

ROBO Cylinder® Configurations Cartesian Robot K Series



Cartesian Robots have never been more affordable.

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

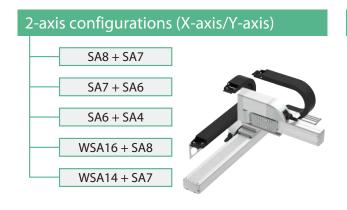
The ROBO Cylinder® RCP6 Series has been adopted to achieve even higher speeds compared with conventional models.



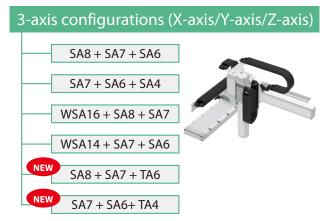
Diverse Configurations

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

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









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.

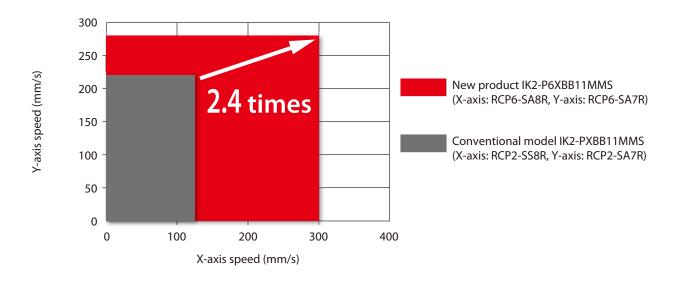


Higher Speed

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.



Robot 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



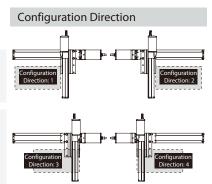
A basic configuration type in which the base of the Y-axis is fixed to the X-axis slider. It is operated by fixing equipment or a Z-axis on the Y-axis slider.

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.

→ 2-axis configurations IK2-P6XB:



YZB (Z-axis base mount) type



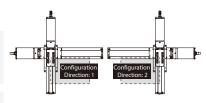
For this type, the base of the Z-axis (vertical axis) is fixed to the Y-axis slider with the Y-axis side-mounted. The Z-axis slider moves vertically, allowing mounting of jigs or chucks for transport, raising, or lowering of workpieces.

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

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

• 2-axis configurations IK2-P6YB:

Configuration Direction



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

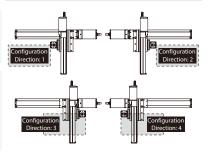
The Z-axis body is fixed and the slider moves vertically.

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.

→ 3-axis configurations IK3-P6BB: p71~118

Configuration Direction



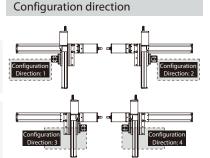
XYB (Y-axis base mount) + ZR (vertical/rotation) unit type

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

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

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

4-axis configurations IK4-P6BB:



Cartesian Robot

ROBO Cylinder 2-axis Configurations

5

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IK2-P6XBD1□□S

_	
7	K2-P6XBD2□□S
9	K2-P6XBD3□□S
11	K2-P6XBC1□□S
13	K2-P6XBC2□□S
15	K2-P6XBC3□□S
17	K2-P6XBB1□□S
19	K2-P6XBB2□□S
21	K2-P6XBB3□□S
23	K2-P6XBF1□□S
25	K2-P6XBF2□□S
27	K2-P6XBF3□□S
29	K2-P6XBE1□□S
31	K2-P6XBE2□□S

IK2-P6XBE3□□S

IK2-P6YBD1□□S

IK2-P6YBD2□□S

IK2-P6YBD3□□S

IK2-P6YBC1□□S

IK2-P6YBC2□□S

IK2-P6YBC3□□S

IK2-P6YBB1□□S

IK2-P6YBB2□□S

IK2-P6YBB3□□S

IK2-P6YBI1□□S

IK2-P6YBI2□□S

IK2-P6YBI3□□S

IK2-P6YBH1□□S

IK2-P6YBH2□□S

IK2-P6YBH3□□S

IK2-P6YBG1□□S

IK2-P6YBG2□□S

IK2-P6YBG3□□S



IK₂



ROBO Cylinder 3-axis Configurations

	IK3-P6BBC1□□S	71
	IK3-P6BBC2□□S	74
	IK3-P6BBC3□□S	77
	IK3-P6BBB1□□S	80
	IK3-P6BBB2□□S	83
	IK3-P6BBB3□□S	86
	IK3-P6BBF1□□S	89
	IK3-P6BBF2□□S	92
IK3	IK3-P6BBF3□□S	95
Stepper Motor	IK3-P6BBE1□□S	98
	IK3-P6BBE2□□S	101
	IK3-P6BBE3□□S	104
	IK3-P6BBH1□□S	107
	IK3-P6BBH2□□S	109
	IK3-P6BBH3□□S	111
	IK3-P6BBG1□□S	113
	IK3-P6BBG2□□S	115
	IK3-P6BBG3□□S	117

ROBO Cylinder 4-axis Configurations

	IK4-P6BBB1□□S	119
	IK4-P6BBB2□□S	121
IK4	IK4-P6BBB3□□S	123
Stepper motor	IK4-P6BBF1□□S	125
	IK4-P6BBF2□□S	128
	IK4-P6BBF3□□S	131



Options		134
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Controller					
MSEL	MSEL	139			
PCON	PCON-CB/CFB	149			
MCON	MCON-C/LC	153			

IK2-P6XBD RCP6 2-axis configurations Y-axis: SA4R (side-mounted) Encoder Type Second Axis (Y-axis) First Axis (X-axis) Model Type Specification IK2 - P6XBD1□□S PM₁ WA ltems Configuration Direction Speed Type **Encoder Type** Stroke Options Controller Cable Length Wiring Wiring WA: Battery-less Absolute Refer to Applicable Controllers table below SS: X Ultra High Speed/ Y Ultra High Speed 5: 50mm 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) Cable Track table below

0.7



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.

Payload by Acceleration SS type: X ultra high speed/Y ultra high speed (Unit: kg) Y-axis stroke 50~150 200~300 Acceleration/ (Every 50mm) (Every 50mm) deceleration (G) 0.1 3 0.3 3 0.5 2

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

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

Stroke 50 250 300 Y-axis stroke (mm 100 150 200 50 100 150 0 0 0 0 0 0 200 250 0 300 0 0 0 0 0 0 350 X-axis stroke 0 0 400 450 500 550 600 650 0 700 750 800 0 0

Applicable Controllers

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

☐ X-axis: SA6R, Y-axis: SA4R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

* 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 Length

Type	Cable code	Length
	1L	1m
Standard type	3L	3m
	5L	5m
		□L

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 (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)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	See P.136	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			
Axis configuration	RCP6-SA6R	RCP6-SA4R			
Stroke (Every 50mm)	50~800mm	50~300mm			
Max. speed *	640mm/s	560mm/s			
Motor size	42□ Stepper motor	35□ Stepper motor			
Ball screw lead	20mm	16mm			
Drive system	Ball screw \phi10mm rolled C10	Ball screw φ8mm rolled C10			
Positioning repeatability	±0.01mm				
Base material	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.137.

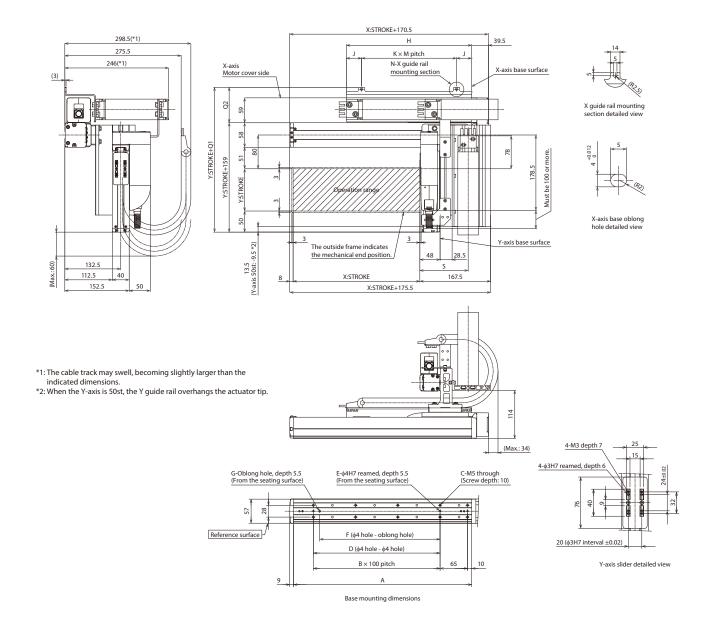
Options

Туре	Option code	Reference page	X-axis	Y-axis
Brake	В	See P.134	0	0
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	Soo D 135	0	0





- 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.136.



(*) 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.136)

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
K	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	СТ	CTM	CTL	CTXL
Q1	243	256	269	286
Q2	84	97	110	127
S	114.5	121	127.5	-

 $^{^{\}ast}$ Dimensions Q1, Q2 and S change depending on the size of the cable track.

0.5

0.7



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.

Payload by Acceleration SS type: X ultra high speed/Y ultra high speed (Unit: kg) Y-axis stroke 50~150 200~300 (mm) Acceleration/ (Every 50mm) (Every 50mm) deceleration (G) 0.1 3 0.3 3

2

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

Stroke 50 250 300 Y-axis stroke (mm 100 150 200 50 100 150 0 0 0 0 0 0 200 250 0 300 0 0 0 0 0 0 350 X-axis stroke 0 400 450 500 550 600 650 0 700 750 800 0 0

Applicable Controllers

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

☐ X-axis: SA6C, Y-axis: SA4R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

* 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 Length

	Type	Cable code	Length
		1L	1m
	Standard type	3L	3m
		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 (X-axis lateral)	Second wiring (Y-axis lateral)
Without cable track (cable only)	N		0	0
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	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			
Axis configuration	RCP6-SA6C	RCP6-SA4R			
Stroke (Every 50mm)	50~800mm	50~300mm			
Max. speed *	640mm/s	560mm/s			
Motor size	42□ Stepper motor	35□ Stepper motor			
Ball screw lead	20mm	16mm			
Drive system	Ball screw \phi10mm rolled C10	Ball screw			
Positioning repeatability	±0.01mm				
Base material	Aluminum				
Ambient operating	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.137.

Options (1)

Туре	Option code	Reference page	X-axis	Y-axis
Brake *	В	See P.134	0	0
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information.

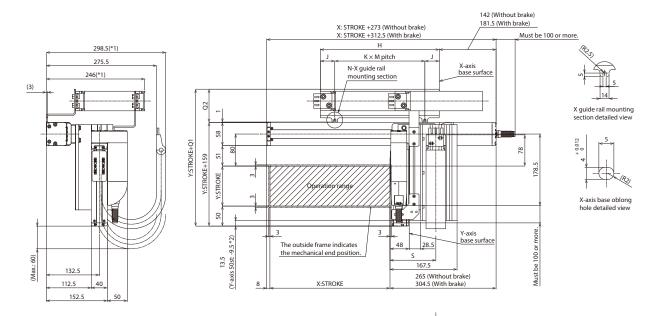
Options (2)

Туре	Option code	Reference page
Foot plate	FTP	See P.134

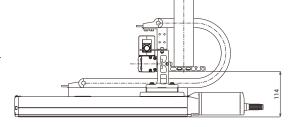


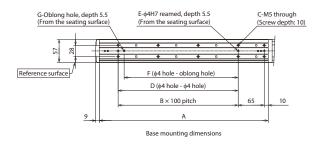


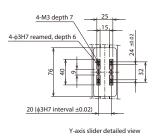
- Note 1. The configuration position in the figure is home.
- $Note\ 2.\ \ The\ diagram\ shows\ the\ configuration\ direction\ "1"\ where\ both\ the\ first\ wiring\ and\ second\ wiring\ have\ cable\ tracks.$
- Note 3. For details on the cable track and cable track moving end bracket, refer to P.136.



- *1: The cable track may swell, becoming slightly larger than the indicated dimensions.
- *2: When the Y-axis is 50st, the Y guide rail overhangs the actuator tip.







(*) 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.134)

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.136)

•																
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
H	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
K	1	1	1	1	1	1	1	3	3	2	2	2	2	2	2	3
M	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
Q1	242	255	268	285
Q2	83	96	109	126
S	114.5	121	127.5	-

^{*} Dimensions Q1, Q2 and S change depending on the size of the cable track.

IK2-P6XBD3 **RCP6 2-axis configurations** X-axis: SA6C (straight) Y-axis: SA4C (straight) Second Axis (Y-axis) First Axis (X-axis) Model Туре **Encoder Type** Specification IK2 - P6XBD3□□S PM₁ WA $-\Box$ ltems Configuration Direction Speed Type **Encoder Type** Stroke Options Controller Cable Options Length Wiring Wiring WA: Battery-les Absolute Refer to Applicable Controllers table below SS: X Ultra High Speed/ Y Ultra High Speed 5: 50mm 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) 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.

Payload by Acceleration

■ SS type: X ultra high speed/Y ultra high speed

(Unit: kg)

	,	
Y-axis stroke (mm) Acceleration/ deceleration (G)		200~300 (Every 50mm)
0.1	3	3
0.3	3	3
0.5	2	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.

Stroke 50 100 250 300 Y-axis stroke (mm 150 200 50 100 150 0 0 0 0 0 0 200 250 0 300 0 0 0 0 0 0 350 X-axis stroke 0 400 450 500 550 600 650 0 700 750

0

0

Applicable Controllers

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

☐ X-axis: SA6C, Y-axis: SA4C

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

* 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 Length

800

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

0

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

0

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	See P.136	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		
Axis configuration	RCP6-SA6C	RCP6-SA4C		
Stroke (Every 50mm)	50~800mm	50~300mm		
Max. speed *	640mm/s	560mm/s		
Motor size	42□ Stepper motor	35□ Stepper motor		
Ball screw lead	20mm	16mm		
Drive system	Ball screw \(\phi 10mm \) rolled C10	Ball screw φ8mm rolled C10		
Positioning repeatability	±0.01mm			
Base material	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.137.

Options (1)

options (1)							
Туре	Option code	Reference page	X-axis	Y-axis			
Brake *	В	See P.134	0	0			
Cable exit direction (Top)	CJT	See P.134	0				
Cable exit direction (Right)	CJR	See P.134	0	Cannot be			
Cable exit direction (Left)	CJL	See P.134	0	selected			
Cable exit direction (Bottom)	CJB	See P.134	0				
Non-motor end specification	NM	See P.135	0	0			
Slider section roller specification	SR	See P.135	0	0			

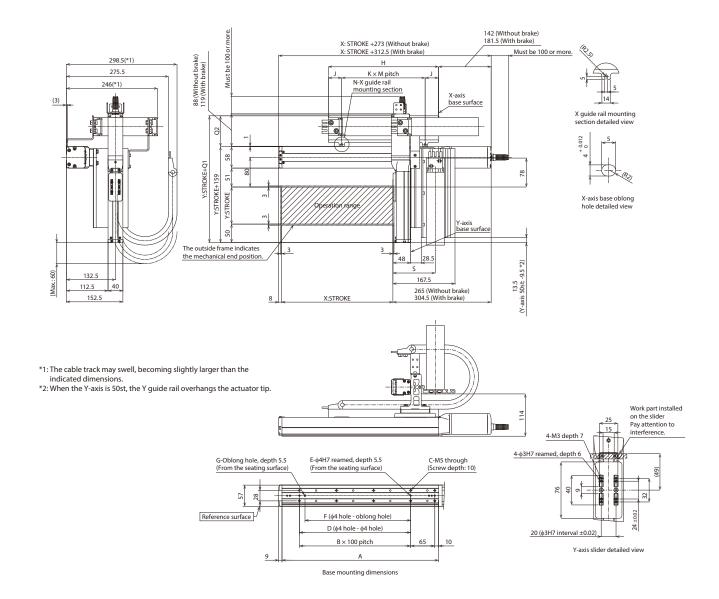
^{*} Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

Options (2

Туре	Option code	Reference page
Foot plate	FTP	See P.134



- 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.136.



(*) 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.134)

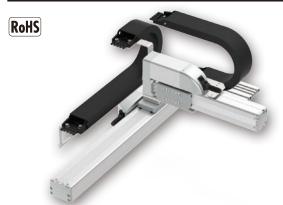
Also, the moving end of the Y-axis cable track is to be fixed to a plate or the like mounted on the Y-axis slider by the customer. (See P.136)

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
K	1	1	1	1	1	1	1	3	3	2	2	2	2	2	2	3
M	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
Q1	242	255	268	285
Q2	83	96	109	126
S	114.5	121	127.5	-

^{*} Dimensions Q1, Q2 and S change depending on the size of the cable track.

IK2-P6XBC **RCP6 2-axis configurations** X-axis: SA7R (side-mounted) Y-axis: SA6R (side-mounted) Encoder Type Second Axis (Y-axis) First Axis (X-axis) Model Туре Specification P6XBC1□□S PM₁ WA ltems Configuration Direction Speed Type **Encoder Type** Stroke Options Controller Cable Length Wiring Wiring MM: X Medium Speed/Y Medium Speed HH: X High Speed/Y High Speed SS: X Ultra High Speed/Y Ultra High Speed Refer to Applicable Controllers table below 5: 50mm Refer to Options table below. 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) 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.

Payload by Acceleration ■ MM type: X medium speed/Y medium speed (Unit: kg) Y-axis stroke (mm) 50~100 250~400 150 200 Acceleration/ deceleration (G) (Every 50mm) (Every 50mm) 0.1 9 8 6 0.3 q 8 6 0.5 6 0.7 6

■ HH type: X high speed/Y high speed ■ SS type: X ultra high speed/Y ultra high speed

4

Y-axis stroke Acceleration/ (mm) deceleration (G)	50~200 (Every 50mm)	250~400 (Every 50mm)			
0.1	Į.	5			
0.3	5				
0.5	4	4			
0.7	2	_			
* M/h on hoth V and V avec have the same assolutation /					

* When both X and Y axes have the same acceleration/
deceleration. When there is significant vibration, decreas
Alice and a selected and a section of the selected and a section of

	Y-axis stroke Acceleration/ deceleration (G)	50	100~200 (Every 50mm)	250~400 (Every 50mm)
	0.1		4	
	0.3	4		
1	0.5	3	2	.5
	0.7	2	1.5	_
	1	•	1	-

Stroke 50 100 250 350 400 Y-axis stroke (mm 150 200 300 50 100 0 0 0 0 0 150 0 0 0 0 0 0 0 0 200 250 0 0 0 300 0 0 0 0 0 0 0 0 350 X-axis stroke 0 0 0 0 400 0 0 450 0 500 0 0 0 0 550 0 0 0 0 600 650 0 0 0 700 750 0 800 0 0

Applicable Controllers

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

☐ X-axis: SA7R, Y-axis: SA6R

Туре	Reference page	
PCON-CB/CGB	See P.149	
PCON-CYB/PLB/POB	Please contact IAI for more information.	
MCON-C/CG	See P.153	
MCON-LC/LCG	See P.153	
MSEL	See P.139	

^{*} 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 Length

Type	Cable code	Length
Standard type	1L	1m
	3L	3m
	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 (X-axis lateral)	Second wiring (Y-axis lateral)
Without cable track (cable only)	N		0	0
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	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	
Axis configuration		RCP6-SA7R	RCP6-SA6R	
Stroke (Every 50m	nm)	50~800mm	50~400mm	
	MM	280mm/s	400mm/s	
Max. speed *	HH	560mm/s	680mm/s	
	SS	640mm/s	800mm/s	
Motor size		56□ Stepper motor	42□ Stepper motor	
Ball screw	MM	8mm	6mm	
lead	HH	16mm	12mm	
leau	SS	24mm	20mm	
Drive system		Ball screw \(\phi 12mm \) rolled C10	Ball screw \$10mm rolled C10	
Positioning repeatability		±0.01mm		
Base material		Aluminum		
Ambient operatir temperature, hun		0~40°C, 85% RH or less (non-condensing)		

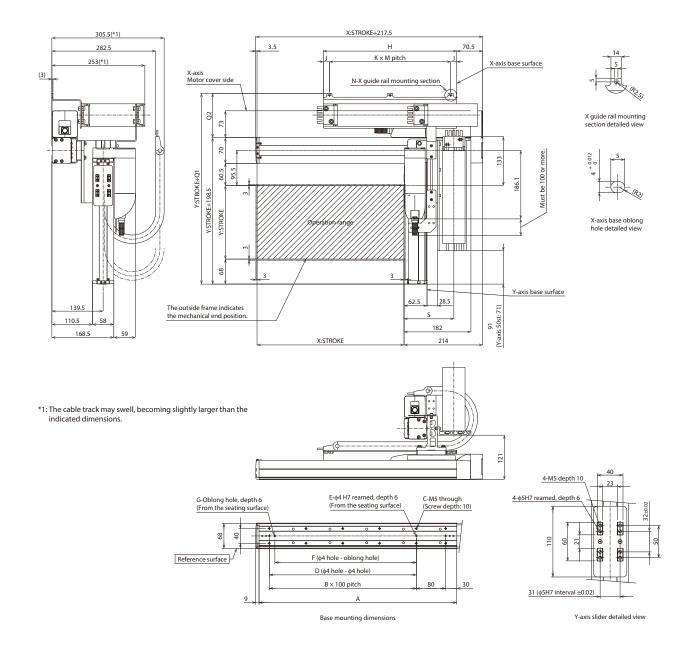
^{*} The maximum speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.137.

Туре	Option code	Reference page	X-axis	Y-axis
Brake	В	See P.134	0	0
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0





- 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.136.



(*) 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.136)

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

Cable track size	CT	CTM	CTL	CTXL
Q1	306	319	332	349
Q2	107.5	120.5	133.5	150.5
S	129	135.5	142	-

^{*} Dimensions Q1, Q2 and S change depending on the size of the cable track.



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.

Payload by Acceleration							
■ MM type: X medium speed/Y medium speed (Unit: kg)							
Y-axis stroke Acceleration/ (mm) deceleration (G)		150	200	250~400 (Every 50mm)			
0.1	9	8	(5			
0.3	9	8	(5			
0.5		7	6				
0.7		6		_			

■ HH type: X high speed/Y high speed ■ SS type: X ultra high speed/Y ultra high speed

4

Y-axis stroke Acceleration/ (mm) deceleration (G)	50~200 (Every 50mm)	250~400 (Every 50mm)		
0.1	5			
0.3	5			
0.5	4	4		
0.7	2 –			
* When both V and V avec have the same assolutation /				

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

	Y-axis stroke Acceleration/ deceleration (G)	50	100~200 (Every 50mm)	250~400 (Every 50mm)		
1	0.1	4				
	0.3		4			
l	0.5	3	2.	.5		
	0.7	2	1.5	_		
	1		1	_		

3	troke								
Y	-axis stroke (mm)	50	100	150	200	250	300	350	400
	50	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
(mm)	300	0	0	0	0	0	0	0	0
E	350	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0
str	450	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0

Applicable Controllers

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

☐ X-axis: SA7C, Y-axis: SA6R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} 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.

Type	Cable code	Length
Standard type	1L	1m
	3L	3m
	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.

