--|
| Q1 328 341 354 371 | | | | | | | | | | | |
| Q2 107.5 120.5 133.5 150.5 | | | | | | | | | | | |
| S1 84.5 96.5 | | | | | | | | | | | |
| S2 48.5 55 | | | | | | | | | | | |
| * Dimensions Q1, Q2, S1 and S2 | | | | | | | | | | | |
| change | e depe | nding | on the | size | | | | | | | |

of the cable track.







|--|

- HSL type: X high-speed/Y ultra high-speed/Z low-speed
- HSM type: X high-speed/Y ultra high-speed/Z medium-speed
- HSH type: X high-speed/Y ultra high-speed/Z high-speed

HSS type: X high-speed/Y ultra high-speed/Z ultra high-speed

| Speed Type Acceleration/ deceleration (G) | HSL | HSM | HSH | HSS |
|---|-----|-----|-----|-----|
| 0.1 | 4 | 2 | 1 | 0.5 |
| 0.3 | 4 | 2 | 1 | 0.5 |
| 0.5 | 4 | 2 | 1 | 0.5 |

Cable

Options

(Unit: kg)

* When X, Y and Z axes all have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions

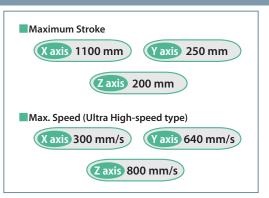
| Cable Length | | | | | | | | | | |
|--------------|------------|-----------------------------|--|--|--|--|--|--|--|--|
| Туре | Cable code | Length | | | | | | | | |
| | 1L | 1m | | | | | | | | |
| Standard | 3L | 3m | | | | | | | | |
| type | 5L | 5m | | | | | | | | |
| | | Specified length (15m max.) | | | | | | | | |
| | | | | | | | | | | |

Cable Track Reference First wiring Second wiring Third wiring Туре Model (X-axis lateral) (Y-axis lateral) (Z-axis lateral) page Without cable track (cable only) Ν Cable track S size (inner width: 38mm) СТ Cable track M size (inner width: 50mm) стм See P.121 Cable track L size (inner width: 63mm) CTL Cannot be selected *1 Cable track XL size (inner width: 80mm) CTXL Cannot be selected *2 *1 Only the first and second wiring can be selected *2 Only the first wiring can be selected

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications Item X-axis Y-axis Z-axis Axis model RCP6-SA8C RCP6-SA7R RCP6-SA6R Stroke (Every 50mm) 50~1100mm 50~250mm 50~200mm HSI 170mm/s HSM 340mm/s Max. speed 300mm/s 640mm/s HSH 680mm/s HSS 800mm/s 56 High-thrust 56 Pulse motor 42 Pulse motor Motor size pulse motor HSL 3mm HSM 6mm Ball screw 20mm 24mm lead HSH 12mm HSS 20mm Ball screw ø10mm Ball screw ø12mm Ball screw ø16mm Drive system rolled C10 rolled C10 rolled C10 Positioning repeatability ±0.01mm Base material Aluminum less (non-condensing)



The max, speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke For details, refer to the Maximum Speed by Stroke table on P.122.

| Options (1) | | | | | | | |
|--------------------------------|----------------|--------------------|----------|------------|-------------------------|--|--|
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis | | |
| Brake | В | See P.119 | - | - | Standard equipment * | | |
| Cable exit direction (Top) | CJT | See P.119 | - | | | | |
| Cable exit direction (Right) | CJR | See P.119 | - | Cann | ot be | | |
| Cable exit direction (Left) | CJL | CJL See P.119 – se | | | ected | | |
| Cable exit direction (Bottom) | CJB | See P.119 | - | | | | |
| Cable exit direction (Outside) | CIO | See P.119 | Cannot b | e selected | Standard equipment * | | |
| Non-motor end specification | NM | See P.120 | - | - | - | | |
| Slider roller specification | SR | See P.120 | - | - | - | | |
| * Be sure to specify. | | | | | | | |

| Option code | Reference page |
|-------------|--------------------|
| FTP | See P.119 |
| | Option code FTP |

| Ambient operating temperature, humidity | 0~40°C, 85% RH or l |
|--|---------------------|
| | |

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

🗆 X-axis: SA8C

| Туре | Reference page |
|---------------|----------------|
| PCON-CFB/CGFB | See P.133 |
| MSEL-PCF/PGF | See P.123 |
| | |

Y-axis: SA7R, Z-axis: SA6R

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

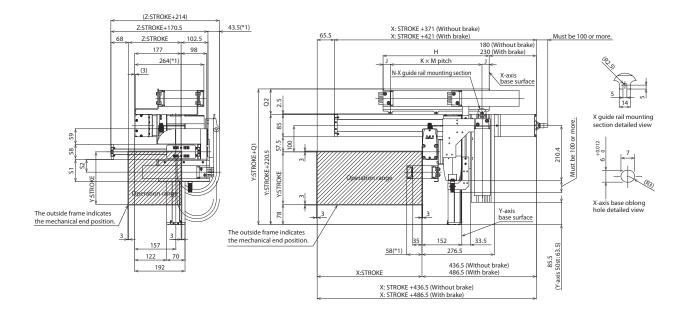
* Operation is possible with the high-output setting specification.

When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

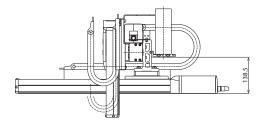


Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



*1: The cable track may swell, becoming slightly larger than the indicated dimensions.

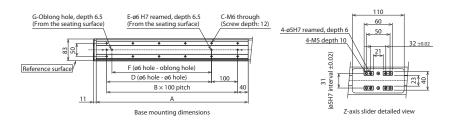


(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

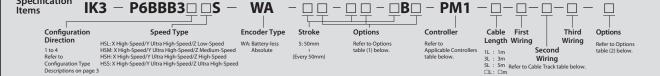


Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|-----------|-----|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| | | | | | | | | | | | | | | | | | | | | | | |
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| М | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |

| Cable track size CT CTM CTL CTXL | | | | | | | | | | |
|---|------|----|---|---|--|--|--|--|--|--|
| Q1 305 318 331 348 | | | | | | | | | | |
| Q2 84.5 97.5 110.5 127 | | | | | | | | | | |
| S1 84.5 96.5 | | | | | | | | | | |
| S2 | 48.5 | 55 | - | - | | | | | | |
| * Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track. | | | | | | | | | | |







Payload by Acceleration

- HSL type: X high-speed/Y ultra high-speed/Z low-speed
- HSM type: X high-speed/Y ultra high-speed/Z medium-speed
- HSH type: X high-speed/Y ultra high-speed/Z high-speed

HSS type: X high-speed/Y ultra high-speed/Z ultra high-speed

| Speed Type Acceleration/ deceleration (G) | HSL | HSM | HSH | HSS |
|---|-----|-----|-----|-----|
| 0.1 | 4 | 2 | 1 | 0.5 |
| 0.3 | 4 | 2 | 1 | 0.5 |
| 0.5 | 4 | 2 | 1 | 0.5 |

Options

(Unit: kg)

Third wiring (Z-axis lateral)

Cannot be selected *1

Reference page

See P.119

Cannot be selected *2

Second wiring

(Y-axis lateral)

* When X, Y and Z axes all have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required

Reference

page

Model

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions

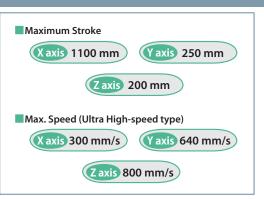
Cable Length Cable code Type .enath 1m Standard 3L 3m 51 5m type Specified length (15m max.)

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is for of the cable track. A separate cable is included for incide the actual to the track.

inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but ot can be specified in 1m increments up to 15m.

| Sh | eci | Πr | ati | n | ns. |
|----|-----|----|-----|----|-----|
| ЪP | GGI | | | 91 | |

| specification | | | | | |
|-----------------------------------|-----|--------------------------------|--------------------------------|--------------------------------|--|
| ltem | | X-axis | Y-axis | Z-axis | |
| Axis model | | RCP6-SA8C RCP6-SA7C | | RCP6-SA6C | |
| Stroke (Every 50 | mm) | 50~1100mm 50~250mm | | 50~200mm | |
| | HSL | | | 170mm/s | |
| NA | HSM | 300mm/s | 640mm/s | 340mm/s | |
| Max. speed * | HSH | 5001111/5 | 0401111/5 | 680mm/s | |
| | HSS | | | 800mm/s | |
| Motor size | | 56□ High-thrust pulse motor | 56 Pulse motor | 42□ Pulse motor | |
| | HSL | | | 3mm | |
| Ball screw | HSM | 20mm | 24mm | 6mm | |
| lead | HSH | 2011111 | 24000 | 12mm | |
| | HSS | | | 20mm | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | |
| Positioning repeatability | | ±0.01mm | | | |
| Base material | | Aluminum | | | |
| Ambient operat temperature, hu | | 0~40°C, 85% RH or less | (non-condensing) | | |



First wiring (X-axis lateral)

* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

| Options (1) | | | | | |
|-------------------------------|----------------|-------------------|--------|--------|-------------------------|
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
| Brake | В | See P.119 | 0 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cann | ot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | sele | cted |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 | 0 |

FTP

* Outside as standard. Be sure to specify.

Intions (2)

Foot plate

| 000003 (2) | |
|------------|-------------|
| | |
| Type | Option code |

| n max.) | Without cable track (cable only) | N | | 0 | 0 |
|--------------|--|----------|-------------|----------------------|-------------|
| , | Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| from the exi | it Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 |
| for wiring | Cable track L size (inner width: 63mm) | CTL | | 0 | 0 |
| ther lengths | Cable track XL size (inner width: 80mm) | CTXL | | 0 | Canno |
| and rengens | *1 Only the first and second wiring can be | selected | *2 Only the | e first wiring can k | oe selected |
| | | | | | |
| | | | | | |

Туре

Cable Track

Applicable Controllers

Controllers are sold separately. Please contact IAI for more information.

□ X-avis: SA8C

MSEL

| Туре | Reference page | | | | |
|---|--|--|--|--|--|
| PCON-CFB/CGFB | See P.133 | | | | |
| MSEL-PCF/PGF | See P.123 | | | | |
| 🗆 Y-axis: SA7C, Z-axis: SA6C | | | | | |
| Туре | Reference page | | | | |
| | See P.133 | | | | |
| PCON-CB/CGB | See P.133 | | | | |
| PCON-CB/CGB PCON-CYB/PLB/POB (coming soon) | See P.133 Please see the dedicated catalog or manual. | | | | |
| | | | | | |

Operation is possible with the high-output setting specification.

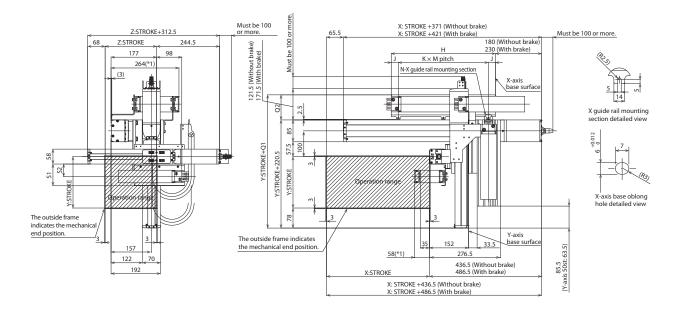
When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

See P.123

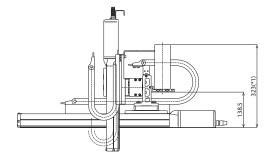


Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



*1: The cable track may swell, becoming slightly larger than the indicated dimensions.

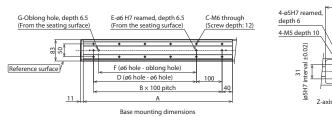


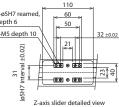
(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.





Dimensions by Stroke

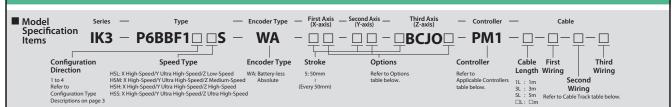
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|-----------|-----|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| M | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |

| Cable track size | СТ | CTM | CTL | CTXL |
|---------------------|------|------|-------|-------|
| Q1 | 305 | 318 | 331 | 348 |
| Q2 | 84.5 | 97.5 | 110.5 | 127.5 |
| S1 | 84.5 | 96.5 | - | - |
| S2 | 48.5 | 55 | - | - |
| | | | | |

* Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track.

3-P6BBF 1

RCP6 3-axis combination (XYB + Z-axis, base mount) X-axis: WSA14R (Side-mounted) Y-axis: SA7R (Side-mounted) Z-axis: SA6R (Side-mounted)





Payload by Acceleration

- HSL type: X high-speed/Y ultra high-speed/Z low-speed
- HSM type: X high-speed/Y ultra high-speed/Z medium-speed
- HSH type: X high-speed/Y ultra high-speed/Z high-speed

HSS type: X high-speed/Y ultra high-speed/Z ultra high-speed

| Speed Type Acceleration/ deceleration (G) | HSL | HSM | HSH | HSS |
|---|-----|-----|-----|-----|
| 0.1 | 4 | 2 | 1 | 0.5 |
| 0.3 | - | 2 | 1 | 0.5 |
| 0.5 | - | 2 | 1 | 0.5 |

(Unit: kg)

When X, Y and Z axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

| Туре | Cable code | Length |
|----------|------------|-----------------------------|
| | 1L | 1m |
| Standard | 3L | 3m |
| type | 5L | 5m |
| | | Specified length (15m max.) |

Cable Track

Reference page

See P.133

Please see the dedicated catalog or manual.

See P.137

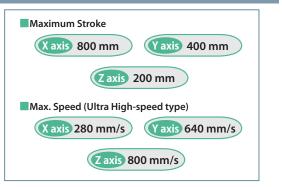
See P.123

| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) | Third wiring (Z-axis lateral) |
|--|----------|-------------------|----------------------------------|-----------------------------------|----------------------------------|
| Without cable track (cable only) | N | | 0 | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | | 0 | 0 | Cannot be selected *1 |
| Cable track XL size (inner width: 80mm) | CTXL | | 0 | Cannot be | selected *2 |
| *1 Only the first and second wiring can be | selected | *2 Only the | e first wiring can b | be selected | |

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. inside the cable track. A separate cable is included for wining inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications

| ltem | | X-axis | Y-axis | Z-axis | | | |
|-----------------------------------|-----------|---|----------------|--------------------------------|--|--|--|
| Axis model | | RCP6-WSA14R | RCP6-SA7R | RCP6-SA6R | | | |
| Stroke (Every 50 | mm) | 50~800mm | 50~400mm | 50~200mm | | | |
| | HSL | | | 170mm/s | | | |
| Max an and * | HSM | 280mm/s | 640mm/s | 340mm/s | | | |
| Max. speed * | HSH | 280mm/s | 040mm/s | 680mm/s | | | |
| | HSS | | | 800mm/s | | | |
| Motor size | | 56 Pulse motor | 56 Pulse motor | 42□ Pulse motor | | | |
| | HSL | | | 3mm | | | |
| Ball screw | HSM | 16mm | 24mm | 6mm | | | |
| lead | HSH | Iomm | 24mm | 12mm | | | |
| | HSS | | | 20mm | | | |
| Drive system | | Ball screw ø12mm rolled C10 Ball screw ø12mm | | Ball screw ø10mm rolled C10 | | | |
| Positioning repea | atability | ±0.01mm | | | | | |
| Base material | | Aluminum | | | | | |
| Ambient operat temperature, hu | | 0~40°C, 85% RH or less (non-condensing) | | | | | |



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Options Option Reference Туре X-axis Y-axis Z-axis code page Standard quipment Brake В See P.119 Ο Cannot be Standard equipment Cable exit direction (Outside) CJO See P.119 selected Non-motor end specification NM See P.120 Slider roller specification SR See P.120

* Be sure to specify.

| MSEL | |
|---|------------------|
| * Operation is possible with the high-output settin | a specification. |

When connecting to the MCON controller, "High-output setting specification" must be selected.

Please contact IAI regarding use with the high-output setting disabled.

Applicable Controllers

Controllers are sold separately.

PCON-CYB/PLB/POB (coming soon)

PCON-CB/CGB

MCON-C/CG

MCON-LC/LCG

Please contact IAI for more information.

□ X-axis: WSA14R, Y-axis: SA7R, Z-axis: SA6R

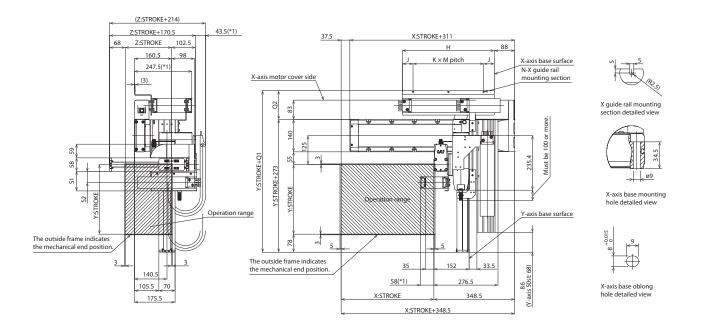
Type

Dimensions

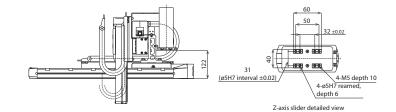


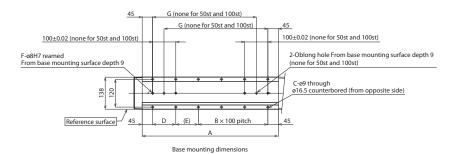
Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



*1: The cable track may swell, becoming slightly larger than the indicated dimensions.





(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

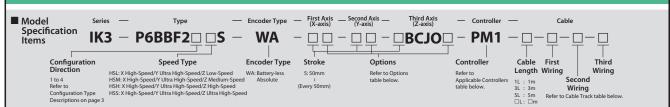
Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|-------|-------|-------|-------|------|-------|------|-------|------|-----|-----|------|-----|-----|------|-------|
| A | 237 | 287 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 937 | 987 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| C | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 147 | 197 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 |
| Н | 221 | 246 | 271 | 296 | 321 | 346 | 371 | 396 | 421 | 446 | 471 | 496 | 521 | 546 | 571 | 596 |
| J | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 43 | 48 | 45.5 | 43 | 43 | 45.5 | 43 |
| К | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| M | 130 | 155 | 90 | 102.5 | 115 | 127.5 | 140 | 152.5 | 110 | 120 | 125 | 135 | 145 | 115 | 120 | 127.5 |
| N | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| Q1 | 383.5 | 396.5 | 409.5 | 426.5 | | | | | | | | | | | | |
| Q2 | 110.5 | 123.5 | 136.5 | 153.5 | | | | | | | | | | | | |
| S1 | 84.5 | 96.5 | - | - | | | | | | | | | | | | |
| S2 | 48.5 | 55 | - | - | | | | | | | | | | | | |

* Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track.

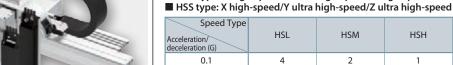
6BBF2 P

RCP6 3-axis combination (XYB + Z-axis, base mount) X-axis: WSA14C (Straight) Y-axis: SA7R (Side-mounted) Z-axis: SA6R (Side-mounted)





- HSL type: X high-speed/Y ultra high-speed/Z low-speed HSM type: X high-speed/Y ultra high-speed/Z medium-speed
- HSH type: X high-speed/Y ultra high-speed/Z high-speed



| Acceleration/ deceleration (G) | HSL | HSM | HSH | HSS |
|-----------------------------------|-----|-----|-----|-----|
| 0.1 | 4 | 2 | 1 | 0.5 |
| 0.3 | - | 2 | 1 | 0.5 |
| 0.5 | - | 2 | 1 | 0.5 |

(Unit: kg)

Third wiring

(Z-axis lateral)

When X. Y and Z axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

First wiring

(X-axis lateral)

Second wiring

(Y-axis lateral)

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

RoHS

| cable Length | | | | | | | |
|--------------|------------|-----------------------------|--|--|--|--|--|
| Туре | Cable code | Length | | | | | |
| | 1L | 1m | | | | | |
| Standard | 3L | 3m | | | | | |
| type | 5L | 5m | | | | | |
| | | Specified length (15m max.) | | | | | |

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Cable Track

Туре

Without cable track (cable only) Ν Cable track S size (inner width: 38mm) ст Cable track M size (inner width: 50mm) стм See P.121 Cable track L size (inner width: 63mm) CTL Cannot be selected * Cable track XL size (inner width: 80mm) CTXL Cannot be selected *2 *1 Only the first and second wiring can be selected *2 Only the first wiring can be selected

Model

Reference

page

Specifications

| ltem | | X-axis | Y-axis | Z-axis | | | |
|--|-----|---|--------------------------------|--------------------------------|--|--|--|
| Axis model | | RCP6-WSA14C | RCP6-SA7R | RCP6-SA6R | | | |
| Stroke (Every 50 | mm) | 50~800mm | 50~400mm | 50~200mm | | | |
| | HSL | | | 170mm/s | | | |
| May around * | HSM | 280mm/s | 640mm/s | 340mm/s | | | |
| Max. speed * | HSH | 280mm/s | 040mm/s | 680mm/s | | | |
| | HSS | | | 800mm/s | | | |
| Motor size | | 56 Pulse motor | 56 Pulse motor | 42□ Pulse motor | | | |
| | HSL | | | 3mm | | | |
| Ball screw | HSM | 16mm | 24mm | 6mm | | | |
| lead | HSH | Tomm | 24mm | 12mm | | | |
| | HSS | | | 20mm | | | |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | | | |
| Positioning repeatability | | ±0.01mm | | | | | |
| Base material | | Aluminum | | | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | | | |

Maximum Stroke X axis 800 mm Yaxis 400 mm Z axis 200 mm Max. Speed (Ultra High-speed type) X axis 280 mm/s Yaxis 640 mm/s Z axis 800 mm/s

Maximum speed may change depending on the stroke.

Applicable Controllers

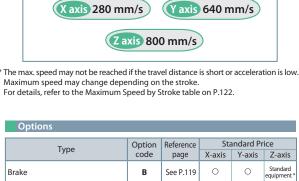
Controllers are sold separately. Please contact IAI for more information.

□ X-axis: WSA14C, Y-axis: SA7R, Z-axis: SA6R

| Туре | Reference page | | | | |
|--|---|--|--|--|--|
| PCON-CB/CGB | See P.133 | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | | |
| MCON-C/CG | C D 127 | | | | |
| MCON-LC/LCG | See P.137 | | | | |
| MSEL | See P.123 | | | | |
| * Operation is possible with the high output setting specification | | | | | |

Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected.

Please contact IAI regarding use with the high-output setting disabled.



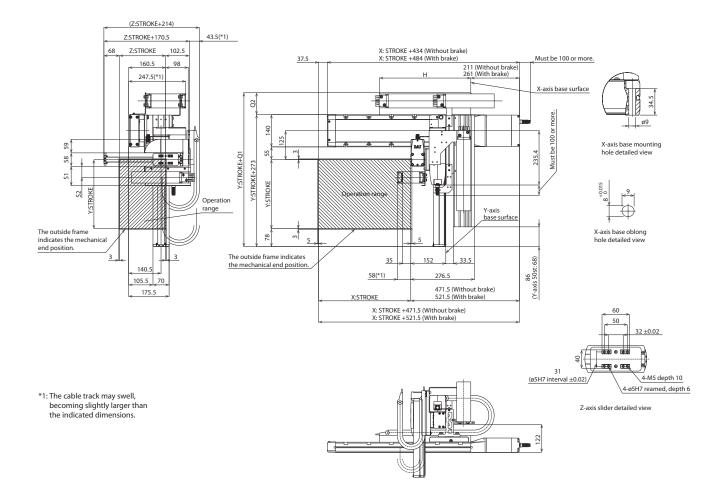
| blutte | 5 | 5001115 | | Ŭ | equipment * | |
|--------------------------------|-----|-----------|---|----------|-------------------------|--|
| Cable exit direction (Top) | CJT | See P.119 | 0 | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cann | ot be | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | 0 | | |
| Cable exit direction (Outside) | сло | See P.119 | | | Standard equipment * | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 | |
| Slider roller specification | SR | See P.120 | 0 | 0 | 0 | |

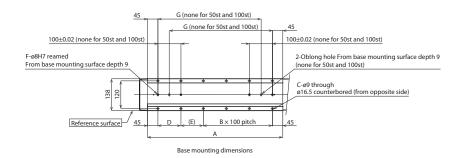
* Be sure to specify.



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.