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)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm) ³	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

ltem		X-axis	Y-axis	
Axis configuration	on	RCP6-SA7C	RCP6-SA6R	
Stroke (Every 50	mm)	50~800mm	50~400mm	
	MM	280mm/s	400mm/s	
Max. speed *	HH	560mm/s	680mm/s	
	SS	640mm/s	800mm/s	
Motor size		56□ Stepper motor	42□ Stepper motor	
D-II	MM	8mm	6mm	
Ball screw lead	HH	16mm	12mm	
leau	SS	24mm	20mm	
Drive system		Ball screw φ12mm rolled C10	Ball screw φ10mm rolled C10	
Positioning repe	atability	±0.01mm		
Base material		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.137.

Туре	Option code	Reference page	X-axis	Y-axis
Brake *	В	See P.134	0	0
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

^{*} Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information.

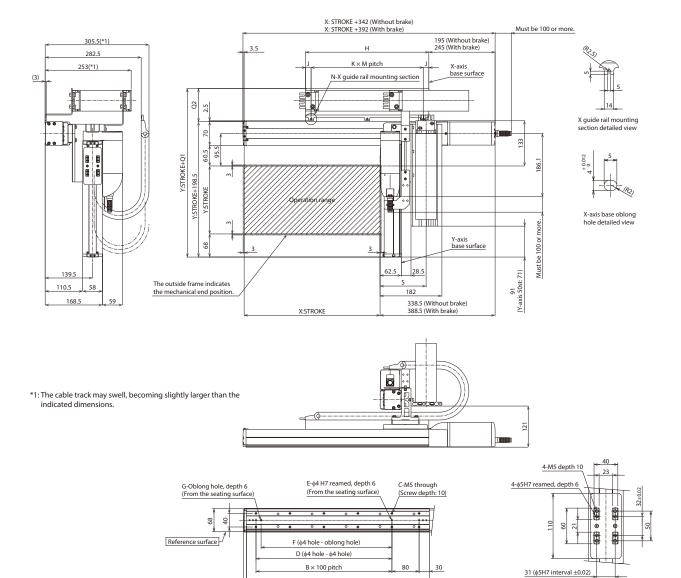
Options (2)

Туре	Option code	Reference page
Foot plate	FTP	See P.134





- 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.136.



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.134)

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.136)

■ Dimensions by Stroke

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
M	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	127.5
S	129	135.5	142	-

 $^{^{\}ast}$ Dimensions Q1, Q2 and S change depending on the size of the cable track.

Y-axis slider detailed view



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.

Payload by Acceleration								
■ MM type: X medium speed/Y medium speed (Unit: kg)								
Y-axis stroke Acceleration/ (mm) deceleration (G)		150	200	250~400 (Every 50mm)				
0.1	9	8	6	5				
0.3	9	8	6					
0.5	0.5 7 6							
0.7		6		_				

■ HH type: X high speed/Y high speed ■ SS type: X ultra high speed/Y ultra high speed

4

Y-axis stroke Acceleration/ (mm) deceleration (G)	50~200 (Every 50mm)	250~400 (Every 50mm)			
0.1	Į.	5			
0.3	5				
0.5	4	4			
0.7	2	_			
* When both V and V avec have the same assolaration /					

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

1)	Y-axis stroke Acceleration/ (mm) deceleration (G)	50	100~200 (Every 50mm)	250~400 (Every 50mm
	0.1			
	0.3		4	
	0.5	3	2	.5
	0.7	2	1.5	-
	1		1	-

Y-	-axis stroke (mm)	50	100	150	200	250	300	350	400
	50	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
(mm)	300	0	0	0	0	0	0	0	0
E	350	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0
str	450	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0

Applicable Controllers

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

☐ X-axis: SA7C, Y-axis: SA6C

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} 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.

Type	Cable code	Length
Chandend house	1L	1m
	3L	3m
Standard 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.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	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	
Axis configuration		RCP6-SA7C	RCP6-SA6C	
Stroke (Every 50	mm)	50~800mm	50~400mm	
	MM	280mm/s	400mm/s	
Max. speed *	HH	560mm/s	680mm/s	
	SS	640mm/s	800mm/s	
Motor size		56□ Stepper motor	42□ Stepper motor	
	MM	8mm	6mm	
Ball screw lead	HH	16mm	12mm	
leau	SS	24mm	20mm	
Drive system		Ball screw \(\phi 12mm \) rolled C10	Ball screw φ10mm rolled C10	
Positioning repe	eatability	±0.01mm		
Base material		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.137.

Туре	Option code	Reference page	X-axis	Y-axis
Brake *	В	See P.134	0	0
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

^{*} Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

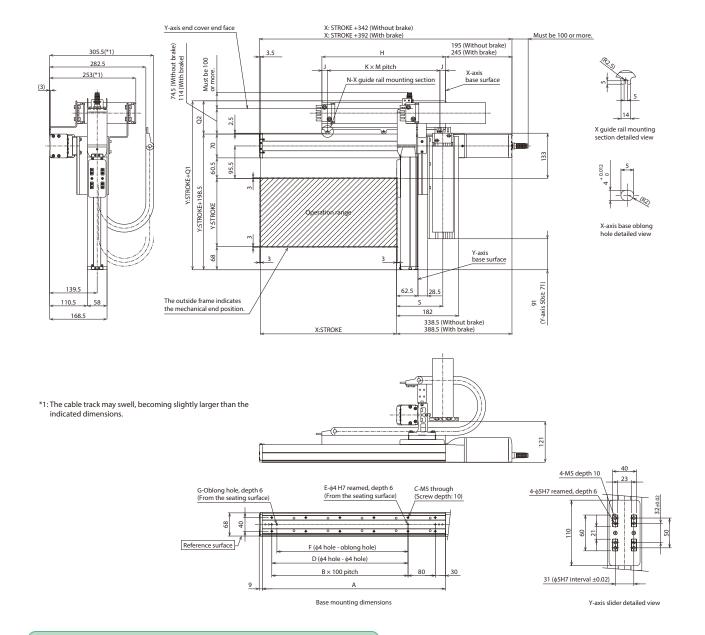
Options (2)

Туре	Option code	Reference page
Foot plate	FTP	See P.134





- 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.136.



(*) 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.134)

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.136)

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
M	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	127.5
S	129	135.5	142	-

^{*} Dimensions Q1, Q2 and S change depending on the size of the cable track.

IK2-P6XBB **RCP6 2-axis configurations** X-axis: SA8R (side-mounted) Y-axis: SA7R (side-mounted) Second Axis (Y-axis) ■ Model Encoder Type Туре Specification Items P6XBB1□ □S PM₁ WA Configuration Direction Speed Type **Encoder Type** Stroke Options Controlle Cable Length Wiring Wiring MM: X Medium Speed/Y Medium Speed HH: X High Speed/Y High Speed SS: X Ultra High Speed/Y Ultra High Speed Refer to Applicable Controllers table below 5:50mm 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) Cable Track table below

Acc



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.

Payload by Acceleration ■ MM type: X medium speed/Y medium speed (Unit: kg) Y-axis stroke (mm) 50~100 300~400 150 200 250 Acceleration/ deceleration (G) (Every 50mm) (Every 50mm) 12.5 0.1 16 15 9 8 0.3 16 15 12.5 9 8 0.5 10 8 0.7 5.5

■ HH type: X high speed/Y high speed

Till type: x mgn speed, t mgn speed							
Y-axis stroke celeration/ celeration (G)	50~150 (Every 50mm)	200	250	300~400 (Every 50mm)			
0.1	11	10.5	9	8			
0.3	8						
0.5	5						
0.7	4 –						

SS type: X ultra high speed/Y ultra high speed

5.5

Y-axis stroke Acceleration/ (mm) deceleration (G)	50~400 (Every 50mm)
0.1	3
0.3	1.5

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

6

St	troke								
	s stroke (mm)	50	100	150	200	250	300	350	400
	50	0	0	0	0	0	0	0	0
	100	Ö	Ö	Ö	0	Ö	Ö	Ö	Ö
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0
(m m)	450	0	0	0	0	0	0	0	0
<u>ت</u>	500	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0
(-a	700	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0
1 [1100		0			0	0	0	

Applicable Controllers

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

☐ X-axis: SA8R

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Y-axis: SA7R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} 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 Length

	Type	Cable code	Length
ĺ	Standard type	1L	1m
		3L	3m
		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.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	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			
Axis configuration	า	RCP6-SA8R	RCP6-SA7R			
Stroke (Every 50m	nm)	50~1100mm	50~400mm			
	MM	300mm/s	280mm/s			
Max. speed *	HH	400mm/s	560mm/s			
SS		650mm/s	640mm/s			
Motor size		56□ High thrust stepper motor	56□ Stepper motor			
Ball screw	MM	10mm	8mm			
lead	HH	20mm	16mm			
lead	SS	30mm	24mm			
Drive system		Ball screw \phi16mm rolled C10	Ball screw φ12mm rolled C10			
Positioning repea	tability	±0.01mm				
Base material		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.137.

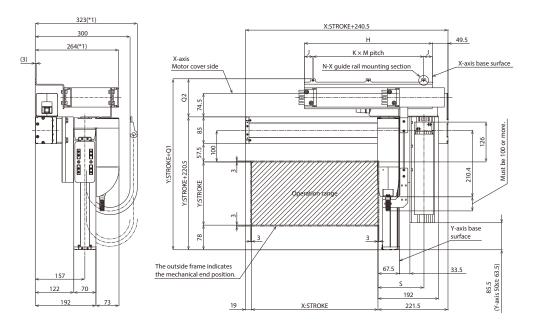
Options

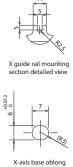
Туре	Option code	Reference page	X-axis	Y-axis
Brake	В	See P.134	0	0
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	Soo P 135	0	0





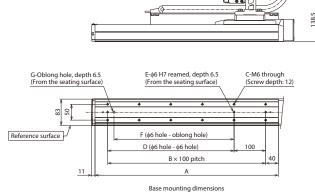
- Note 1. The configuration position in the figure is home.
- $Note\ 2.\ The\ diagram\ shows\ the\ configuration\ direction\ "1"\ where\ both\ the\ first\ wiring\ and\ second\ wiring\ have\ cable\ tracks.$
- Note 3. For details on the cable track and cable track moving end bracket, refer to P.136.





hole detailed view

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



Work part installed on the slider Pay attention to (36)4-M5 depth 10 4-φ5H7 reamed, depth 10 39 $(\phi 5H7 interval \pm 0.02)$ 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.

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.136)

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Α	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
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

Cable track size	CT	CTM	CTL	CTXL
Q1	328	341	354	371
Q2	107.5	120.5	133.5	150.5
S	139	145.5	152	-

^{*} Dimensions Q1, Q2 and S change depending on the size of the cable track.



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.

Payload by Acceleration ■ MM type: X medium speed/Y medium speed (Unit: kg) Y-axis stroke (mm) 50~100 300~400 150 200 250 Acceleration (Every 50mm) (Every 50mm) deceleration (G) 12.5 0.1 16 15 9 8 0.3 16 15 12.5 9 8 0.5 10 8 0.7 5.5

■ HH type: X high speed/Y high speed

71 .	,	,	- 1			
Y-axis stroke Acceleration/ (mm) deceleration (G)	50~150 (Every 50mm)	200	250	300~400 (Every 50mm)		
0.1	11	10.5	9	8		
0.3	8					
0.5	5					
0.7	4	_				

Y-axis stroke Acceleration/ (mm) deceleration (G)	50~400 (Every 50mm)
0.1	3
0.2	1 [

SS type: X ultra high speed/Y ultra high speed

5.5

6

S	troke								
Y-axi	is stroke (mm)	50	100	150	200	250	300	350	400
	50	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0
	400	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0
e e	500	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0
-a	700	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0
l	1100	0	0	0	0	0	0	0	0

Applicable Controllers

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

☐ X-axis: SA8C

Туре	Reference page				
PCON-CFB/CGFB	See P.149				
MSEL-PCF/PGF	See P.139				

☐ Y-axis: SA7R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P153
MCON-LC/LCG	See P. 153
MSEL	See P.139

^{*} 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 Length

Type	Cable code	Length
	1L	1m
Charadaud hura	3L	3m
Standard type	5L	5m
	ΠL	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.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	See P.136	0	0
Cable track XL size (inner width: 80mm) *			0	Cannot be selected *

Only the first wiring can be selected

Specifications

Item		X-axis	Y-axis			
Axis configuration	n	RCP6-SA8C	RCP6-SA7R			
Stroke (Every 50m		50~1100mm	50~400mm			
	MM	300mm/s	280mm/s			
Max. speed *	HH	400mm/s	560mm/s			
·	SS	650mm/s	640mm/s			
Motor size		56□ High thrust stepper motor	56□ Stepper motor			
Ball screw	MM	10mm	8mm			
lead	HH	20mm	16mm			
lead	SS	30mm	24mm			
Drive system		Ball screw \phi16mm rolled C10	Ball screw φ12mm rolled C10			
Positioning repea	tability	±0.01mm				
Base material		Aluminum				
Ambient operatir temperature, hun	_	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.137.

Options (1)

Туре	Option code	Option code Reference page		Y-axis
Brake *	В	See P.134	0	0
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

^{*} Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information.

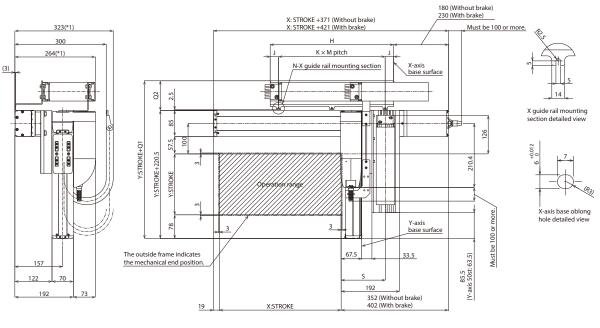
Options (2)

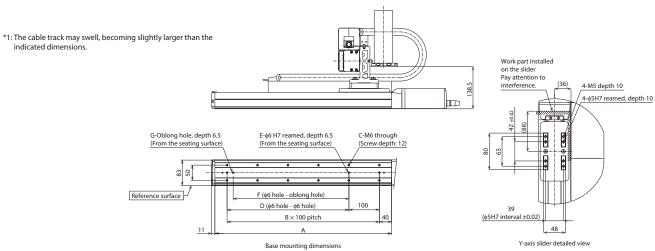
Type	Option code	Reference page
Foot plate	FTP	See P.134

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



- 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.136.





(*) 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.134)

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.136)

•																						
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
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

Cable track size	CT	CTM	CTL	CTXL
Q1	305	318	331	348
Q2	84.5	97.5	110.5	127.5
S	139	145.5	152	-

 $^{^{\}ast}$ Dimensions Q1, Q2 and S change depending on the size of the cable track.



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.

Payload by Acceleration ■ MM type: X medium speed/Y medium speed (Unit: kg) Y-axis stroke (mm) 50~100 300~400 150 200 250 Acceleration/ deceleration (G) (Every 50mm) (Every 50mm) 12.5 0.1 16 15 9 8 0.3 16 15 12.5 9 8 0.5 10 9 8 0.7

■ HH type: X high speed/Y high speed

71 .	,	,	- 1			
Y-axis stroke Acceleration/ (mm) deceleration (G)	50~150 (Every 50mm)	200	250	300~400 (Every 50mm)		
0.1	11	8				
0.3	8					
0.5	5					
0.7	4	_				

Y-axis stroke Acceleration/ (mm) deceleration (G)	50~400 (Every 50mm)
0.1	3
0.3	1.5

SS type: X ultra high speed/Y ultra high speed

5.5

6

V avi	s stroke (mm)	50	100	150	200	250	300	350	400
I-dXI									
	50	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0
r.	500	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0
Ġ.	700	0	0	0	0	0	0	0	0
×	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	Ω

Applicable Controllers

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

☐ X-axis: SA8C

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Y-axis: SA7C

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P153
MCON-LC/LCG	See P. 153
MSEL	See P.139

^{*} 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 Length

	Type	Cable code	Length
		1L	1m
	Charadaud hura	3L	3m
	Standard type	5L	5m
ı		ΠL	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.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	See P.136	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			
Axis configuration	า	RCP6-SA8C	RCP6-SA7C			
Stroke (Every 50m	nm)	50~1100mm	50~400mm			
	MM	300mm/s	280mm/s			
Max. speed *	HH	400mm/s	560mm/s			
	SS	650mm/s	640mm/s			
Motor size		56□ High thrust stepper motor	56□ Stepper motor			
Ball screw	MM	10mm	8mm			
lead	HH	20mm	16mm			
lead	SS	30mm	24mm			
Drive system		Ball screw \phi16mm rolled C10	Ball screw \(\phi 12mm \) rolled C10			
Positioning repeatability		±0.01mm				
Base material		Aluminum				
Ambient operatin	_	0~40°C, 85% RH or less (non-condensing)				
temperature, hun	nidity	o to c, os /o titr of 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.137.

Options (1)

Туре	Option code	Reference page	X-axis	Y-axis		
Brake *	В	See P.134	0	0		
Cable exit direction (Top)	CJT	See P.134	0			
Cable exit direction (Right)	CJR	See P.134	0	Cannot be		
Cable exit direction (Left)	CJL	See P.134	0	selected		
Cable exit direction (Bottom)	CJB	See P.134	0			
Non-motor end specification	NM	See P.135	0	0		
Slider section roller specification	SR	See P.135	0	0		

^{*} Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

Options (2)

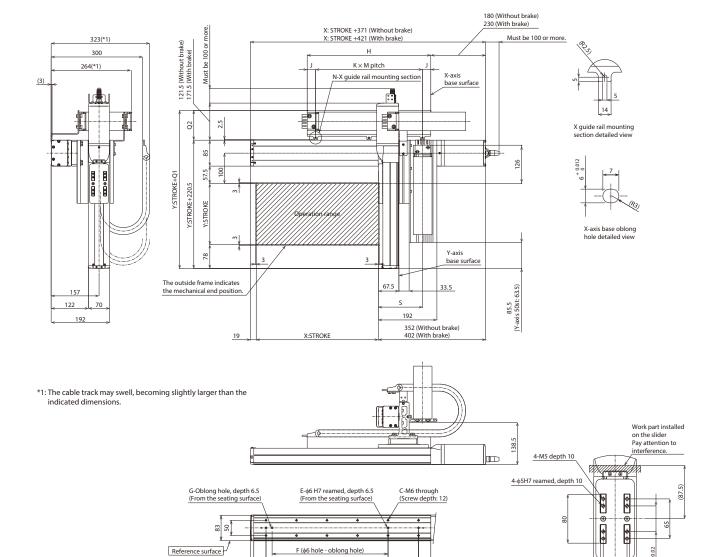
Туре	Option code	Reference page
Foot plate	FTP	See P.134

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





- 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.136.



(*) 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.134)

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.136)

■ 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
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

D (\$\phi6\$ hole - \$\phi6\$ hole)

 $B \times 100$ pitch

Base mounting dimensions

100

Cable track size	CT	CTM	CTL	CTXL
Q1	305	318	331	348
Q2	84.5	97.5	110.5	127.5
S	139	145.5	152	-

 $^{^{\}ast}$ Dimensions Q1, Q2 and S change depending on the size of the cable track.

39 (φ5H7 interval ±0.02

48

Y-axis slider detailed view

IK2-P6XBF1 RCP6 2-axis configurations X-axis: WSA14R (side-mounted) Y-axis: SA7R (side-mounted) Second Axis (Y-axis) First Axis (X-axis) ■ Model Туре **Encoder Type** Specification P6XBF1□□S PM₁ IK2 -WA ltems Configuration Direction Speed Type **Encoder Type** Stroke Options Controlle Cable WA: Battery-less Absolute Length Wiring Wiring MM: X Medium Speed/Y Medium Speed HH: X High Speed/Y High Speed SS: X Ultra High Speed/Y Ultra High Speed Refer to Applicable Controllers table below 5: 50mm Refer to Options table below. 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) 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.

Payload by Acceleration ■ MM type: X medium speed/Y medium speed (Unit: kg) Y-axis stroke (mm) 50~100 150~200 250~300 Acceleration/ deceleration (G) 350 400 (Every 50mm) (Every 50mm) (Every 50mm) 0.1 16 15 12.5 12 10.5 0.3 16 15 12.5 12 10.5 0.5 10.5 0.7 9.5

■ HH type: X high speed/Y high speed ■ SS type: X ultra high speed/Y ultra high speed

Y-axis stroke (mm) deceleration (G)	50~100 (Every 50mm)	150~300 (Every 50mm)	350~400 (Every 50mm)	Y-axis stroke Acceleration/ deceleration (G)	50~100 (Every 50mm)	150~300 (Every 50mm)	350~400 (Every 50mm)
0.1	8		7.5	0.1	6	5.5	5
0.3	8		7.5	0.3	5.5	5	4.5
0.5	5	4.5	4	0.5	3	2.5	2
0.7	3	2.5	2				

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

Stroke Y-axis stroke (mm 50 100 150 200 250 300 350 400 50 100 0 0 0 150 0 0 0 0 0 0 200 250 0 0 0 300 0 0 0 0 0 0 0 0 0 350 stroke 0 400 0 0 0 0 450 X-axis 500 0 0 550 0 0 0 600 0 0 0 0 650 0 0 0 0 700 750 0 0 800 0 0 0 0 0

Applicable Controllers

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

☐ X-axis: WSA14R, Y-axis: SA7R

,,,	
Type	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

Cable Length

Type	Cable code	Length
	1L	1m
Ctandard tuno	3L	3m
Standard 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.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	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					
Axis configuration	า	RCP6-WSA14R	RCP6-SA7R					
Stroke (Every 50m	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□ Stepper motor	56□ Stepper motor					
Ball screw	MM	8mm	8mm					
lead	HH	16mm	16mm					
leau	SS	24mm	24mm					
Drive system		Ball screw ϕ 12mm rolled C10	Ball screw \(\psi 12mm \) rolled C10					
Positioning repea	tability	±0.01mm						
Base material		Aluminum	Aluminum					
Ambient operatir temperature, hun		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.137.

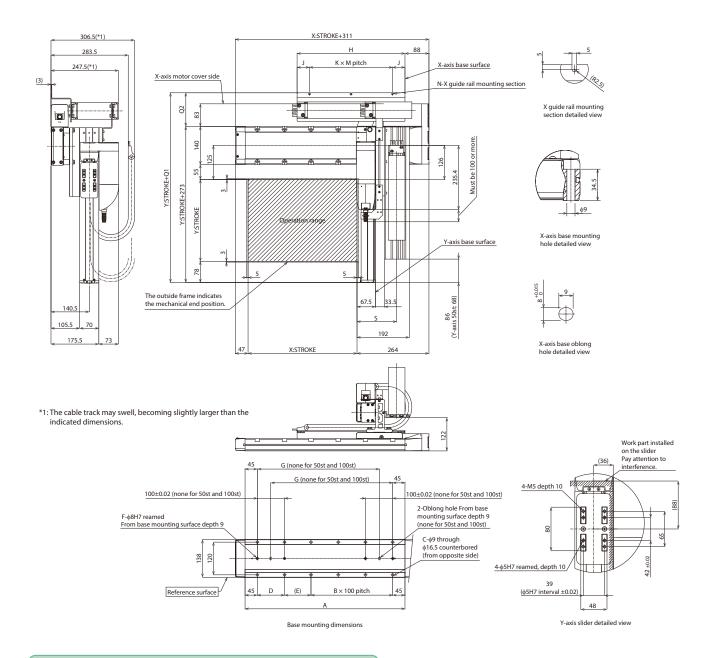
Туре	Option code	Reference page	X-axis	Y-axis
Brake	В	See P.134	0	0
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

^{*} 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.
- $Note\ 2.\ The\ diagram\ shows\ the\ configuration\ direction\ "1"\ where\ both\ the\ first\ wiring\ and\ second\ wiring\ have\ cable\ tracks.$
- Note 3. For details on the cable track and cable track moving end bracket, refer to P.136.



(*) 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.136)

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
K	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
S	139	145.5	152	-

^{*} Dimensions Q1, Q2 and S change depending on the size of the cable track.

IK2-P6XBF2 **RCP6 2-axis configurations** X-axis: WSA14C (straight) Y-axis: SA7R (side-mounted) Encoder Type Second Axis (Y-axis) ■ Model First Axis (X-axis) Туре Specification P6XBF2□ □S PM₁ WA ltems Configuration Direction Speed Type **Encoder Type** Stroke Options Controlle Cable Length Wiring Wiring MM: X Medium Speed/Y Medium Speed HH: X High Speed/Y High Speed SS: X Ultra High Speed/Y Ultra High Speed Refer to Applicable Controllers table below 5:50mm Refer to Options table below. 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) Cable Track table below

0.7



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.

Payload by Acceleration ■ MM type: X medium speed/Y medium speed (Unit: kg) Y-axis stroke (mm) 50~100 150~200 250~300 350 400 (Every 50mm) (Every 50mm) (Every 50mm) ration (G) 0.1 16 15 12.5 12 10.5 0.3 16 15 12.5 12 10.5 0.5 12 10.5

■ HH type: X high speed/Y high speed ■ SS type: X ultra high speed/Y ultra high speed

Y-axis stroke (mm) deceleration/ deceleration (G)	50~100 (Every 50mm)	150~300 (Every 50mm)	350~400 (Every 50mm)	Y- Acceleration/ deceleration (G)
0.1	3	3	7.5	0.1
0.3	3	3	7.5	0.3
0.5	5	4.5	4	0.5
0.7	3	2.5	2	

^{0.3} 5 4.5 5.5 0.5 3 2.5 2

50~100

(Every 50mm)

6

150~300 350~400

(Every 50mm)

5

(Every 50mm)

5.5

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

S	troke								
Y-axi	s stroke (mm)	50	100	150	200	250	300	350	400
	50	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
(mm)	300	0	0	0	0	0	0	0	0
<u>E</u>	350	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0
st	450	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0
Γ	650	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0

Applicable Controllers

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

9.5

☐ X-axis: WSA14C, Y-axis: SA7R

Туре	Reference page			
PCON-CB/CGB	See P.149			
PCON-CYB/PLB/POB	Please contact IAI for more information.			
MCON-C/CG	See P.153			
MCON-LC/LCG	3ee F.133			
MSEL	See P.139			

^{*} 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 Length

Type	Cable code	Length
	1L	1m
Standard type	3L	3m
Standard 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.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	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 configuration	า	RCP6-WSA14C	RCP6-SA7R			
Stroke (Every 50n	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□ Stepper motor	56□ Stepper motor			
Dall save	MM	8mm	8mm			
Ball screw lead	HH	16mm	16mm			
leau	SS	24mm	24mm			
Drive system		Ball screw \(\phi 12mm \) rolled C10	Ball screw \(\phi 12mm \) rolled C10			
Positioning repeatability		±0.01mm				
Base material		Aluminum				
Ambient operating temperature, humidity		0~40°C, 85% RH or less (non-condensing)				

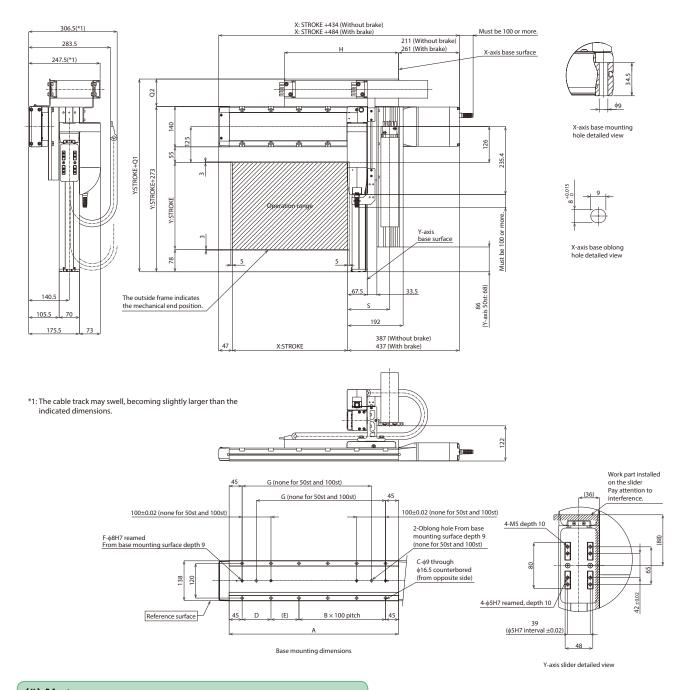
^{*} The maximum speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.137.

Туре	Option code	Reference page	X-axis	Y-axis
Brake *	В	See P.134	0	0
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

^{*} Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information.



- 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.136.



(*) 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.136)

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
California de la constanta de	CT	CTAA	CTI	CTVI	1											

Cable track size	CT	CTM	CTL	CTXL
Q1	356	368	383	401
Q2	83	95	110	128
S	139	145.5	152	-

^{*} Dimensions Q1, Q2 and S change depending on the size of the cable track.

IK2-P6XBF3 X-axis: WSA14C (straight) **RCP6 2-axis configurations** Y-axis: SA7C (straight) Encoder Type Second Axis (Y-axis) ■ Model First Axis (X-axis) Туре Specification P6XBF3□□S PM₁ WA ltems Configuration Direction Speed Type **Encoder Type** Stroke Options Controlle Cable Length Wiring Wiring MM: X Medium Speed/Y Medium Speed HH: X High Speed/Y High Speed SS: X Ultra High Speed/Y Ultra High Speed Refer to Applicable Controllers table below 5:50mm Refer to Options table below 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) 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.

Payload by Acceleration ■ MM type: X medium speed/Y medium speed (Unit: kg) Y-axis stroke (mm) 50~100 150~200 250~300 350 400 (Every 50mm) (Every 50mm) (Every 50mm) ation (G) 0.1 16 15 12.5 12 10.5 0.3 16 15 12.5 12 10.5 0.5 10.5 0.7 9.5

■ HH type: X high speed/Y high speed ■ SS type: X ultra high speed/Y ultra high speed

Y-axis stroke (mm) deceleration (G)	50~100 (Every 50mm)	150~300 (Every 50mm)	350~400 (Every 50mm)	Acceleration/ deceleration (G)
0.1	3	3	7.5	0.1
0.3	3	3	7.5	0.3
0.5	5	4.5	4	0.5
0.7	3	2.5	2	
***** 1 -1 34 134				

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

9	Stroke								
Y-ax	(is stroke (mm)	50	100	150	200	250	300	350	400
	50	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
(mm)	300	0	0	0	0	0	0	0	0
٤	350	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0
st	450	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0

Applicable Controllers

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

☐ X-axis: WSA14C, Y-axis: SA7C

Type	Reference page				
PCON-CB/CGB	See P.149				
PCON-CYB/PLB/POB	Please contact IAI for more information.				
MCON-C/CG	See P.153				
MCON-LC/LCG	3ee r.133				
MSEL	See P.139				

50~100

(Every 50mm)

6

5.5 3

150~300 350~400

(Every 50mm)

5

4.5

2

(Every 50mm)

5.5

5

2.5

Cable Length

Type	Cable code	Length
	1L	1m
Ctandard tuno	3L	3m
Standard 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.

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)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	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			
Axis configuration	n	RCP6-WSA14C	RCP6-SA7C			
Stroke (Every 50n	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□ Stepper motor	56□ Stepper motor			
Ball screw	MM	8mm	8mm			
lead	HH	16mm	16mm			
leau	SS	24mm	24mm			
Drive system		Ball screw \(\phi 12mm \) rolled C10	Ball screw \(\psi 12mm \) rolled C10			
Positioning repeatability		±0.01mm				
Base material Ambient operating temperature, humidity		Aluminum				
		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.137.

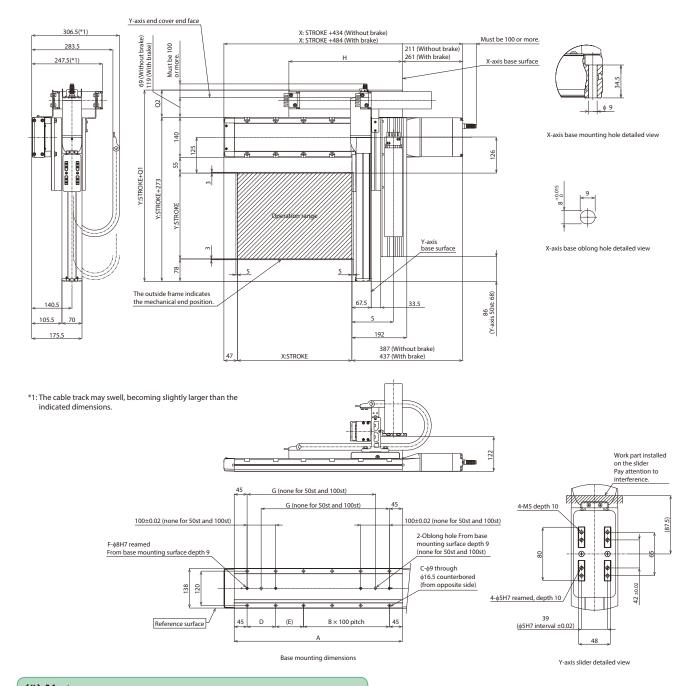
Туре	Option code	Reference page	X-axis	Y-axis
Brake *	В	See P.134	0	0
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

^{*} Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

^{*} 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.
- $Note\ 2.\ \ The\ diagram\ shows\ the\ configuration\ direction\ "1"\ where\ both\ the\ first\ wiring\ and\ second\ wiring\ have\ cable\ tracks.$
- Note 3. For details on the cable track and cable track moving end bracket, refer to P.136.



(*) 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.136)

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
S	139	145.5	152	-

^{*} Dimensions Q1, Q2 and S change depending on the size of the cable track.

IK2-P6XBE1 **RCP6 2-axis configurations** X-axis: WSA16R (side-mounted) Y-axis: SA8R (side-mounted) Second Axis (Y-axis) ■ Model Encoder Type First Axis (X-axis) Туре Specification Items IK2 -P6XBE1□□S PM₁ WA Configuration Direction Speed Type **Encoder Type** Stroke Options Controller Cable WA: Battery-les Absolute Refer to Options table below. Length Wiring Wiring Refer to Applicable Controllers table below MH: X Medium Speed/Y High Speed HH: X High Speed/Y High Speed 5:50mm 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) 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.

Payload by Acceleration ■ MH type: X medium speed/Y high speed (Unit: kg) Y-axis stroke 50~100 | 150~200 | 250~300 | 350~400 (mm) (Every (Every 450 500 (Every (Every Acceleration/ 50mm) 50mm) 50mm) 50mm) deceleration (G) 0.1 17 16 15 14 12 10 0.3 17 16 15 14 12 10 0.5 10.5 10

■ HH type: X high speed/Y high speed

Y-axis stroke (mm) 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.

9	Stroke										
Y-ax	is stroke (mm)	50	100	150	200	250	300	350	400	450	500
	50	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0
	400	0	0	0	0	0	0	0	0	0	0
E	450	0	0	0	0	0	0	0	0	0	0
stroke (mm)	500	0	0	0	0	0	0	0	0	0	0
쑹	550	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0
xis	650	0	0	0	0	0	0	0	0	0	0
X-axis	700	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0

Applicable Controllers

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

☐ X-axis: WSA16R, Y-axis: SA8R

Type	Reference page
PCON-CFB/ CGFB	See P.149
MSEL-PCF/ PGF	See P.139

Cable Length

	Type	Cable code	Length
		1L	1m
	Charadaud hura	3L	3m
	Standard type	5L	5m
		ΠL	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 (X-axis lateral)	Second wiring (Y-axis lateral)
Without cable track (cable only)	N		0	0
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	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			
Axis configuration	n	RCP6-WSA16R	RCP6-SA8R			
Stroke (Every 50n	nm)	50~1100mm	50~500mm			
Max. speed *	MH	210mm/s	400mm/s			
iviax. speed "	HH	365mm/s	650mm/s			
Motor size		56□ High thrust stepper motor	56□ High thrust stepper motor			
Ball screw	MH	10mm 20mm				
lead	HH	20mm	2011111			
Drive system		Ball screw φ16mm rolled C10	Ball screw φ16mm rolled C10			
Positioning repeatability		±0.01mm				
Base material		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.137.

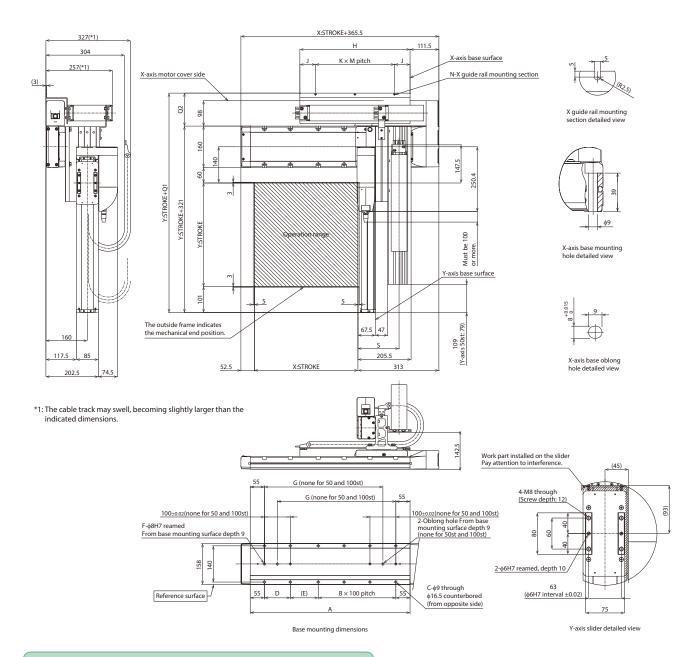
Options

Туре	Option code	Reference page	X-axis	Y-axis
Brake	В	See P.134	0	0
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	Soo D 135	0	0





- 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.136.



(*) Notes

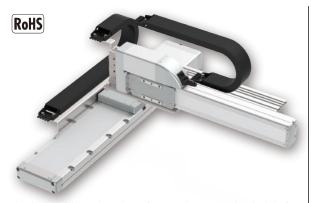
The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer.

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.136)

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Α	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
H	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
K	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	5	5	5
M	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
												4		-	-	_	-				-	

Cable track size	СТ	CTM	CTL	CTXL
Q1	448.5	448.5	448.5	465.5
Q2	127.5	127.5	127.5	144.5
S	152.5	159	165.5	-

 $^{^{\}ast}$ Dimensions Q1, Q2 and S change depending on the size of the cable track.



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.

Payload by Acceleration ■ MH type: X medium speed/Y high speed (Unit: kg) Y-axis stroke 50~100 | 150~200 | 250~300 | 350~400 (mm) (Every (Every 450 500 (Every (Every Acceleration/ 50mm) 50mm) 50mm) 50mm) deceleration (G) 0.1 17 16 15 14 12 10 0.3 17 16 15 14 12 10 0.5 10.5 10

■ HH type: X high speed/Y high speed

Y-axis stroke (mm) 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.

S	troke										
Y-axi	s stroke (mm)	50	100	150	200	250	300	350	400	450	500
	50	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0
[250	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0
_ [400	0	0	0	0	0	0	0	0	0	0
E [450	0	0	0	0	0	0	0	0	0	0
stroke (mm)	500	0	0	0	0	0	0	0	0	0	0
충	550	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0
Xis	650	0	0	0	0	0	0	0	0	0	0
X-axis	700	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0
[950	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0
[1050	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0

Applicable Controllers

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

☐ X-axis: WSA16C, Y-axis: SA8R

Type	Reference page
PCON-CFB/ CGFB	See P.149
MSEL-PCF/ PGF	See P.139

Cable Length

	Type	Cable code	Length
		1L	1m
	Charadaud hura	3L	3m
	Standard 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 (X-axis lateral)	Second wiring (Y-axis lateral)
Without cable track (cable only)	N		0	0
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	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				
Axis configuratio	n	RCP6-WSA16C	RCP6-SA8R				
Stroke (Every 50n	nm)	50~1100mm	50~500mm				
Max. speed *	MH	210mm/s	400mm/s				
iviax. speed "	HH	365mm/s	650mm/s				
Motor size		56□ High thrust stepper motor	56□ High thrust stepper motor				
Ball screw	MH	10mm	20mm				
lead	HH	20mm	20mm				
Drive system		Ball screw φ16mm rolled C10	Ball screw φ16mm rolled C10				
Positioning repea	tability	±0.01mm					
Base material		Aluminum					
Ambient operatir temperature, hur		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.137.

Options

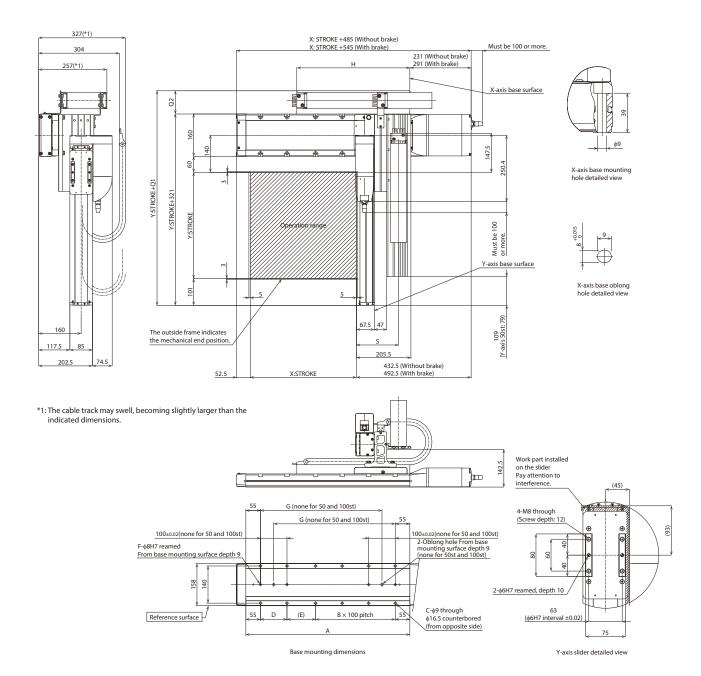
Туре	Option code	Reference page	X-axis	Y-axis
Brake *	В	See P.134	0	0
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

^{*} Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information.





- 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.136.



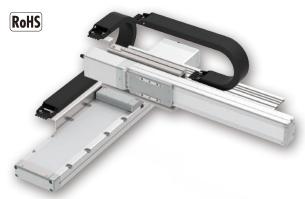
(*) Notes

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.136)

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
					1																	

Cabl	e 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	-

 $^{^{\}ast}$ Dimensions Q1, Q2 and S change depending on the size of the cable track.



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.

Payload by Acceleration ■ MH type: X medium speed/Y high speed (Unit: kg) Y-axis stroke 50~100 | 150~200 | 250~300 | 350~400 (mm) (Every (Every 450 500 (Every (Every Acceleration/ 50mm) 50mm) 50mm) 50mm) deceleration (G) 0.1 17 16 15 14 12 10 0.3 17 16 15 14 12 10 0.5 10.5 10

■ HH type: X high speed/Y high speed

Y-axis stroke (mm) 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.

Stroke										
Y-axis stroke (mm)	50	100	150	200	250	300	350	400	450	500
50	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0
200	0	0	0	0	0	0	0	0	0	0
250	0	0	0	0	0	0	0	0	0	0
300	0	0	0	0	0	0	0	0	0	0
350	0	0	0	0	0	0	0	0	0	0
400	0	0	0	0	0	0	0	0	0	0
E 450	0	0	0	0	0	0	0	0	0	0
500	0	0	0	0	0	0	0	0	0	0
450 500 550 550	0	0	0	0	0	0	0	0	0	0
ਲ 600	0	0	0	0	0	0	0	0	0	0
650 700	0	0	0	0	0	0	0	0	0	0
700	0	0	0	0	0	0	0	0	0	0
750	0	0	0	0	0	0	0	0	0	0
800	0	0	0	0	0	0	0	0	0	0
850	0	0	0	0	0	0	0	0	0	0
900	0	0	0	0	0	0	0	0	0	0
950	0	0	0	0	0	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0
1050	0	0	0	0	0	0	0	0	0	0
1100	0	0	0	0	0	0	0	0	0	0

Applicable Controllers

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

☐ X-axis: WSA16C, Y-axis: SA8C

Type	Reference page
PCON-CFB/ CGFB	See P.149
MSEL-PCF/ PGF	See P.139

Cable Length

Type	Cable code	Length
	1L	1m
Chamaland to ma	3L	3m
Standard type	5L	5m
	ΠL	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 (X-axis lateral)	Second wiring (Y-axis lateral)
Without cable track (cable only)	N		0	0
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	See P.136	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			
Axis configuratio	n	RCP6-WSA16C	RCP6-SA8C			
Stroke (Every 50n	nm)	50~1100mm	50~500mm			
Max. speed *	MH	210mm/s	400mm/s			
Max. speed "	HH	365mm/s	650mm/s			
Motor size		56□ High thrust stepper motor	56□ High thrust stepper motor			
Ball screw	MH	10mm				
lead	HH	20mm	20mm			
Drive system		Ball screw φ16mm rolled C10	Ball screw φ16mm rolled C10			
Positioning repea	tability	±0.01mm				
Base material		Aluminum				
Ambient operatir temperature, hur		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.137.

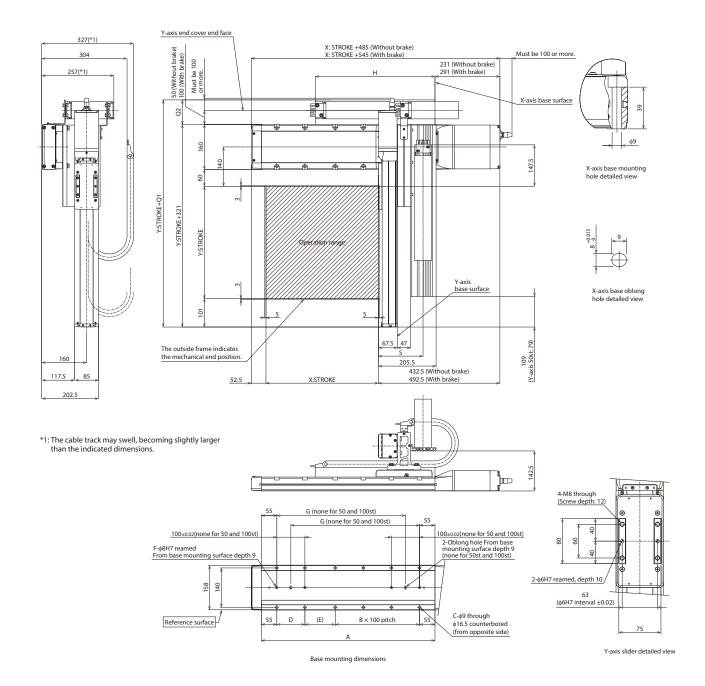
Options

Туре	Option code	Reference page	X-axis	Y-axis
Brake *	В	See P.134	0	0
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

^{*} Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.