(*) Notes

The moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

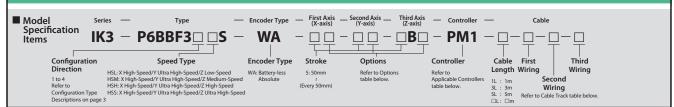
Dimensions by Stroke

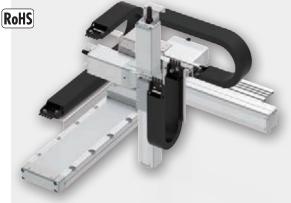
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A | 237 | 287 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 937 | 987 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| C | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 147 | 197 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 |
| н | 221 | 246 | 271 | 296 | 321 | 346 | 371 | 396 | 421 | 446 | 471 | 496 | 521 | 546 | 571 | 596 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| Q1 | 356 | 368 | 383 | 401 | | | | | | | | | | | | |
| Q2 | 83 | 95 | 110 | 128 | | | | | | | | | | | | |
| S1 | 84.5 | 96.5 | - | - | | | | | | | | | | | | |
| S2 | 48.5 | 55 | - | - | | | | | | | | | | | | |

* Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track.

3-P6BBF3

RCP6 3-axis combination (XYB + Z-axis, base mount) X-axis: WSA14C (Straight) Y-axis: SA7C (Straight) Z-axis: SA6C (Straight)





Payload by Acceleration

- HSL type: X high-speed/Y ultra high-speed/Z low-speed
- HSM type: X high-speed/Y ultra high-speed/Z medium-speed
- HSH type: X high-speed/Y ultra high-speed/Z high-speed

HSS type: X high-speed/Y ultra high-speed/Z ultra high-speed

| Speed Type Acceleration/ deceleration (G) | HSL | HSM | HSH | HSS |
|---|-----|-----|-----|-----|
| 0.1 | 4 | 2 | 1 | 0.5 |
| 0.3 | - | 2 | 1 | 0.5 |
| 0.5 | - | 2 | 1 | 0.5 |

(Unit: kg)

When X, Y and Z axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| The photograph above shows the configuration direction "1" where all axes have cable tracks. |
|--|
| Please refer to P.3 for other configuration directions. |

Cable Length

| Туре | Cable code | Length |
|----------|------------|-----------------------------|
| | 1L | 1m |
| Standard | 3L | 3m |
| type | 5L | 5m |
| | | Specified length (15m max.) |

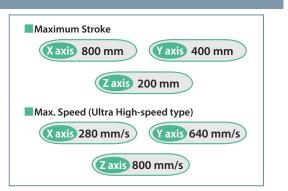
Cable Track

| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) | Third wiring (Z-axis lateral) |
|--|--|-------------------|----------------------------------|-----------------------------------|----------------------------------|
| Without cable track (cable only) | N | | 0 | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | | 0 | 0 | Cannot be selected *1 |
| Cable track XL size (inner width: 80mm) | CTXL | | 0 | Cannot be selected *2 | |
| *1 Only the first and second wiring can be | *2 Only the first wiring can be selected | | | | |

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m. Note 3.

Specifications Item X-axis Y-axis Z-axis RCP6-WSA14C RCP6-SA7C RCP6-SA6C Axis model Stroke (Every 50mm) 50~800mm 50~400mm 50~200mm HSL 170mm/s HSM 340mm/s Max. speed * 280mm/s 640mm/s HSH 680mm/s HSS 800mm/s 56 Pulse motor 56 Pulse motor Motor size 42 Pulse motor HSL 3mm Ball screw HSM 6mm 16mm 24mm HSH lead 12mm HSS 20mm Ball screw ø12mm Ball screw ø12mm Ball screw ø10mm Drive system rolled C10 rolled C10 rolled C10 Positioning repeatability +0.01mm Base material Aluminum Ambient operating

0~40°C, 85% RH or less (non-condensing)



* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

temperature, humidity

Controllers are sold separately. Please contact IAI for more information.

🗆 X-axis: WSA14C, Y-axis: SA7C, Z-axis: SA6C

| Туре | Reference page | | | |
|---|---|--|--|--|
| PCON-CB/CGB | See P.133 | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | |
| MCON-C/CG | See P.137 | | | |
| MCON-LC/LCG | See P.137 | | | |
| MSEL | See P.123 | | | |
| * On evention is a sectible with the bight sutmut estim | | | | |

Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Options | | | | | | |
|-------------------------------|----------------|-------------------|--------|-------------|-----------------------|--|
| Туре | Option code | Reference page | X-axis | Y-axis Z-ax | | |
| Brake | В | See P.119 | 0 | 0 | Standard equipment | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be | | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 | |
| Slider roller specification | SR | See P.120 | 0 | 0 | 0 | |
| | 1 | | | | 1 | |

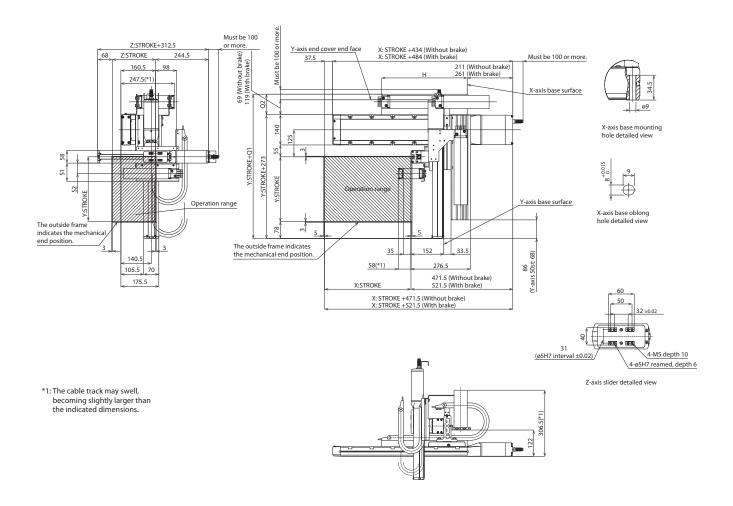
* Outside as standard. Be sure to specify.

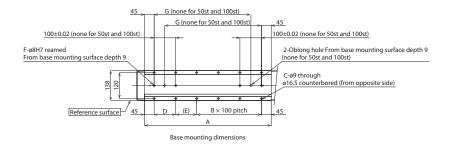
Dimensions



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.





(*) Notes

The moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

Dimensions by Stroke

S2

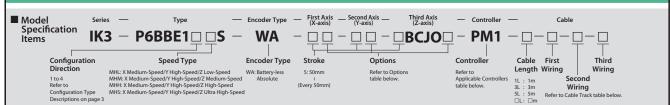
48.5 55 - -

* Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track.

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A | 237 | 287 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 937 | 987 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| C | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 147 | 197 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 |
| Н | 221 | 246 | 271 | 296 | 321 | 346 | 371 | 396 | 421 | 446 | 471 | 496 | 521 | 546 | 571 | 596 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| Q1 | 356 | 368 | 383 | 401 | | | | | | | | | | | | |
| Q2 | 83 | 95 | 110 | 128 | | | | | | | | | | | | |
| S1 | 84.5 | 96.5 | - | - | | | | | | | | | | | | |

6**B** B

X-axis: WSA16R (Side-mounted) Y-axis: SA8R (Side-mounted) Z-axis: SA7R (Side-mounted)





Payload by Acceleration

- MHL type: X medium-speed/Y high-speed/Z low-speed
- MHM type: X medium-speed/Y high-speed/Z medium-speed
- MHH type: X medium-speed/Y high-speed/Z high-speed
- MHS type: X medium-speed/Y high-speed/Z ultra high-speed

| Y-axis stroke (mm) | 50~400 (Every 50mm) | | | | 450~500 (Every 50mm) | | | |
|---|---------------------|-----|-----|-----|----------------------|-----|-----|-----|
| Speed Type Acceleration/ deceleration (G) | MHL | МНМ | MHH | MHS | MHL | MHM | MHH | MHS |
| 0.1 | 6 | 4 | 2 | 1 | 6 | 4 | 2 | 1 |
| 0.3 | - | 4 | 2 | 1 | - | - | 2 | 1 |

(Unit: kg)

* When X, Y and Z axes all have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

| Cable Length | | | | | | | |
|--------------|------------|-----------------------------|--|--|--|--|--|
| Туре | Cable code | Length | | | | | |
| | 1L | 1m | | | | | |
| Standard | 3L | 3m | | | | | |
| type | 5L | 5m | | | | | |
| | □L | Specified length (15m max.) | | | | | |

Cable Track

| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) | Third wiring (Z-axis lateral) | |
|---|-------|-------------------|----------------------------------|-----------------------------------|----------------------------------|--|
| Without cable track (cable only) | N | | 0 | 0 | 0 | |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | 0 | |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | 0 | |
| Cable track L size (inner width: 63mm) | CTL | | 0 | 0 | Cannot be selected *1 | |
| Cable track XL size (inner width: 80mm) | CTXL | 1 | 0 | Cannot be selected *2 | | |

*1 Only the first and second wiring can be selected *2 Only the first wiring can be selected

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications

| ltem | | X-axis | Y-axis | Z-axis | | | |
|--|-----------|--------------------------------|--------------------------------|--------------------------------|--|--|--|
| Axis model | | RCP6-WSA16R | RCP6-SA8R | RCP6-SA7R | | | |
| Stroke (Every 50 |)mm) | 50~1100mm | 50~500mm | 50~300mm | | | |
| | MHL | | | 105mm/s | | | |
| May around * | MHM | 210mm/s | 400mm/s | 210mm/s | | | |
| Max. speed * | MHH | 210mm/s | 400mm/s | 420mm/s | | | |
| | MHS | | | 640mm/s | | | |
| Motor size | | 56 High-thrust pulse motor | 56 High-thrust pulse motor | 56 Pulse motor | | | |
| | MHL | | | 4mm | | | |
| Ball screw MHM | | 10mm | 20mm | 8mm | | | |
| lead | MHH | TOTIIII | 2011111 | 16mm | | | |
| | MHS | | | 24mm | | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | | | |
| Positioning repe | atability | ±0.01mm | | | | | |
| Base material | | Aluminum | | | | | |
| Ambient operating temperature, humidity 0~40°C, 85% RH or less (non-condensing) | | | | | | | |

Z axis 300 mm Max. Speed (Ultra High-speed type) Y axis 400 mm/s (X axis 210 mm/s) Z axis 640 mm/s

* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

□ X-axis: WSA16R, Y-axis: SA8R

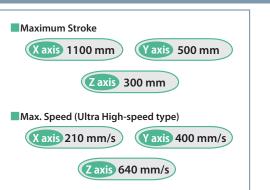
| PCON-CFB/CGFB See P.133 MSEL-PCF/PGF See P.123 | Туре | Reference page |
|--|---------------|----------------|
| MSEL-PCF/PGF See P.123 | PCON-CFB/CGFB | See P.133 |
| | MSEL-PCF/PGF | See P.123 |

Z-axis: SA7R

| Туре | Reference page | | |
|--------------------------------|---|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | |
| MCON-C/CG | See P.137 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification.

When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.



| Options | | | | | |
|--------------------------------|----------------|-------------------|--------------------|--------|-------------------------|
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
| Brake | В | See P.119 | 0 | 0 | Standard equipment * |
| Cable exit direction (Outside) | clo | See P.119 | Cannot be selected | | Standard equipment * |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 | 0 |

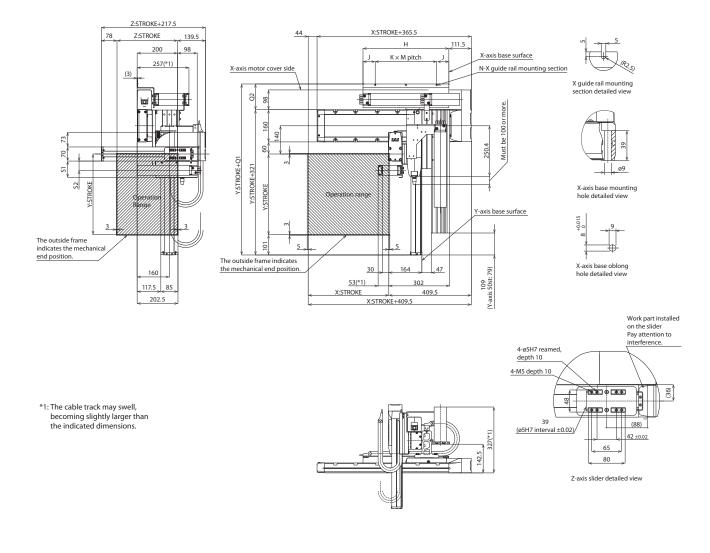
* Be sure to specify.

Ontions



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



| (*) | Ν | ot | es |
|-----|---|----|----|
|-----|---|----|----|

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

by the customer. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

| 55 | G (none for 50 and 100st) | |
|---|---|--|
| 100±0.02 (none for 50 and 100s | G (none for 50 and 100st) | |
| F-ø8H7 reamed From base mounting surface depth 9a | 2-Oblong hole From base mounting surface depth 9 (none for 50st and 100st) | |
| - 140 | | |
| Reference surface | 55 D (E) B × 100 pitch 55 A = 16.5 counterbored (from opposite side) | |
| | Base mounting dimensions | |

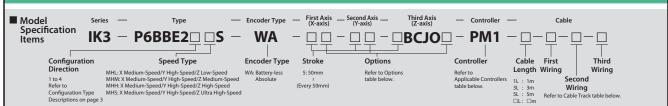
Dimensions by Stroke

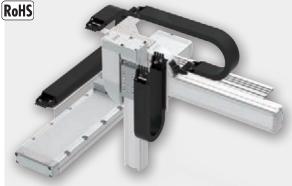
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | Ca |
|-----------|------|------|------|-------|------|-------|------|-------|------|-----|-----|------|-----|-----|------|-------|-------|------|------|------|------|------|------|
| А | 268 | 318 | 368 | 418 | 468 | 518 | 568 | 618 | 668 | 718 | 768 | 818 | 868 | 918 | 968 | 1018 | 1068 | 1118 | 1168 | 1218 | 1268 | 1318 | trac |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | C |
| С | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 | C |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 2 |
| E | 158 | 208 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 2 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | * Di |
| G | - | - | 208 | 258 | 308 | 358 | 408 | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 | 1008 | 1058 | 1108 | 1158 | ch |
| Н | 251 | 276 | 301 | 326 | 351 | 376 | 401 | 426 | 451 | 476 | 501 | 526 | 551 | 576 | 601 | 626 | 651 | 676 | 701 | 726 | 751 | 776 | of |
| J | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 58 | 63 | 60.5 | 58 | 58 | 60.5 | 58 | 60.5 | 58 | 60.5 | 63 | 63 | 63 | 01 |
| K | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | |
| М | 130 | 155 | 90 | 102.5 | 115 | 127.5 | 140 | 152.5 | 110 | 120 | 125 | 135 | 145 | 115 | 120 | 127.5 | 132.5 | 140 | 145 | 120 | 125 | 130 | |
| N | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | |

| Cable track size | СТ | СТМ | CTL | CTXL | | | | |
|---------------------|---|-------|-------|-------|--|--|--|--|
| Q1 | 448.5 | 448.5 | 448.5 | 465.5 | | | | |
| Q2 | 127.5 | 127.5 | 127.5 | 144.5 | | | | |
| S1 | 82 | 94 | - | - | | | | |
| S2 | 46 | 52.5 | - | - | | | | |
| change | * Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track. | | | | | | | |

6BBE2 Ρ

RCP6 3-axis combination (XYB + Z-axis, base mount) X-axis: WSA16C (Straight) Y-axis: SA8R (Side-mounted) Z-axis: SA7R (Side-mounted)





Payload by Acceleration

- MHL type: X medium-speed/Y high-speed/Z low-speed
- MHM type: X medium-speed/Y high-speed/Z medium-speed IHH type: X medium-speed/Y high-speed/Z high-speed
- HS type: X medium-speed/Y high-speed/Z ultra high-speed

| Accele |
|--------------|
| * Whe Whe |

| ,, | • | 5 | • | | 5 | • | | (ornering) |
|---|-----|----------|---------|-----|-----|----------|----------|------------|
| Y-axis stroke (mm) | 50 | ~400 (Ev | ery 50m | m) | 450 |)~500 (E | very 50n | nm) |
| Speed Type Acceleration/ deceleration (G) | MHL | МНМ | MHH | MHS | MHL | МНМ | MHH | MHS |
| 0.1 | 6 | 4 | 2 | 1 | 6 | 4 | 2 | 1 |
| 0.3 | - | 4 | 2 | 1 | - | - | 2 | 1 |

(Unit·ka)

en X, Y and Z axes all have the same acceleration/deceleration. Ien there is significant vibration, decrease the speed and acceleration/deceleration as required.

| The photograph above shows the configuration direction "1" where all axes have cable tracks. | |
|--|--|
| Please refer to P.3 for other configuration directions. | |

| Cable Length | | | | | | |
|--|------------|--------|--|--|--|--|
| Туре | Cable code | Length | | | | |
| | 1L | 1m | | | | |
| Standard | 3L | 3m | | | | |
| type | 5L | 5m | | | | |
| L Specified length (15m max.) | | | | | | |
| Note 1. All-axis standard cable is used. | | | | | | |

Cable Track

| cubic fluck | | | | | |
|--|--|-------------------|----------------------------------|-----------------------------------|----------------------------------|
| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) | Third wiring (Z-axis lateral) |
| Without cable track (cable only) | N | | - | - | - |
| Cable track S size (inner width: 38mm) | СТ |] | - | - | - |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | - | - | - |
| Cable track L size (inner width: 63mm) | CTL | 1 | - | - | Cannot be selected *1 |
| Cable track XL size (inner width: 80mm) | CTXL | | - | Cannot be | selected *2 |
| *1 Only the first and second wiring can be | *2 Only the first wiring can be selected | | | | |

Note 1. All-axis standard cable is Used.
 Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track.
 Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications

| opeemean | 5115 | | | | | | |
|-----------------------------------|-----------|---|--------------------------------|--------------------------------|--|--|--|
| ltem | | X-axis | Y-axis | Z-axis | | | |
| Axis model | | RCP6-WSA16C | RCP6-SA8R | RCP6-SA7R | | | |
| Stroke (Every 50 | mm) | 50~1100mm | 50~500mm | 50~300mm | | | |
| | MHL | | | 105mm/s | | | |
| Max speed * | MHM | 210mm/s | 400mm/s | 210mm/s | | | |
| Max. speed * | MHH | 2101111/5 | 4001111/5 | 420mm/s | | | |
| | MHS | | | 640mm/s | | | |
| Motor size | | 56□ High-thrust pulse motor | 56 High-thrust pulse motor | 56 Pulse motor | | | |
| | MHL | | | 4mm | | | |
| Ball screw | MHM | 10mm | 20mm | 8mm | | | |
| lead | MHH | TOITIIT | 2011111 | 16mm | | | |
| | MHS | | | 24mm | | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | | | |
| Positioning repea | atability | ±0.01mm | | | | | |
| Base material | | Aluminum | | | | | |
| Ambient operat temperature, hu | 5 | 0~40°C, 85% RH or less (non-condensing) | | | | | |

Maximum Stroke X axis 1100 mm Yaxis 500 mm Z axis 300 mm Max. Speed (Ultra High-speed type) Y axis 400 mm/s X axis 210 mm/s Z axis 640 mm/s

* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. 2.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

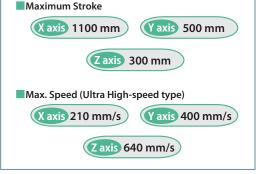
🗆 X-axis: WSA16C, Y-axis: SA8R

| Туре | Reference page |
|---------------|----------------|
| PCON-CFB/CGFB | See P.133 |
| MSEL-PCF/PGF | See P.123 |
| | 1 |

Z-axis: SA7R

| Туре | Reference page | | | |
|---|---|--|--|--|
| PCON-CB/CGB | See P.133 | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | |
| MCON-C/CG | See P.137 | | | |
| MCON-LC/LCG | See P.137 | | | |
| MSEL | See P.123 | | | |
| * Operation is possible with the high output setting spec | if when the MCON stalls with | | | |

Operation is possible with the high-output setting specification. When connecting to the MCON controller, output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.



| Options | | | | | |
|--------------------------------|----------------|-------------------|-----------|------------|-------------------------|
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
| Brake | В | See P.119 | 0 | 0 | Standard equipment * |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cann | ot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | sele | cted |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | |
| Cable exit direction (Outside) | CJO | See P.119 | Cannot be | e selected | Standard equipment * |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider roller specification | SR | See P.120 | 0 | 0 | 0 |

* Be sure to specify.

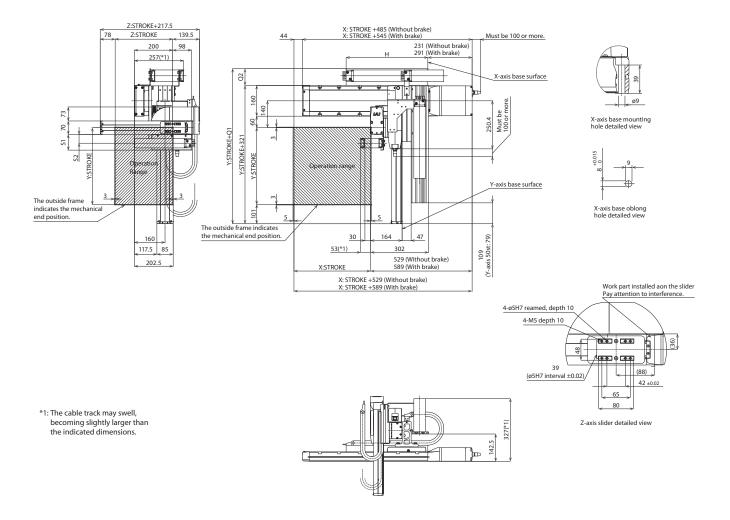


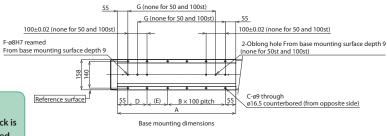


Note 1. The configuration position in the figure is home.

Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.





(*) Notes

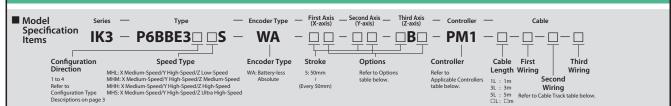
The moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | Cable | СТ | СТМ | CTL | CTXL |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------------|---------|-------|--------|-------|
| A | 268 | 318 | 368 | 418 | 468 | 518 | 568 | 618 | 668 | 718 | 768 | 818 | 868 | 918 | 968 | 1018 | 1068 | 1118 | 1168 | 1218 | 1268 | 1318 | track size | CI | CIM | CIL | CIAL |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | Q1 | 396.5 | 408.5 | 423.5 | 441.5 |
| C | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 | Q2 | 75.5 | 87.5 | 102.5 | 120.5 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | S1 | 82 | 94 | - | - |
| E | 158 | 208 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | S2 | 46 | 52.5 | - | - |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | * Dimen | sions (| 01.02 | S1 and | d 52 |
| G | - | - | 208 | 258 | 308 | 358 | 408 | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 | 1008 | 1058 | 1108 | 1158 | chang | | | | |
| Н | 251 | 276 | 301 | 326 | 351 | 376 | 401 | 426 | 451 | 476 | 501 | 526 | 551 | 576 | 601 | 626 | 651 | 676 | 701 | 726 | 751 | 776 | of the | | | on the | SIZE |

6BBE3 P

RCP6 3-axis combination (XYB + Z-axis, base mount) X-axis: WSA16C (Straight) Y-axis: SA8C (Straight) Z-axis: SA7C (Straight)





Payload by Acceleration

- MHL type: X medium-speed/Y high-speed/Z low-speed MHM type: X medium-speed/Y high-speed/Z medium-speed
- MHH type: X medium-speed/Y high-speed/Z high-speed
- MHS type: X medium-speed/Y high-speed/Z ultra high-speed (Unit: kg)

| Y-axis stroke (mm) | 50 | ~400 (Ev | ery 50m | m) | 450 | י∠500 (E | very 50n | חm) |
|---|-----|----------|---------|-----|-----|----------|----------|-----|
| Speed Type Acceleration/ deceleration (G) | MHL | МНМ | МНН | MHS | MHL | МНМ | МНН | MHS |
| 0.1 | 6 | 4 | 2 | 1 | 6 | 4 | 2 | 1 |
| 0.3 | - | 4 | 2 | 1 | - | - | 2 | 1 |

When X, Y and Z axes all have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| The photograph above shows the configuration direction "1" where all axes have cable tracks. |
|--|
| Please refer to P.3 for other configuration directions. |

| Cable | Length | |
|----------|------------|-----------------------------|
| Туре | Cable code | Length |
| | 1L | 1m |
| Standard | 3L | 3m |
| type | 5L | 5m |
| | | Specified length (15m max.) |

Cable Track

| Туре | Model | Reference page | First wiring (X-axis lateral) | Second wiring (Y-axis lateral) | Third wiring (Z-axis lateral) |
|---|-------|-------------------|----------------------------------|-----------------------------------|----------------------------------|
| Without cable track (cable only) | N | | 0 | 0 | 0 |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See P.121 | 0 | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | | 0 | 0 | Cannot be selected *1 |
| Cable track XL size (inner width: 80mm) | CTXL | | 0 | Cannot be | selected *2 |

Maximum Stroke

*1 Only the first and second wiring can be selected *2 Only the first wiring can be selected

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications

| ltem | | X-axis | Y-axis | Z-axis |
|-----------------------------------|-----------|--------------------------------|--------------------------------|--------------------------------|
| Axis model | | RCP6-WSA16C | RCP6-SA8C | RCP6-SA7C |
| Stroke (Every 50 |)mm) | 50~1100mm | 50~500mm | 50~300mm |
| | MHL | | | 105mm/s |
| Max speed * | MHM | 210mm/s | 400mm/s | 210mm/s |
| Max. speed * | MHH | 2101111/5 | 4001111/5 | 420mm/s |
| | MHS | | | 640mm/s |
| Motor size | | 56 High-thrust pulse motor | 56 High-thrust pulse motor | 56 Pulse motor |
| | MHL | | | 4mm |
| Ball screw | MHM | 10mm | 20mm | 8mm |
| lead | MHH | TOITIIT | 2011111 | 16mm |
| | MHS | | | 24mm |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 |
| Positioning repe | atability | ±0.01mm | | ^ |
| Base material | | Aluminum | | |
| Ambient operat temperature, hu | | 0~40°C, 85% RH or les | s (non-condensing) | |

X axis 1100 mm Yaxis 500 mm Zaxis 300 mm Max. Speed (Ultra High-speed type) Yaxis 400 mm/s (X axis 210 mm/s) Zaxis 640 mm/s

* The max. speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately.