- 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.136.



(*) 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.136)

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

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	-

^{*} Dimensions Q1, Q2 and S change depending on the size of the cable track.

IK2-P6Y **RCP6 2-axis configurations** Y-axis: SA6R (side-mounted) Z-axis: SA4R (side-mounted) Second Axis (Z-axis) ■ Model Encoder Type Туре Specification Items IK2 — P6YBD1□ □S WA PM₁ \Box **B** \Box Configuration Direction Speed Type **Encoder Type** Stroke Options Controller Cable WA: Battery-less Absolute Length Wiring Wiring Refer to Applicable Controllers table below SM: Y Ultra High Speed/Z Medium Speed SH: Y Ultra High Speed/Z High Speed 5:50mm 1 to 2 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) Cable Track table below

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.

Payload by Acceleration

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

(Unit: kg)

Z-axis stroke (mm) deceleration/ deceleration (G)	
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)	50~150 (Every 50mm)
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.

Stroke

Z-	-axis stroke (mm)	50	100	150	
	50	0	0	0	
	100	0	0	0	
	150	0	0	0	
	200	0	0	0	
	250	0	0	0	
Ê	300	0	0	0	
stroke (mm)	350	0	0	0	
%	400	0	0	0	
str	450	0	0	0	
Y-axis	500	0	0	0	
>	550	0	0	0	
	600	0	0	0	
	650	0	0	0	
	700	0	0	0	
	750	0	0	0	
	800	0	0	0	

Applicable Controllers

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

☐ Y-axis: SA6R, Z-axis: SA4R

Туре	Reference page	
PCON-CB/CGB	See P.149	
PCON-CYB/PLB/POB	Please contact IAI for more information.	
MCON-C/CG	See P.153	
MCON-LC/LCG	See P.153	
MSEL	See P.139	

* 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.

Type	Cable code	Length		
Standard type	1L	1m		
	3L	3m		
	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 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)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

* Only the first wiring can be selected

Specifications

Axis configuration Stroke (Every 50mm)		Y-axis	Z-axis	
		RCP6-SA6R	RCP6-SA4R	
		50~800mm	50~150mm	
May speed *	SM	800mm/s	350mm/s	
Max. speed *	SH	80011111/5	610mm/s	
Motor size		42□ Stepper motor	35□ Stepper motor	
Ball screw	SM	20mm	5mm	
lead	SH	2011111	10mm	
Drive system Positioning repeatability Base material Ambient operating temperature, humidity		Ball screw \(\phi 10mm \) rolled C10	Ball screw φ8mm rolled C10	
		±0.01mm		
		Aluminum		
		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.137.

Туре	Option code	Reference page	Y-axis	Z-axis
Brake	В	See P.134	0	Standard equipment *
Cable exit direction (Outside)	CJO	See P.134	0	Cannot be selected
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

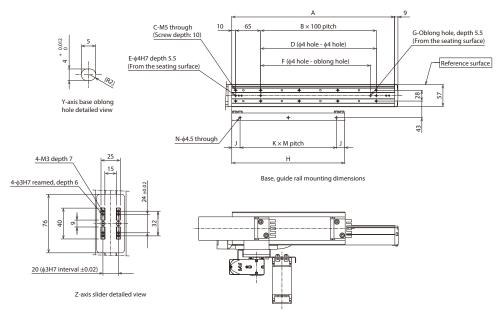
* Be sure to specify.



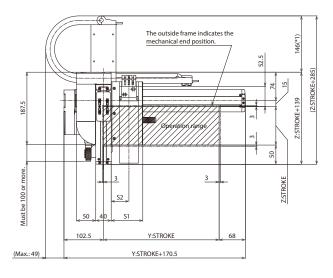


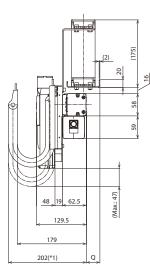


- Note 1. The configuration position in the figure is home.
- Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks.
- Note 3. For details on the cable track and cable track moving end bracket, refer to P.136.



*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.

•																
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
M	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	СТ	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.



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.

Payload by Acceleration

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

(Unit: kg)

Z-axis stroke (mm) Acceleration/ deceleration (G)	
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)	50~150 (Every 50mm)
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.

	ti oite			
7	-axis stroke (mm)	50	100	150
	50	0	0	0
	100	0	0	0
	150	0	0	0
	200	0	0	0
	250	0	0	0
Ê	300	0	0	0
E .	350	0	0	0
stroke (mm)	400	0	0	0
str	450	0	0	0
Y-axis	500	0	0	0
>	550	0	0	0
	600	0	0	0
	650	0	0	0
	700	0	0	0
	750	0	0	0
	800	0	0	0

Applicable Controllers

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

☐ Y-axis: SA6C, Z-axis: SA4R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

* 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.

Stroke

Type	Cable code	Length
	1L	1m
Ctandard tuno	3L	3m
Standard 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 lateral)	Second wiring (Z-axis lateral)
Without cable track (cable only)	N		0	0
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

Item		Y-axis	Z-axis			
Axis configuration	n	RCP6-SA6C	RCP6-SA4R			
Stroke (Every 50n	nm)	50~800mm	50~150mm			
Max. speed *	SM	800mm/s	350mm/s			
Max. speed	SH	00011111/3	610mm/s			
Motor size		42□ Stepper motor	35□ Stepper motor			
Ball screw	SM	20mm	5mm			
lead	SH	20111111	10mm			
Drive system		Ball screw \(\phi 10mm \) rolled C10	Ball screw φ8mm rolled C10			
Positioning repea	tability	±0.01mm				
Base material		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.137.

Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

* Be sure to specify.

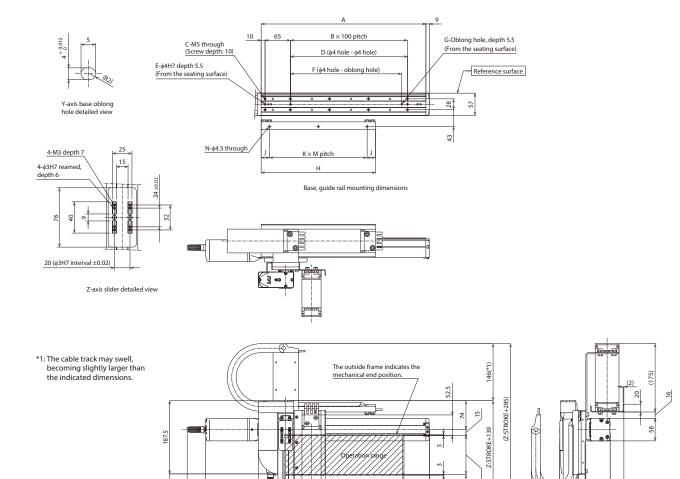
* Brake option for Y-axis increases the length of the motor unit.

Please contact IAI for more information.





- 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.136.



Y:STROKE

Y: STROKE +273 (Without brake) Y: STROKE +312.5 (With brake)

68

(*) 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.

205 (Without brake)

244.5 (With brake)

Must be 100 or

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
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
K	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3
M	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	-
52	46	52.5	59	_

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

(Max.: 47)

129.5

179

202(*1)



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.

Payload by Acceleration

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

(Unit: kg)

Z-axis stroke (mm) deceleration/ deceleration (G)	
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

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

Z-	axis stroke (mm)	50	100	150	
	50	0	0	0	
	100	0	0	0	
	150	0	0	0	
	200	0	0	0	
	250	0	0	0	
Ê	300	0	0	0	
stroke (mm)	350	0	0	0	
l sk	400	0	0	0	
str	450	0	0	0	
Y-axis	500	0	0	0	
>	550	0	0	0	
	600	0	0	0	
	650	0	0	0	
	700	0	0	0	
	750	0	0	0	
	800	0	0	0	

Applicable Controllers

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

☐ Y-axis: SA6C, Z-axis: SA4C

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee r.133
MSEL	See P.139

* 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.

Type	Cable code	Length
Standard type	1L	1m
	3L	3m
	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.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

Item		Y-axis	Z-axis		
Axis configuratio	n	RCP6-SA6C	RCP6-SA4C		
Stroke (Every 50n	nm)	50~800mm	50~150mm		
May apped *	SM	000/-	350mm/s		
Max. speed *	SH	800mm/s	610mm/s		
Motor size		42□ Stepper motor	35□ Stepper motor		
Ball screw	SM	20mm	5mm		
lead	SH	20111111	10mm		
Drive system		Ball screw \(\phi 10mm \) rolled C10	Ball screw φ8mm rolled C10		
Positioning repea	tability	±0.01mm			
Base material		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.137.

Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

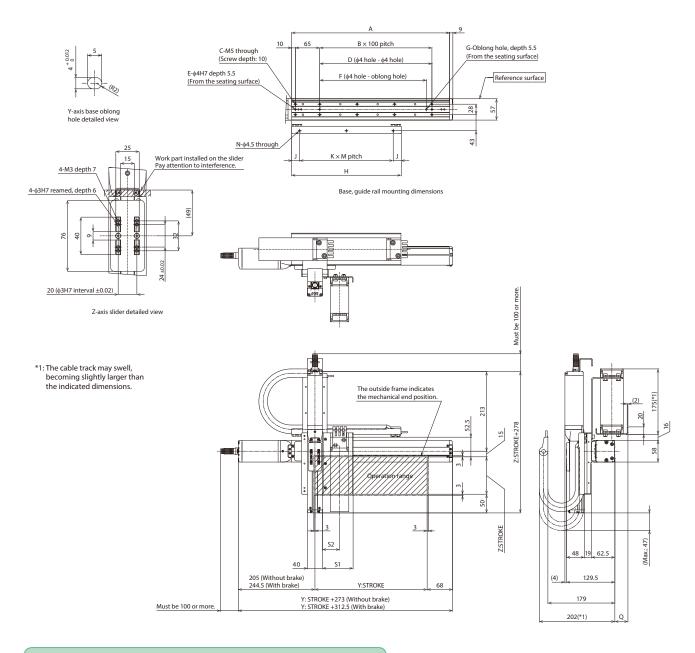
* Be sure to specify.

* Brake option for Y-axis increases the length of the motor unit.

Please contact IAI for more information.



- 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.136.



(*) 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.

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
M	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.

K2-P6YBC Y-axis: SA7R (side-mounted) **RCP6 2-axis configurations** Z-axis: SA6R (side-mounted) Encoder Type Second Axis (Z-axis) ■ Model Туре Specification IK2 - P6YBC1□□S PM1 WA \Box **B** \Box ltems Configuration Direction Speed Type **Encoder Type** Stroke Options Controlle Cable WA: Battery-less Absolute Length Wiring Wiring 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 Refer to Applicable Controllers table below 5:50mm Refer to Options table below. 1 to 2 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) 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.

Payload by Acceleration

■ SL type: Y ultra high speed/ Z low speed

z ion specu				
Z-axis stroke (mm) deceleration (G)	50~200 (Every 50mm)			
0.1	3			
0.3	3			
0.5	2.5			
SH type: Vultra high speed/				

type: Y ultra high speed/ 7 high speed

Z mgm specu	
Z-axis stroke (mm) deceleration (G)	50~200 (Every 50mm)
0.1	1
0.3	1
0.5	1

0.5 SS type: Y ultra high speed/ Z ultra high speed

■ SM type: Y ultra high speed/

Z-axis stroke

(mm)

(Unit: ka)

50~200

(Every 50mm)

2

Z medium speed

Acceleration/

deceleration (G) 0.1 0.3

Z-axis stroke (mm) deceleration (G)	50~200 (Every 50mm)
0.1	0.5
0.3	0.5
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.

Z-axis stroke (mm 50 100 150 200 50 100 150 0 0 0 0 200 250 0 0 300 0 0 0 0 350 Y-axis stroke 0 0 0 400 450 500 550 0 0 600 650 700 750 800 0

Applicable Controllers

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

☐ Y-axis: SA7R, Z-axis: SA6R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} 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.

	Type	Cable code	Length
Standard type	1L	1m	
	3L	3m	
	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.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	0	0
Cable track XL size (inner width: 80mm) *			0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

Item		Y-axis	Z-axis		
Axis configurati	on	RCP6-SA7R	RCP6-SA6R		
Stroke (Every 50	mm)	50~800mm	50~200mm		
	SL		170mm/s		
May aread *	SM	640mm/s	340mm/s		
Max. speed *	SH	04011111/5	680mm/s		
	SS		800mm/s		
Motor size		56□ Stepper motor	42□ Stepper motor		
	SL		3mm		
Ball screw	SM	24mm	6mm		
lead	SH	24111111	12mm		
	SS		20mm		
Drive system		Ball screw \(\phi 12mm \) rolled C10	Ball screw \phi10mm rolled C10		
Positioning rep	eatability	±0.01mm	·		
Base material		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.137.

Туре	Option code	Reference page	Y-axis	Z-axis
Brake	В	See P.134	0	Standard equipment *
Cable exit direction (Outside)	CJO	See P.134	0	Cannot be selected
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

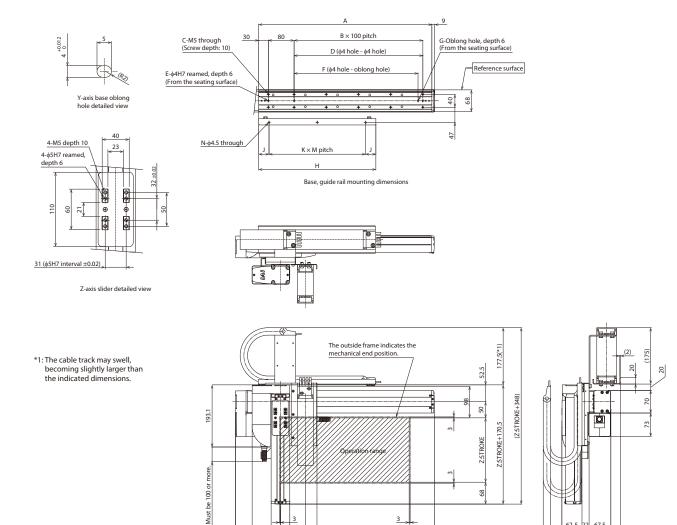
^{*} Be sure to specify.





- 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.136.

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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 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
Α	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
K	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

S2

Y:STROKE

Y:STROKE+217.5

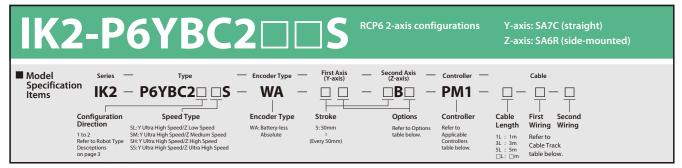
139.5

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

152 187

210(*1)





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.

Payload by Acceleration

■ SL type: Y ultra high speed/

Z IOW Speed	
Z-axis stroke (mm) deceleration (G)	50~200 (Every 50mm)
0.1	3
0.3	3
0.5	2.5
- a	1.

■ SH type: Y ultra high speed/

z nign speea	
Z-axis stroke (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)
0.1	1
0.3	1
0.5	1

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

Z-axis stroke (mm) deceleration (G)	50~200 (Every 50mm)
0.1	2
0.3	2
0.5	2

(Unit: kg)

SS type: Y ultra high speed/ Z ultra high speed

Z-axis stroke (mm) deceleration (G)	50~200 (Every 50mm)
0.1	0.5
0.3	0.5
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.

Z-axis stroke (mm 50 100 150 200 50 100 150 0 0 0 0 200 250 0 0 300 0 0 0 0 350 Y-axis stroke 0 400 450 500 550 0 0 600 650 700

0

0

Applicable Controllers

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

☐ Y-axis: SA7C, Z-axis: SA6R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} 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.

750

800

	Type	Cable code	Length
		1L	1m
Cham dayd huga	3L	3m	
	Standard type	5L	5m
		□L	Specified length (15m max.)

0

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 lateral)	Second wiring (Z-axis lateral)
Without cable track (cable only)	N		0	0
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	0	0
Cable track XL size (inner width: 80mm) *	e track XL size (inner width: 80mm) * CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

Item		Y-axis	Z-axis		
Axis configuration		RCP6-SA7C	RCP6-SA6R		
Stroke (Every 50	mm)	50~800mm	50~200mm		
	SL		170mm/s		
Max. speed *	SM	640mm/s	340mm/s		
iviax. speed "	SH	04011111/5	680mm/s		
	SS		800mm/s		
Motor size		56□ Stepper motor	42□ Stepper motor		
	SL		3mm		
Ball screw	SM	24mm	6mm		
lead	SH	24mm	12mm		
	SS		20mm		
Drive system		Ball screw φ12mm rolled C10	Ball screw \(\phi 10mm \) rolled C10		
Positioning repeatability		±0.01mm			
Base material		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.137.

o parons				
Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

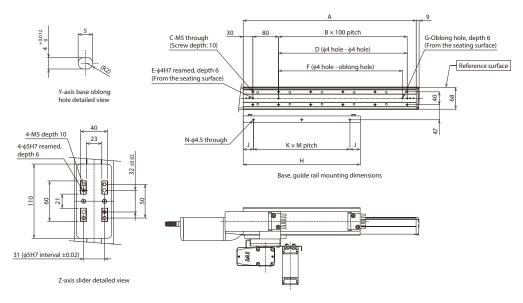
^{*} Be sure to specify.

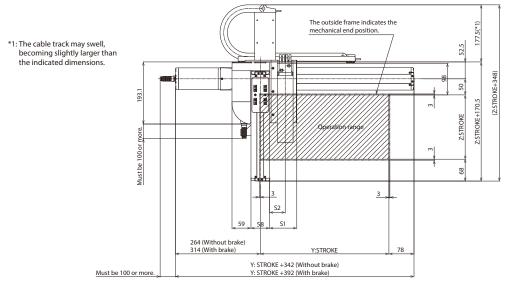
^{*} Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information

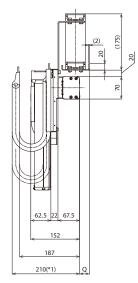




- Note 1. The configuration position in the figure is home.
- $Note\ 2.\ The\ diagram\ shows\ the\ configuration\ direction\ "1"\ where\ both\ the\ first\ wiring\ and\ second\ wiring\ have\ cable\ tracks.$
- Note 3. For details on the cable track and cable track moving end bracket, refer to P.136.







(*) 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.

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
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

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



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.

Payload by Acceleration

■ SL type: Y ultra high speed/

Z iow speed					
Z-axis stroke (mm) deceleration (G)	50~200 (Every 50mm)				
0.1	3				
0.3	3				
0.5	2.5				
SH type: Y ultra high speed/					

z nign speed	
Z-axis stroke (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)
0.1	1
0.3	1
0.5	1

Z medium speed	(Unit: kg)
Z-axis stroke (mm) Acceleration (G)	

■ SM type: Y ultra high speed/

Acceleration/ deceleration (G)	50~200 (Every 50mm)
0.1	2
0.3	2
0.5	2

SS type: Y ultra high speed/ Z ultra high speed

Z-axis stroke (mm) deceleration (G)	50~200 (Every 50mm)
0.1	0.5
0.3	0.5
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.

50 100 150 200 Z-axis stroke (mm 50 100 150 0 0 0 0 200 250 0 0 300 0 0 0 0 350 Y-axis stroke 0 400 450 500 550 0 0 600 650 700 750 0 800 0 0

Applicable Controllers

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

☐ Y-axis: SA7C, Z-axis: SA6C

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P. 153
MSEL	See P.139

^{*} 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.

	Type	Cable code	Length
	Standard type	1L	1m
		3L	3m
	Standard 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.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

		v			
Item		Y-axis	Z-axis		
Axis configuration		RCP6-SA7C	RCP6-SA6C		
Stroke (Every 50r	nm)	50~800mm	50~200mm		
	SL		170mm/s		
May amand *	SM	640mm/s	340mm/s		
Max. speed *	SH	04011111/5	680mm/s		
	SS		800mm/s		
Motor size		56□ Stepper motor	42□ Stepper motor		
	SL		3mm		
Ball screw	II screw SM	24mm	6mm		
lead	SH	24111111	12mm		
	SS		20mm		
Drive system		Ball screw φ12mm rolled C10	Ball screw φ10mm rolled C10		
Positioning repeatability		±0.01mm			
Base material		Aluminum			
Ambient operating		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.137.

Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

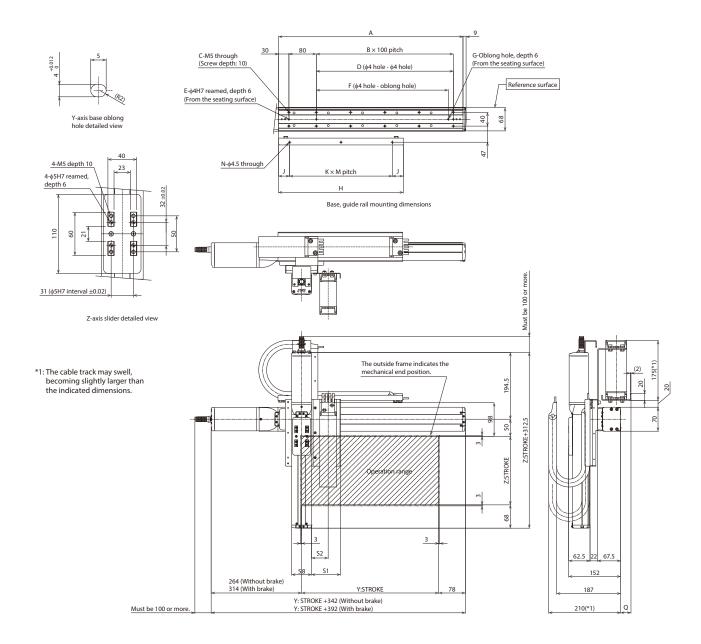
^{*} Be sure to specify.

^{*} Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.





- 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.136.



(*) 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.

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
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

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

K2-P6YBB **RCP6 2-axis configurations** Z-axis: SA7R (side-mounted) Encoder Type Second Axis (Z-axis) ■ Model Туре Specification IK2 — P6YBB1□□S PM1 -WA \Box **B** \Box ltems Configuration Direction Speed Type **Encoder Type** Stroke Options Controlle Cable Length Wiring Wiring HL: Y High Speed/Z Low Speed HM: Y High Speed/Z Medium Speed SH: Y Ultra High Speed/Z High Speed SS: Y Ultra High Speed/Z Ultra High Speed Refer to Applicable Controllers table below WA: Battery-less Absolute 5:50mm 1 to 2 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to (Every 50mm) 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.

Payload by Acceleration

■ HL type: Y high speed/

Z low speed	
Z-axis stroke (mm) deceleration (G)	50~300 (Every 50mm)
0.1	9
0.3	8
0.5	7
= cut. 3/ 1/ 1/ 1	14

■ SH type: Y ultra high speed/

z nign speed	
Z-axis stroke (mm) deceleration (G)	50~300 (Every 50mm)
0.1	3
0.3	2
0.5	1.5

■ HM type: Y high speed/ Z medium speed

z mediam speed	(Offic. kg)
Z-axis stroke (mm) deceleration (G)	50~300 (Every 50mm)
0.1	4.5
0.3	4
0.5	3.5

SS type: Y ultra high speed/ Z ultra high speed

Z-axis stroke			
Acceleration/ (mm)	(LVCI)	(Every	
deceleration (G)	50mm)	50mm)	
0.1	1	.5	
0.3	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.

Z-axis stroke (mm) 50 100 150 200 250 300 50 100 0 0 0 200 250 300 350 400 450 0 0 0 500 550 600 0 0 650 700 750 800 850 Ō 900 950 1000 1050

Applicable Controllers

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

☐ Y-axis: SA8R

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Z-axis: SA7R

Type	Reference page			
PCON-CB/CGB	See P.149			
PCON-CYB/PLB/POB	Please contact IAI for more information.			
MCON-C/CG	See P.153			
MCON-LC/LCG	3ee F.133			
MSEL	See P.139			

^{*} 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.

1100 Cable Length

Type	Cable code	Length				
	1L	1m				
Standard type	3L	3m				
Standard 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 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)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	See P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

Specification	410						
ltem		Y-axis	Z-axis				
Axis configuratio	n	RCP6-SA8R	RCP6-SA7R				
Stroke (Every 50r		50~1100mm	50~300mm				
	HL	400mm/s	105mm/s				
Max. speed *	HM	40011111/3	280mm/s				
Max. speed	SH	650mm/s	560mm/s				
	SS	03011111/5	640mm/s				
Motor size		56□ High thrust stepper motor	56□ Stepper motor				
	HL	20mm	4mm				
Ball screw	HM	2011111	8mm				
lead	SH	30mm	16mm				
	SS		24mm				
Drive system		Ball screw \phi16mm rolled C10	Ball screw \(\psi 12mm \) rolled C10				
Positioning repea	atability	±0.01mm					
Base material		Aluminum					
Ambient operation		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.137.

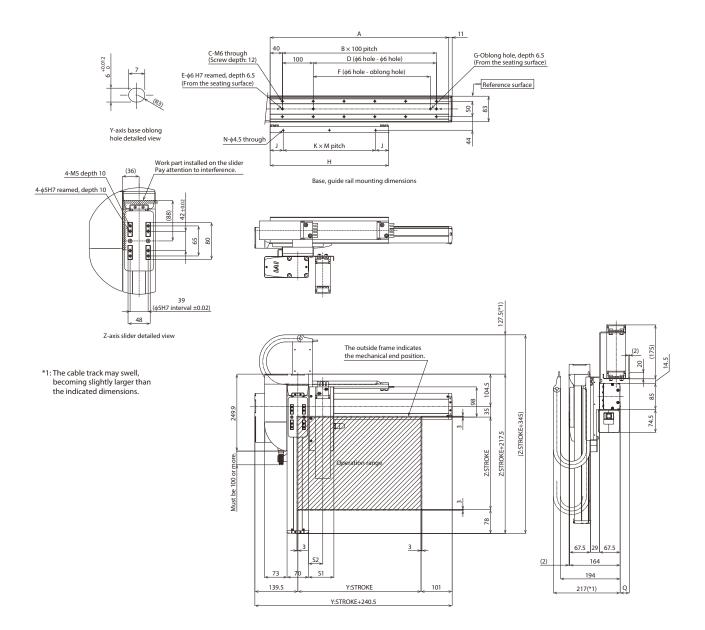
Туре	Option code	Reference page	Y-axis	Z-axis
Brake	В	See P.134	0	Standard equipment *
Cable exit direction (Outside)	CJO	See P.134	0	Cannot be selected
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

^{*} 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.136.



(*) 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.

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

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.



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.

Payload by Acceleration

■ HL type: Y high speed/

Z IOW Speed	
Z-axis stroke (mm) deceleration (G)	50~300 (Every 50mm)
0.1	9
0.3	8
0.5	7
- a	1.

■ SH type: Y ultra high speed/

Z nign speed	
Z-axis stroke (mm) deceleration (G)	50~300 (Every 50mm)
0.1	3
0.3	2
0.5	1.5

■ HM type: Y high speed/ Z medium speed

(Unit: ka) Z-axis stroke 50~300 (mm) Acceleration/ deceleration (G) (Every 50mm) 4.5 0.1 0.3 4 0.5 3.5

■ SS type: Y ultra high speed/ Z ultra high speed

Z-axis stroke (mm) deceleration (G)	(Every	
0.1	1	.5
0.3	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.

Z-axis stroke (mm) 50 100 150 200 250 300 50 100 0 0 200 250 300 350 400 450 0 0 0 0 500 550 600 0 0 0 650 700 750 800 850 900 950 1000 1050

Applicable Controllers

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

☐ Y-axis: SA8C

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Z-axis: SA7R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

^{*} 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.

1100 Cable Length

	Type	Cable code	Length
		1L	1m
	Standard type	3L	3m
		5L	5m
			ΠL

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 lateral)	Second wiring (Z-axis lateral)
Without cable track (cable only)	N		0	0
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	See P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

Item		Y-axis	Z-axis		
Axis configuration	n	RCP6-SA8C	RCP6-SA7R		
Stroke (Every 50n	nm)	50~1100mm	50~300mm		
	HL	400mm/s	105mm/s		
Max. speed *	HM	40011111/5	280mm/s		
Max. speed	SH	650mm/s	560mm/s		
	SS	03011111/5	640mm/s		
Motor size		56□ High thrust stepper motor	56□ Stepper motor		
	HL	20mm	4mm		
Ball screw	HM	20111111	8mm		
lead	SH	30mm	16mm		
	SS	3011111	24mm		
Drive system		Ball screw \phi16mm rolled C10	Ball screw \$12mm rolled C10		
Positioning repea	tability	±0.01mm			
Base material		Aluminum			
Ambient operatir temperature, hun		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.137.

Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

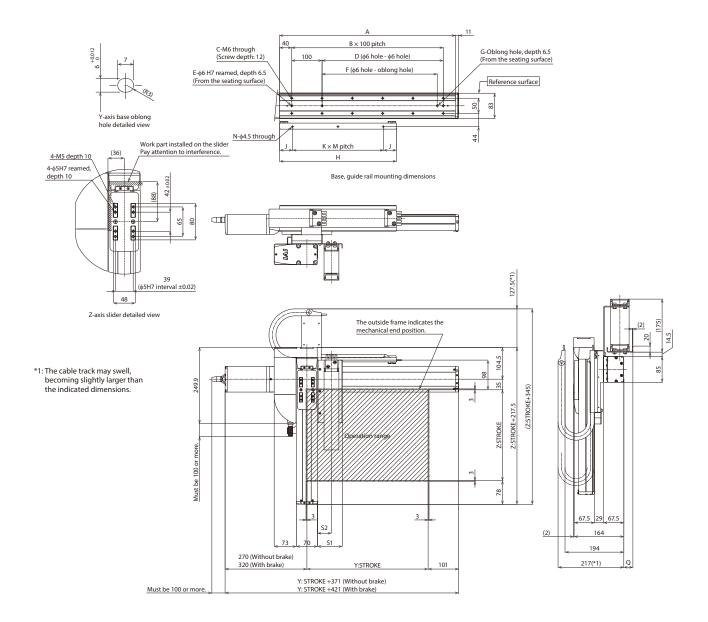
^{*} Be sure to specify.

^{*} Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.





- 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.136.



(*) 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.

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
H	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

Cable track size	CT	CTM	CTL	CTXL
Q	18	30	45	63
S1	82	94	107	-
S2	46	52.5	59	-

 $^{^{\}ast}$ Dimensions Q, S1 and S2 change depending on the size of the cable track.



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.

Payload by Acceleration

■ HL type: Y high speed/

Z IOW Speed	
Z-axis stroke (mm) deceleration (G)	50~300 (Every 50mm)
0.1	9
0.3	8
0.5	7
- a	1.

■ SH type: Y ultra high speed/

Z high speed	
Z-axis stroke (mm) deceleration (G)	50~300 (Every 50mm)
0.1	3
0.3	2
0.5	1.5

■ HM type: Y high speed/ Z medium speed

(Unit: ka) Z-axis stroke 50~300 (mm) Acceleration/ deceleration (G) (Every 50mm) 4.5 0.1 0.3 4 0.5 3.5

SS type: Y ultra high speed/ Z ultra high speed

Z-axis stroke (mm) deceleration (G)	(Every	250~300 (Every 50mm)
0.1	1	.5
0.3	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.

Z-axis stroke (mm) 100 150 200 250 300 50 50 100 0 0 200 250 300 350 400 450 0 0 0 0 500 550 600 0 0 0 650 700 750 800 850 900 950 1000 1050

Applicable Controllers

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

☐ Y-axis: SA8C

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Z-axis: SA7C

Туре	Reference page	
PCON-CB/CGB	See P.149	
PCON-CYB/PLB/POB	Please contact IAI for more information.	
MCON-C/CG	See P.153	
MCON-LC/LCG	3ee F.133	
MSEL	See P.139	

^{*} 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.

1100 Cable Length

	Type	Cable code	Length
		1L	1m
	Standard type	3L	3m
		5L	5m
		ΠL	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 lateral)	Second wiring (Z-axis lateral)
Without cable track (cable only)	N		0	0
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	See P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

Specificatio	115						
Item		Y-axis	Z-axis				
Axis configuration	n	RCP6-SA8C	RCP6-SA7C				
Stroke (Every 50mm)		50~1100mm	50~300mm				
	HL	400mm/s	105mm/s				
Max. speed *	HM	400mm/s	280mm/s				
Max. speed	SH	650mm/s	560mm/s				
	SS	03011111/5	640mm/s				
Motor size		56□ High thrust stepper motor	56□ Stepper motor				
MOTOL SIZE	HL	20mm	4mm				
Ball screw	HM	2011111	8mm				
lead	SH	30mm	16mm				
	SS	3011111	24mm				
Drive system		Ball screw \(\psi 16mm \) rolled C10	Ball screw \$12mm rolled C10				
Positioning repea	itability	±0.01mm					
Base material		Aluminum					
Ambient operatir		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.137.

Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	0

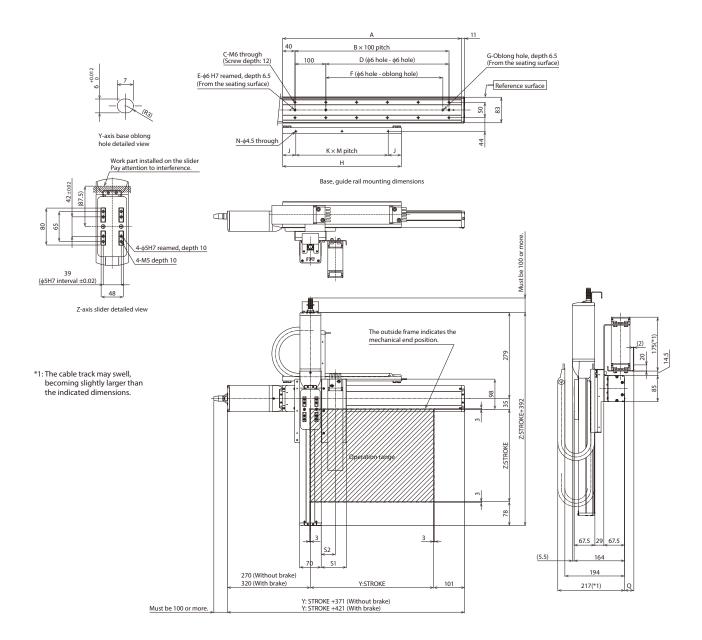
^{*} Be sure to specify.

^{*} Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.





- 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.136.



(*) 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.

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

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.

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.

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

Stroke

	Z-axis stroke (mm)	50	75	100	125	150
	50	0	0	0	0	0
	100	0	0	0	0	0
	150	0	0	0	0	0
	200	0	0	0	0	0
	250	0	0	0	0	0
(mm)	300	0	0	0	0	0
E	350	0	0	0	0	0
stroke	400	0	0	0	0	0
str	450	0	0	0	0	0
Y-axis	500	0	0	0	0	0
>	550	0	0	0	0	0
	600	0	0	0	0	0
	650	0	0	0	0	0
	700	0	0	0	0	0
	750	0	0	0	0	0
	800	0	0	0	0	0

Applicable Controllers

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

☐ Y-axis: SA6R, Z-axis: TA4R

Type	Reference page					
PCON-CB/CGB	See P.149					
PCON-CYB/PLB/POB	Please contact IAI for more information.					
MCON-C/CG	See P.153					
MCON-LC/LCG	See P.153					
MSEL	See P.139					

^{*} 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 Length

Type	Cable code Length							
	1L	1m						
Charadaud hura	3L	3m						
Standard 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)	CT		0	0		
Cable track M size (inner width: 50mm)	CTM	See	0	0		
Cable track L size (inner width: 63mm)	CTL	P.136	0	0		
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *		

^{*} Only the first wiring can be selected

Specifications

Item	Y-axis	Z-axis			
Axis configuration	RCP6-SA6R	RCP6-TA4R			
Stroke	50 ~ 800mm (Every 50mm)	50 ~ 150mm (Every 25mm)			
Max speed *	800mm/s	350mm/s			
Motor size	42□ Stepper motor	35□ Stepper motor			
Ball screw lead	20mm	10mm			
Drive system	Ball screw \phi10mm rolled C10	Ball screw φ8mm rolled C10			
Positioning repeatability	±0.01mm				
Base material	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.137.

Туре	Option code	Option code Reference page Y-axis				
Brake	В	See P.134	0	Standard equipment *		
Cable exit direction (Outside)	CJO	See P.134	0	Cannot be selected		
Non-motor end specification	NM	See P.135	0	0		
Slider section roller specification	SR	See P.135	0	Cannot be selected		

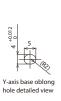
^{*} Be sure to specify.

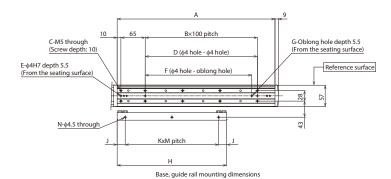
^{*} When both Y and Z axes have the same acceleration/deceleration. When there is significant vibration, decrease the speed and acceleration/deceleration as required.

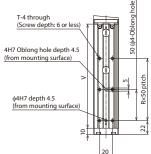


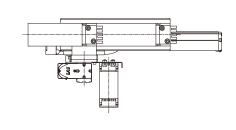


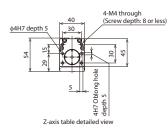
- Note 1. The configuration position in the figure is home.
- Note 2. The diagram shows the configuration direction "1" where both the first wiring and second wiring have cable tracks.
- Note 3. For details on the cable track and cable track moving end bracket, refer to P.136.

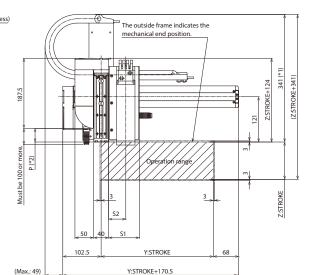


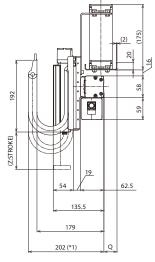












- *1: The cable track may swell, becoming slightly larger than the indicated dimensions.
- *2: A negative number for P means that the edge of the motor unit is located frontward past the end face of the table.

(*) Notes

The 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.

Y: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
H	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
M	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	11.5	36.5	61.5	86.5
R	1	2	2	3	3
T	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 the size of the cable track.

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.

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

Stroke Z-axis stroke (mm) 50 75 100 125 150 50 0 0 0 0 150 0 0 0 0 0 200 250 300 0 0 0 350 0 Y-axis stroke 0 0 0 400 450 500 0 550 0 0 600 650 700 750 0 0

Applicable Controllers

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

☐ Y-axis: SA6C, Z-axis: TA4R

Type	Reference page		
PCON-CB/CGB	See P.149		
PCON-CYB/PLB/POB	Please contact IAI for more information.		
MCON-C/CG	See P.153		
MCON-LC/LCG	3ee F.133		
MSEL	See P.139		

* 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 Length

	Type	Cable code	Length	
	Standard type	1L	1m	
		3L	3m	
		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.

Specifications

Y-axis	Z-axis				
RCP6-SA6C	RCP6-TA4R				
50 ~ 800mm (Every 50mm)	50 ~ 150mm (Every 25mm)				
800mm/s	350mm/s				
42□ Stepper motor	35□ Stepper motor				
20mm	10mm				
Ball screw \phi10mm	Ball screw ø8mm				
rolled C10	rolled C10				
±0.01mm					
Aluminum					
0~40°C, 85% RH or less (non-condensing)					
	RCP6-SA6C 50 ~ 800mm (Every 50mm) 800mm/s 42□ Stepper motor 20mm Ball screw \$10mm rolled C10 ±0.01mm Aluminum				

* 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.137.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

* Only the first wiring can be selected

Options

Туре	Option code	Reference page	Y-axis	Z-axis		
Brake *	В	See P.134	0	Standard equipment *		
Cable exit direction (Top)	CJT	See P.134	0			
Cable exit direction (Right)	CJR	See P.134	0	Cannot be		
Cable exit direction (Left)	CJL	See P.134	0	selected		
Cable exit direction (Bottom)	CJB	See P.134	0			
Non-motor end specification	NM	See P.135	0	0		
Slider section roller specification	SR	See P.135	0	Cannot be selected		

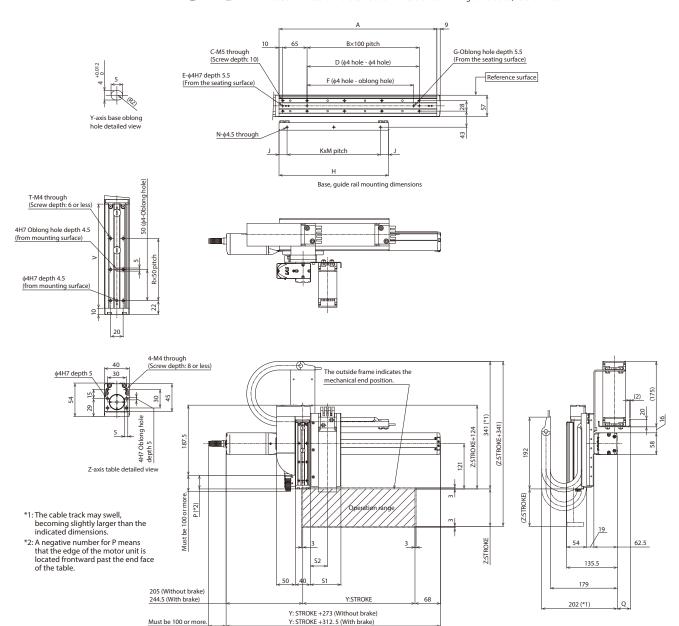
* Be sure to specify.
* Brake option for Y-axis increases the length of the motor unit.

Please contact IAI for more information.





- 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.136.



(*) 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.

Y: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
M	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	11.5	36.5	61.5	86.5
R	1	2	2	3	3
T	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 the size of the cable track.

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.

Payload by Acceleration ■ SH type: Y ultra high speed/Z high speed (Unit: kg) Z-axis stroke 50~150 Acceleration/ (Every 25mm) deceleration (G) 0.1 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.

Stroke Z-axis stroke (mm) 50 75 100 125 150 50 0 0 0 0 0 150 0 0 0 0 0 200 250 300 0 0 0 350 0 Y-axis stroke 0 0 0 400 450 500 0 550 0 0 600 650 700 750 0 0

Applicable Controllers

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

☐ Y-axis: SA6C, Z-axis: TA4C

Type	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee r.133
MSEL	See P.139

* 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 Length

	Type	Cable code	Length
		1L	1m
	Charadaud hura	3L	3m
	Standard type	5L	5m
ı		□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.

Specifications

Item	Y-axis	Z-axis		
Axis configuration	RCP6-SA6C	RCP6-TA4C		
Stroke	50 ~ 800mm (Every 50mm)	50 ~ 150mm (Every 25mm)		
Max speed *	800mm/s	350mm/s		
Motor size	42□ Stepper motor	35□ Stepper motor		
Ball screw lead	20mm	10mm		
Drive system	Ball screw φ10mm rolled C10	Ball screw φ8mm rolled C10		
Positioning repeatability	±0.01mm			
Base material	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.137.

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)	CT	See	0	0
Cable track M size (inner width: 50mm)	CTM		0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

* Only the first wiring can be selected

Options

Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	Cannot be selected

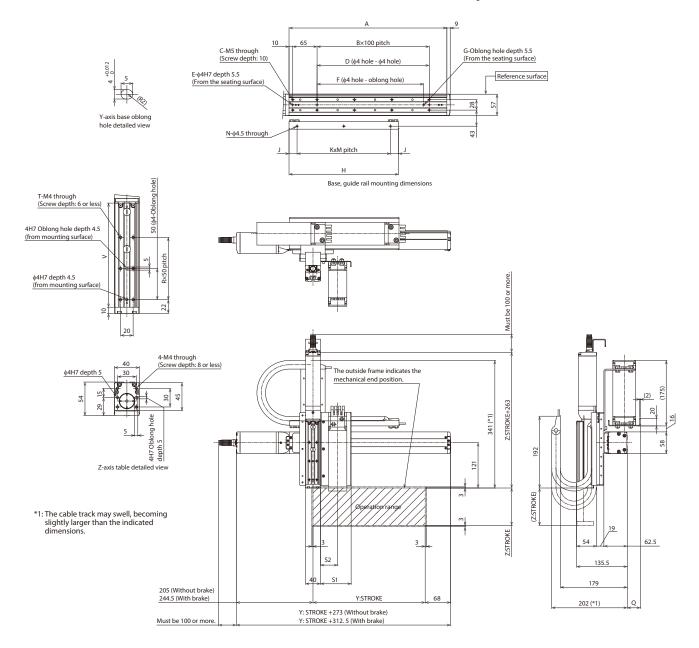
* Be sure to specify.
* Brake option for Y-axis increases the length of the motor unit.

Please contact IAI for more information.





- 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.136.



(*) 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.

	•															
Y: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
H	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
M	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
T	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 the size of the cable track.



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.

Payload by Acceleration ■ SM type: Y ultra high speed/Z medium speed

Z-axis stroke (mm) deceleration (G)	
0.1	3
0.3	2.5
0.5	2.5

(Unit: kg)

■ 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.

5	Stroke								
Z-axi	s stroke (mm)	50	75	100	125	150	175	200	
	50	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	
	200	0	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	
Ê	300	0	0	0	0	0	0	0	
stroke (mm)	350	0	0	0	0	0	0	0	
*	400	0	0	0	0	0	0	0	
	450	0	0	0	0	0	0	0	
Y-axis	500	0	0	0	0	0	0	0	
>	550	0	0	0	0	0	0	0	
	600	0	0	0	0	0	0	0	
	650	0	0	0	0	0	0	0	
	700	0	0	0	0	0	0	0	
	750	0	0	0	0	0	0	0	
	800	0	0	0	0	0	0	0	

Applicable Controllers

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

☐ Y-axis: SA7R, Z-axis: TA6R

setting disabled.