Please contact IAI for more information.

🗆 X-axis: WSA16C, Y-axis: SA8C

| Reference page |
|---|
| See P.133 |
| See P.123 |
| |
| Reference page |
| See P.133 |
| Please see the dedicated catalog or manual. |
| See P.137 |
| See P.157 |
| See P.123 |
| |

output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options Option Reference Туре X-axis Y-axis Z-axis code page Standard equipment Brake В See P.119 CJT Cable exit direction (Top) See P.119 Cable exit direction (Right) CJR See P.119 Cannot be 0 Cable exit direction (Left) CJL See P.119 selected CJB See P.119 Cable exit direction (Bottom) 0 Non-motor end specification NM See P.120 Slider roller specification SR See P.120 0

* Outside as standard. Be sure to specify

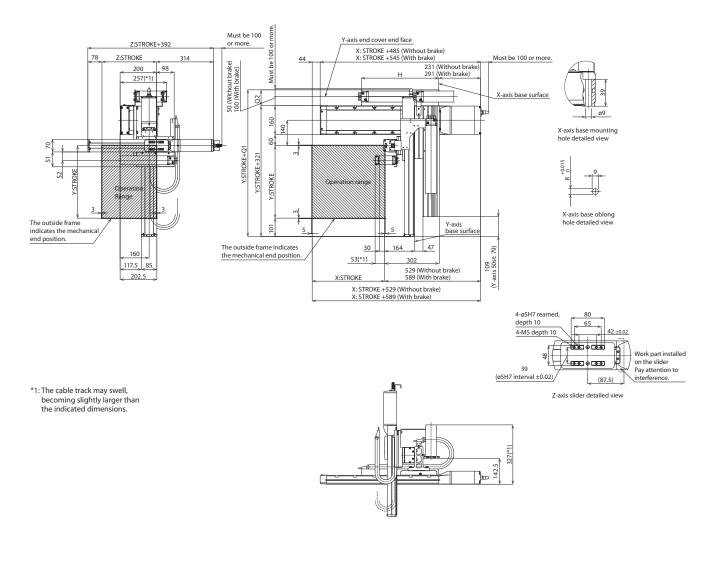


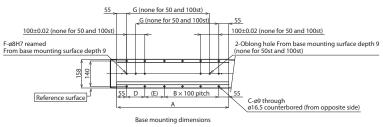


Note 1. The configuration position in the figure is home.

Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



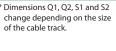


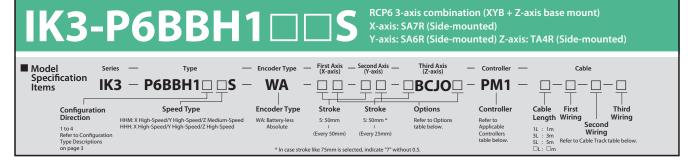
(*) Notes

The moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis slider by the customer.

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | Cable | СТ | СТМ | CTL | CTXL |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------------|---------|-------|--------|--------|
| A | 268 | 318 | 368 | 418 | 468 | 518 | 568 | 618 | 668 | 718 | 768 | 818 | 868 | 918 | 968 | 1018 | 1068 | 1118 | 1168 | 1218 | 1268 | 1318 | track size | CI | CIM | CIL | CIAL |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | Q1 | 396.5 | 408.5 | 423.5 | 441.5 |
| C | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 | Q2 | 75.5 | 87.5 | 102.5 | 120.5 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | S1 | 82 | 94 | - | - |
| E | 158 | 208 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | 58 | 108 | S2 | 46 | 52.5 | - | - |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | * Dimen | sions (| 01.02 | S1 an | d 52 |
| G | - | - | 208 | 258 | 308 | 358 | 408 | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 | 1008 | 1058 | 1108 | 1158 | change | | | | |
| Н | 251 | 276 | 301 | 326 | 351 | 376 | 401 | 426 | 451 | 476 | 501 | 526 | 551 | 576 | 601 | 626 | 651 | 676 | 701 | 726 | 751 | 776 | of the | | | on the | . 312C |







| Payload by Ad HHM type: X h Y high-speed/ | | HHH type: X h Y high-speed | nigh-speed/ /Z high-speed | (Unit: kg |
|---|------------------------|--|------------------------------|-----------|
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50m | m) |
| 0.1 | 2 | 0.1 | 1 | |
| 0.3 | 2 | 0.3 | 1 | |
| 0.5 | 1.5 | 0.5 | 1 | |

When X, Y and Z axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Reference

page

See

P.121

Model

Ν

СТ

СТМ

CTL

CTXL

First wiring (X-axis side)

0

*2 Only the first wiring can be selected

Second wiring

(Y-axis side)

0

Third wiring

(Z-axis side)

 \cap

Cannot be

selected *1

Cannot be selected *2

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

| Cable | Length | |
|----------|------------|-----------------------------|
| Туре | Cable code | Length |
| | 1L | 1m |
| Standard | 3L | 3m |
| type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used. Note 2. The length of the second and third axis cable is from the

exit of the cable track. A separate robot cable is included for

wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

RoHS

| Specificat | ions | | | |
|---------------------------------|------------|--------------------------------|--------------------------------|-------------------------------|
| ltem | | X-axis | Y-axis | Z-axis |
| Axis configurat | ion | RCP6-SA7R | RCP6-SA6R | RCP6-TA4R |
| Stroke | | 50 ~ 800mm (Every 50mm) | 50 ~ 200mm (Every 50mm) | 50 ~ 100mm (Every 25mm) |
| Max speed * | HHM | 420mm/s | 560mm/s | 260mm/s |
| wax speed | HHH | 4201111/5 | 5001111/5 | 350mm/s |
| Motor size | | 56 Pulse motor | 42 Pulse motor | 35 Pulse motor |
| Ball screw | HHM | 16mm | 12mm | 5mm |
| lead | HHH | Iomm | 12mm | 10mm |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | Ball screw ø8mm rolled C10 |
| Positioning rep | eatability | ±0.01mm | | |
| Base material | | Aluminum | | |
| Ambient opera temperature, h | | 0~40°C, 85% RH or les | s (non-condensing) | |
| | | | | |

Cable Track

Туре

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Cable track XL size (inner width: 80mm)

*1 Only the first and second wiring can be selected

Without cable track (cable only)

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please refer to each controller page.

🗆 X-axis: SA7R, Y-axis: SA6R, Z-axis: TA4R

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| options | | | | | | |
|-------------------|---------------------|-------------|-----------|-----------|------------|--------------------|
| | | | Reference | | | |
| Т | ype | Option code | page | X-axis | Y-axis | Z-axis |
| Brake | | В | See P.119 | 0 | 0 | Standard |
| DIAKE | | В | See P.119 | 0 | 0 | equipment * |
| Cable exit direc | tion (Outcide) | CIO | See P.119 | Cannot be | Standard | |
| Cable exit ulled | tion (Outside) | 00 | See P.119 | Cannot be | e selected | equipment * |
| Non-motor end | specification | NM | See P.120 | 0 | 0 | 0 |
| Slider section re | oller specification | SR | See P.120 | 0 | 0 | Cannot be selected |

* Be sure to specify.

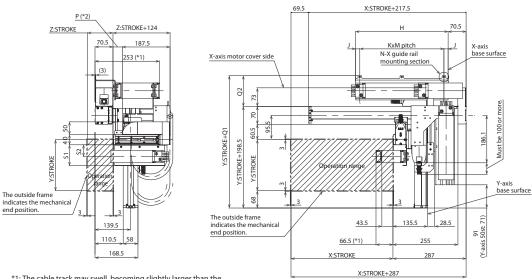
Ontion

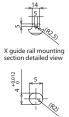
Dimensions



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.

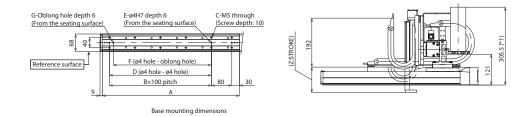




X-axis base oblong hole detailed view

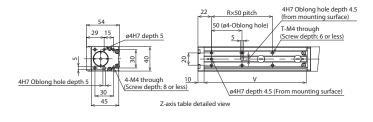
*1: The cable track may swell, becoming slightly larger than the

indicated dimensions. *2: A negative number for P means that the edge of the motor unit is located frontward past the end face of the table.



(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.



Dimensions by Stroke

R

> 2 2

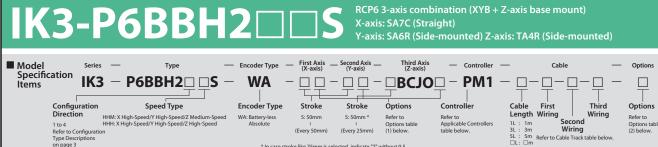
142 167

1 117

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|-------|------|------|------|-------|------|-----|------|-----|-----|-----|------|-----|------|-----|-----|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 188 | 213 | 238 | 263 | 288 | 313 | 338 | 363 | 388 | 413 | 438 | 463 | 488 | 513 | 538 | 563 |
| J | 16.5 | 16.5 | 14 | 16.5 | 16.5 | 16.5 | 14 | 16.5 | 14 | 16 | 15 | 66.5 | 44 | 56.5 | 69 | 16 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 |
| М | 155 | 180 | 210 | 115 | 127.5 | 140 | 155 | 165 | 180 | 127 | 136 | 110 | 200 | 200 | 200 | 177 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 |
| | | | | | | | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | | | | | | | | | | | | | |
| P (*2) | -13.5 | 11.5 | 36.5 | | | | | | | | | | | | | |

| | Cable track size | CT | CTM | CTL | CTXL |
|---|------------------|-------|-------|-------|-------|
|] | Q1 | 306 | 319 | 332 | 349 |
| | Q2 | 107.5 | 120.5 | 133.5 | 150.5 |
| | S1 | 82 | 94 | - | - |
| 1 | S2 | 46 | 52.5 | - | - |

* Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track.



(Every 50mm)

Cable Track

Туре

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Cable track XL size (inner width: 80mm)

*1 Only the first and second wiring can be selected

Without cable track (cable only)

HHM: X High-Speed/Y High-Speed/Z Medium-Sp HHH: X High-Speed/Y High-Speed/Z High-Speed 1 to 4 H Refer to Configuration Type Descriptions on page 3

(Every 25mm) * In case stroke like 75mm is selected, indicate "7" without 0.5.

Payload by Acceleration HHM type: X high-speed/

HHH type: X high-speed/

Refer to Cable Track table below

Second wiring

(Y-axis side)

0

Third wiring

(Z-axis side)

Cannot be

selected *1

Cannot be selected *2

| | r nign-speed | /Z medium-speed | r nign-speed | Z nign-speed (Unit: kg |
|-----|--|-------------------------------|--|------------------------|
| | Y-axis (mm) celeration/ celeration (G) | 50~200 (Every 50mm) | Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) |
| | 0.1 | 2 | 0.1 | 1 |
| | 0.3 | 2 | 0.3 | 1 |
| | 0.5 | 1.5 | 0.5 | 1 |
| * \ | Whon X X and 7 av | yos all have the same accolor | tion/docoloration | |

When X, Y and Z axes all have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Reference

page

See

P.121

Model

Ν

СТ

стм

CTL

CTXL

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

RoHS

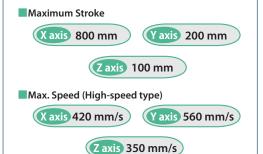
| 5 | | | | | | | | | |
|----------|------------|-----------------------------|--|--|--|--|--|--|--|
| | | | | | | | | | |
| Туре | Cable code | Length | | | | | | | |
| Standard | 1L | 1m | | | | | | | |
| | 3L | 3m | | | | | | | |
| type | 5L | 5m | | | | | | | |
| | ٦L | Specified length (15m max.) | | | | | | | |

Note 1. All-axis standard cable is used.

Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths

can be specified in 1m increments up to 15m

| ons | | | | | | |
|----------------|---------------------------------------|--|--|--|--|--|
| | X-axis | Y-axis | Z-axis | | | |
| on | RCP6-SA7C | RCP6-SA6R | RCP6-TA4R | | | |
| | 50 ~ 800mm | 50 ~ 200mm | 50 ~ 100mm | | | |
| | (Every 50mm) | (Every 50mm) | (Every 25mm) | | | |
| HHM | 420mama /a | E C Omenne / e | 260mm/s | | | |
| HHH | 420mm/s | Southini/S | 350mm/s | | | |
| | 56□ Pulse motor | 42□ Pulse motor | 35 Pulse motor | | | |
| HHM | 16 | 12 | 5mm | | | |
| HHH | Iomm | 12mm | 10mm | | | |
| | Ball screw ø12mm | Ball screw ø10mm | Ball screw ø8mm | | | |
| | rolled C10 | rolled C10 | rolled C10 | | | |
| atability | ±0.01mm | | | | | |
| | Aluminum | minum | | | | |
| ing ımidity | 0~40°C, 85% RH or less (| non-condensing) | | | | |
| | HHM HHH HHM HHH atability | X-axis Dn RCP6-SA7C 50 ~ 800mm (Every 50mm) HHM HHH 420mm/s 56□ Pulse motor HHM HHH 16mm HHH Ball screw ø12mm rolled C10 atability ±0.01mm Aluminum ing 0~40°C 85% RH or less (| X-axis Y-axis Dn RCP6-SA7C RCP6-SA6R 50 ~ 800mm 50 ~ 200mm (Every 50mm) (Every 50mm) HHM 420mm/s 560mm/s 56 D Pulse motor 42 D Pulse motor HHM 16mm 12mm HHH 16mm none HHH 16mm Ball screw ø10mm rolled C10 rolled C10 rolled C10 atability ±0.01mm Aluminum ing 0=40°C 85% PH or less (non-condensing) 0=40°C 85% PH or less (non-condensing) | | | |



First wiring

(X-axis side)

0

*2 Only the first wiring can be selected

* The max, speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please refer to each controller page.

C X-axis: SA7C, Y-axis: SA6R, Z-axis: TA4R

| T. a. a | D.(|
|--------------------------------|---|
| Туре | Reference page |
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See F.157 |
| MSEL | See P.123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Options (1) | | | | | | |
|-------------------------------------|----------------|-------------------|----------|------------|------------------------|--|
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis | |
| Brake * | В | See P.119 | 0 | 0 | Standard equipm. ** | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Canr | ot be | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | | |
| Cable exit direction (Outside) | olo | See P.119 | Cannot b | e selected | Standard equipm. ** | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 | |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected | |

* Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information. ** Be sure to specify.

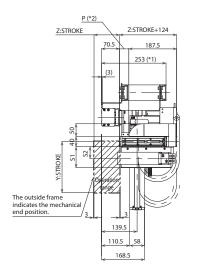
| Options (2) | | |
|-------------|-------------|----------------|
| Туре | Option code | Reference page |
| Foot plate | FTP | See P.119 |

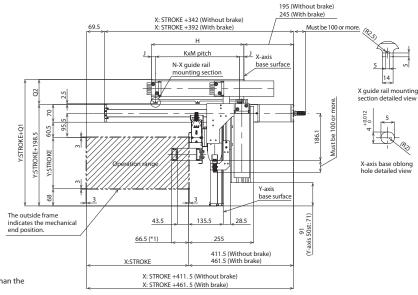
Dimensions



Note 1. The configuration position in the figure is home.

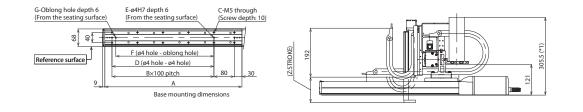
Note 2. The diagram shows first, second and third wirings all with cable tracks. Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.





*1: The cable track may swell, becoming slightly larger than the indicated dimensions.

and cated dimensions.*2: A negative number for P means that the edge of the motor unit is located frontward past the end face of the table.

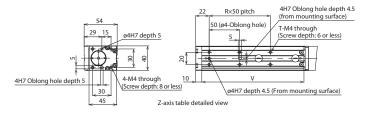


(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer. When the foot plate option is selected, the unit will be shipped

fixed on the foot plate. (See P. 119)

Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.



Dimensions by Stroke

P (*2)

-13.5 11.5 36.5

1 2 2

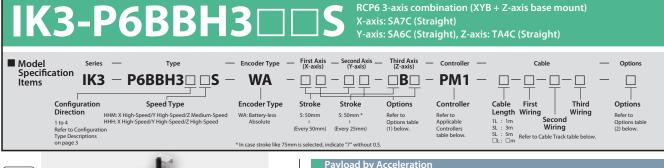
117 142 167

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|------|------|-----|------|-------|------|-----|------|-----|-----|-----|------|-----|------|-----|-----|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 188 | 213 | 238 | 263 | 288 | 313 | 338 | 363 | 388 | 413 | 438 | 463 | 488 | 513 | 538 | 563 |
| J | 16.5 | 16.5 | 14 | 16.5 | 16.5 | 16.5 | 14 | 16.5 | 14 | 16 | 15 | 66.5 | 44 | 56.5 | 69 | 16 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 |
| М | 155 | 180 | 210 | 115 | 127.5 | 140 | 155 | 165 | 180 | 127 | 136 | 110 | 200 | 200 | 200 | 177 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 |
| | | | | 1 | | | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | | | | | | | | | | | | | |

| Cable track size | CT | CTM | CTL | CTXL | | | | | |
|-------------------------------------|------|------|-------|-------|--|--|--|--|--|
| Q1 | 283 | 296 | 309 | 326 | | | | | |
| Q2 | 84.5 | 97.5 | 110.5 | 127.5 | | | | | |
| S1 | 82 | 94 | - | - | | | | | |
| S2 46 52.5 | | | | | | | | | |
| * Dimensions O1 O2 C1 and C2 shanns | | | | | | | | | |

* Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track.

IK3-P6BBH2 S **98**





| Payload by A | cceleration | | |
|--|--------------------------------|--|---------------------------------|
| HHM type: X H Y high-speed | nigh-speed/ /Z medium-speed | HHH type: X h Y high-speed | igh-speed/ /Z high-speed (Ur |
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) |
| 0.1 | 2 | 0.1 | 1 |
| 0.3 | 2 | 0.3 | 1 |
| 0.5 | 1.5 | 0.5 | 1 |

* When X, Y and Z axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

(Unit: kg)

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

Specifications

RoHS

| cubic Echigan | | | | | | |
|--|------------|-----------------------------|--|--|--|--|
| Туре | Cable code | Length | | | | |
| Standard | 1L | 1m | | | | |
| | 3L | 3m | | | | |
| type | 5L | 5m | | | | |
| | | Specified length (15m max.) | | | | |
| Note 1 All-axis standard cable is used | | | | | | |

Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate robot cable is included for

wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Cable Track

| Туре | Model | Reference page | First wiring (X-axis side) | Second wiring (Y-axis side) | Third wiring (Z-axis side) | |
|---|-------|-------------------|-------------------------------|--------------------------------|-------------------------------|--|
| Without cable track (cable only) | N | | - | - | - | |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 | 0 | |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 | 0 | 0 | |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 | Cannot be selected *1 | |
| Cable track XL size (inner width: 80mm) | CTXL | 1 | 0 | Cannot be selected *2 | | |

*1 Only the first and second wiring can be selected *2 Only the first wiring can be selected

| ltem | | X-axis | Y-axis | Z-axis |
|--|------------|--------------------------------|--------------------------------|-------------------------------|
| Axis configurat | ion | RCP6-SA7C | RCP6-SA6C | RCP6-TA4C |
| Stroke | | 50 ~ 800mm | 50 ~ 200mm | 50 ~ 100mm |
| Stroke | | (Every 50mm) | (Every 50mm) | (Every 25mm) |
| Max speed * | HHM | 420mm/s | 560mm/s | 260mm/s |
| max speed | HHH | 42011111/5 | 5001111/5 | 350mm/s |
| Motor size | | 56 Pulse motor | 42 Pulse motor | 35 Pulse motor |
| Ball screw | HHM | 16mm | 12mm | 5mm |
| lead | HHH | Tomm | 12mm | 10mm |
| Drive system | | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | Ball screw ø8mm rolled C10 |
| Positioning repe | eatability | ±0.01mm | | |
| Base material | | Aluminum | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less | s (non-condensing) | |

Yaxis 200 mm nm axis 100 mm h-speed type) m/s Yaxis 560 mm/s axis 350 mm/s

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Options (1)

Controllers are sold separately. Please refer to each controller page.

🗆 X-axis: SA7C, Y-axis: SA6C, Z-axis: TA4C

| Туре | Reference page | | |
|--------------------------------|--|--|--|
| PCON-CB/CGB | See P.133 | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual | | |
| MCON-C/CG | 6 0.427 | | |
| MCON-LC/LCG | See P.137 | | |
| MSEL | See P.123 | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
|--|----------------|-------------------|--------|--------|------------------------|
| Brake * | В | See P.119 | 0 | 0 | Standard equipm. ** |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cann | iot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | sele | cted |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | |
| _ | - | - | - | _ | — |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected |

* Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information. ** Outside as standard. Be sure to specify.

| Options (2) | | |
|-------------|-------------|----------------|
| Туре | Option code | Reference page |
| Foot plate | FTP | See P.119 |

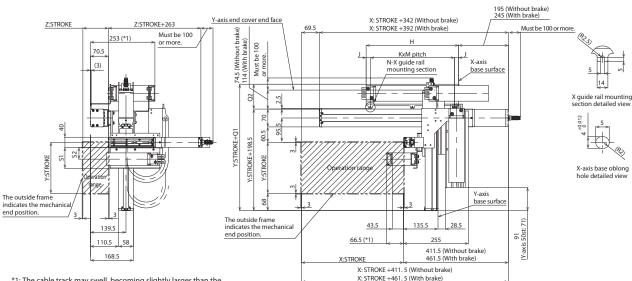
IK3 Cartesian RoboCylinder

Dimensions

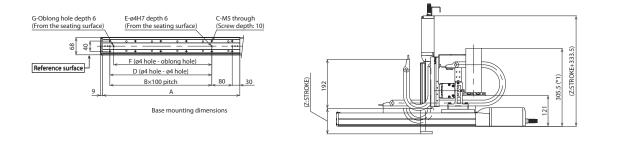


Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



*1: The cable track may swell, becoming slightly larger than the indicated dimensions.

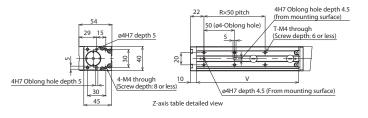


(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P. 119)

Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.



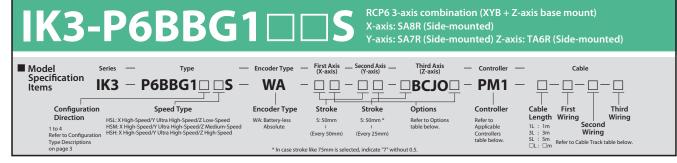
Dimensions by Stroke

117 142 167

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-----------|------|------|-----|------|-------|------|-----|------|-----|-----|-----|------|-----|------|-----|-----|
| A | 188 | 238 | 288 | 338 | 388 | 438 | 488 | 538 | 588 | 638 | 688 | 738 | 788 | 838 | 888 | 938 |
| В | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| С | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 |
| D | 0 | 0 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 |
| E | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 85 | 85 | 185 | 185 | 285 | 285 | 385 | 385 | 485 | 485 | 585 | 585 | 685 | 685 | 785 |
| G | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 188 | 213 | 238 | 263 | 288 | 313 | 338 | 363 | 388 | 413 | 438 | 463 | 488 | 513 | 538 | 563 |
| J | 16.5 | 16.5 | 14 | 16.5 | 16.5 | 16.5 | 14 | 16.5 | 14 | 16 | 15 | 66.5 | 44 | 56.5 | 69 | 16 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 |
| М | 155 | 180 | 210 | 115 | 127.5 | 140 | 155 | 165 | 180 | 127 | 136 | 110 | 200 | 200 | 200 | 177 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 |
| | | | | | | | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | | | | | | | | | | | | | |
| R | 1 | 2 | 2 | | | | | | | | | | | | | |
| Т | 4 | 6 | 6 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| Cable track size | CT | CTM | CTL | CTXL |
|------------------|------|------|-------|-------|
| Q1 | 283 | 296 | 309 | 326 |
| Q2 | 84.5 | 97.5 | 110.5 | 127.5 |
| S1 | 82 | 94 | - | - |
| S2 | 46 | 52.5 | - | - |

* Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track.



Cable Track

Туре

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Cable track XL size (inner width: 80mm)

*1 Only the first and second wiring can be selected

Without cable track (cable only)



| Payload by A | cceleration | | | | |
|--|------------------------|---------|--|------------------------|-----------|
| HSL type: X hi Y ultra high-s | | -speed | HSM type: X h Y ultra high-s | 5 1 | lium-spee |
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 | Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 |
| 0.1 | 4 | 3 | 0.1 | 2.5 | 2 |
| 0.3 | 4 | 3 | 0.3 | 2.5 | 2 |
| 0.5 | 4 | 3 | 0.5 | 2.5 | 2 |
| HSH type: X h Y ultra high-s | peed/Z high | n-speed | 1 | | (Unit: |
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 | | | |
| 0.1 | 1.5 | 1 | * When X, Y and Z ax acceleration/decele | | |
| 0.3 | 1.5 | 1 | significant vibration | | |
| 0.5 | 1.5 | 1 | acceleration/decele | | |

Model

Ν

СТ

СТМ

CTL

CTXL

| | | • |
|--|------------------------|------------|
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 |
| 0.1 | 2.5 | 2 |
| 0.3 | 2.5 | 2 |
| 0.5 | 2.5 | 2 |
| | | (Unit: ka) |

Second wiring (Y-axis side)

0

acceleration/deceleration as required.

Third wiring (Z-axis side)

Cannot be

selected *1

Cannot be selected *2

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

| Cable Length | | | | | | |
|--|------------|-----------------------------|--|--|--|--|
| Туре | Cable code | Length | | | | |
| | 1L | 1m | | | | |
| Standard | 3L | 3m | | | | |
| type | 5L | 5m | | | | |
| | | Specified length (15m max.) | | | | |
| Noto 1 All-axis standard cable is used | | | | | | |

Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate robot cable is included for

wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths

can be specified in 1m increments up to 15m.

Specifications

RoHS

| ltem | | X-axis Y-axis | | Z-axis | | |
|--|-----|---|--------------------------------|--------------------------------|--|--|
| Axis configuration | on | RCP6-SA8R RCP6-SA7R | | RCP6-TA6R | | |
| Stroke | | 50 ~ 1100mm (Every 50mm) | 50 ~ 250mm (Every 50mm) | 50 ~ 150mm (Every 25mm) | | |
| | HSL | | | 140mm/s | | |
| Max speed * | HSM | 300mm/s | 640mm/s | 280mm/s | | |
| | HSH | | | 440mm/s | | |
| Motor size | | 56□ High thrust pulse motor | 56□ Pulse motor | 42 Pulse motor | | |
| Delle | HSL | | | 3mm | | |
| Ball screw lead | HSM | 20mm | 24mm | 6mm | | |
| leau | HSH | | | 12mm | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | | |
| Positioning repeatability | | ±0.01mm | | | | |
| Base material | | Aluminum | | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | | |

| Maximum Stroke |
|----------------------------------|
| (X axis 1100 mm) (Y axis 250 mm) |
| Zaxis 150 mm |
| Max. Speed (High-speed type) |
| X axis 300 mm/s Y axis 640 mm/s |
| Z axis 440 mm/s |

First wiring (X-axis side)

0

*2 Only the first wiring can be selected

Reference

page

See P.121

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Controllers are sold separately. Please refer to each controller page.

🗆 X-axis: SA8R

| Туре | Reference page | | | | | | |
|----------------------------|----------------|--|--|--|--|--|--|
| PCON-CFB/CGFB | See P.133 | | | | | | |
| MSEL-PCF/PGF | See P.123 | | | | | | |
| Y-axis: SA7R, Z-axis: TA6R | | | | | | | |

| Туре | Reference page | |
|--------------------------------|---|--|
| PCON-CB/CGB | See P.133 | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | |
| MCON-C/CG | See P.137 | |
| MCON-LC/LCG | See P.137 | |
| MSEL | See P.123 | |
| | | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Options

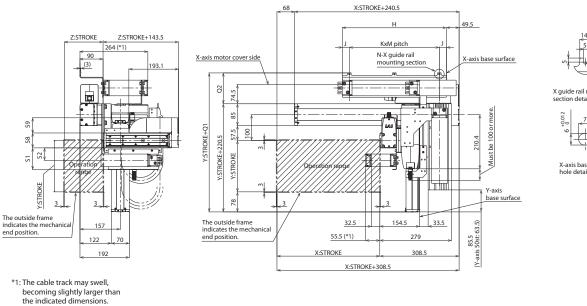
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
|-------------------------------------|-------------|-------------------|--------------------|--------|-------------------------|
| Brake | В | See P.119 | 0 | 0 | Standard equipment * |
| Cable exit direction (Outside) | CIO | See P.119 | Cannot be selected | | Standard equipment * |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected |

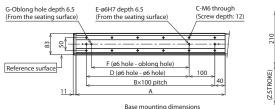
* Be sure to specify.



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.

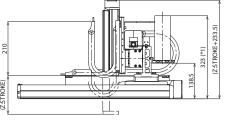




The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

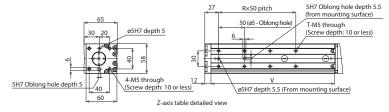
Also, the moving end of the Z-axis cable track is to be

fixed to a plate or the like mounted on the Z-axis table





X-axis base oblong



6 4

6 8 8

140 165 190 215 240

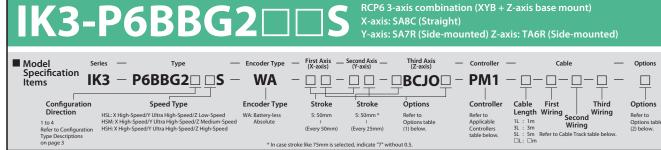
by the customer.

(*) Notes

| Dimer | nsion | s by S | Strok | e | | | | | | | | | | | | | | | | | | |
|-----------|-------|--------|-------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| М | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | | | | | | | | | | | | | | | | | |

| 00 80 | | Cable track size | СТ | СТМ | CTL | CTXL | | | | |
|----------|--------------------------------|---|-------|-------|-------|-------|--|--|--|--|
| 2 | | Q1 | 328 | 341 | 354 | 371 | | | | |
| б | | Q2 | 107.5 | 120.5 | 133.5 | 150.5 | | | | |
| 00 | | S1 | 84.5 | 96.5 | - | - | | | | |
| 3 | | S2 | 48.5 | 55 | - | - | | | | |
| 80 | * Dimensions Q1, Q2, S1 and S2 | | | | | | | | | |
| 5 | | * Dimensions Q1, Q2, S1 and S2 change depending on the size of | | | | | | | | |

on the the cable track.



RoHS



| Payload by A | cceleration | | | | |
|--|------------------------|---------|--|------------------------|--------|
| HSL type: X hi Y ultra high-s | | -speed | ■ HSM type: X h Y ultra high-s | | lium-s |
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 | Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 25 |
| 0.1 | 4 | 3 | 0.1 | 2.5 | 2 |
| 0.3 | 4 | 3 | 0.3 | 2.5 | 2 |
| 0.5 | 4 | 3 | 0.5 | 2.5 | 2 |
| HSH type: X h Y ultra high-s | | n-speed | | | (L |
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 | | | |
| 0.1 | 1.5 | 1 | * When X, Y and Z ax | | |
| 0.3 | 1.5 | 1 | acceleration/decele | | |
| | | | | | |

1.5

Model

Ν

СТ

СТМ

CTL

CTXL

0.5

Туре

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Cable track XL size (inner width: 80mm)

*1 Only the first and second wiring can be selected

Without cable track (cable only)

Cable Track

HSM type: X high-speed/ ultra high-speed/Z medium-speed

| · | | |
|--|------------------------|------------|
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 |
| 0.1 | 2.5 | 2 |
| 0.3 | 2.5 | 2 |
| 0.5 | 2.5 | 2 |
| | | (Unit: ka) |

significant vibration, decrease the speed and acceleration/deceleration as required.

Second wiring

(Y-axis side)

0

Third wiring

(Z-axis side)

Cannot be

selected *1

Cannot be selected *2

The photograph above shows the configuration direction "1" where all axes have cable tracks.

| r lease i eiei | to F.3 101 | other | configuration directions. | |
|----------------|------------|-------|---------------------------|--|
| | | | | |

| Cable Length | | | | | | | |
|--|------------|-----------------------------|--|--|--|--|--|
| Type | Cable code | Length | | | | | |
| | 1L | 1m | | | | | |
| Standard | 3L | 3m | | | | | |
| type | 5L | 5m | | | | | |
| | | Specified length (15m max.) | | | | | |
| Note 1 All-axis standard cable is used | | | | | | | |

Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths

can be specified in 1m increments up to 15m.

Specifications

| specifications | | | | | | | | |
|---|-----|---|--------------------------------|--------------------------------|--|--|--|--|
| ltem | | X-axis Y-axis | | Z-axis | | | | |
| Axis configurati | on | RCP6-SA8C | RCP6-SA7R | RCP6-TA6R | | | | |
| Stroke | | 50 ~ 1100mm (Every 50mm) | 50 ~ 250mm (Every 50mm) | 50 ~ 150mm (Every 25mm) | | | | |
| | HSL | | | 140mm/s | | | | |
| Max speed * | HSM | 300mm/s | 640mm/s | 280mm/s | | | | |
| | HSH | | | 440mm/s | | | | |
| Motor size | | 56 High thrust pulse motor | 56 Pulse motor | 42 Pulse motor | | | | |
| Ball screw | HSL | | | 3mm | | | | |
| lead | HSM | 20mm | 24mm | 6mm | | | | |
| leau | HSH | | | 12mm | | | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | | | | |
| Positioning repeatability | | ±0.01mm | | | | | | |
| Base material | | Aluminum | | | | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | | | | |

| Maximum Stroke |
|---------------------------------|
| X axis 1100 mm Y axis 250 mm |
| Z axis 150 mm |
| Max. Speed (High-speed type) |
| X axis 300 mm/s Y axis 640 mm/s |
| Z axis 440 mm/s |

First wiring

(X-axis side)

*2 Only the first wiring can be selected

Reference

page

See P.121

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Options (1)

Controllers are sold separately.

Please refer to each controller page.

□ X-axis: SA8C

| Туре | Reference page | | | | | | |
|--------------------------------|---|--|--|--|--|--|--|
| PCON-CFB/CGFB | See P.133 | | | | | | |
| MSEL-PCF/PGF | See P.123 | | | | | | |
| □ Y-axis: SA7R, Z-axis: TA6R | | | | | | | |
| Туре | Reference page | | | | | | |
| PCON-CB/CGB | See P.133 | | | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | | | | |
| MCON-C/CG | See P.137 | | | | | | |
| | See P.137 | | | | | | |

MSEL See P.123 * Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
|-------------------------------------|----------------|-------------------|------------------------------|------------|------------------------|
| Brake * | В | See P.119 | 0 | 0 | Standard equipm. ** |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cann | ot be |
| Cable exit direction (Left) | CJL | See P.119 | selected | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | |
| Cable exit direction (Outside) | oLO | See P.119 | Cannot b | e selected | Standard equipm. ** |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected |

* Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information. ** Be sure to specify.

| Options (2) | | |
|-------------|-------------|----------------|
| Туре | Option code | Reference page |
| Foot plate | FTP | See P.119 |

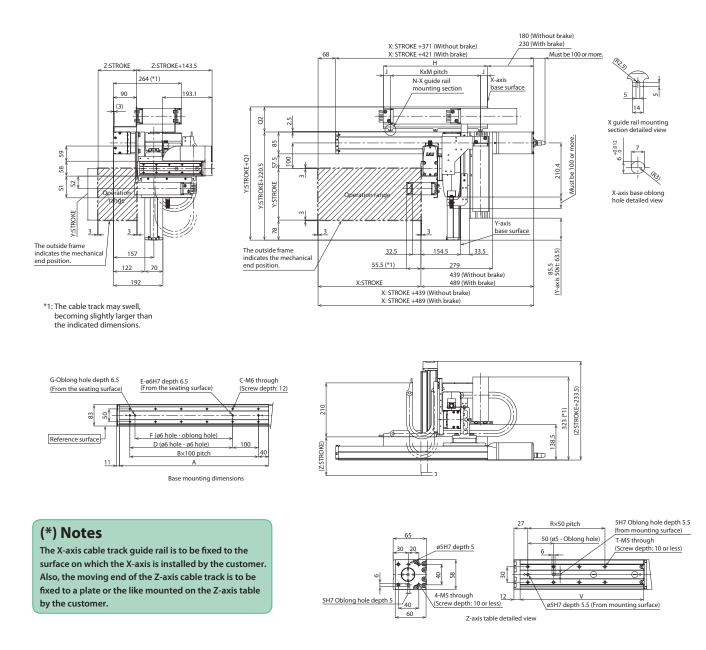
IK3 Cartesian RoboCylinder

Dimensions



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



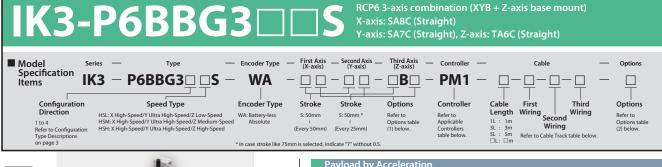
Dimensions by Stroke

 4
 6
 6
 8
 8

 140
 165
 190
 215
 240

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|-----------|-----|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 |
| К | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| M | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| | | | | | | 1 | | | | | | | | | | | | | | | | |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | | | | | | | | | | | | | | | | | |
| 0 | 1 | 2 | 2 | 2 | 2 | 1 | | | | | | | | | | | | | | | | |

| Cable track size | СТ | СТМ | CTL | CTXL | | | |
|---|------|------|-------|-------|--|--|--|
| Q1 | 305 | 318 | 331 | 348 | | | |
| Q2 | 84.5 | 97.5 | 110.5 | 127.5 | | | |
| S1 | 84.5 | 96.5 | - | - | | | |
| S2 | 48.5 | 55 | - | - | | | |
| * Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track. | | | | | | | |



0.5

Туре

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Cable track XL size (inner width: 80mm)

*1 Only the first and second wiring can be selected

Without cable track (cable only)

Cable Track



| teted, indicate 7 Without 0.5. | | | | | |
|--|------------------------|---------|--|------------------------|-----------|
| Payload by A | cceleration | | | | |
| HSL type: X hi Y ultra high-s | | -speed | ■ HSM type: X h Y ultra high-s | | lium-spee |
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 | Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 |
| 0.1 | 4 | 3 | 0.1 | 2.5 | 2 |
| 0.3 | 4 | 3 | 0.3 | 2.5 | 2 |
| 0.5 | 4 | 3 | 0.5 | 2.5 | 2 |
| HSH type: X h Y ultra high-s | peed/Z high | n-speed | | | (Unit: l |
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 | | | |
| 0.1 1.5 1 | | | * When X, Y and Z ax acceleration/decele | | |
| 0.3 | 1.5 | 1 | significant vibration | | |
| 0.5 | 4.5 | | signmeant vibration | , acciedate the | specaulia |

1.5

Model

Ν

СТ

СТМ

CTL

CTXL

HSM type: X high-speed/ Y ultra high-speed/Z medium-speed

| J | | |
|--|------------------------|------------|
| Y-axis (mm) Acceleration/ deceleration (G) | 50~200 (Every 50mm) | 250 |
| 0.1 | 2.5 | 2 |
| 0.3 | 2.5 | 2 |
| 0.5 | 2.5 | 2 |
| | | (Unit: ka) |

acceleration/deceleration as required.

Second wiring

(Y-axis side)

(Unit: kg)

Third wiring

(Z-axis side)

Cannot be

selected *1

Cannot be selected *2

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

| Cable Length | | | | | | |
|--|------------|-----------------------------|--|--|--|--|
| Туре | Cable code | Length | | | | |
| | 1L | 1m | | | | |
| Standard | 3L | 3m | | | | |
| type | 5L | 5m | | | | |
| | | Specified length (15m max.) | | | | |
| Note 1 All-axis standard cable is used | | | | | | |

Note 2. The length of the second and third axis cable is from the exit of the cable track. A separate robot cable is included for

wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

Specifications

RoHS

| specifications | | | | | | |
|--|----------|---|--------------------------------|--------------------------------|--|--|
| ltem | | X-axis | Y-axis | Z-axis | | |
| Axis configurati | on | RCP6-SA8C RCP6-SA7C | | RCP6-TA6C | | |
| Stroke | | 50 ~ 1100mm | 50 ~ 250mm | 50 ~ 150mm | | |
| Sticke | | (Every 50mm) | (Every 50mm) | (Every 25mm) | | |
| | HSL | | | 140mm/s | | |
| Max speed * | HSM | 300mm/s | 640mm/s | 280mm/s | | |
| | HSH | | | 440mm/s | | |
| Motor size | | 56□ High thrust pulse motor | 56 Pulse motor | 42 Pulse motor | | |
| Ball screw | HSL | | | 3mm | | |
| lead | HSM | 20mm | 24mm | 6mm | | |
| leau | HSH | | | 12mm | | |
| Drive system | | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | | |
| Positioning repea | tability | ±0.01mm | | | | |
| Base material | | Aluminum | | | | |
| Ambient operating temperature, humidity | | 0~40°C, 85% RH or less (non-condensing) | | | | |

| Maximum Stroke |
|-------------------------------------|
| (X axis 1100 mm) (Y axis 250 mm) |
| Zaxis 150 mm |
| Max. Speed (High-speed type) |
| (X axis 300 mm/s) (Y axis 640 mm/s) |
| Z axis 440 mm/s |

First wiring (X-axis side)

0

*2 Only the first wiring can be selected

Reference

page

See P.121

* The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

Applicable Controllers

Ontions (1)

| Controllers are | sold | separately. |
|-----------------|------|------------------------------|
| DI | I- | and the second second second |

Please refer to each controller page.

🗆 X-axis: SA8C

| Туре | Reference page | | | | | | | |
|----------------------------|----------------|--|--|--|--|--|--|--|
| PCON-CFB/CGFB | See P.133 | | | | | | | |
| MSEL-PCF/PGF | See P.123 | | | | | | | |
| Y-axis: SA7C, Z-axis: TA6C | | | | | | | | |

| Туре | Reference page | | | |
|--------------------------------|---|--|--|--|
| PCON-CB/CGB | See P.133 | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. | | | |
| MCON-C/CG | See P.137 | | | |
| MCON-LC/LCG | See P.137 | | | |
| MSEL | See P.123 | | | |
| | | | | |

 * Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Туре | Option code | Reference page | X-axis | Y-axis Z-ax | | |
|-------------------------------------|----------------|-------------------|--------|-----------------------|--------------------|--|
| Brake * | В | See P.119 | 0 | O Standard equipm. | | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be | | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | O selected | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | 0 | | |
| - | — | — | - | _ | — | |
| Non-motor end specification | NM | See P.120 | 0 0 | | 0 | |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected | |

Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information. ** Outside as standard. Be sure to specify.

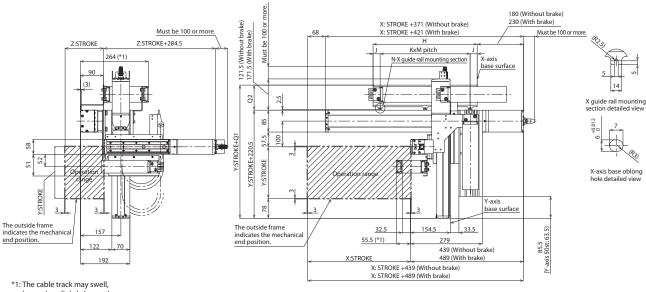
| Options (2) | | |
|-------------|-------------|----------------|
| Туре | Option code | Reference page |
| Foot plate | FTP | See P.119 |

Dimensions



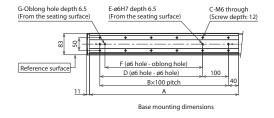
Note 1. The configuration position in the figure is home. Note 2. The diagram shows first, second and third wirings all with cable tracks.

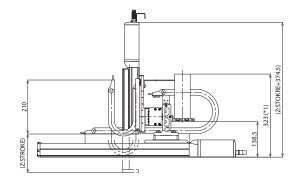
Note 3. For details on the cable track and cable track moving end bracket, refer to P.121.



becoming slightly larger than the indicated dimensions.

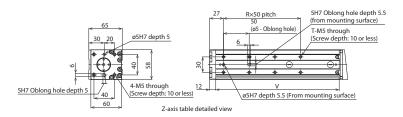
the indicated dimensions.





(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer. Also, the moving end of the Z-axis cable track is to be fixed to a plate or the like mounted on the Z-axis table by the customer.



Dimensions by Stroke

1 4

140 165

R

2 2 3 6 6 8

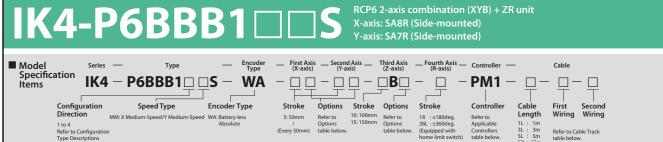
190 215 240

3 8

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 |
|-----------|-----|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 |
| С | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| М | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| Z: Stroke | 50 | 75 | 100 | 125 | 150 | | | | | | | | | | | | | | | | | |
| Z: Stroke | 50 | /5 | 100 | 125 | 150 | | | | | | | | | | | | | | | | | |

| | Cable track size | СТ | СТМ | CTL | CTXL |
|---|---------------------|------|------|-------|-------|
| l | Q1 | 305 | 318 | 331 | 348 |
| 1 | Q2 | 84.5 | 97.5 | 110.5 | 127.5 |
| l | S1 | 84.5 | 96.5 | - | - |
| 1 | S2 | 48.5 | 55 | - | - |
| 1 | | | | | |

* Dimensions Q1, Q2, S1 and S2 change depending on the size of the cable track.



(Every 50mm)

1 to 4 Refer to Configuratio Type Descriptions on page 3

Payload by Acceleration

15:150mm

| MM type: X medium-speed/Y medium-speed | | | | | | | |
|---|------------------------|-------------------------|--|--|--|--|--|
| Y-axis stroke (mm) deceleration (G) | 50~200 (Every 50mm) | 250~300 (Every 50mm) | | | | | |
| 0.1 | 3 | .5 | | | | | |
| 0.3 | 2 | 1 | | | | | |

1L : 1m 3L : 3m 5L : 5m □L: □m

Refer to Cable Track table below.

Second wiring (Y-axis lateral)

Cannot be

selected ⁴

* When X, Y, Z and R axes all have the same acceleration/deceleration.

(Equ

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Model

Ν СТ СТМ

CTL

CTXL

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

| Туре | Cable code | Length | | | | | |
|---------------|------------|-----------------------------|--|--|--|--|--|
| Standard type | 1L | 1m | | | | | |
| | 3L | 3m | | | | | |
| | 5L | 5m | | | | | |
| | | Specified length (15m max.) | | | | | |
| | | | | | | | |

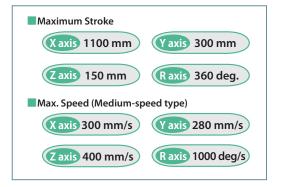
Note 1. All-axis standard ca

Note 2. The length of the se cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified

in 1m increments up to 15m.