Type	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

* 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

Cable Length

	Type	Cable code	Length
		1L	1m
	Charadaud hura	3L	3m
	Standard type	5L	5m
ı		□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)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Specifications

Item		Y-axis	Z-axis			
Axis configuration	n	RCP6-SA7R	RCP6-TA6R			
Stroke		50 ~ 800mm (Every 50mm)	50 ~ 200mm (Every 25mm)			
Max speed *	SM	640mm/s	280mm/s			
	SH	04011111/5	440mm/s			
Motor size		56□ Stepper motor	42□ Stepper motor			
Ball screw SM		24mm	6mm			
lead	SH	2411111	12mm			
Drive system		Ball screw \(\psi 12mm \) rolled C10	Ball screw \(\phi 10mm \) rolled C10			
Positioning repea	tability	±0.01mm				
Base material		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.137.

Ontions

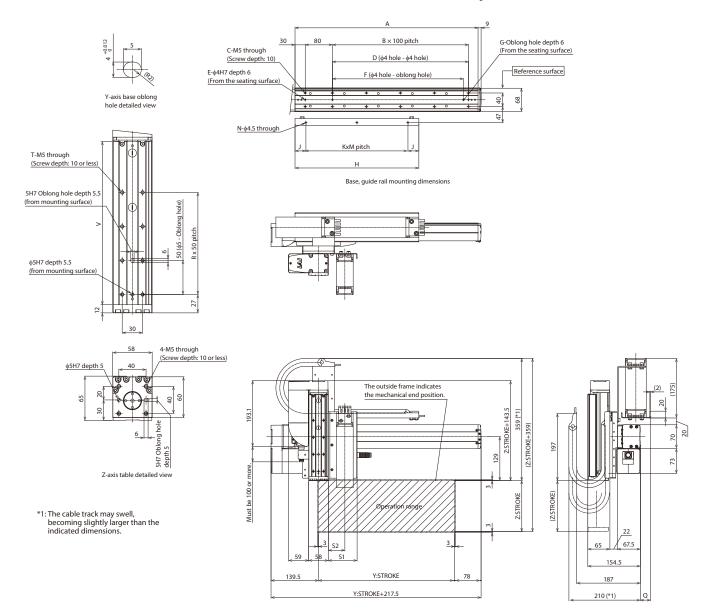
Options				
Туре	Option code	Reference page	Y-axis	Z-axis
Brake	В	See P.134	0	Standard equipment *
Cable exit direction (Outside)	CJO	See P.134	0	Cannot be selected
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	Cannot be selected

^{*} 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.136.



(*) 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.

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
K	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
								1								

K	1	1	1	1	1	1	2	
M	150	150	200	200	250	250	150	Г
N	2	2	2	2	2	2	3	
								П
Z: Stroke	50	75	100	125	150	175	200	
R	1	2	2	3	3	4	4	l
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	-
1	C2	185	55	61.5	_

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



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.

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

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

0.5

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.

S	Stroke										
Z-axi	s stroke (mm)	50	75	100	125	150	175	200			
	50	0	0	0	0	0	0	0			
	100	0	0	0	0	0	0	0			
	150	0	0	0	0	0	0	0			
	200	0	0	0	0	0	0	0			
	250	0	0	0	0	0	0	0			
Ê	300	0	0	0	0	0	0	0			
Ε.	350	0	0	0	0	0	0	0			
stroke (mm)	400	0	0	0	0	0	0	0			
	450	0	0	0	0	0	0	0			
Y-axis	500	0	0	0	0	0	0	0			
>	550	0	0	0	0	0	0	0			
	600	0	0	0	0	0	0	0			
	650	0	0	0	0	0	0	0			
	700	0	0	0	0	0	0	0			
	750	0	0	0	0	0	0	0			
	800	0	0	0	0	0	0	0			

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.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

2.5

* 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 Length

Type	Cable code	Length				
	1L	1m				
Charadaud hura	3L	3m				
Standard 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.

Specifications

Item		Y-axis	Z-axis			
Axis configuratio	n	RCP6-SA7C	RCP6-TA6R			
Stroke		50 ~ 800mm (Every 50mm)	50 ~ 200mm (Every 25mm)			
	SM	640mm/s	280mm/s			
Max speed *	SH	04011111/5	440mm/s			
Motor size		56□ Stepper motor	42□ Stepper motor			
Ball screw	SM	24mm	6mm			
lead	SH	24(1)(1)	12mm			
Drive system		Ball screw \(\phi 12mm \) rolled C10	Ball screw \phi10mm rolled C10			
Positioning repea	atability	±0.01mm				
Base material		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.137.

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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)	CTM	See	0	0						
Cable track L size (inner width: 63mm)	CTL	P.136	0	0						
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *						

* Only the first wiring can be selected

Options

Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	Cannot be selected

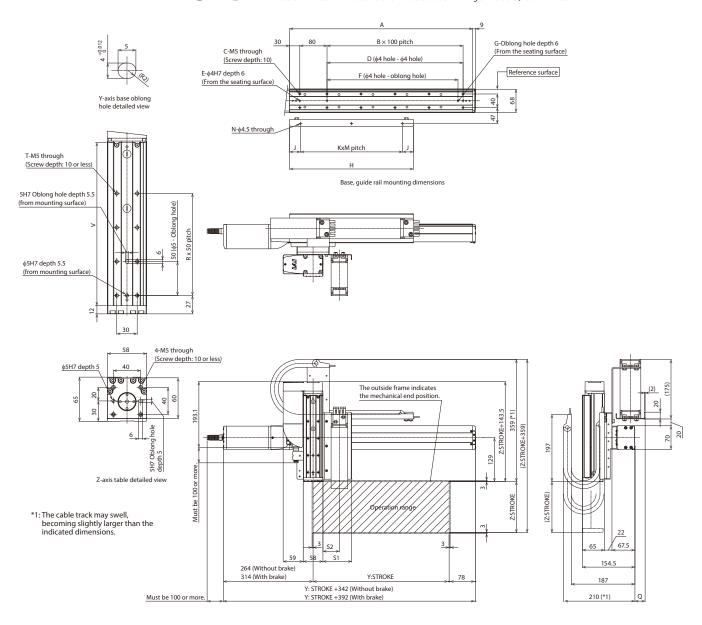
* Be sure to specify.
* Brake option for Y-axis increases the length of the motor unit.

Please contact IAI for more information.





- 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.136.



(*) 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
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
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. 1		7.5	400	405	450	475	200	1								

10

Н	189	214	239	264	289	314	339	364	389	414
J	19.5	32	19.5	32	19.5	32	19.5	32	19.5	32
K	1	1	1	1	1	1	2	2	2	2
M	150	150	200	200	250	250	150	150	175	175
N	2	2	2	2	2	2	3	3	3	3
Z: Stroke	50	75	100	125	150	175	200			
D	1	2	2	2	2	4	4			

	Cable track size	Cable track size CT CT				
	Q	18	30	45	63	
	S1	84.5	96.5	109.5	-	
1	52	48.5	55	61.5	_	

^{*} Dimensions Q, S1 and S2 change depending on the size of the cable track



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.

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

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

0.5

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.

S	troke							
Z-axi	s stroke (mm)	50	75	100	125	150	175	200
	50	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0
(mm)	300	0	0	0	0	0	0	0
Ε.	350	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0
l fs	450	0	0	0	0	0	0	0
Y-axis	500	0	0	0	0	0	0	0
>	550	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0

Applicable Controllers

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

☐ Y-axis: SA7C, Z-axis: TA6C

Type	Reference page					
PCON-CB/CGB	See P.149					
PCON-CYB/PLB/POB	Please contact IAI for more informatio					
MCON-C/CG	See P 153					
MCON-LC/LCG	3ee F.133					
MSEL	See P.139					

2.5

* 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 Length

Type	Cable code	Length
	1L	1m
Standard type	3L	3m
Standard 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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

* Only the first wiring can be selected

Specifications

Item		Y-axis	Z-axis				
Axis configuratio	n	RCP6-SA7C	RCP6-TA6C				
Stroke		50 ~ 800mm (Every 50mm)	50 ~ 200mm (Every 25mm)				
May an and *	SM	640mm/s	280mm/s				
Max speed *	SH	04011111/5	440mm/s				
Motor size		56□ Stepper motor	42□ Stepper motor				
Ball screw	SM	24mm	6mm				
lead	SH	2411111	12mm				
Drive system		Ball screw \(\phi 12mm \) rolled C10	Ball screw \(\phi 10mm \) rolled C10				
Positioning repea	atability	±0.01mm					
Base material		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.137.

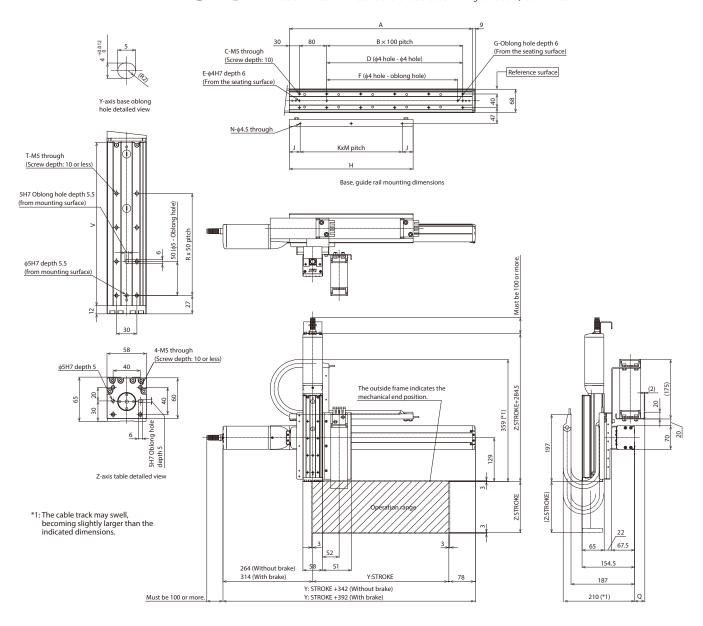
Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	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.





- 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.136.



(*) 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

165

190

	•															
Y: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
7. Chualia	FΛ	7.5	100	125	150	175	200									

10

10

240

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

Q	10	50	73	05
S1	84.5	96.5	109.5	-
S2	48.5	55	61.5	-
* Dimensions O S1 a	and S2 d	hange	denend	ina or

CT CTM CTL CTXL



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.

Payload by Acceleration

■ HL type: Y high speed/ Z low speed

Z-axis stroke (mm) Acceleration/ deceleration (G)		250	300				
0.1	8	3					
0.3	6						

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

Z-axis stroke (mm) Acceleration/deceleration (G)	50~200 (Every 25mm)	250	300			
0.1	3	3				
0.3	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.

Stroke Z-axis stroke (mm) 125 150 175 200 250 300 50 75 100 50 Ō 100 200 0 0 250 0 0 0 300 350 0 0 0 0 0 0 0 400 450 500 0 0 0 Y-axis stroke 550 0 600 650 700 0 750 0 0 0 0 0 800 850 900 0 0 950 1000 1050 1100

Applicable Controllers

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

☐ Y-axis: SA8R

■ HM type: Y high speed/ Z medium speed

50~200

(Every 25mm)

4

3

3

Z-axis stroke

0.1

0.3

0.5

(Unit: ka)

300 250

Type	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Z-axis: TA7R

Reference page
See P.149
Please contact IAI for more information.
See P.153
3ee P.133
See P.139

* 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 Length

Type	Cable code	Length
	1L	1m
Ctandard tuna	3L	3m
Standard 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.

Specifications

Item		Y-axis	Z-axis			
Axis configura	tion	RCP6-SA8R	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			
Motor size		56□ High thrust stepper motor	56□ Stepper motor			
Ball screw	HL	20mm	4mm			
lead	HM	Zumm	8mm			
lead	SH	30mm	16mm			
Drive system		Ball screw \phi16mm rolled C10	Ball screw \(\phi 12mm \) rolled C10			
Positioning rep	eatability	±0.01mm				
Base material		Aluminum				
Ambient opera	_	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.137.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

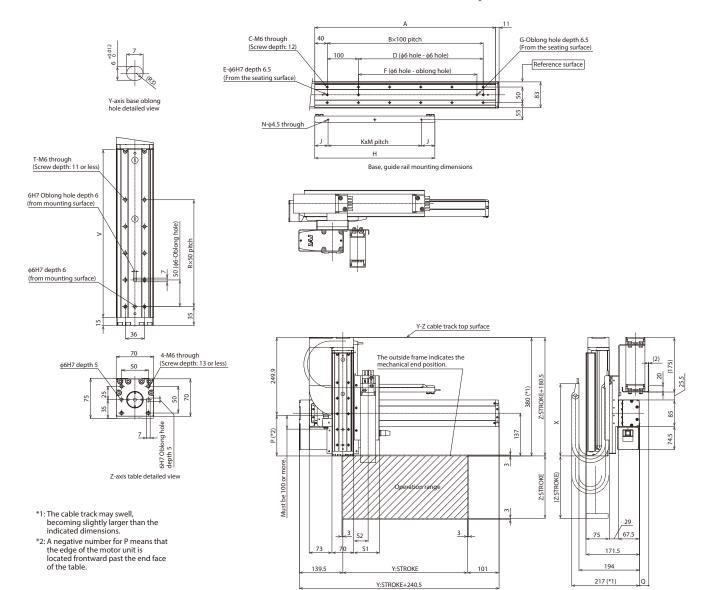
Туре	Option code	Reference page	Y-axis	Z-axis
Brake	В	See P.134	0	Standard equipment *
Cable exit direction (Outside)	CJO	See P.134	0	Cannot be selected
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	Cannot be selected

^{*} 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.136.



(*) 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
Α	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
H	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	1 2 2		3	3	4	4	5	6
Т	4	4 6	6	8	8	10	10	12	14
V	164	189	214	239	264	289	314	364	414
Y		188		23.2					

Cable track size	СТ	СТМ	CTL	CTXL
Q	18	30	45	63
S1	82	94	107	-
52	46	52.5	59	-

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



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.

75

Payload by Acceleration ■ HL type: Y high speed/

Z low speed Z-axis stroke 50~200

Acceleration/ deceleration (G)	(Every 25mm)	250	300					
0.1	8	3						
0.3	6							
SH type: Y ul Z hiah speed		ed/						

200

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

250

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

300

Applicable Controllers

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

☐ Y-axis: SA8C

■ HM type: Y high speed/ Z medium speed

> 50~200 (Every

25mm)

Z-axis stroke (mm)

Acceleration/ deceleration (G)

0.1

0.3

0.5

(Unit: kg)

250 300

4

3

3

Type	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Z-axis: TA7R

Type	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

* 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.

200 0 0 250 0 0 0 300 350 0 0 0 0 0 0 400 450 500 0 0 Y-axis stroke 550 0 600 650 0 700 0 750 0 0 0 0 0 800 850 900 0 950 1000 1050

125

100

150

175

Ō

1100 Cable Length

Stroke

Z-axis stroke (mm)

50

100

50

Type	Cable code	Length
	1L	1m
Standard type	3L	3m
Standard 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.

Specifications

Item		Y-axis	Z-axis			
Axis configura	tion	RCP6-SA8C	RCP6-TA7R			
Stroke		50 ~ 1100mm (Every 50mm)	50 ~ 200 (Every 25mm), 250, 300mm			
Max speed *	HL	400mm/s	140mm/s			
	HM	40011111/5	280mm/s			
	SH	650mm/s	420mm/s			
Motor size		56□ High thrust stepper motor	56□ Stepper motor			
Ball screw	HL	20mm	4mm			
lead	HM	20111111	8mm			
leau	SH	30mm	16mm			
Drive system		Ball screw \phi16mm rolled C10	Ball screw \(\psi 12mm \) rolled C10			
Positioning rep	eatability	±0.01mm				
Base material		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.137.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

^{*} Only the first wiring can be selected

Options				
Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134		Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	Cannot be selected

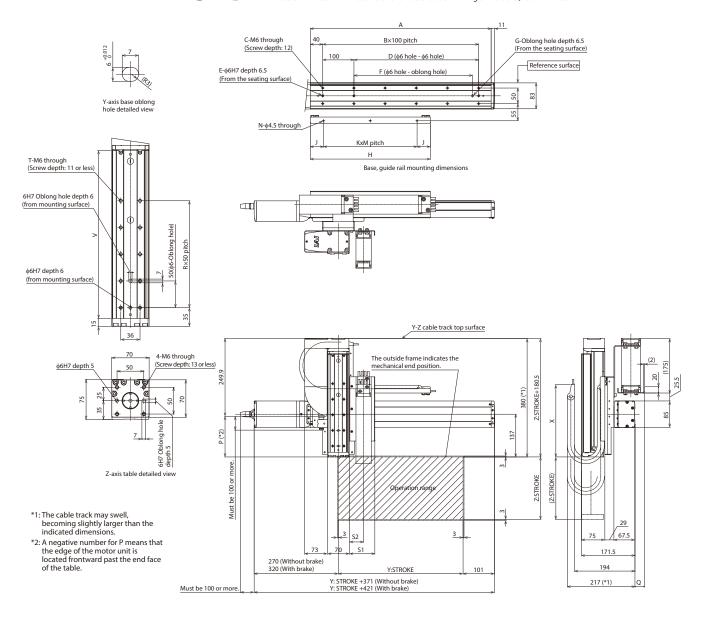
* Be sure to specify. * Brake option for Y-axis increases the length of the motor unit.

Please contact IAI for more information.





- 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.136.



(*) 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
Α	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
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

*	Dimen	sions (Q, S1 ar	nd S2 d	hange
	depend	ding o	n the s	ize of t	he
	cable t	rack.			

18 30 82

CTM CTL CTXL

45

94 107

Cable

track size

Q

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		214	239	239 264 289 314				414
Х		188				23	32		



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.

75

0

100

0

0

0

0

0

125

0

150

0

0

175

0

Ö

50

Payload by Acceleration ■ HL type: Y high speed/ Z low speed

Z-axis stroke 50~200 (Every 250 300 Acceleration/ deceleration (G) 25mm) 0.1 8 0.3 6

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

200

5				
Z-axis stroke (mm) Acceleration/ deceleration (G)	50~200 (Every 25mm)	250	300	
0.1	:	3		
0.3	2.5			

250

0

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

300

0

0

0

0

0

Applicable Controllers

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

☐ Y-axis: SA8C

■ HM type: Y high speed/ Z medium speed

50~200

(Every

25mm)

Z-axis stroke (mm)

Acceleration/ deceleration (G)

0.1

0.3

0.5

(Unit: kg)

250 300

4

3

3

Type	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Z-axis: TA7C

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

* 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.

1100 Cable Length

Stroke Z-axis stroke (mm)

100

150

400

450

500

550 600 650

900

950 1000

1050

Y-axis stroke

Type	Cable code	Length
	1L	1m
Ctandard 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.

Specifications

Specifica	LIUII3					
Item		Y-axis	Z-axis			
Axis configura	tion	RCP6-SA8C	RCP6-TA7C			
Stroke		50 ~ 1100mm (Every 50mm)	50 ~ 200 (Every 25mm), 250, 300mm			
	HL	400	140mm/s			
Max speed *	HM	400mm/s	280mm/s			
SH		650mm/s	420mm/s			
Motor size		56□ High thrust stepper motor	56□ Stepper motor			
Ball screw	HL	20mm	4mm			
lead	HM	20111111	8mm			
leau	SH	30mm	16mm			
Drive system		Ball screw φ16mm Ball screw φ12mm rolled C10 rolled C10				
Positioning repeatability		±0.01mm				
Base material		Aluminum				
Ambient operature, h	_	0~40°C, 85% RH or less (non-condensing)				

^{*} The maximum speed may not be reached if the travel distance is short or

Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.137.

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)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm) *	CTXL		0	Cannot be selected *

Only the first wiring can be selected

Options				
Туре	Option code	Reference page	Y-axis	Z-axis
Brake *	В	See P.134	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0	
Cable exit direction (Right)	CJR	See P.134	0	Cannot be
Cable exit direction (Left)	CJL	See P.134	0	selected
Cable exit direction (Bottom)	CJB	See P.134	0	
Non-motor end specification	NM	See P.135	0	0
Slider section roller specification	SR	See P.135	0	Cannot be selected

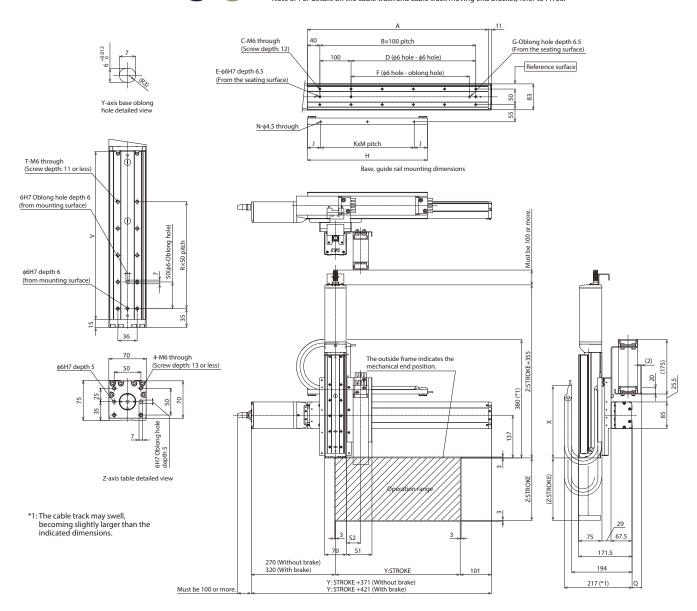
^{*} Be sure to specify. * Brake option for Y-axis increases the length of the motor unit. Please contact IAI for more information.



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.136.



(*) 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
Α	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
R	1	2	2	3	3	4	4	5	6
T	4	6	6	8	8	10	10	12	14
V	164	189	214	239	264	289	314	364	414
X	188			232					

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 depending on the size of the cable track.



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

Payload by Acceleration

■ HHL type: X high speed/Y high speed/Z low speed ■ HHM type: X high speed/Z medium speed (Unit: kg)

Y-axis (mm) Acceleration/ deceleration (G)	50~200	250~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)	250~400 (Every 50mm)
0.1	3	-	0.1	:	2
0.3	3	-	0.3	2	1

■ HHH type: X high speed/Y high speed/Z high speed ■ HHS type: X high speed/Y high speed/Z ultra high speed

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1	1	0.1	0.5
0.3	1	0.3	0.5
0.5	1	0.5	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.

Stroke													
Y-a	ixis stroke (mm)	50			100			150			200		
Z-a	xis stroke (mm)	50	100	150	50	100	150	50	100	150	50	100	150
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	300	0	0	0	0	0	0	0	0	0	0	0	0
E .	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
챵	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)	250 *			300 *			350 *			400 *		
Z-a	xis stroke (mm)	50	100	150	50	100	150	50	100	150	50	100	150
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
-	300	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
str	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

^{*} When the speed type "HHL" is selected, the maximum Y-axis stroke will be 200mm. (250mm or more cannot be selected.)

Туре	code	page	X-axis	Y-axis	Z-axis
Brake	В	See P.134	0	0	Standard equipment *
Cable exit direction (Outside)	CJO	See P.134	Cann sele	Standard equipment *	
Non-motor end specification	NM	See P.135	0	0	0
Slider section roller specification	SR	See P.135	0	0	0

^{*} Be sure to specify.