Specifications

| ltem | X-axis | Y-axis | Z-axis | R-axis | | | | |
|--|---|-----------------------------------|-----------------------------------|---------------------|--|--|--|--|
| Axis configuration | RCP6-SA8R | RCP6-SA7R | TTPIK-AZR | | | | | |
| Stroke | 50 ~ 1100mm (Every 50mm) | 50 ~ 300mm (Every 50mm) | 100, 150mm | 180deg., 360deg. | | | | |
| Max. speed *1 | 300mm/s | 280mm/s | 400mm/s | 1000deg/s *2 | | | | |
| Allowable moment of inertia *2 | - | | 0.01kg·m ² | | | | | |
| Motor size | 56 High thrust pulse motor | 56□ Pulse motor | 42□ Pulse motor | 42□ Pulse motor | | | | |
| Ball screw lead | 10mm | 8mm | 12mm | - | | | | |
| Drive system | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | - | | | | |
| Positioning repeatability | ±0.01mm | | | ±0.01 deg. | | | | |
| Base material | Aluminum | | | | | | | |
| Ambient operating temperature, humidity | 0~40°C, 85% RH or less (non-condensing) | | | | | | | |



Reference

page

See P 121 First wiring

(X-axis lateral)

0

*1 The max, speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

*2 Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.122 for more information.

Applicable Controllers Controllers are sold separately. Reference Option code Туре X-axis Y-axis Z-axis Please refer to each controller page. page Standard 0 0 Brake в See P.119 🗆 X-axis: SA8R equipment * Type Reference page Slider cover со See P.119 Cannot be selected PCON-CFB/CGFB See P.133 See P.123 MSEL-PCF/PGF Non-motor end specification NM See P.120 Cannot be 0 □ Y-axis: SA7R, Z-axis, R-axis Slider section roller specification SR See P.120 selected Reference page Type ⁺ Be sure to specify. PCON-CB/CGB See P.133 PCON-CYB/PLB/POB (coming soon) Please see the dedicated catalog or manual. MCON-C/CG See P.137 MCON-LC/LCG MSEL See P.123

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

Cable Longt

RoHS

| | | | | _ | | |
|---------------|--|-----|---|---|--|--|
| ole code | Length | | Туре | | | |
| 1L | 1m | | туре | | | |
| 3L | 3m | - [| Without cable track (cable only) | | | |
| 5L | 5m | | Cable track S size (inner width: 38mm) | | | |
| □L | Specified length (15m max.) | | Cable track M size (inner width: 50mm) | | | |
| cable is used | ł. | - [| Cable track L size (inner width: 63mm) | | | |
| | d, and fourth axis cable is from the exit of the able is included for wiring inside the cable track. | | Cable track XL size (inner width: 80mm) * | | | |

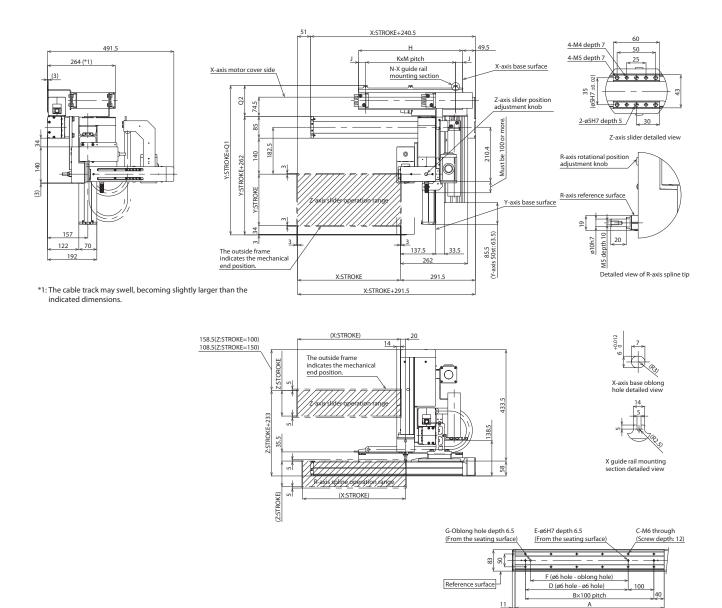
* Only the first wiring can be selected

Cable Track

Dimensions



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first and second wirings with cable tracks. Note 3. Refer to P.121 for the details of the cable tracks.

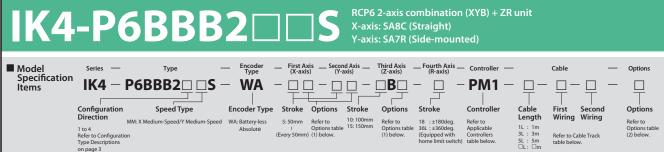


Base mounting dimensions

(*) Notes The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | Cable | СТ | СТМ | CTL | CTXL | | |
|-----------|-----|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|---|--------------|--------|-------|-------|--|--|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 | track size | CI | CTIVI | CIL | CIAL | | |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | Q1 | 369.5 | 382.5 | 395.5 | 412.5 | | |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | Q2 | 107.5 | 120.5 | 133.5 | 150.5 | | |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 | * Dimen | sions (| 01 and | 02 ch | ange | | |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | * Dimensions Q1 and Q2 change depending on the size of the | | | | | | |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 | | cable track. | | | | | |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | cabie | - a c i a | | | | | |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 | | | | | | | |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 | | | | | | | |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | | | | | | | |
| M | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 | | | | | | | |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | | | | | | | |



1 to 4 Refer to Configuration Type Descriptions on page 3

Payload by Acceleration

Cable Track

Туре

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

⁶ Only the first wiring can be selected

Cable track XL size (inner width: 80mm) *

Without cable track (cable only)

| MM type: X medium-speed/Y medium-speed | | | | | | | | | | | | |
|---|------------------------|-------------------------|--|--|--|--|--|--|--|--|--|--|
| Y-axis stroke (mm) deceleration (G) | 50~200 (Every 50mm) | 250~300 (Every 50mm) | | | | | | | | | | |
| 0.1 | 3.5 | | | | | | | | | | | |
| 0.3 | 2 | 1 | | | | | | | | | | |

* When X, Y, Z and R axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Model

Ν

СТ

СТМ

CTL

CTXL

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

RoHS

| Cable code | Length |
|------------|------------------------------|
| 1L | 1m |
| 3L | 3m |
| 5L | 5m |
| | Specified length (15m max.) |
| | Cable code 1L 3L 5L |

Note 1. All-axis standard cable is used.

Note 2. The length of the second, third, and fourth axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified

in 1m increments up to 15m.

| ecifi | cati | |
|-------|------|--|
| | | |
| | | |

| ltem | X-axis | Y-axis | Z-axis | R-axis | | | | | | |
|--|---|-----------------------------------|-----------------------------------|---------------------|--|--|--|--|--|--|
| Axis configuration | RCP6-SA8R | RCP6-SA7R | TTPIK-AZR | | | | | | | |
| Stroke | 50 ~ 1100mm (Every 50mm) | 50 ~ 300mm (Every 50mm) | 100, 150mm | 180deg., 360deg. | | | | | | |
| Max. speed *1 | 300mm/s | 280mm/s | 400mm/s | 1000deg/s *2 | | | | | | |
| Allowable moment of inertia *2 | - | 0.01kg·m ² | | | | | | | | |
| Motor size | 56 High thrust pulse motor | 56□ Pulse motor | 42□ Pulse motor | 42□ Pulse motor | | | | | | |
| Ball screw lead | 10mm | 8mm | 12mm | - | | | | | | |
| Drive system | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | - | | | | | | |
| Positioning repeatability | ±0.01mm | ±0.01 deg. | | | | | | | | |
| Base material | Aluminum | | | | | | | | | |
| Ambient operating temperature, humidity | 0~40°C, 85% RH or less (non-condensing) | | | | | | | | | |

Maximum Stroke X axis 1100 mm Yaxis 300 mm Z axis 150 mm Raxis 360 deg. Max. Speed (Medium-speed type) X axis 300 mm/s Y axis 280 mm/s Z axis 400 mm/s Raxis 1000 deg/s

Reference

page

See P 121 First wiring

(X-axis lateral)

0

Second wiring (Y-axis lateral)

Cannot be

selected ⁴

*1 The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

*2 Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.122 for more information.

| Applicable Controllers | |
|------------------------|--|
|------------------------|--|

Controllers are sold separately. Please refer to each controller page.

🗆 X-axis: SA8C

| Туре | Reference page | | | | | | |
|--------------------------------|----------------|--|--|--|--|--|--|
| PCON-CFB/CGFB | See P.133 | | | | | | |
| MSEL-PCF/PGF | See P.123 | | | | | | |
| 🗆 Y-axis: SA7R, Z-axis, R-axis | | | | | | | |

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Options (1) | | | | | | | | |
|-------------------------------------|----------------|-------------------|----------|--------------------|---------------------|--|--|--|
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis | | | |
| Brake * | В | See P.119 | 0 | 0 | Standard equipm. ** | | | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cannot be | | | | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | | | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | | | | |
| Slider cover | со | See P.119 | Cannot b | Cannot be selected | | | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 | | | |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected | | | |

* Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information. ** Be sure to specify.

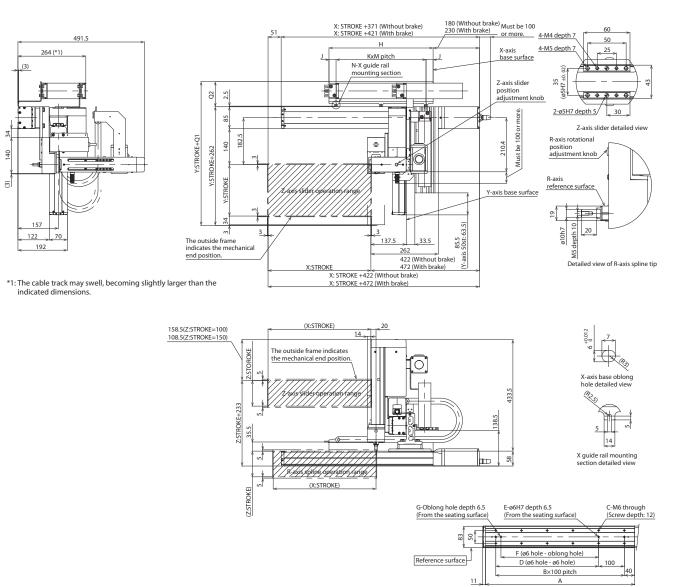
| Options (2) | | |
|-------------|-------------|----------------|
| Туре | Option code | Reference page |
| Foot plate | FTP | See P.119 |

IK4 Cartesian RoboCylinder

Dimensions



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first and second wirings with cable tracks. Note 3. Refer to P.121 for the details of the cable tracks.



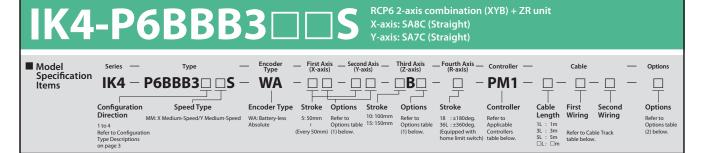
Base mounting dimensions

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer. When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

| Dimensions | by Stroke |
|------------|-----------|
|------------|-----------|

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | Cable | СТ | СТМ | CTL | CTXL | |
|-----------|-----|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|---|-------|-------|-------|-------|--|
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 | track size | CI | CTIM | CIL | CIVE | |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | Q1 | 346.5 | 359.5 | 372.5 | 389.5 | |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | Q2 | 84.5 | 97.5 | 110.5 | 127.5 | |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 | * Dimensions Q1 and Q2 change depending on the size of the cable track. | | | | | |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | | |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 | | | | | | |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | cabie | | | | | |
| Н | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 | | | | | | |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 | | | | | | |
| К | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | | | | | | |
| M | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 | | | | | | |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | | | | | | |

^(*) Notes



RoHS



Payload by Acceleration

Cable Track

Type

Cable track S size (inner width: 38mm)

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

* Only the first wiring can be selected

Cable track XL size (inner width: 80mm) *

Without cable track (cable only)

| MM type: X medium-spe | ed/Y medium-speed | (Unit: kg) |
|---|------------------------|-------------------------|
| Y-axis stroke (mm) deceleration (G) | 50~200 (Every 50mm) | 250~300 (Every 50mm) |
| 0.1 | 3 | 5 |
| 0.3 | 2 | 1 |

* When X, Y, Z and R axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

Model

Ν

СТ

СТМ

CTL

CTXL

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

Cable Length

| Cable code | Length |
|------------|-----------------------------|
| 1L | 1m |
| 3L | 3m |
| 5L | 5m |
| □L | Specified length (15m max.) |
| | 1L 3L |

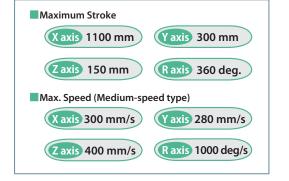
Note 1. All-axis standard cable is used.

Note 2. The length of the second, third, and fourth axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified

in 1m increments up to 15m.

Specifications

| specifications | | | | |
|--|-----------------------------------|-----------------------------------|-----------------------------------|---------------------|
| | | | | |
| ltem | X-axis | Y-axis | Z-axis | R-axis |
| Axis configuration | RCP6-SA8R | RCP6-SA7C | TTPIł | (-AZR |
| Stroke | 50 ~ 1100mm (Every 50mm) | 50 ~ 300mm (Every 50mm) | 100, 150mm | 180deg., 360deg. |
| Max. speed *1 | 300mm/s | 280mm/s | 400mm/s | 1000deg/s *2 |
| Allowable moment of inertia *2 | - | | | 0.01kg·m² |
| Motor size | 56 High thrust pulse motor | | | 42□ Pulse motor |
| Ball screw lead | 10mm | 8mm | 12mm | - |
| Drive system | Ball screw ø16mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | - |
| Positioning repeatability | ±0.01mm | | | ±0.01 deg. |
| Base material | Aluminum | | | |
| Ambient operating temperature, humidity | 0~40°C, 85% RH | or less (non-conde | ensing) | |



Reference

page

See

P.121

First wiring

(X-axis lateral)

0

Second wiring

(Y-axis lateral)

0

Cannot be

selected *

*1 The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

*2 Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.122 for more information.

Applicable Controllers

Controllers are sold separately. Please refer to each controller page.

🗆 X-axis: SA8C

| PCON-CFB/CGFB | C D 400 |
|--------------------|-----------|
| 1 cont ci b/ con b | See P.133 |
| MSEL-PCF/PGF | See P.123 |

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Options (1) | | | | | |
|-------------------------------------|----------------|-------------------|----------|------------|------------------------|
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
| Brake * | В | See P.119 | 0 | 0 | Standard equipm. ** |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Canr | not be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | sele | cted |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | |
| Slider cover | со | See P.119 | Cannot b | e selected | 0 |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected |

* Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information. ** Outside as standard. Be sure to specify.

Options (2)

Options (1)

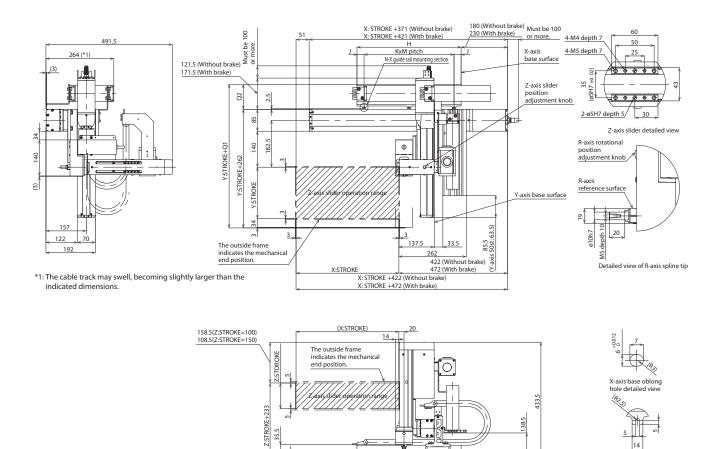
| Туре | Option code | Reference page |
|------------|-------------|----------------|
| Foot plate | FTP | See P.119 |

IK4 Cartesian RoboCylinder

Dimensions



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first and second wirings with cable tracks. Note 3. Refer to P.121 for the details of the cable tracks.



(*) Notes

The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer. When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.119)

wis spling operation rang (X:STROKE)

5

(Z:STROKE)

Dimensions by Stroke

| | | • | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|------|------|------|------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------------|---------|--------|-------|-----|
| X: Stroke | e 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | Cable | СТ | СТМ | CTL | СТ |
| A | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 580 | 630 | 680 | 730 | 780 | 830 | 880 | 930 | 980 | 1030 | 1080 | 1130 | 1180 | 1230 | 1280 | track size | C | CTIVI | CIL | CI. |
| В | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | Q1 | 346.5 | 359.5 | 372.5 | 389 |
| C | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | Q2 | 84.5 | 97.5 | 110.5 | 127 |
| D | 0 | 100 | 100 | 200 | 200 | 300 | 300 | 400 | 400 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 | * Dimen | sions (| 01 and | 02 ch | ang |
| E | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | depen | | | | |
| F | 0 | 0 | 80 | 180 | 180 | 280 | 280 | 380 | 380 | 480 | 480 | 580 | 580 | 680 | 680 | 780 | 780 | 880 | 880 | 980 | 980 | 1080 | cable t | | | | |
| G | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | |
| H | 230 | 255 | 280 | 305 | 330 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 530 | 555 | 580 | 605 | 630 | 655 | 680 | 705 | 730 | 755 | | | | | |
| J | 30 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 22.5 | 27.5 | 77.5 | 52.5 | 65 | 77.5 | 52.5 | 27.5 | 77.5 | 22.5 | 55 | 27.5 | | | | | |
| K | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | | | | | |
| M | 170 | 200 | 225 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 145 | 150 | 125 | 150 | 150 | 150 | 175 | 200 | 175 | 165 | 155 | 175 | | | | | |
| N | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | | | | | |

CTXL 889.5 127.5 nge

X guide rail mounting section detailed view

100

C-M6 through (Screw depth: 12)

58

E-ø6H7 depth 6.5 (From the seating surface)

F (ø6 hole

D (ø6 hole - ø6 hole) B×100 pitch

ng h

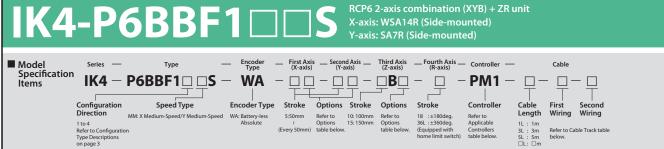
Α Base mounting dimensions

G-Oblong hole depth 6.5 (From the seating surface)

Reference surface

SĮ. 83

11



1 to 4 Refer to Configuration Type Descriptions on page 3

Payload by Acceleration

0.3

Cable Track



MM type: X medium-speed/Y medium-speed Y-axis stroke 50~300 (mm) 350 400 Acceleration/ deceleration (G) (Every 50mm) 0.1 5 3 2

3

* When X, Y, Z and R axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

(Unit: ka)

Second wiring (Y-axis side)

 \cap

Cannot be

selected ⁴

The photograph above shows the configuration direction "1" where all axes have cable tracks. Please refer to P.3 for other configuration directions.

| Cable | Leng | th | | | |
|-----------|------|----|--|--|--|
| | | | | | |

| Туре | Cable code | Length |
|---------------|------------|-----------------------------|
| | 1L | 1m |
| Standard type | 3L | 3m |
| Stanuaru type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used. Note 2. The length of the second, third, and fourth axis cable is from the exit of the

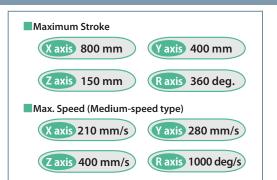
cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Туре | Model | page | (X-axis side) |
|---|-------|-------|---------------|
| Without cable track (cable only) | N | | - |
| Cable track S size (inner width: 38mm) | СТ | | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 |

⁶ Only the first wiring can be selected

Specifications

| ltem | X-axis | Y-axis | Z-axis | R-axis | | | | |
|---|-----------------------------------|----------------------------|--------------------|-----------------------|--|--|--|--|
| Axis configuration | RCP6-WSA14R | RCP6-SA7R | TTPIK | (-AZR | | | | |
| Stroke | 50 ~ 800mm (Every 50mm) | 50 ~ 400mm (Every 50mm) | 100, 150mm | 180deg., 360deg. | | | | |
| Max. speed *1 | 210mm/s | 280mm/s | 400mm/s | 1000deg/s *2 | | | | |
| Allowable moment of inertia *2 | - | | | 0.01kg·m ² | | | | |
| Motor size | 56□ Pulse motor | 56□ Pulse motor | 42□ Pulse motor | 42□ Pulse motor | | | | |
| Ball screw lead | 8mm 8mm 12mm | | | - | | | | |
| Drive system | Ball screw ø12mm rolled C10 | - | | | | | | |
| Positioning repeatability | ±0.01mm | ±0.01 deg. | | | | | | |
| Base material | Aluminum | | | | | | | |
| Ambient operating temperature, humidity 0~40°C, 85% RH or less (non-condensing) | | | | | | | | |



*1 The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

*2 Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.122 for more information.

Applicable Controllers

Controllers are sold separately.

Please refer to each controller page. ----

| 🗆 X-axis: WSA14R, Y-axis: SA7R, Z-axis, R-axis | | | | | | | | | |
|--|---------------------------------------|--|--|--|--|--|--|--|--|
| Туре | Reference page | | | | | | | | |
| PCON-CB/CGB | See P.133 | | | | | | | | |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or m | | | | | | | | |
| | | | | | | | | | |

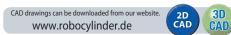
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
|--------------------------------|---|
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.157 |
| MSEL | See P.123 |
| | |

* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

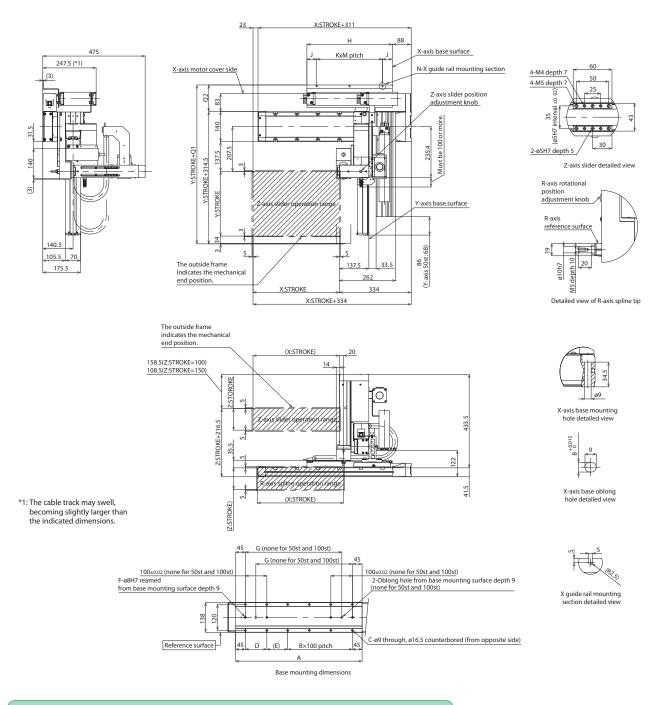
| 0 | ptions | |
|---|--------|--|
| | | |

| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
|-------------------------------------|-------------|-------------------|-----------|------------|-----------------------|
| Brake | В | See P.119 | 0 | 0 | Standard equipment * |
| Slider cover | со | See P.119 | Cannot be | e selected | 0 |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected |

* Be sure to specify.



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first and second wirings with cable tracks. Note 3. Refer to P.121 for the details of the cable tracks.



(*) Notes The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

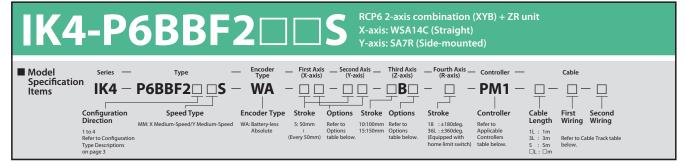
Dimensions by Stroke

| • | | | | | | | | | | | | | | | | |
|------------------|------|------|------|-------|------|-------|------|-------|------|-----|-----|------|-----|-----|------|-------|
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
| A | 237 | 287 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 937 | 987 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| С | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 147 | 197 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 |
| Н | 221 | 246 | 271 | 296 | 321 | 346 | 371 | 396 | 421 | 446 | 471 | 496 | 521 | 546 | 571 | 596 |
| J | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 43 | 48 | 45.5 | 43 | 43 | 45.5 | 43 |
| К | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| М | 130 | 155 | 90 | 102.5 | 115 | 127.5 | 140 | 152.5 | 110 | 120 | 125 | 135 | 145 | 115 | 120 | 127.5 |
| N | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| | | | | | 1 | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| 01 | 425 | 420 | 45.1 | 400 | | | | | | | | | | | | |

 Q1
 425
 438
 451
 468

 Q2
 110.5
 123.5
 136.5
 153.5

* Dimensions Q1 and Q2 change depending on the size of the cable track.



Cable Track

Ontions

Cable track XL size (inner width: 80mm) *

[•] Only the first wiring can be selected



Payload by Acceleration

| MM type: X medium-speed/Y medium-speed (Unit: kg) | | | | | | | | | | |
|---|------------------------|-----|-----|--|--|--|--|--|--|--|
| Y-axis stroke (mm) deceleration/ G) | 50~300 (Every 50mm) | 350 | 400 | | | | | | | |
| 0.1 | 5 | 3 | 2 | | | | | | | |
| 0.3 | 3 | - | - | | | | | | | |

* When X, Y, Z and R axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

CTXL

First wiring (X-axis side)

0

Second wiring (Y-axis side)

 \cap

Cannot be

selected *

| The photograph above shows the configuration direction "1" where all axes have |
|--|
| cable tracks. |
| Please refer to P.3 for other configuration directions. |

Cable Length

| Туре | Cable code | Length |
|---------------|------------|-----------------------------|
| | 1L | 1m |
| Standard type | 3L | 3m |
| Standard type | 5L | 5m |
| | | Specified length (15m max.) |

Note 1. All-axis standard cable is used. Note 2. The length of the second, third, and fourth axis cable is from the exit of the

cable track. A separate robot cable is included for wiring inside the cable track.

| Туре | Model | Reference page |
|--|-------|-------------------|
| Without cable track (cable only) | N | |
| Cable track S size (inner width: 38mm) | СТ | |
| Cable track M size (inner width: 50mm) | СТМ | See |
| Cable track L size (inner width: 63mm) | CTL | P.121 |

Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Specifications | | | | | | |
|---|---|-----------------------------------|-----------------------------------|-----------------------|--|--|
| Specifications | | | | | | |
| ltem | X-axis | Y-axis | Z-axis | R-axis | | |
| Axis configuration | RCP6-WSA14C | RCP6-SA7R | TTP | K-AZR | | |
| Stroke | 50 ~ 800mm (Every 50mm) | 50 ~ 400mm (Every 50mm) | 100, 150mm | 180deg., 360deg. | | |
| Max. speed *1 | 210mm/s | 280mm/s | 400mm/s | 1000deg/s *2 | | |
| Allowable moment of inertia *2 | - | | | 0.01kg·m ² | | |
| Motor size | 56□ Pulse motor | 56□ Pulse motor | 42□ Pulse motor | 42□ Pulse motor | | |
| Ball screw lead | 8mm | 8mm | 12mm | - | | |
| Drive system | Ball screw ø12mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | - | | |
| Positioning repeatability | ±0.01mm | | | ±0.01 deg. | | |
| Base material | Aluminum | Aluminum | | | | |
| Ambient operating temperature, humidity | 0~40°C, 85% RH or less (non-condensing) | | | | | |

*1 The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

*2 Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.122 for more information.

Applicable Controllers

Controllers are sold separately.

Please refer to each controller page.

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

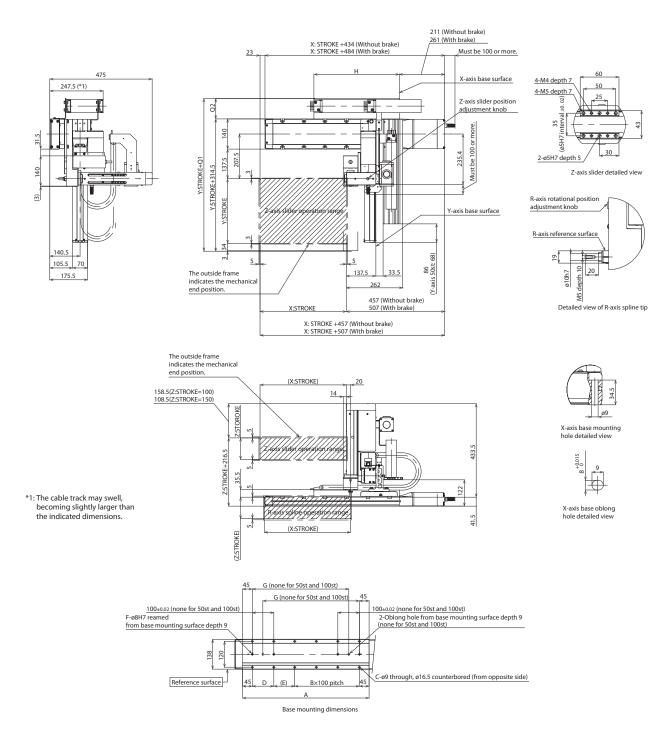
* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| options | | | | | | | |
|-------------------------------------|----------------|-------------------|----------|--------------------|---------------------|--|--|
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis | | |
| Brake * | В | See P.119 | 0 | 0 | Standard equipm. ** | | |
| Cable exit direction (Top) | CJT | See P.119 | 0 | 0 | | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Cann | iot be | | |
| Cable exit direction (Left) | CJL | See P.119 | 0 | selected | | | |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | | | |
| Slider cover | со | See P.119 | Cannot b | Cannot be selected | | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 | | |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected | | |

* Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information. ** Be sure to specify.



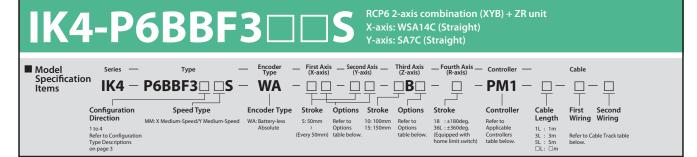
Note 1. The configuration position in the figure is home. Note 2. The diagram shows first and second wirings with cable tracks. Note 3. Refer to P.121 for the details of the cable tracks.



Dimensions by Stroke

| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A | 237 | 287 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 937 | 987 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| С | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 147 | 197 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 |
| Н | 221 | 246 | 271 | 296 | 321 | 346 | 371 | 396 | 421 | 446 | 471 | 496 | 521 | 546 | 571 | 596 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| Q1 | 397.5 | 409.5 | 424.5 | 442.5 | | | | | | | | | | | | |
| 02 | 83 | 95 | 110 | 128 | | | | | | | | | | | | |

* Dimensions Q1 and Q2 change depending on the size of the cable track.



RoHS

Payload by Acceleration

| MM type: X medium- | MM type: X medium-speed/Y medium-speed (Un | | | | | | | | | |
|---|--|-----|-----|--|--|--|--|--|--|--|
| Y-axis stroke (mm) deceleration (G) | 50~300 (Every 50mm) | 350 | 400 | | | | | | | |
| 0.1 | 5 | 3 | 2 | | | | | | | |
| 0.3 | 3 | - | - | | | | | | | |

* When X, Y, Z and R axes all have the same acceleration/deceleration.

When there is significant vibration, decrease the speed and acceleration/deceleration as required.

| The photograph above shows the configuration direction "1" where all axes have |
|--|
| cable tracks. |
| Please refer to P.3 for other configuration directions. |

| Cable Leng | th | |
|------------|------------|--------|
| Туре | Cable code | Length |
| | 1L | 1m |
| | 3L | 3m |

Standard type 51 5m Specified length (15m max.) Note 1. All-axis standard cable is used.

Note 2. The length of the second, third, and fourth axis cable is from the exit of the cable track. A separate robot cable is included for wiring inside the cable track. Note 3. The standard lengths are 1m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

| Cable Track | | | | |
|---|-------|-------------------|-------------------------------|--------------------------------|
| Туре | Model | Reference page | First wiring (X-axis side) | Second wiring (Y-axis side) |
| Without cable track (cable only) | N | | - | - |
| Cable track S size (inner width: 38mm) | СТ | | 0 | 0 |
| Cable track M size (inner width: 50mm) | СТМ | See | 0 | 0 |
| Cable track L size (inner width: 63mm) | CTL | P.121 | 0 | 0 |
| Cable track XL size (inner width: 80mm) * | CTXL | | 0 | Cannot be selected * |

* Only the first wiring can be selected

Ontions

Specifications

| specifications | | | | |
|--|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------|
| ltem | X-axis | Y-axis | Z-axis | R-axis |
| Axis configuration | RCP6-WSA14C | RCP6-SA7C | TTP | IK-AZR |
| Stroke | 50 ~ 800mm (Every 50mm) | 50 ~ 400mm (Every 50mm) | 100, 150mm | 180deg., 360deg. |
| Max. speed *1 | 210mm/s | 280mm/s | 400mm/s | 1000deg/s *2 |
| Allowable moment of inertia *2 | - | | | 0.01kg·m ² |
| Motor size | 56□ Pulse motor | 56□ Pulse motor | 42□ Pulse motor | 42□ Pulse motor |
| Ball screw lead | 8mm | 8mm | 12mm | - |
| Drive system | Ball screw ø12mm rolled C10 | Ball screw ø12mm rolled C10 | Ball screw ø10mm rolled C10 | - |
| Positioning repeatability | ±0.01mm | | | ±0.01 deg. |
| Base material | Aluminum | | | |
| Ambient operating temperature, humidity | 0~40°C, 85% RH | or less (non-conc | densing) | |

*1 The max. speed may not be reached if the travel distance is short or acceleration is low.

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.122.

*2 Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.122 for more information.

Applicable Controllers

Controllers are sold separately.

Please refer to each controller page.

🗆 X-axis: WSA14C, Y-axis: SA7C, Z-axis, R-axis

| Туре | Reference page |
|--------------------------------|---|
| PCON-CB/CGB | See P.133 |
| PCON-CYB/PLB/POB (coming soon) | Please see the dedicated catalog or manual. |
| MCON-C/CG | See P.137 |
| MCON-LC/LCG | See P.137 |
| MSEL | See P.123 |

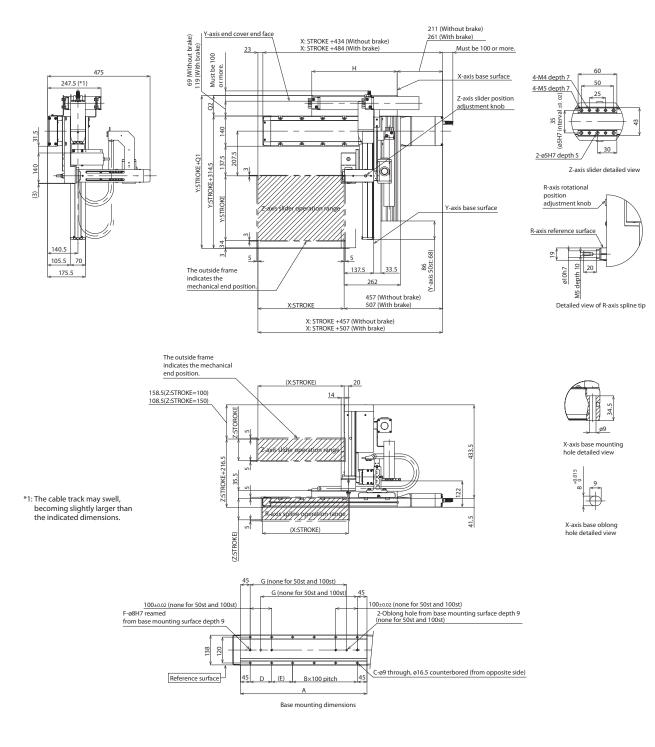
* Operation is possible with the high-output setting specification. When connecting to the MCON controller, "High-output setting specification" must be selected. Please contact IAI regarding use with the high-output setting disabled.

| Options | | | | | |
|-------------------------------------|----------------|-------------------|----------------------|--------|---------------------|
| Туре | Option code | Reference page | X-axis | Y-axis | Z-axis |
| Brake * | В | See P.119 | 0 | 0 | Standard equipm. ** |
| Cable exit direction (Top) | CJT | See P.119 | 0 | | |
| Cable exit direction (Right) | CJR | See P.119 | 0 | Canr | ot be |
| Cable exit direction (Left) | CJL | See P.119 | 0 | sele | cted |
| Cable exit direction (Bottom) | CJB | See P.119 | 0 | | |
| Slider cover | со | See P.119 | Cannot be selected O | | |
| Non-motor end specification | NM | See P.120 | 0 | 0 | 0 |
| Slider section roller specification | SR | See P.120 | 0 | 0 | Cannot be selected |

* Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for ** Outside as standard. Be sure to specify. more information.



Note 1. The configuration position in the figure is home. Note 2. The diagram shows first and second wirings with cable tracks. Note 3. Refer to P.121 for the details of the cable tracks.

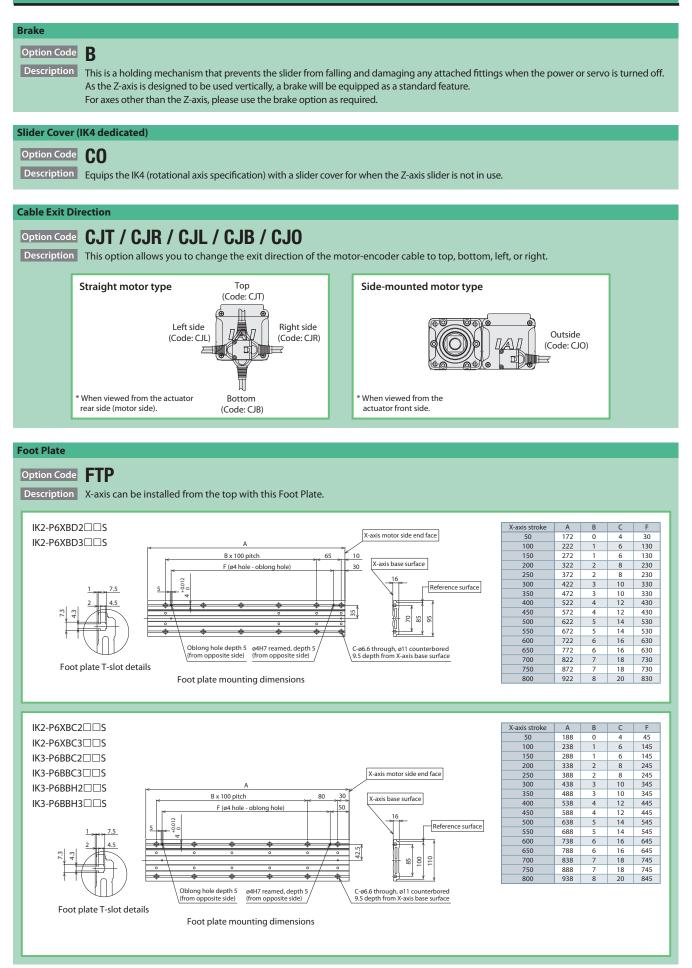


Dimensions by Stroke

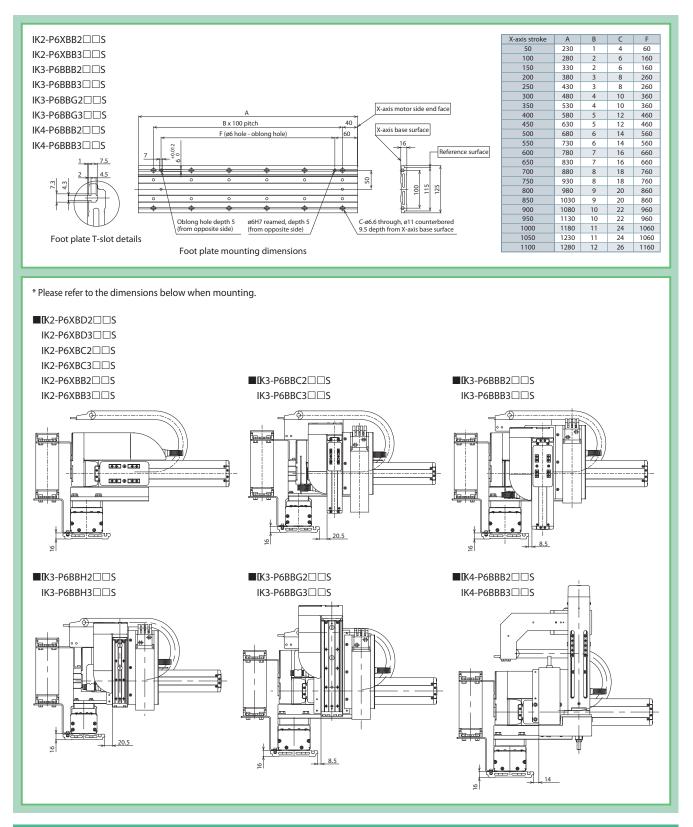
| X: Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|------------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A | 237 | 287 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 937 | 987 |
| В | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| С | 4 | 4 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 |
| D | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| E | 147 | 197 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 | 47 | 97 |
| F | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| G | - | - | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 |
| Н | 221 | 246 | 271 | 296 | 321 | 346 | 371 | 396 | 421 | 446 | 471 | 496 | 521 | 546 | 571 | 596 |
| | | | | | | | | | | | | | | | | |
| Cable track size | CT | CTM | CTL | CTXL | | | | | | | | | | | | |
| Q1 | 397.5 | 409.5 | 424.5 | 442.5 | | | | | | | | | | | | |
| Q2 | 83 | 95 | 110 | 128 | | | | | | | | | | | | |

* Dimensions Q1 and Q2 change depending on the size of the cable track.

Cartesian RoboCylinder Options



Cartesian RoboCylinder



Non-motor End Specification

Option Code NM

Description The normal home position is set by the slider and rod on the motor side, however there is the option for the home position to be on the other side to accommodate variations in equipment layout, etc. (Please note that changing the home position after the actuators are shipped may require the products to be sent back to IAI for re-setting.)

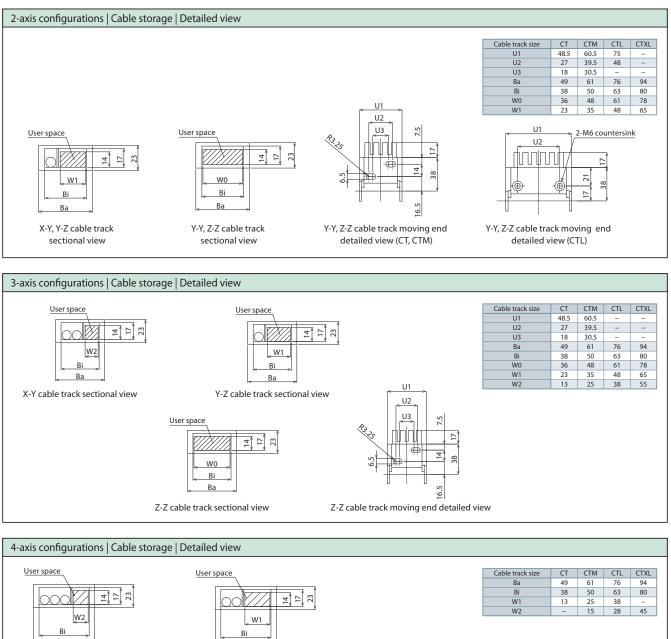
Slider Roller Specification

Option Code SR

DescriptionThe slider of the standard slider type specification is changed to the same roller structure as the cleanroom type. When using the slider
roller spec., the appearance and dimensions of the slider cover will be the same as the cleanroom type.
Changing to roller specification will make the external view and dimensions of the slider cover the same as the cleanroom type.

Appendix

Cable Track



X-Y cable track sectional view

Ba

Y-ZR cable track sectional view

Ba

Bigger user space is available by ordering as a special specification, if it is insufficient. Please refer to each controller page.

Cable Length

| Cable code | Length | RCP6 2-axis IK2-P6 | RCP6 3-axis IK3-P6 | RCP6 4-axis IK4-P6 | |
|------------|--------|-----------------------|-----------------------|-----------------------|--|
| 1L | 1m | 0 | 0 | 0 | |
| 2L | 2m | 0 | 0 | 0 | |
| 3L | 3m | 0 | 0 | 0 | |
| 4L | 4m | 0 | 0 | 0 | |
| 5L | 5m | 0 | 0 | 0 | |
| 6L | 6m | 0 | 0 | 0 | |
| 7L | 7m | 0 | 0 | 0 | |
| 8L | 8m | 0 | 0 | 0 | |
| 9L | 9m | 0 | 0 | 0 | |
| 10L | 10m | 0 | 0 | 0 | |
| 11L | 11m | 0 | 0 | 0 | |
| 12L | 12m | 0 | 0 | 0 | |
| 13L | 13m | 0 | 0 | 0 | |
| 14L | 14m | 0 | 0 | 0 | |
| 15L | 15m | 0 | 0 | 0 | |

Table of Maximum Speed by Stroke

Only models and axes whose maximum speed varies depending on the stroke are listed.

For models and axes not listed below, there is no change in the maximum speed depending on the stroke. Please refer to the product pages. However, the maximum speed may not be reached if the stroke is short or the acceleration is low.

■ IK2-P6XBD1□□S X-axis: SA6R

■ IK2-P6XBD2□□S X-axis: SA6C

■ IK2-P6XBD3□□S X-axis: SA6C

- IK2-P6XBC1□□S X-axis: SA7R
- IK2-P6XBC2□□S X-axis: SA7C
- IK2-P6XBC3□□S X-axis: SA7C

(Unit: mm/s)

| ■ IK2-P6XBD3□□S X-axis: SA6C (Unit: mm, | | | | | | | | |
|---|------------------------|-------------|--|--|--|--|--|--|
| Speed type | 50~750 (Every 50mm) | 800 (mm) | | | | | | |
| SS | 640 | 575 | | | | | | |
| | | | | | | | | |

| IK2-P6XBC3 SX-axis: | SA7C | | (Unit: mm/s) |
|----------------------|------------------------|-------------|--------------|
| Stroke Speed type | 50~700 (Every 50mm) | 750 (mm) | 800 (mm) |
| MM | 280 | 275 | 245 |
| НН | 50 | 50 | 500 |
| SS | 640 | | |

- IK2-P6XBB1□□S X-axis: SA8R
- IK2-P6XBB2□□S X-axis: SA8C
- IK2-P6XBB3□□S X-avis: SA8C

| Speed type | roke 50~900 (Every 50mm) | 950 (mm) | 1000 (mm) | 1050 (mm) | 1100 (mm) | |
|------------|-----------------------------|-------------|--------------|--------------|--------------|--|
| MM | 300 | 285 | 260 | 235 | 220 | |
| НН | | 400 | | | | |
| SS | | 650 | | | | |

■ IK2-P6XBE1□□S X-axis: WSA16R ■ IK2-P6XBE2□□S X-axis: WSA16C

■ IK2-P6XBE3□□S X-axis: WSA16C

| ■ IK2-P6XBE3□□S X-a | (Unit: mm/s | |
|----------------------|-------------------------|--------------|
| Stroke Speed type | 50~1050 (Every 50mm) | 1100 (mm) |
| MH | 210 | 205 |
| НН | 30 | 55 |

■ IK2-P6YBD1□□S Y-axis: SA6R

■ IK2-P6YBD2□□S Y-axis: SA6C

■ IK2-P6YBD3□□S Y-axis: SA6C

| | | | | (01111111111)) |
|------------|--------------|------|------|----------------|
| Stroke | 50 050 | 700 | 750 | 800 |
| Speed type | (Every 50mm) | (mm) | (mm) | (mm) |
| SM | 800 | 735 | 650 | 575 |
| SH | 800 | /33 | 050 | 575 |

■ IK3-P6BBE1□□S X-axis: WSA16R

■ IK3-P6BBE2□□S X-axis: WSA16C

■ IK3-P6BBE3□□S X-axis: WSA16C

| ■ IK3-P6BBE3□□S X-axis: WSA16C | | | (Unit: mm/s) |
|--------------------------------|--------|---------------------------|--------------|
| Speed Type | Stroke | 50 ~ 1050 (Every 50mm) | 1100 (mm) |
| MHL | | | |
| MHM | | 210 | 205 |
| MHH | | 210 | 205 |
| MHS | | | |

■ IK4-P6BBB1□□S X-axis: SA8R

■ IK4-P6BBB2□□S X-axis: SA8C

MM

| ■ IK4-P6BBB3□□S X-axis: SA8C | | | | | | |
|------------------------------|--------------|------|------|------|---|--|
| Stroke | 50 ~ 900 | 950 | 1000 | 1050 | Γ | |
| Speed Type | (Every 50mm) | (mm) | (mm) | (mm) | | |

300

R-Axis Allowable Moment of Inertia, and Angular Velocity and Angular Acceleration/Deceleration

235

260

| R-axis allowable moment of inertia | Set angular velocity | Set acceleration/deceleration |
|------------------------------------|----------------------|-----------------------------------|
| 0.010kg·m ² | 300 deg/s | 0.10 G (1000 deg/s ²) |
| 0.008kg·m ² | 400 deg/s | 0.18 G (1778 deg/s ²) |
| 0.006kg·m ² | 500 deg/s | 0.28 G (2778 deg/s ²) |
| 0.005kg·m² | 600 deg/s | |
| 0.004kg·m ² | 800 deg/s | 0.30 G (2940 deg/s ²) |
| 0.003kg·m² or less | 1000 deg/s | |

285

■ IK2-P6YBI1□□S Y-axis: SA6R ■ IK2-P6YBI2□□S Y-axis: SA6C

■ IK2-P6YBI3□□S Y-axis: SA6C

(Unit: mm/s) 1100 (mm)

220

| | s: SA6C | | | (Unit: mm/s) |
|------------|--------------|------|------|--------------|
| Stroke | 50~650 | 700 | 750 | 800 |
| Speed type | (Every 50mm) | (mm) | (mm) | (mm) |
| SH | 800 | 735 | 650 | 575 |

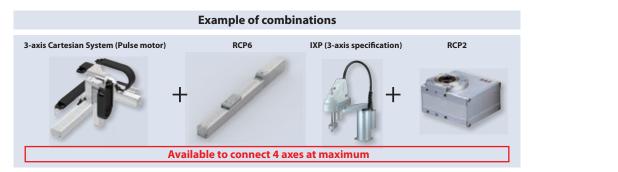




Features

Control maximum of 4 axes available with pulse motor mounted RoboCylinder

It is also available for interpolation operation, widening the range of possible applications

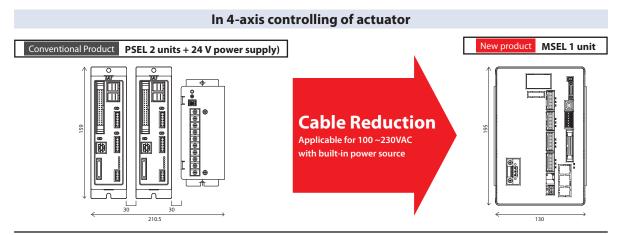


Available to connect RoboCylinders RCP6/RCP5/RCP4

By applying PowerCon, it is now possible to perform interpolation operation with RoboCylinders RCP6/RCP5/RCP4, which are applicable for high-output driver, but were not feasible with the program controller PSEL in the past.