Options

Cable	Length									
Type	Cable code	Length								
Standard type	1L	1m								
	3L	3m								
	5L	5m								
	□L	Specified length (15m max.)								
Note 1 All	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 robot 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.

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)	CT		0	0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0	0
Cable track L size (inner width: 63mm)	CTL	3ee P.130	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

Applicable Controllers

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

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

Type	Reference page					
PCON-CB/CGB	See P.149					
PCON-CYB/PLB/POB	Please contact IAI for more information					
MCON-C/CG	See P.153					
MCON-LC/LCG	See P.153					
MSEL	See P.139					

^{*} 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.

Specification	ons								
Item		X-axis	Y-axis	Z-axis					
Axis configuration	on	RCP6-SA7R	RCP6-SA6R	RCP6-SA4R					
Stroke (Every 50	mm)	50~800mm	50~400mm *1	50~150mm					
	HHL			150mm/s					
May amond *2	HHM	420	560mm/s	305mm/s					
Max. speed *2	HHH	420mm/s	560mm/s	525mm/s					
	HHS			560mm/s					
Motor size		56□ Stepper motor	42□ Stepper motor	35□ Stepper motor					
	HHL			2.5mm					
Ball screw	HHM	16mm	12mm	5mm					
lead	HHH	TOTTITT	12000	10mm					
	HHS			16mm					
Drive system		Ball screw \(\psi 12mm \) rolled C10	Ball screw \$10mm rolled C10	Ball screw φ8mm rolled C10					
Positioning repea	atability	±0.01mm							
Base material		Aluminum							
Ambient operat temperature, hu		0~40°C, 85% RH or less	0~40°C, 85% RH or less (non-condensing)						

*1 When the speed type "HHL" is selected	the maximum \	Y-axis stroke will be 200 mn	n

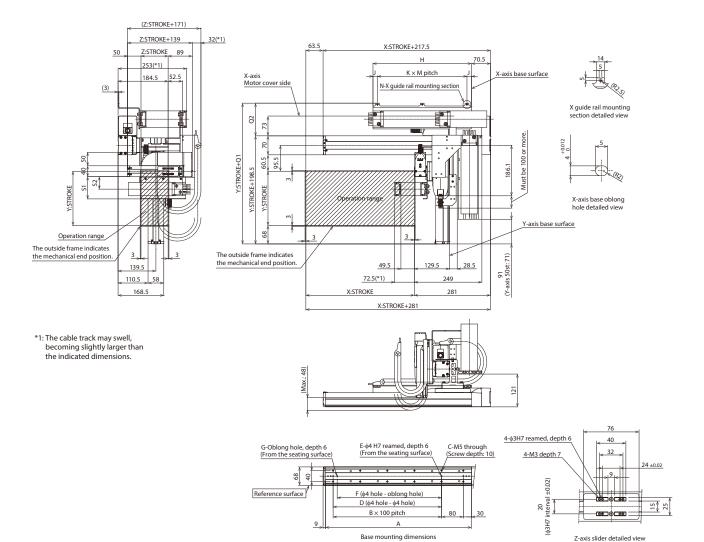
^{*2} The maximum speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.137.

^{*2} Only the first wiring can be selected





- 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.136.



(*) 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.

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
M	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 Q1, Q2, S1 and S2 change depending on the size of the cable track.

RCP6 3-axis XYB + Z-axis base mount configurations (3-P6BBC2 X-axis: SA7C (straight) — Encoder Type — First Axis — Second Axis — (Y-axis) Third Axis (Z-axis) ■ Model — Controller — — Options Туре Specification Items **IK3** − **P6BBC2** □ **S** − WA - - - - - - BCJO - PM1 - - - - -_ _ 工工 Configuration Direction Cable First Speed Type **Encoder Type** Stroke Options Controller Third Options Wiring Refer to Options table (2) on the next page. Length Wiring Refer to Applicable Controllers table on the next page. 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 WA: Battery-less Absolute 5: 50mm Refer to Options table (1) on the next page. L: 1m Second 3L: 3m Wiring 5L: 5m Refer to Cable Track table below. 1 to 4 Refer to Robot Type Descriptions on page 3 (Every 50mm)



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

Payload by Acceleration

■ HHL type: X high speed/Y high speed/Z low speed ■ HHM type: X high speed/Z medium speed (Unit: kg)

Y-axis (mm) Acceleration/ deceleration (G)	50~200	250~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~200	250~400 (Every 50mm)
0.1	3	-	0.1	:	2
0.3	3	-	0.3	2	1

■ HHH type: X high speed/Y high speed/Z high speed ■ HHS type: X high speed/Y high speed/Z ultra high speed

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1	1	0.1	0.5
0.3	1	0.3	0.5
0.5	1	0.5	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.

S	troke												
Y-a	xis stroke (mm)		50			100			150			200	
Z-a	xis stroke (mm)	50	100	150	50	100	150	50	100	150	50	100	150
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	300	0	0	0	0	0	0	0	0	0	0	0	0
E	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
15	450	0	0	0	0	0	0	0	0	0	0	0	0
axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		250 *			300 *			350 *			400 *		
Z-a	xis stroke (mm)	50	100	150	50	100	150	50	100	150	50	100	150	
	50	0	0	0	0	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	0	0	0	0	0	
	200	0	0	0	0	0	0	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	0	0	0	0	0	
=	300	0	0	0	0	0	0	0	0	0	0	0	0	
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0	
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0	
s str	450	0	0	0	0	0	0	0	0	0	0	0	0	
-axis	500	0	0	0	0	0	0	0	0	0	0	0	0	
×	550	0	0	0	0	0	0	0	0	0	0	0	0	
	600	0	0	0	0	0	0	0	0	0	0	0	0	
	650	0	0	0	0	0	0	0	0	0	0	0	0	
	700	0	0	0	0	0	0	0	0	0	0	0	0	
	750	0	0	0	0	0	0	0	0	0	0	0	0	
	800	0	0	0	0	0	0	0	0	0	0	0	0	

^{*} When the speed type "HHL" is selected, the maximum Y-axis stroke will be 200mm. (250mm or more cannot be selected.)

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
	□L	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.

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

See P.136

CTM

CTL

CTXL

Cable track M size (inner width: 50mm)

Cable track L size (inner width: 63mm)

Cable track XL size (inner width: 80mm)

0

0

Cannot be

selected *1

Cannot be selected *2

Applicable Controllers

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

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

Туре	Reference page					
PCON-CB/CGB	See P.149					
PCON-CYB/PLB/POB	Please contact IAI for more information.					
MCON-C/CG	See P.153					
MCON-LC/LCG	3ee P.133					
MSEL	See P.139					

^{*} 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.

Specifications

Item		X-axis	Y-axis	Z-axis				
Axis configuration	on	RCP6-SA7C	RCP6-SA6R	RCP6-SA4R				
Stroke (Every 50	mm)	50~800mm	50~400mm *1	50~150mm				
	HHL			150mm/s				
Max. speed *2 Motor size Ball screw lead	HHM	420mm/s	560mm/s	305mm/s				
Max. speed 2	HHH	42011111/5	30011111/3	525mm/s				
	HHS			560mm/s				
Motor size		56□ Stepper motor	42□ Stepper motor	35□ Stepper motor				
	HHL			2.5mm				
	HHM	16mm	12mm	5mm				
	HHH	1011111	1211111	10mm				
	HHS			16mm				
Drive system		Ball screw \phi12mm rolled C10	Ball screw \phi10mm rolled C10	Ball screw φ8mm rolled C10				
Positioning repea	atability	±0.01mm						
Base material		Aluminum						
Ambient operat temperature, hu		0~40°C, 85% RH or less (non-condensing)						

- *1 When the speed type "HHL" is selected, the maximum Y-axis stroke will be 200 mm.
- *2 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.137.

Ontions (1)

Options (1)											
Option code	Reference page	X-axis	Y-axis	Z-axis							
В	See P.134	0	0	Standard equipment *							
CJT	See P.134	0									
CJR	See P.134	0	Cannot be								
CJL	See P.134	0	sele	cted							
CJB	See P.134	0									
CIO	See P.134	Cannot b	Standard equipment *								
Non-motor end specification NM											
SR	See P.135	0	0	0							
	CODE B CJT CJR CJL CJB CJO NM	code page B See P.134 CJT See P.134 CJL See P.134 CJB See P.134 CJO See P.134 NM See P.135	code page X-axis B See P.134 ○ CJT See P.134 ○ CJR See P.134 ○ CJL See P.134 ○ CJB See P.134 ○ CJO See P.134 ○ NM See P.135 ○	Code page X-axis Y-axis							

- * Be sure to specify.

 * Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information.

Options (2)

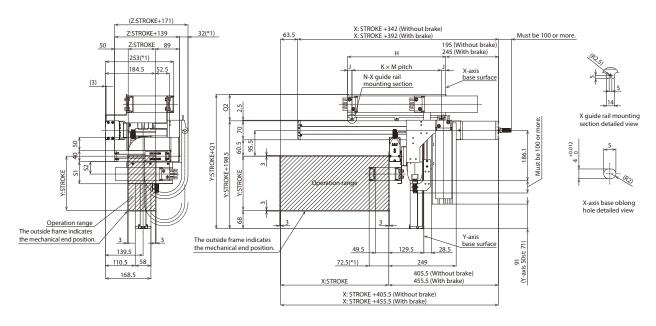
Туре	Option code	Reference page
Foot plate	FTP	See P.134

^{*1} Only the first and second wiring can be selected

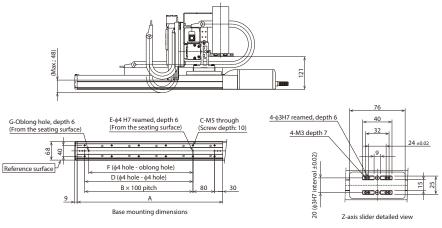
⁰ *2 Only the first wiring can be selected



- 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.136.



*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.134) 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.

	,															
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
M	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	127.5	
S1	82	94	-	-	
52	46	52.5	_	_	

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



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

Payload by Acceleration

■ HHL type: X high speed/Y high speed/Z low speed ■ HHM type: X high speed/Z medium speed (Unit: kg)

z type.xgs	peca, i ingii spe	ca, z ion speca	- Tillin type: A mgn speed	i ingii speca, z incaia	mspecu (ornering)
Y-axis (mm) Acceleration/ deceleration (G)	50~200	250~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)	250~400 (Every 50mm)
0.1	3	-	0.1		2
0.3	3	-	0.3	2	1

■ HHH type: X high speed/Y high speed/Z high speed ■ HHS type: X high speed/Y high speed/Z ultra high speed

0.1	Y-axis (mm) Acceleration/deceleration (G)	50~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1 1 0.1 0.5	0.1	1	0.1	0.5
0.3 1 0.3 0.5	0.3	1	0.3	0.5
0.5 1 0.5 0.5	0.5	1	0.5	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.

S	troke												
Y-a	ixis stroke (mm)		50			100			150			200	
Z-a	xis stroke (mm)	50	100	150	50	100	150	50	100	150	50	100	150
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
Ē	300	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
st	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	axis stroke (mm)		250*			300 *			350*			400 *	
Z-a	axis stroke (mm)	50	100	150	50	100	150	50	100	150	50	100	150
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
=	300	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
s str	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

^{*} When the speed type "HHL" is selected, the maximum Y-axis stroke will be 200mm. (250mm or more cannot be selected.)

Type	Cable code	Length
.,,,,	11	1m
	IL	1111
Standard	3L	3m
type	5L	5m
	□L	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 1 m, 3m and 5m, but other lengths can be specified in 1m increments up to 15m.

20.0	ו פונ	rack	c Pric	- A I I	CT.

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)	CT		0	0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	0	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	0	0	Cannot be selected *1
Cable track XL size (inner width: 80mm)	CTXL		0	Cannot be	selected *2

Applicable Controllers

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

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

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

^{*} 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.

Specifications X-axis Y-axis Z-axis Item RCP6-SA7C RCP6-SA6C RCP6-SA4C Axis configuration Stroke (Every 50mm) 50~800mm 50~400mm *1 50~150mm HHL 150mm/s ННМ 305mm/s Max. speed *2 420mm/s 560mm/s ннн 525mm/s HHS 560mm/s 42□ Stepper motor Motor size 56□ Stepper motor 35□ Stepper motor HHL 2.5mm ННМ Ball screw 5mm 16mm 12mm lead ннн 10mm HHS 16mm Ball screw $\phi12mm$ Ball screw \$10mm Ball screw $\phi 8mm$ 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

Options (1)											
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis						
Brake *	В	See P.134	0	0	Standard equipment *						
Cable exit direction (Top)	CJT	See P.134	0								
Cable exit direction (Right)	CJR	See P.134	0	Cann	ot be						
Cable exit direction (Left)	CJL	See P.134	0	sele	cted						
Cable exit direction (Bottom)	CJB	See P.134	0								
Non-motor end specification	NM	See P.135	0	0	0						
Slider section roller specification	SR	See P.135	0	0	0						

^{*} Outside as standard. Be sure to specify.

^{*} Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

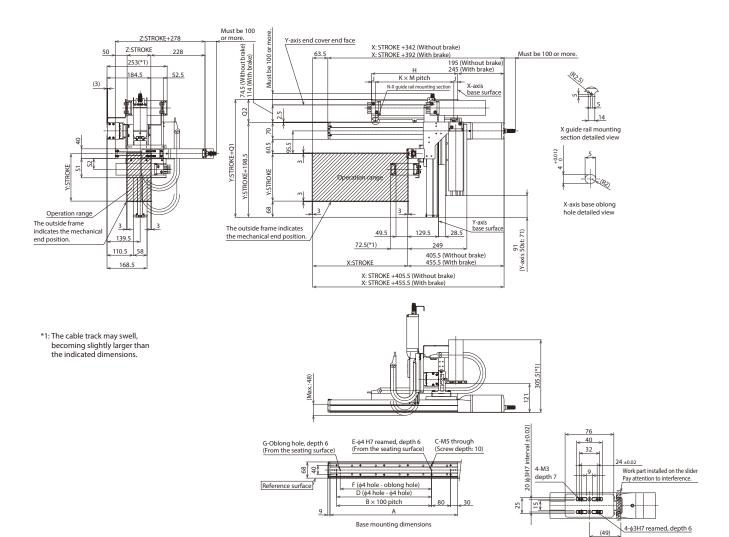
Options (2)		
Туре	Option code	Reference page
Foot plate	FTP	See P.134

^{*1} When the speed type "HHL" is selected, the maximum Y-axis stroke will be 200 mm.

^{*2} 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.137.



- 3D CAD
- 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.136.



(*) 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.134)

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
Α	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
M	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	127.5
S1	82	94	-	-
52	46	52.5	_	_

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

Z-axis slider detailed view

RCP6 3-axis XYB + Z-axis base mount configurations 3-P6BBB1 X-axis: SA8R (side-mounted) Y-axis: SA7R (side-mounted) Z-axis: SA6R (side-mounted) — Encoder Type — First Axis — Second Axis — Third Axis (Z-axis) ■ Model — Controller — Type Specification Items TI, Cable First Configuration Direction Speed Type Encoder Type Stroke Options Controller Length Wiring Refer to Applicable Controllers table on the next page. Wiring 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 WA: Battery-less Absolute 5: 50mm Refer to Options table on the next page. L : 1m Second 3L : 3m Wiring 5L : 5m Refer to Cable Track table below. 1 to 4 Refer to Robot Type Descriptions on page 3 (Every 50mm)



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

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 (Unit: kg)

Y-axis (mm) Acceleration/ deceleration (G)	50~250	300~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~250	300~400 (Every 50mm)
0.1	4	-	0.1	:	2
0.3	4	-	0.3	2	1
0.5	4	-	0.5	2	1

■ 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

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1	1
0.3	1
0.5	1

	Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
١	0.1	0.5
1	0.3	0.5
1	0.5	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.

S	Stroke													
Y-a	xis stroke (mm)		5	0			10	00		150				
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200	
	50	0	0	0	0	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	0	0	0	0	0	
	200	0	0	0	0	0	0	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	0	0	0	0	0	
	300	0	0	0	0	0	0	0	0	0	0	0	0	
	350	0	0	0	0	0	0	0	0	0	0	0	0	
_	400	0	0	0	0	0	0	0	0	0	0	0	0	
(m m)	450	0	0	0	0	0	0	0	0	0	0	0	0	
a a	500	0	0	0	0	0	0	0	0	0	0	0	0	
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0	
l £	600	0	0	0	0	0	0	0	0	0	0	0	0	
×	650	0	0	0	0	0	0	0	0	0	0	0	0	
X-axis	700	0	0	0	0	0	0	0	0	0	0	0	0	
^	750	0	0	0	0	0	0	0	0	0	0	0	0	
	800	0	0	0	0	0	0	0	0	0	0	0	0	
	850	0	0	0	0	0	0	0	0	0	0	0	0	
	900	0	0	0	0	0	0	0	0	0	0	0	0	
	950	0	0	0	0	0	0	0	0	0	0	0	0	
	1000	0	0	0	0	0	0	0	0	0	0	0	0	
	1050	0	0	0	0	0	0	0	0	0	0	0	0	
	1100	0	0	0	0	0	0	0	0	0	0	0	0	

Y-ax	is stroke (mm)		20	00			2:	50		300 *					
Z-ax	is stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200		
	50	0	0	0	0	0	0	0	0	0	0	0	0		
	100	0	0	0	0	0	0	0	0	0	0	0	0		
	150	0	0	0	0	0	0	0	0	0	0	0	0		
	200	0	0	0	0	0	0	0	0	0	0	0	0		
	250	0	0	0	0	0	0	0	0	0	0	0	0		
	300	0	0	0	0	0	0	0	0	0	0	0	0		
	350	0	0	0	0	0	0	0	0	0	0	0	0		
	400	0	0	0	0	0	0	0	0	0	0	0	0		
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0		
5	500	0	0	0	0	0	0	0	0	0	0	0	0		
총	550	0	0	0	0	0	0	0	0	0	0	0	0		
stroke	600	0	0	0	0	0	0	0	0	0	0	0	0		
axis	650	0	0	0	0	0	0	0	0	0	0	0	0		
X-a)	700	0	0	0	0	0	0	0	0	0	0	0	0		
×	750	0	0	0	0	0	0	0	0	0	0	0	0		
	800	0	0	0	0	0	0	0	0	0	0	0	0		
	850	0	0	0	0	0	0	0	0	0	0	0	0		
	900	0	0	0	0	0	0	0	0	0	0	0	0		
	950	0	0	0	0	0	0	0	0	0	0	0	0		
	1000	0	0	0	0	0	0	0	0	0	0	0	0		
	1050	0	0	0	0	0	0	0	0	0	0	0	0		
	1100	0	0	0	0	0	0	0	0	0	0	0	0		

^{*} When the speed type "HSL" is selected, the maximum Y-axis stroke will be 250mm. (300mm or more cannot be selected.)

Y-axis stroke (mm)			35	50 *			400 *					
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200			
	50	0	0	0	0	0	0	0	0			
	100	0	0	0	0	0	0	0	0			
	150	0	0	0	0	0	0	0	0			
	200	0	0	0	0	0	0	0	0			
	250	0	0	0	0	0	0	0	0			
	300	0	0	0	0	0	0	0	0			
	350	0	0	0	0	0	0	0	0			
	400	0	0	0	0	0	0	0	0			
Ê	450	0	0	0	0	0	0	0	0			
X-axis stroke (mm)	500	0	0	0	0	0	0	0	0			
ş	550	0	0	0	0	0	0	0	0			
str	600	0	0	0	0	0	0	0	0			
жis	650	0	0	0	0	0	0	0	0			
×	700	0	0	0	0	0	0	0	0			
	750	0	0	0	0	0	0	0	0			
	800	0	0	0	0	0	0	0	0			
	850	0	0	0	0	0	0	0	0			
	900	0	0	0	0	0	0	0	0			
	950	0	0	0	0	0	0	0	0			
	1000	0	0	0 (0	0	0	0			
	1050	0	0	0	0	0	0	0	0			
	1100	0	0	0	0	0	0	0	0			

^{*}When the speed type "HSL" is selected, the maximum Y-axis stroke will be 250mm. (300mm or more cannot be selected.)

Cable	Cable Length											
Type	Cable code	Length										
Турс	1L 1m											
Standard	3L	3m										
type	5L	5m										
1.	□L	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 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	See	0	0	0				
Cable track M size (inner width: 50mm)	CTM	P.136	0	0	0				
Cable track L size (inner width: 63mm)	CTI	F.130	0	0	Cannot be colected *1				

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

CTXL

Applicable Controllers

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

☐ X-axis: SA8R

Reference page
See P.149
See P.139

☐ Y-axis: SA7R, Z-axis: SA6R

Type	Reference page				
PCON-CB/CGB	See P.149				
PCON-CYB/PLB/POB	Please contact IAI for more information.				
MCON-C/CG	See P.153				
MCON-LC/LCG	3ee P.133				
MSEL	See P.139				

* 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.

Cannot be selected *2

Specification	ons							
Item		X-axis	Y-axis	Z-axis				
Axis configuration	on	RCP6-SA8R	RCP6-SA7R	RCP6-SA6R				
Stroke (Every 50	mm)	50~1100mm	50~400mm *1	50~200mm				
	HSL			170mm/s				
Max. speed *2	HSM	300mm/s	640mm/s	340mm/s				
Max. speed 2	HSH	30011111/3	04011111/5	680mm/s				
	HSS			800mm/s				
Motor size		56□ High thrust stepper motor	56□ Stepper motor	42□ Stepper motor				
	HSL			3mm				
Ball screw	HSM	20mm	24mm	6mm				
lead	HSH	2011111	2411111	12mm				
	HSS			20mm				
Drive system		Ball screw \phi16mm rolled C10	Ball screw \phi12mm rolled C10	Ball screw \(\phi 10mm \) rolled C10				
Positioning repea	atability	±0.01mm						
Base material		Aluminum						
Ambient operat temperature, hu		0~40°C, 85% RH or less (non-condensing)						

Options									
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis				
Brake	В	See P.134	0	0	Standard equipment *				
Cable exit direction (Outside)	CJO	See P.134	Cannot b	Standard equipment *					
Non-motor end specification	NM	See P.135	0	0	0				
Slider section roller specification	SR	See P.135	0	0	0				

^{*} Be sure to specify.

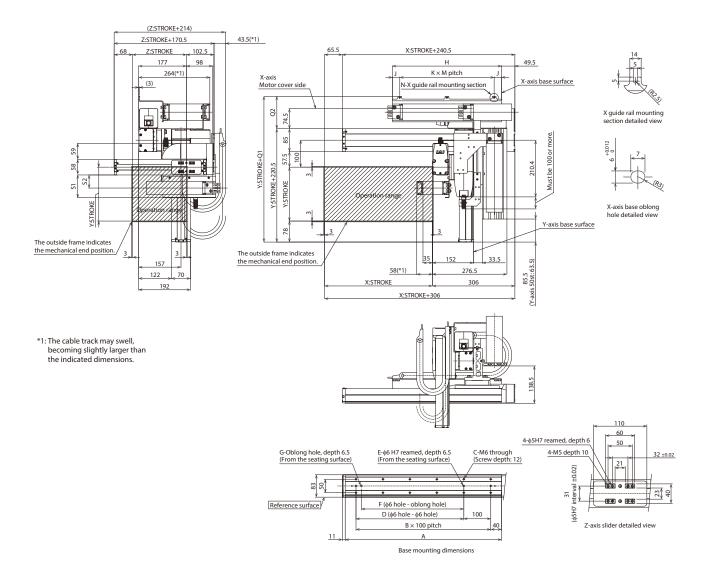
^{*1} When the speed type "HSL" is selected, the maximum Y-axis stroke will be 250mm.