Reduced wiring/space saving

Until now, with 4 axes controlled for the actuator, 2 controllers (PSEL) for 2-axis control and a 24 V power supply were required. Using MSEL with a built-in power supply, 4-axis control is possible with 1 controller. As a result, wiring is reduced and space is saved.



Equipped with expansion I/O slot

In addition to standard IO (IN 16 points / OUT 16 points), one slot is available as the expansion I/O slot. The expansion I/O is available to select from either a PIO (IN 16 points / OUT 16 points) or one of the various available communication boards.

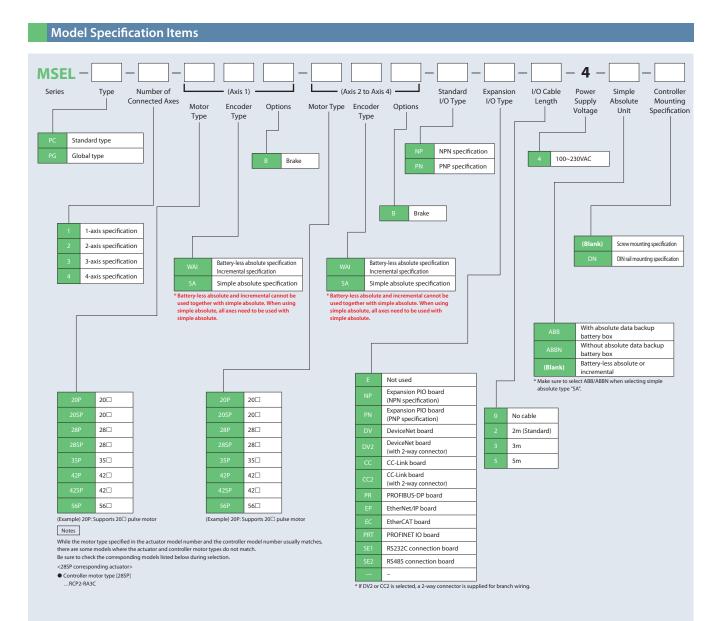
123 MSEL

List of Models

Program controller available for operation of RCP6/RCP5/RCP4/RCP3/RCP2 series actuator. A single unit can handle various forms of control.

| Type name | PC | PG | | |
|--------------------------------|-------------------------|--|--|--|
| Туре | Standard type | Global type with Safety Category Specification | | |
| External view | | | | |
| Max. number of controlled axes | 4 | | | |
| No. of positions | 30000 points | | | |
| Power supply | Single-phase 100~230VAC | | | |
| Safety Category | В | 3 *1 | | |

*1: To comply with the safety category, the customer will need to install a safety circuit external to the controller.

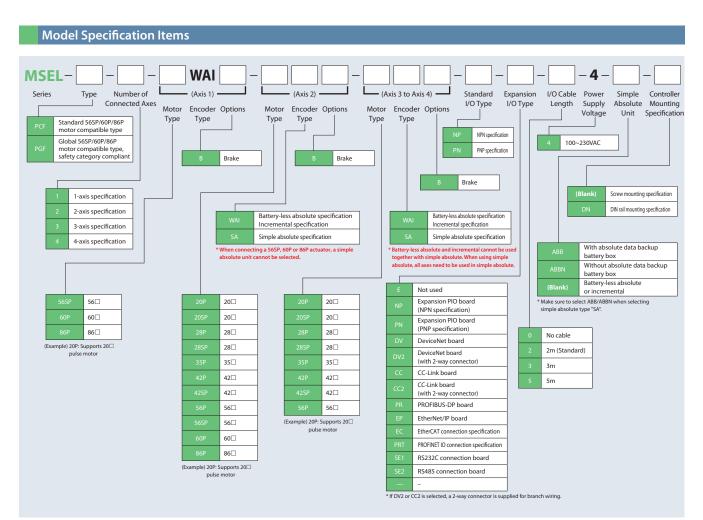


When connecting an actuator with the motor type 56SP, 60P, or 86P.

List of Models

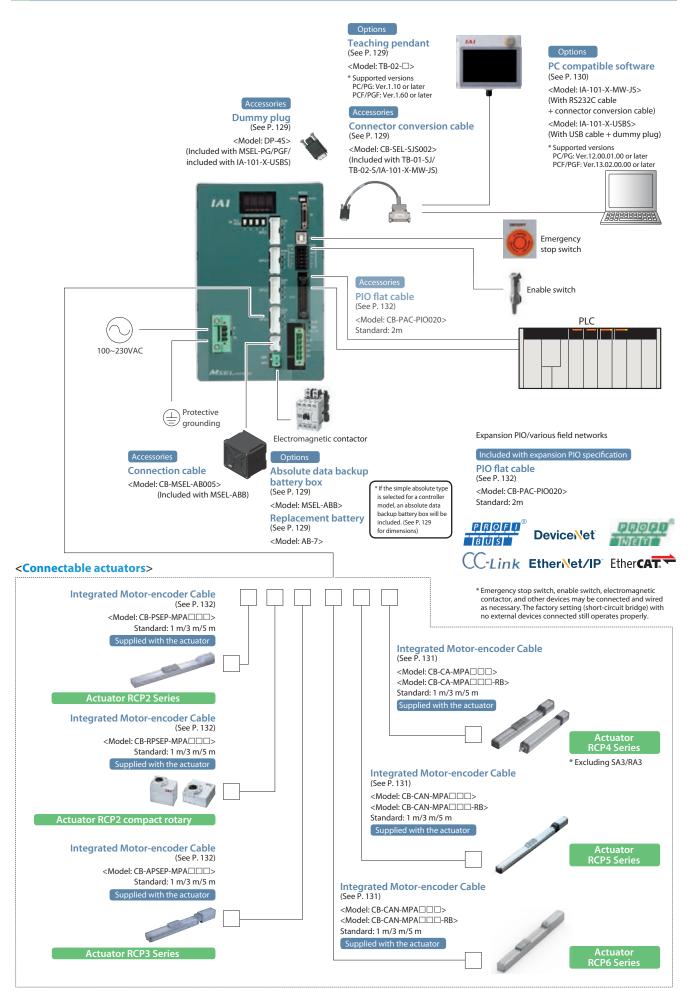
| Type name | Pr | PCF | PGF | | |
|------------------------------------|---|---|---|--|--|
| Туре | | - | Global high-thrust motor compatible type with Safety Category Spec. | | |
| External view | | | | | |
| Max. number of controlled axes | | 4 | 4 | | |
| No. of positions | | 30000 p | points | | |
| Power supply | | Single-phase | 100~230VAC | | |
| Safety Category | E | В | 3 *1 | | |
| Standard specification price | 1 Base price Number of axes Price 1-axis specification 2-axis specification 3-axis specification 4-axis specification | 256SP, 60P, 86P actuator quantityNumber of axesPrice1-axis2-axis | 3 Quantity of simple absolute encoders Number of axes Price 1-axis 2-axis 2-axis 3-axis Standard price by specification | | |

*1: To comply with the safety category, the customer will need to install a safety circuit external to the controller.



125 MSEL





| | fications | | |
|---|------------------------|------------------------|---|
| Specificat | ion item | | Description |
| Power supply input voltage | | | Single-phase 100~230 VAC ±10% |
| Power supply current | | | 2.9A typ. (100 VAC), 1.4A typ. (200 VAC), 1.2A typ. (230 VAC) |
| Power frequency range | | | 50/60Hz ±5% |
| Motor type | | | Pulse motor (servo control) |
| Supported encoders | | | Incremental Encoder/Battery-Less Absolute Encoder |
| Data storage device | | | FlashROM/FRAM |
| Number of program steps | | | 9999 |
| Number of positions | | | 30000 |
| Number of programs | | | 255 |
| Number of multi-tasks | | | 16 |
| Operation mode | Serial commu | nication | 0 |
| Operation mode | Program | | 0 |
| | Communicatio | on method | RS232 (asynchronous communication) |
| SIO interface | Baud rate | | 9.6, 19.2, 38.4, 57.6, 76.8, 115.2kbps |
| Sio interface | Live wire | TP port | - |
| | connection | USB | 0 |
| | | Number of input points | 16 points |
| | Input specification | Input voltage | 24VDC ± 10% |
| | | Input current | 7mA/circuit |
| | | ON voltage | Min. 16VDC |
| | | OFF voltage | Max. 5VDC |
| | | Leak current | Allowable leak current: 1mA max. |
| Standard PIO interface | | Isolation method | Photocoupler insulation |
| | | Number of output | 16 points |
| | | Load voltage | 24VDC ± 10% |
| | Output | Max. current | 100mA/1 point, 400mA/8 points (Note 1) |
| | specification | Saturated voltage | Max. 3V |
| | | Leak current | Max. 0.1mA |
| | | Isolation method | Photocoupler insulation |
| | | | Expansion PIO NPN specification (16IN/16OUT) |
| Applicable expansion I/O interface | | | Expansion PIO PNP specification (16IN/16OUT) |
| | | | CC-Link (remote device station), DeviceNet, PROFIBUS-DP, PROFINET IO, EtherCAT, EtherNet/IP, RS232C, RS485 |
| Calendar/clock function | Retention time | | Approx. 10 days |
| | Charging time | | Approx. 100 hours (full charge) data retention is possible even if the batteries are not fully charge |
| Protection function | | | Overcurrent, abnormal temperature, fan speed degradation monitoring, encoder disconnection, etc. |
| Operating temperature range | | | 0 to 40°C |
| Operating humidity range | | | 85% RH max. (no condensation or freezing) |
| Installation Mounting direction | | | Vertical mounting (exhaust-side top) |
| | Mounting met | thod | Screw mounted or DIN rail mounted |
| Rush current | | | 15A typ. (100 VAC), 30A typ. (200 VAC): 5ms max. (Ambient temperature 25°C/No cycling of the power) |
| Air cooling method | | | Forced air cooling |
| External dimensions | | | Width 130mm x Height 195mm x Depth 125mm |
| Mass Note 1: The total load current is 400mA for even | | | Approx. 1400g |

Note 1: The total load current is 400mA for every eight points from standard I/O No. 316. (The maximum current per point is 100mA.)

PIO Signal Chart

| Pin No. | Category | Assignment | Pin No. | Category | Assignment |
|---------|----------|------------|---------|----------|------------|
| 1A | 24V | P24 | 1B | | OUT0 |
| 2A | 24V | P24 | 2B | | OUT1 |
| 3A | - | - | 3B |] | OUT2 |
| 4A | - | - | 4B | | OUT3 |
| 5A | | INO | 5B | | OUT4 |
| 6A | | IN1 | 6B | | OUT5 |
| 7A | | IN2 | 7B | | OUT6 |
| 8A | | IN3 | 8B | 0 | OUT7 |
| 9A | | IN4 | 9B | Output | OUT8 |
| 10A | | IN5 | 10B | | OUT9 |
| 11A | | IN6 | 11B | | OUT10 |
| 12A | Input | IN7 | 12B | | OUT11 |
| 13A | input | IN8 | 13B |] | OUT12 |
| 14A | | IN9 | 14B | | OUT13 |
| 15A | | IN10 | 15B | | OUT14 |
| 16A | | IN11 | 16B | | OUT15 |
| 17A | 7 | IN12 | 17B | - | - |
| 18A | | IN13 | 18B | - | - |
| 19A | 7 | IN14 | 19B | 0V | N |
| 20A | | IN15 | 20B | 0V | N |

Pin Layouts for Standard PIO Connector/Evpansion PIO Co



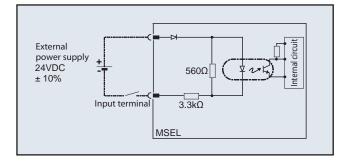
Standard I/O (NPN Specification) Internal Circuit *

* Please refer to the instruction manual for standard I/O (PNP specification)

[Input] External input specification (NPN specification)

| ltem | Specification |
|-------------------|--|
| Input voltage | 24VDC ±10% |
| Input current | 7mA, 1 circuit |
| ON/OFF voltage | ON voltage: min. 16.0VDC; OFF voltage: max. 5.0VDC |
| Insulation method | Photocoupler insulation |

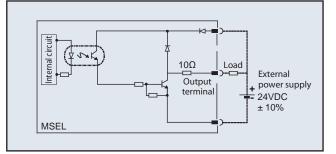
* The port numbers in the circuit diagram below are the default port numbers set at time of shipping. * The allowable leakage current when input is off is 1mA or less.



[Output] External output specification (NPN specification)

| ltem | Specification | | |
|----------------------|--------------------------------------|-------------------|--|
| Load voltage | 24VDC ±10% | TD62084 | |
| Maximum load current | 100mA/1 point, 400mA/8 points (Note) | | |
| Leakage current | 0.1mA max./point | (equivalent) used | |
| Insulation method | Photocoupler insulation | | |

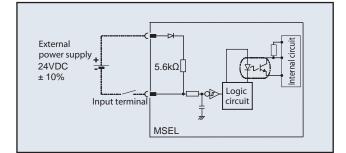
* The port numbers in the circuit diagram below are the default port numbers set at time of shipping. Note: The total load current is 400mA for every eight points from standard I/O No. 316. (The maximum current per point is 100mA.)



Expansion I/O (NPN Specification) Internal Circuit *

[Input] External input specification

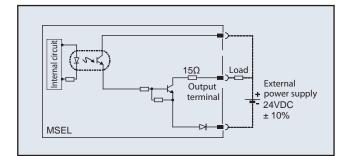
| ltem | Specification |
|-------------------|--|
| Number of input | 16 points |
| Input voltage | 24VDC ±10% |
| Input current | 4mA, 1 circuit |
| ON/OFF voltage | ON voltage: 18VDC min. (3.5mA) OFF voltage: 6VDC max. (1mA) |
| Insulation method | Photocoupler insulation |



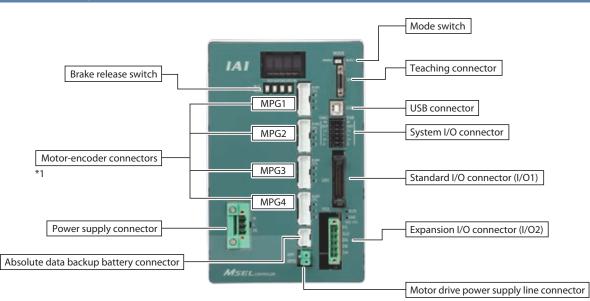
* Please refer to the instruction manual for expansion I/O (PNP specification).

[Output] External output specification

| ltem | Specification |
|--------------------|-------------------------|
| Number of output | 16 points |
| Rated load current | 24VDC ±10% |
| Max. current | 50mA, 1 circuit |
| Insulation method | Photocoupler insulation |



Name of Each Component

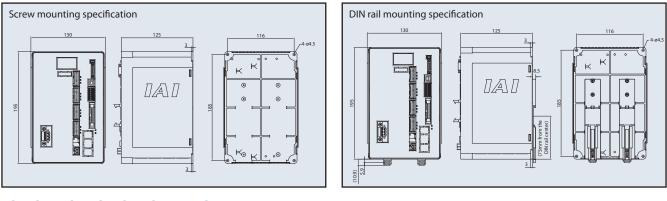


*1: Do not connect a motor to the wrong MPG1, MPG2, MPG3, or MPG4 connector. This may lead to malfunction or failure.

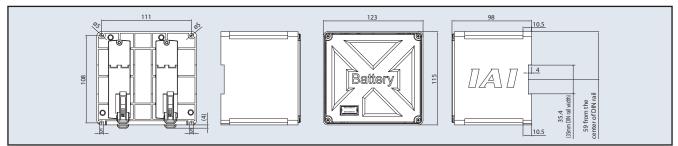
MSEL Controller

External dimensions

Controller



Absolute data backup battery box



Options

Teaching pendant

Features A teaching device equipped with functions such as program and position input, trial operation, monitoring, etc.

Model TB-02-

Configuration





| Rated voltage | 24V DC |
|-------------------------------|------------------------------|
| Power consumption | 3.6W or less (150mA or less) |
| Ambient operating temperature | 0 to 40°C |
| Ambient operating humidity | 20~85% RH (no condensation) |
| Environmental resistance | IP20 |
| Mass | 470g (TB-02 unit only) |

-n n

п

Absolute data backup battery box

- **Overview** If the simple absolute type is selected with the code ABB, the absolute data backup battery box is included with the controller. However, if the battery box is ordered as a separate unit, batteries will not be included, only the box itself. If the battery is needed, please purchase it separately (Model: AB-7).
- Model MSEL-ABB (battery sold separately)

External Dimensions See page above

* Cable that connects the absolute data backup battery box and MSEL (Model: CB-MSEL-AB005) is included with the box.



Dummy plug

I Features Required when operating safety category specification (MSEL-PG/PGF) units or when operated using a USB cable. (MSEL-PG/PGF type, PC software IA-101-X-USBS accessory)

Model DP-4S



Connector conversion cable

I Features Converts a teaching pendant or RS232C cable D-sub 25-pin connector to an MSEL teaching connector. (TB-01-SJ, TB-02-S, IA-101-X-MW-JS accessory)

Model CB-SEL-SJS002



Replacement battery

| Replacement battery |
|-----------------------|
| for the absolute data |
| backup battery box. |
| |

Model AB-7

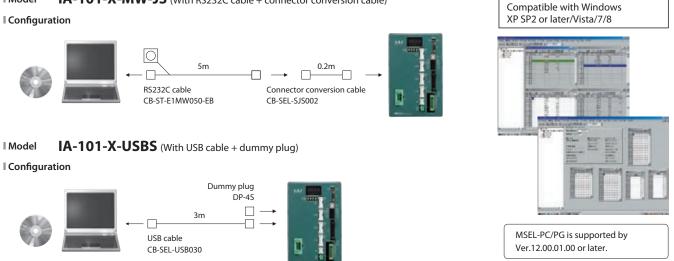


* The number of required absolute batteries is the same as the number of axes.

PC compatible software (Windows only)

Features This is start-up support software which comes equipped with functions such as program/position input, trial operation, monitoring, etc. The functions required for debugging have been significantly improved to shorten the start-up time.

I Model IA-101-X-MW-JS (With RS232C cable + connector conversion cable)



CB-ST-E1MW050-EB cannot be used "when building an enable system using the system I/O connector and an external power supply" or "when building a redundant safety circuit". (The use of CB-ST-A2MW050-EB is required.) For more details of a safety category compliant system with a safety circuit emergency stop connector kit IA-101-XA-MW-JS contact IAI.

Maintenance Parts

When placing an order for a replacement cable, please use the model name shown below. (* For connectable actuators, please contact IAI for more information.)

Table of compatible cables

| | | Model name | Integrated Motor-encoder Cable | Integrated Motor-encoder Robot Cable | |
|------------|--|--|--------------------------------|--------------------------------------|--|
| 1 | RCP6/RCP6CR/RCP5/RCP5CR/RCP5W (Models other than (3)) | | CB-CAN-MPA | CB-CAN-MPA | |
| 2 | RCP4 | SA3/RA3/GR | | | |
| 3 | RCP6/RCP6CR RCP5 RCP5W | SA8/RRA8 RA7 (High thrust specification)/RA8/RA10 WSA16/WRA16 | CB-CFA3-MPA | CB-CFA3-MPA - RB | |
| 4 | (M | RCP4/RCP4CR/RCP4W odels other than (2), (5), (6)) | СВ-СА-МРА | CB-CA-MPA | |
| 5 | RCP4 | RA6C (High thrust specification) | | CB-CFA2-MPA | |
| 6 | RCP4W | RA7C (High thrust specification) | | | |
| \bigcirc | | RCP3 | | | |
| 8 | RCP2 | GRSS/GRLS/GRST/GRHM/GRHB/SRA4R/ SRGS4R/SRGD4R | _ | CB-APSEP-MPA 🗆 🗆 | |
| 9 | | RTBS/RTBSL RTCS/RTCSL | _ | CB-RPSEP-MPA | |
| 10 | | GRS/GRM GR3SS/GR3SM | | | |
| 1) | RCP2CR RCP2W | RTBS/RTBSL RTCS/RTCSL/RTB/RTBL/RTC/RTCL/RTBB/ RTBBL/RTCB/RTCBL | СВ-САN-МРАППП | CB-CAN-MPA - RB | |
| (12) | RCP2 RA10/H58 RCP2CR RA10/H58 RCP2W RA8 | | CB-CFA-MPA | CB-CFA-MPA - RB | |
| (13) | RCP2W | SA16C | | | |
| 14 | ٩) | RCP2 Aodels other than (8)~(13)) | - | CB-PSEP-MPA | |
| | | Model name | PIO fla | at cable | |
| 15 | | PCON-CB-CGB/CFB-CGFB | CB-PAC- | PIO 🗆 🗆 | |



Maintenance Parts

(18)

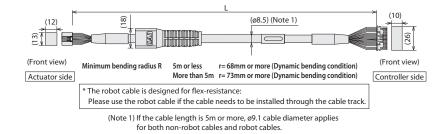
Minimum bending radius R

(45)

(30)

(Front view

Actuator side



(ø8.5) (Note 1)

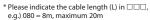
3m or less

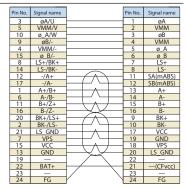
Please use the robot cable if the cable needs to be installed through the cable track (Note 1) If the cable length is over 3m, ø9.1 cable diameter applies for a non-robot cable and ø10 for a robot cable.

* The robot cable is designed for flex-resistance:

r= 68mm or more (Dynamic bending condition)

More than 3m r= 73mm or more (Dynamic bending condition)





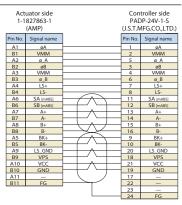
* Please indicate the cable length (L) in e.g.) 080 = 8m, maximum 20m

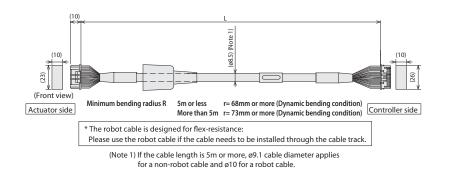
(10)

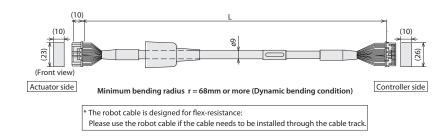
(Front view)

Controller side

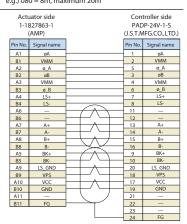
(26)



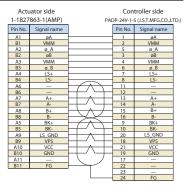




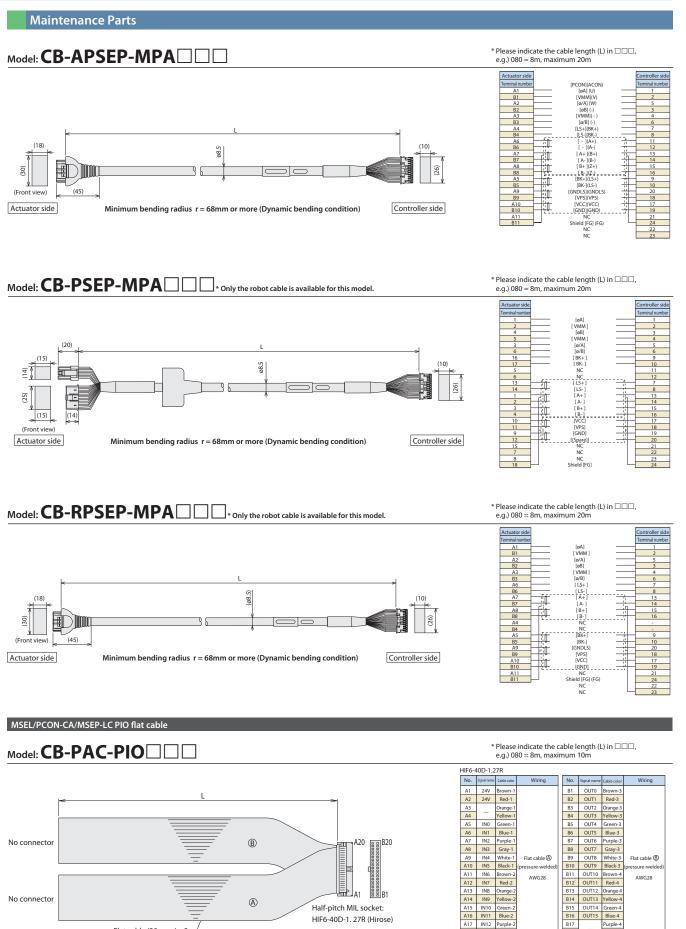
* Please indicate the cable length (L) in □□□, e.g.) 080 = 8m, maximum 20m



* Please indicate the cable length (L) in $\Box \Box \Box$, e.g.) 080 = 8m, maximum 20m



131 MSEL



Flat cable (20-core) x 2

urple-

Gray-4

B18

B19 B20 0V 0V White-4 Black-4

A17 IN12

A18 IN13

A19 IN14 A20 IN15

urple

Gray-2

PCON-CB/CFB Controller

PCON·CB/CFB

Position Controller for RCP6/RCP5/ RCP4 (PowerCon Applicable) /RCP3/RCP2

Features

High-resolution battery-less absolute encoder compatible

The RCP6 equipped with a high-resolution battery-less absolute encoder is supported. Since no battery is needed to retain position data, less space is required in the control panel, which in turn leads to lower cost of your equipment. The resolution is increased from 800 pulses/rev to 8192 pulses/rev.



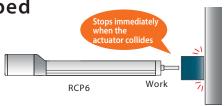
2 PowerCon Equipped

PowerCon (high-output driver) which can enable the pulse motor to perform at its maximum capacity is now installed. By using PowerCon, the output of the pulse motor is increased by 50%. It contributes to cycle time reduction and productivity improvement.

3 Collision Detection Function Equipped

This function stops the operation immediately when the actuator comes into contact with an object.

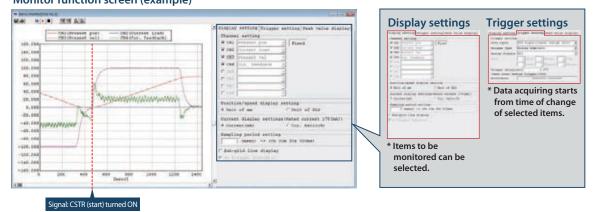
The actuator stops without crashing, so that damage to the actuator can be minimized.



4 Enhanced Monitor Functions

The PC compatible software can display information about the actuator and controller in operation as waveforms. *Information that can be displayed: Command current value, current speed/position, and PIO signals (start, positioning completion, alarm, etc.) Using the trigger function, the end user can specify a particular moment, either a change in PIO signals or a designated moment during the actuator's operation time, to begin displaying the waveforms.

Monitor function screen (example)

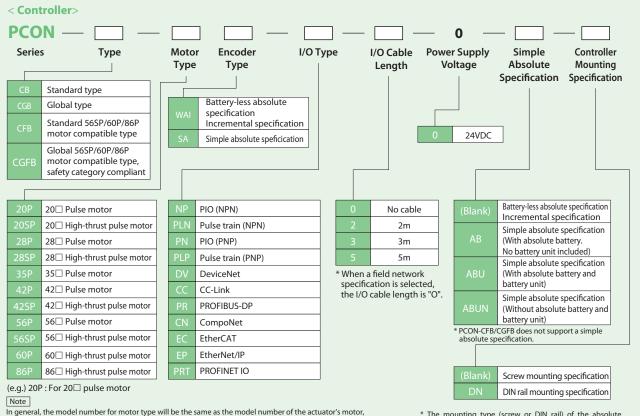


PCON-CB/CFB Controller

List of Models

| | I | Model nu | mber | PCON-CB/CGB, CFB/CGFB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|--------------------------------------|---|-----------------------|------------------------|-----------|--|-----------------|------------|-------------|-------------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------|---|---|---|---|---|---|---|---|---|
| External view | | | | | | | Annual Providence of the Provi | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | Field | network | type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | I/O type | | Positioner type | Pulse- train type | DeviceNet [®] | CC-Link | ₽ŖŎĘŢ [®] İbūsi | CompoNet | Ether CAT. | EtherNet/IP | 00000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | type | traintype | DeviceNet | CC-Link | PROFIBUS- DP | CompoNet | EtherCAT | EtherNet/IP | PROFINET IO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | I/O ty | /pe mode | el number | NP/PN | PLN/PLP | DV | СС | PR | CN | EC | EP | PRT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Battery-le specificat Incremen | ess absolute ion ital specification | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| РСС | DN- | Simple | With absolute battery | 0 | _ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CB/ | CGB | absolute | | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | absolute | With absolute battery unit | 0 | — | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | Without absolute battery | 0 | — | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CFE | PCON- Battery-less absolute CFB/ specification CGFB Incremental specification | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Model Specification Items



In general, the model number for motor type will be the same as the model number of the actuator's motor, but there is a few exceptions which the model number of controller and actuator do not match.

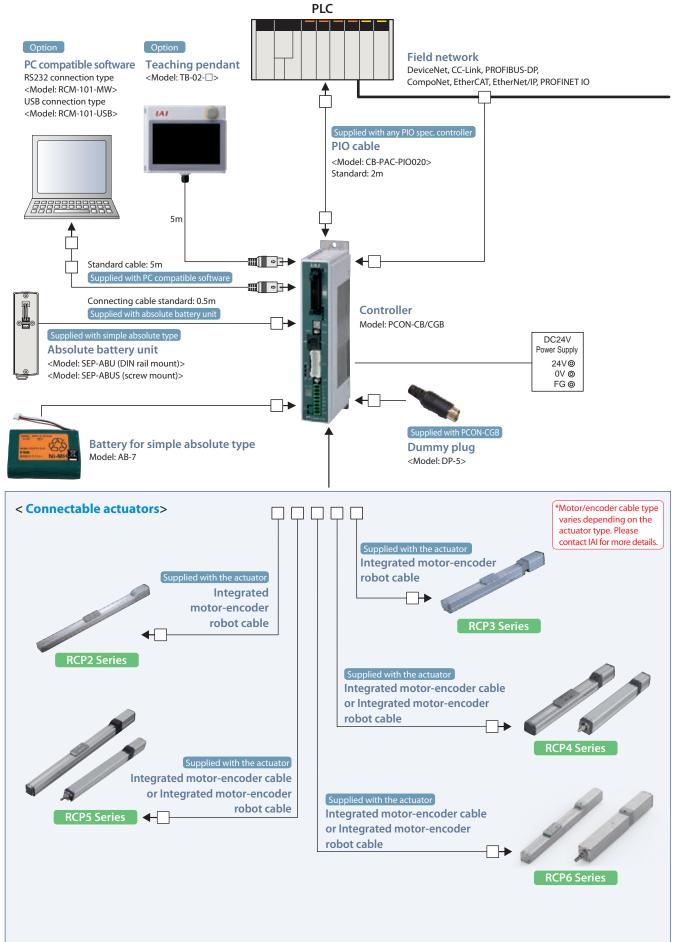
Below is the list of those models. Please be careful when these item(s) are selected. <28SP applicable actuator> • Controller Motor Type [28SP] RCP2-RA3C

* The mounting type (screw or DIN rail) of the absolute battery unit and the controller must be the same.

PCON-CB/CFB Controller

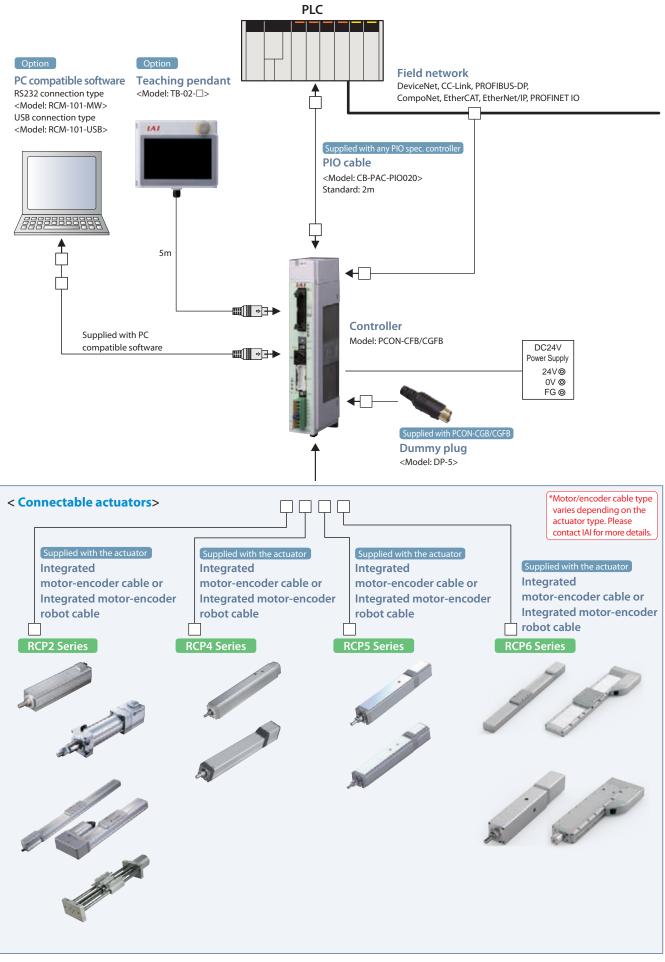
System Configuration

PowerCon 150 <PCON-CB/CGB>



System Configuration

■ 56SP/60P/86P Motor Compatible <PCON-CFB/CGFB>



MCON-C/CG MCON-LC/LCG Controllers

Features

MCON-C/CG, MCON-LC/LCG(*) Common

(*) Coming soor

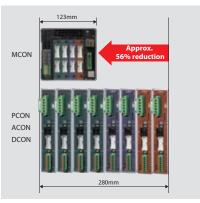


Saves space and reduces cost

It saves space in the control panel and significantly reduces the total cost by combining 8[°] controllers into one.

* For MCON-C/CG





2 Accommodates a wide range of actuators

It corresponds to actuators with battery-less absolute encoders, ultra-compact micro cylinders, multi-rotation rotaries and more, expanding the operable actuators from small to large.

In addition, it is equipped with the PowerCon (high-output driver), and achieves maximum speeds 1.5 times higher and maximum load capacities over 2 times higher than conventional models when used in combination with the RCP6/RCP5/RCP4 actuators.

Allows the installation of 7 types of driver boards

- (1) Battery-less absolute/incremental driver boards for pulse motor
- (2) Simple absolute driver board for pulse motor
- (3) Battery-less absolute/incremental driver boards for PowerCon
- (4) Simple absolute driver board for PowerCon
- (5) Battery-less absolute/incremental driver boards for 24VAC servo motor
- (6) Simple absolute driver boards for 24VAC servo motor



Many useful functions

Servo monitoring in AUTO mode function

- · AUTO mode servo monitoring can now be performed using multiaxis controllers.
- In addition, the monitoring can start from the moment that the condition of a selected signal changes. (Trigger function)

Calendar function

• With the addition of the clock function, the alarm history is displayed with the time of occurrence, making it easier for the alarm to be analyzed.

Smart tuning function

• The optimum acceleration and deceleration are set according to the payload to be carried.



Off-board tuning function (For 24VAC servo motor) • The optimum gain is set according to the payload.

Vibration control function (For 24VAC servo motor)

 \cdot It reduces the shaking (vibration) of the workpiece attached to the slider.

Acceleration/deceleration mode specification

• The acceleration and deceleration patterns can be specified from the trapezoid pattern, first-order delay filter and S-shaped motion.

Axis name display function

- The axis name can be displayed in the PC compatible software and touch panel teaching box.
- * Some functions cannot be used, depending on the network. Please refer to the instruction manual.

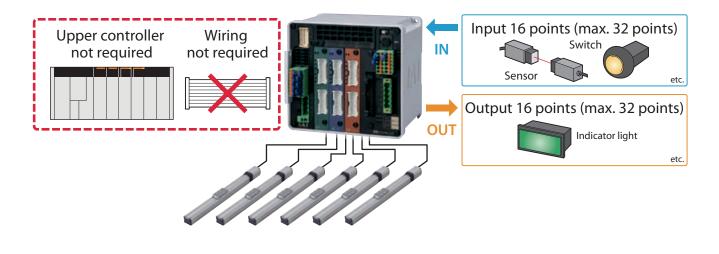
MCON-LC/LCG(*)

(*) Coming soon



Capable of operating actuators by ladder programs and ON/OFF control of I/O (input and output) signals. Small-scale systems can be controlled by MCON-LC/LCG only. Load on the main PLC can be reduced by performing distributed control using MCON-LC/LCG for each procedure. In addition, it enables easier program simplification and troubleshooting.

* Please refer to the table below for more information about ladder programs.





Features of ladder software

As MCON-LC/LCG can be controlled by ladder programs, those who are familiar with PLC can easily use it. In addition, "Dedicated Commands" for moving the actuator are available within the ladder program, making it even easier to control.

The editing software "LC-LADDER" can be used to easily write, monitor and debug ladder programs.

1 Program writing

Programs can be written using 27 types of basic command (contact command, output commands, etc.) and 53 types of application command (data comparison, arithmetic, logical, etc.).

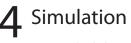
3 Debug function

Run the program under the specified conditions to check the operation of the program.





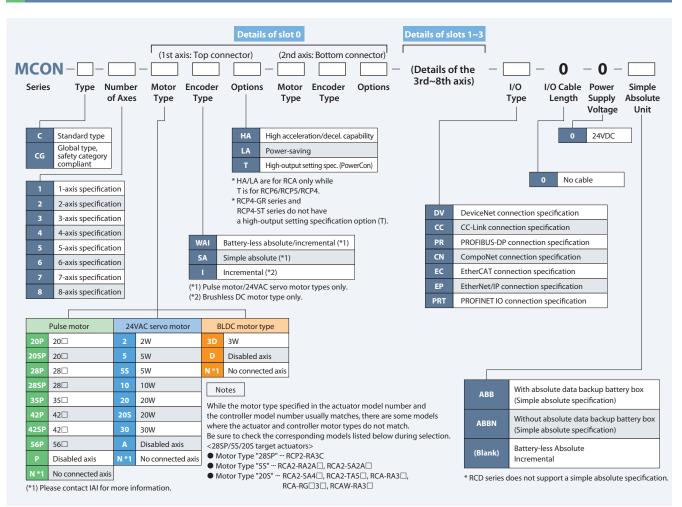
The state when the program is run can be checked by respective functions.

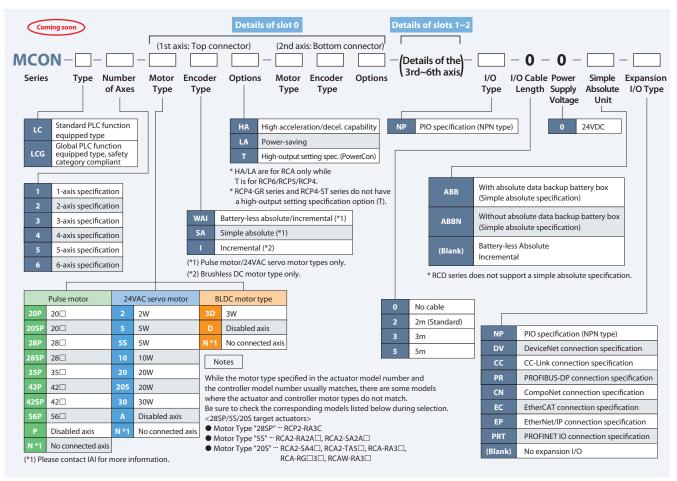


You can check the program on a PC (test run) without operating it on the controller.

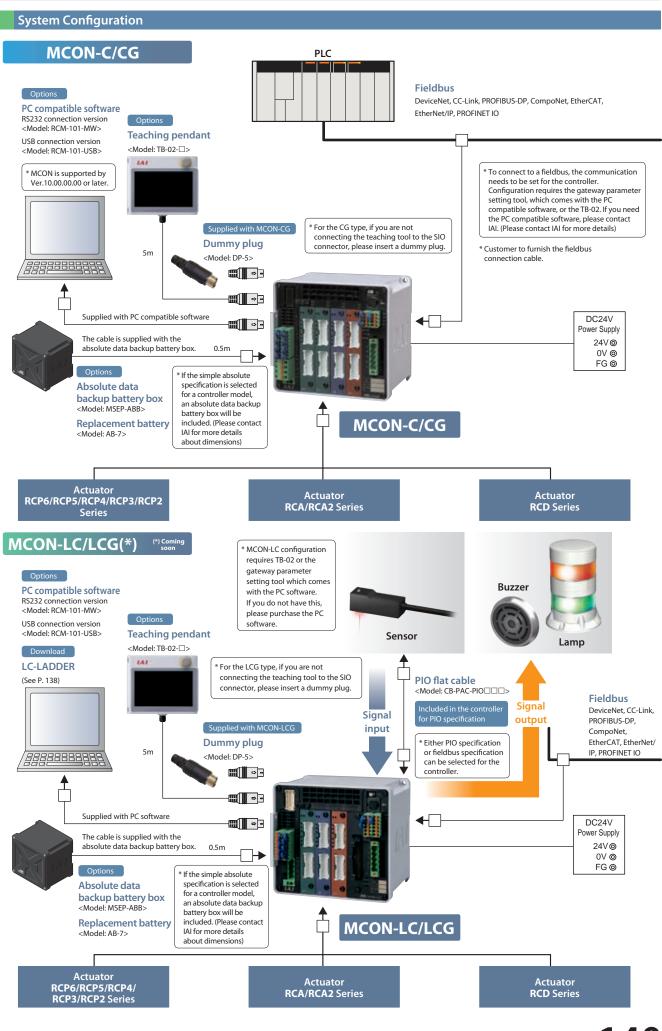
MCON-C/CG MCON-LC/LCG Controllers

Model





MCON-C/CG | MCON-LC/LCG Controllers



MCON-C/CG MCON-LC/LCG Controllers

Standard Price Chart

Calculate the standard price of the MCON controller based on 1 base price by type and add 2 slot model price, 3 quantity of simple absolute, 4 quantity of batteries for simple absolute, 5 I/O type, and 6 expansion I/O type.



3 Quantity of simple absolute encoders

Add the price of the number of axes to be operated by the simple absolute.

+

| 1 | | | | |
|---|---------------------------------|-------|---|--|
| Base | price by type | | | |
| Description | Model Specification Items | Price | | |
| Standard type | MCON-C | | + | |
| Safety Category type | MCON-CG | | | |
| Standard type with PLC function | MCON-LC | | | |
| Safety Category type with PLC function | MCON-LCG | | | |

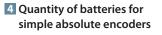
| 2 | | | | | |
|--|--------------------------------|--|-------------|--|--|
| Slot model price (Add the total amount of slots to be used) | | | | | |
| | Details of slot Model Items | | | | |
| | | Battery-less Absolute/ Incremental (For PowerCON) | □PWAIT-N | | |
| | 1-axis | Simple absolute (For PowerCON) | □PSAT-N | | |
| | 1-6 | Battery-less Absolute/ Incremental (For standard) | □PWAI-N | | |
| Pulse motor | | Simple absolute (For standard) | □PSA-N | | |
| | | Simple absolute (For standard) + | □PSA-□PSA | | |
| | | Simple absolute (For standard) | | | |
| | 2-axis | Battery-less absolute/ Incremental (For standard) | | | |
| | | + Battery-less abs./ Incremental (For standard) | □PWAI-□PWAI | | |
| | 1-axis | Battery-less Absolute/ Incremental (For standard) | □WAI-N | | |
| | | Simple absolute (For standard) | □SA-N | | |
| AC servo | | Battery-less absolute/ Incremental (For standard) | □WAI-□WAI | | |
| motor | 2-axis | + Battery-less abs./ Incremental (For standard) | | | |
| | 2 | Simple absolute (For standard) + | □SA-□SA | | |
| | | Simple absolute (For standard) | | | |
| BLDC | 1-axis | Incremental (For standard) | 3DI-N | | |
| servo motor | 2-axis | Incremental (For standard) | 201 201 | | |
| | 2-a | + Incremental (For standard) | 3DI-3DI | | |
| □ indica [.] | tes th | e motor size. | | | |

| Quantity of simple absolute encoders | | |
|--------------------------------------|-------|--|
| Number of axes | Price | |
| 1-axis | 0 | |
| 2-axis | 0 | |
| 3-axis | 0 | |
| 4-axis | 0 | |
| 5-axis | 0 | |
| 6-axis | 0 | |
| 7-axis | 0 | |
| 8-axis | 0 | |

3

* \square indicates the motor size.

+



Add the total battery price of simple absolute (model: ABB) for applicable axes.

+

5 I/O type

+

Select the I/O type of the controller.

(PLC function equipped type "NP" is the only option.

+

6 Expansion I/O type

Select the expansion I/O type of the controller.

(Not required for standard type controllers)

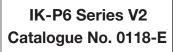
| | 4 | | |
|---|---|-------|---|
| | Quantity of ba for simpl absolute enc | | |
| | Number of axes | Price | |
| | 1-axis | | |
| + | 2-axis | | + |
| | 3-axis | | |
| | 4-axis | | |
| | 5-axis | | |
| | 6-axis | | |
| | 7-axis | | |
| | 8-axis | | |
| | | | |

| 5 | | | |
|---|---------------------------------|-------|--|
| I/O type (NP is only available for the PLC function equipped types.) | | | |
| Туре | Model Specification Items | Price | |
| PIO specification (NPN specification) | NP | | |
| DeviceNet connection specification | DV | | |
| CC-Link connection specification | СС | | |
| PROFIBUS-DP connection specification | PR | | |
| CompoNet connection specification | CN | | |
| EtherCAT connection specification | EC | | |
| EtherNet/IP connection specification | EP | | |
| PROFINET IO connection specification | PRT | | |

| | 6 | | |
|---|---------------------------------|-------|--|
| Expansion I/O type (PLC function equipped type only) | | | |
| Туре | Model Specification Items | Price | |
| PIO specification (NPN specification) | NP | | |
| DeviceNet connection specification | DV | | |
| CC-Link connection specification | СС | | |
| PROFIBUS-DP connection specification | PR | | |
| CompoNet connection specification | CN | | |
| EtherCAT connection specification | EC | | |
| EtherNet/IP connection specification | EP | | |
| PROFINET IO connection specification | PRT | | |

| | Price |
|---|------------------------------------|
| - | Standard price by specification |

* No need to add 3 and 4 for the battery-less absolute type.



The information contained in this catalog is subject to change without notice for the purpose of product inprovement





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