^{*2} 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.137.





- 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.136.



(*) 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.

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	. [
Α	230	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280	П
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	

Cable track size	СТ	СТМ	CTL	CTXL	
Q1	328	341	354	371	
Q2	107.5	120.5	133.5	150.5	
S1	84.5	84.5 96.5		-	
52	48.5	55	-	_	

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



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

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 (Unit: kg)

Y-axis (mm) Acceleration/ deceleration (G)	50~250	300~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50 (Every
0.1	4	-	0.1	
0.3	4	-	0.3	
0.5	4	-	0.5	

n)	Y-axis (mm) Acceleration/ deceleration (G)	50~250 (Every 50mm)	300~400 (Every 50mm)			
	0.1	2				
	0.3	2	1			
	0.5	2	1			

■ 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

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1	1
0.3	1
0.5	1

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1	0.5
0.3	0.5
0.5	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.

S	troke												
Y-axis stroke (mm) 50 100							15	50					
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
a E	500	0	0	0	0	0	0	0	0	0	0	0	0
쏭	550	0	0	0	0	0	0	0	0	0	0	0	0
stroke	600	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0	0	0	0	0
-a	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		20	00			25	50			30	0 *	
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
=	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
5	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
Į š	600	0	0	0	0	0	0	0	0	0	0	0	0
.s	650	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	700	0	0	0	0	0	0	0	0	0	0	0	0
×	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

^{*} When the speed type "HSL" is selected, the maximum Y-axis stroke will be 250mm. (300mm or more cannot be selected.)



Y-axis stroke (mm)			35	0 *		400 *			
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0
	400	0	0	0	0	0	0	0	0
E	450	0	0	0	0	0	0	0	0
stroke (mm)	500	0	0	0	0	0	0	0	0
ske	550	0	0	0	0	0	0	0	0
stro	600	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0
×	700	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0

^{*} When the speed type "HSL" is selected, the maximum Y-axis stroke will be 250mm. (300mm or more cannot be selected.)

Cable Length							
Type	Cable code	Length					
	1L	1m					
Standard	3L	3m					
type	5L	5m					
	□L	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 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.136	0	0	0				
Cable track L size (inner width: 63mm)	CTL	1	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

Applicable Controllers

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

☐ X-axis: SA8C

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Y-axis: SA7R, Z-axis: SA6R

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Туре	Reference page					
PCON-CB/CGB	See P.149					
PCON-CYB/PLB/POB	Please contact IAI for more information.					
MCON-C/CG	See P.153					
MCON-LC/LCG	See P.153					
MSEL	See P.139					

^{*} 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.

Specificati	ons					
Item		X-axis	Y-axis	Z-axis		
Axis configurati	on	RCP6-SA8C	RCP6-SA7R	RCP6-SA6R		
Stroke (Every 50	mm)	50~1100mm	50~400mm *1	50~200mm		
	HSL			170mm/s		
May aread *2	HSM	200/-	640,000 /0	340mm/s		
Max. speed *2	HSH	300mm/s	640mm/s	680mm/s		
	HSS			800mm/s		
Motor size		56□ High thrust stepper motor	56□ Stepper motor	42□ Stepper motor		
	HSL			3mm		
Ball screw	HSM	20mm	24mm	6mm		
lead	HSH	2011111	2411111	12mm		
	HSS			20mm		
Drive system		Ball screw φ16mm rolled C10 Ball screw φ12mm		Ball screw \(\phi 10mm \) rolled C10		
Positioning repea	tability	±0.01mm				
Base material		Aluminum				
Ambient operat		0~40°C, 85% RH or less (non-condensing)				

 $^{^{*}1}$ When the speed type "HSL" is selected, the maximum Y-axis stroke will be 250mm.

Options (1)					
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake *	В	See P.134	-	-	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	-		
Cable exit direction (Right)	CJR	See P.134	-	Cann	ot be
Cable exit direction (Left)	CJL	See P.134	selected		
Cable exit direction (Bottom)	CJB	See P.134	-		
Cable exit direction (Outside)	CIO	See P.134	Cannot be	e selected	Standard equipment *
Non-motor end specification	NM	See P.135	-	-	_
Slider section roller specification	SR	See P.135	-	-	_

^{*} Be sure to specify.

^{*} Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information.

Options (2)		
Туре	Option code	Reference page
Foot plate	FTP	See P.134

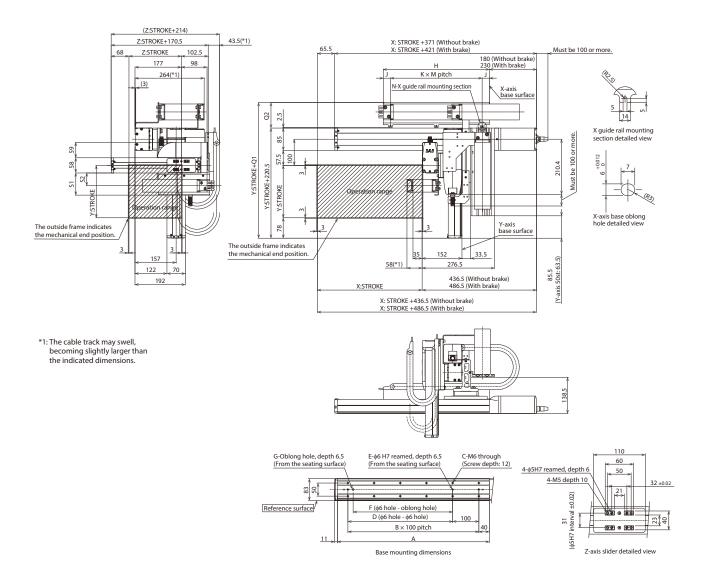
^{*2} Only the first wiring can be selected

^{*2} 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.137.





- 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.136.



(*) 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.134) 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
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
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	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.

RCP6 3-axis XYB + Z-axis base mount configurations (3-P6BBB3□ X-axis: SA8C (straight) Y-axis: SA7C (straight) Z-axis: SA6C (straight) — Encoder Type — First Axis — Second Axis — Third Axis — Controller — (Y-axis) — (Z-axis) — Controller — ■ Model Type Specification Items IK3 - P6BBB3 - S - WA - - - - - B - PM1 - - - - - -Cable First Configuration Direction Speed Type Encoder Type Stroke Options Controller Third Options Wiring Refer to Applicable Controllers table on the next page. Length Wiring 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 Refer to Options table (2) on the next page. WA: Battery-less Absolute 5: 50mm Refer to Options table (1) on the next page. 1 to 4 Refer to Robot Type Descriptions on page 3 Second (Every 50mm) 3L : 3m Wiring 5L : 5m Refer to Cable Track table below. □L: □m Wiring



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

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 (Unit: kg)

Y-axis (mm) Acceleration/ deceleration (G)	50~250	300~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~250 (Every 50mm)	300~400 (Every 50mm)
0.1	4	-	0.1		2
0.3	4	-	0.3	2	1
0.5	4	-	0.5	2	1

■ 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

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)				
0.1	1				
0.3	1				
0.5	1				

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1	0.5
0.3	0.5
0.5	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.

S	troke												
Y-a	xis stroke (mm)		5	0			10	00			1:	50	
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
1	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
l a	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
str	600	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0	0	0	0	0
-a	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
ı	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-ax	is stroke (mm)		20	00			2:	50			30	0 *	
Z-ax	is stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
5	500	0	0	0	0	0	0	0	0	0	0	0	0
총	550	0	0	0	0	0	0	0	0	0	0	0	0
stroke	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
X-a)	700	0	0	0	0	0	0	0	0	0	0	0	0
×	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

^{*} When the speed type "HSL" is selected, the maximum Y-axis stroke will be 250mm. (300mm or more cannot be selected.)

Y-a	xis stroke (mm)		35	0 *		400 *					
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200		
	50	0	0	0	0	0	0	0	0		
	100	0	0	0	0	0	0	0	0		
	150	0	0	0	0	0	0	0	0		
	200	0	0	0	0	0	0	0	0		
	250	0	0	0	0	0	0	0	0		
	300	0	0	0	0	0	0	0	0		
	350	0	0	0	0	0	0	0	0		
	400	0	0	0	0	0	0	0	0		
Ê	450	0	0	0	0	0	0	0	0		
X-axis stroke (mm)	500	0	0	0	0	0	0	0	0		
ş	550	0	0	0	0	0	0	0	0		
str	600	0	0	0	0	0	0	0	0		
3Xi	650	0	0	0	0	0	0	0	0		
×	700	0	0	0	0	0	0	0	0		
	750	0	0	0	0	0	0	0	0		
	800	0	0	0	0	0	0	0	0		
	850	0	0	0	0	0	0	0	0		
	900	0	0	0	0	0	0	0	0		
	950	0	0	0	0	0	0	0	0		
	1000	0	0	0	0	0	0	0	0		
	1050	0	0	0	0	0	0	0	0		
	1100	0	0	0	0	0	0	0	0		

 $^{^*}$ When the speed type "HSL" is selected, the maximum Y-axis stroke will be 250mm. (300mm or more cannot be selected.)

Cable Length								
T	Calala and	I are solds						
Type	Cable code	Length						
	1L	1m						
Standard	3L	3m						
type	5L	5m						
	□L	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 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)	CT		0	0	0				
Cable track M size (inner width: 50mm)	e track M size (inner width: 50mm) CTM		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

Applicable Controllers

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

☐ X-axis: SA8C

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Y-axis: SA7C, Z-axis: SA6C

- 1 axisi siti ej 2 axisi sitoe							
Type	Reference page						
PCON-CB/CGB	See P.149						
PCON-CYB/PLB/POB	Please contact IAI for more information.						
MCON-C/CG	See P.153						
MCON-LC/LCG	3ee r. 133						
MSEL	See P.139						

^{*} 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.

Specification	ons						
Item		X-axis Y-axis		Z-axis			
Axis configuration	on	RCP6-SA8C	RCP6-SA7C	RCP6-SA6C			
Stroke (Every 50	mm)	50~1100mm	50~400mm *1	50~200mm			
HSL				170mm/s			
May amand *2	HSM	300mm/s	640mm/s	340mm/s			
Max. speed *2	HSH	30011111/5	04011111/5	680mm/s			
	HSS			800mm/s			
Motor size		56□ High thrust stepper motor	56□ Stepper motor	42□ Stepper motor			
	HSL			3mm			
Ball screw	HSM	20	24mm	6mm			
lead	HSH	20mm	24111111	12mm			
	HSS			20mm			
Drive system		Ball screw	Ball screw \(\psi 12mm \) rolled C10	Ball screw φ10mm rolled C10			
Positioning repea	atability	±0.01mm					
Base material		Aluminum					
Ambient operat temperature, hu		0~40°C, 85% RH or less (non-condensing)					

Options (1)					
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake *	В	See P.134	0	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0		
Cable exit direction (Right)	CJR	See P.134	0	Cann	ot be
Cable exit direction (Left)	CJL	See P.134	0	sele	cted
Cable exit direction (Bottom)	CJB	See P.134	0		
Non-motor end specification	NM	See P.135	0	0	0
Slider section roller specification	SR	See P.135	0	0	0

^{*} Outside as standard. Be sure to specify.

^{*} Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

Options (2)		
Туре	Option code	Reference page
Foot plate	FTP	See P.134

^{*2} Only the first wiring can be selected

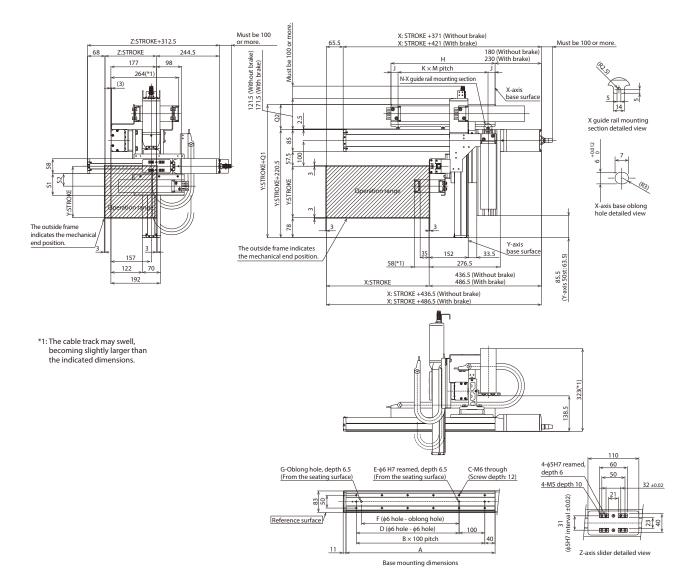
^{*1} When the speed type "HSL" is selected, the maximum Y-axis stroke will be 250mm.

^{*2} 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.137.





- 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.136.



(*) 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.134) 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.

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Α	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
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	СТМ	CTL	CTXL
Q1	305	318	331	348
Q2	84.5	97.5	110.5	127.5
S1	84.5	96.5	-	-
52	48.5	55	-	_

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

RCP6 3-axis XYB + Z-axis base mount configurations IK3-P6BBF X-axis: WSA14R (side-mounted) Y-axis: SA7R (side-mounted) Z-axis: SA6R (side-mounted) — Encoder Type — First Axis — Second Axis — (Y-axis) Third Axis (Z-axis) — Controller — ■ Model Type Specification Items WA IK3 − P6BBF1 □ □S − - _ _ _ _ BCJO - PM1 - _ _ _ _ _ Configuration Direction Cable First Speed Type Encoder Type Stroke Options Controller Length Wiring Refer to Applicable Controllers table on the next page. Wiring HSL: X High Speed/Y Ultra High Speed/Z Low Speed WA: Battery-less HSM: X High Speed/Y Ultra High Speed/Z Medium Speed Absolute HSH: X High Speed/Y Ultra High Speed/Z High Speed HSS: X High Speed/Y Ultra High Speed/Z Ultra High Speed/E 5: 50mm Refer to Options table on the next page. 1 to 4 Refer to Robot Type Descriptions on page 3 1L: 1m Second 3L: 3m Wiring 5L: 5m Refer to Cable Track table on the next page. (Every 50mm)



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

Payload by Acceleration

Y-axis (mm)

■ HSL type: X high speed/Y ultra high speed/Z low speed ■ HSM type: X high speed/Y ultra high speed/Z medium speed (Unit: kg)

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1	4	0.1	2
		0.3	2

■ 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

50~400

// 3 /	J . J .
Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1	0.5
0.3	0.5

2

Acceleration/ deceleration (G) (Every 50mm) 1 0.1 0.3 1 0.5 1 0.5 0.5

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.

S	troke												
Y-a	xis stroke (mm)		5	0			10	00			1:	50	
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
-	300	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
s str	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	ixis stroke (mm)		20	00			250				300			
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200	
	50	0	0	0	0	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	0	0	0	0	0	
	200	0	0	0	0	0	0	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	0	0	0	0	0	
=	300	0	0	0	0	0	0	0	0	0	0	0	0	
(m m)	350	0	0	0	0	0	0	0	0	0	0	0	0	
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0	
sstr	450	0	0	0	0	0	0	0	0	0	0	0	0	
-axis	500	0	0	0	0	0	0	0	0	0	0	0	0	
×	550	0	0	0	0	0	0	0	0	0	0	0	0	
	600	0	0	0	0	0	0	0	0	0	0	0	0	
	650	0	0	0	0	0	0	0	0	0	0	0	0	
	700	0	0	0	0	0	0	0	0	0	0	0	0	
	750	0	0	0	0	0	0	0	0	0	0	0	0	
	800	0	0	0	0	0	0	0	0	0	0	0	0	



Y-a	xis stroke (mm)		3:	50		400					
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200		
	50	0	0	0	0	0	0	0	0		
	100	0	0	0	0	0	0	0	0		
	150	0	0	0	0	0	0	0	0		
	200	0	0	0	0	0	0	0	0		
	250	0	0	0	0	0	0	0	0		
-	300	0	0	0	0	0	0	0	0		
stroke (mm)	350	0	0	0	0	0	0	0	0		
- se	400	0	0	0	0	0	0	0	0		
s str	450	0	0	0	0	0	0	0	0		
X-axis	500	0	0	0	0	0	0	0	0		
×	550	0	0	0	0	0	0	0	0		
	600	0	0	0	0	0	0	0	0		
	650	0	0	0	0	0	0	0	0		
	700	0	0	0	0	0	0	0	0		
	750	0	0	0	0	0	0	0	0		
	800	0	0	0	0	0	0	0	0		

Cable Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
	□L	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.

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)	CTM	See P.136	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

Applicable Controllers

Controllers are sold separately.

Please refer to each controller page.

☐ X-axis: WSA14R, Y-axis: SA7R, Z-axis: SA6R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} 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.

Specificat	ions									
Item		X-axis	Y-axis	Z-axis						
Axis configurat	ion	RCP6-WSA14R RCP6-SA7R		RCP6-SA6R						
Stroke (Every 5	0mm)	50~800mm	50~400mm	50~200mm						
	HSL			170mm/s						
Max. speed *	HSM	200/-	640	340mm/s						
	HSH	280mm/s	640mm/s	680mm/s						
	HSS			800mm/s						
Motor size		56□ Stepper motor	56□ Stepper motor	42□ Stepper motor						
	HSL			3mm						
Ball screw	HSM	16	24mm	6mm						
lead	HSH	16mm	24mm	12mm						
	HSS			20mm						
Drive system		Ball screw \(\phi 12mm \) rolled C10	Ball screw ϕ 12mm rolled C10	Ball screw \(\phi 10mm \) rolled C10						
Positioning repe	eatability	±0.01mm								
Base material		Aluminum	Aluminum							
Ambient operatemperature, h	-	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.137.

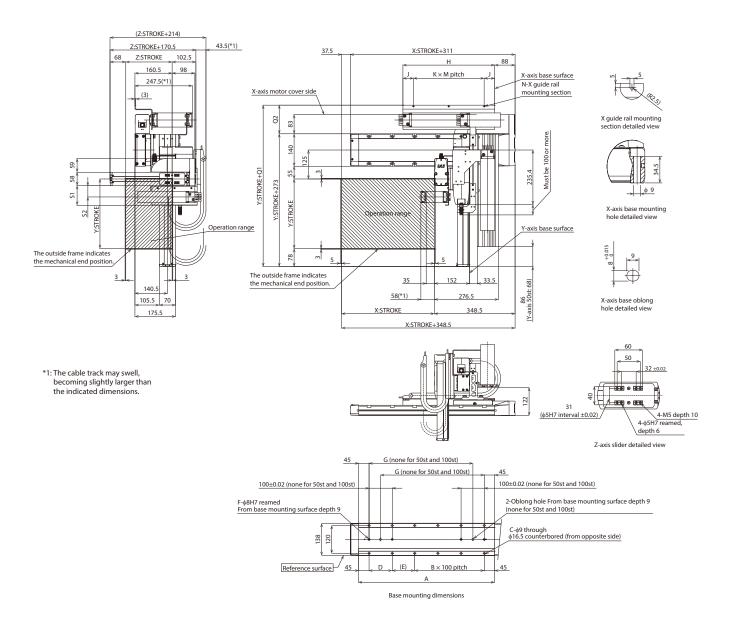
Options					
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake	В	See P.134	0	0	Standard equipment *
Cable exit direction (Outside)	CIO	See P.134	Cann sele	Standard equipment *	
Non-motor end specification	NM	See P.135	0	0	0
Slider section roller specification	SR	See P.135	0	0	0

^{*} 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.136.



(*) 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.

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
K	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.

RCP6 3-axis XYB + Z-axis base mount configurations IK3-P6BBF2□ X-axis: WSA14C (straight) Y-axis: SA7R (side-mounted) Z-axis: SA6R (side-mounted) — Encoder Type — First Axis — Second Axis — Third Axis (Z-axis) — (Y-axis) ■ Model — Controller — Туре Specification Items IK3 - P6BBF2 | S - WA - | - - BCJO - PM1 - - - -Configuration Direction Speed Type Cable First Encoder Type Stroke Options Controller Length Wiring Refer to Applicable Controllers table on the next page. Wiring HSL: X High Speed/Y Ultra High Speed/Z Low Speed WA: Battery-less HSM: X High Speed/V Ultra High Speed/Z Medium Speed Absolute HSH: X High Speed/Y Ultra High Speed/Z High Speed HSS: X High Speed/V Ultra High Speed/Z Ultra High Speed/E 5: 50mm Refer to Options table on the next page. 1L: 1m Second 3L: 3m Wiring 5L: 5m Refer to Cable Track the next page. 1 to 4 Refer to Robot Type Descriptions on page 3 (Every 50mm) Refer to Cable Track table on



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

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 (Unit: kg)

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	
0.1	4	0.1	
		0.3	

50~400 (Every 50mm)				

■ 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

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)		Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)	
0.1	1		0.1	0.5	
0.3	1		0.3	0.5	
0.5	1		0.5	0.5	
* \A/I \/ \/ I 7			/ - 4!		

* 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.

S	troke												
Y-a	xis stroke (mm)		5	0			10	00		150			
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
<u>-</u>	300	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
s str	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		20	00			2	50			30	00	
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
=	300	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
sstr	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		3.	50		400				
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	
	50	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	0	
	200	0	0	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	0	
	300	0	0	0	0	0	0	0	0	
stroke (mm)	350	0	0	0	0	0	0	0	0	
ke	400	0	0	0	0	0	0	0	0	
sstr	450	0	0	0	0	0	0	0	0	
X-axis	500	0	0	0	0	0	0	0	0	
×	550	0	0	0	0	0	0	0	0	
	600	0	0	0	0	0	0	0	0	
	650	0	0	0	0	0	0	0	0	
	700	0	0	0	0	0	0	0	0	
	750	0	0	0	0	0	0	0	0	
	800	0	0	0	0	0	0	0	0	

Cable Length

	Standard type	Cable code Length						
		1L	1m					
		3L	3m					
		5L	5m					
		□L	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.

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)	CTM	See P.136	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

Applicable Controllers

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

☐ X-axis: WSA14C, Y-axis: SA7R, Z-axis: SA6R

Туре	Reference page				
PCON-CB/CGB	See P.149				
PCON-CYB/PLB/POB	Please contact IAI for more information.				
MCON-C/CG	See P.153				
MCON-LC/LCG	See P.153				
MSEL	See P.139				

^{*} 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.

Specificati	ions							
Item		X-axis	Y-axis	Z-axis				
Axis configurat	ion	RCP6-WSA14C	RCP6-SA7R	RCP6-SA6R				
Stroke (Every 50	Omm)	50~800mm	50~400mm	50~200mm				
	HSL			170mm/s				
Man	HSM	200	C 40 /-	340mm/s				
Max. speed *	HSH	280mm/s	640mm/s	680mm/s				
	HSS	1		800mm/s				
Motor size		56□ Stepper motor	56□ Stepper motor	42□ Stepper motor				
	HSL			3mm				
Ball screw	HSM	16mm	24mm	6mm				
lead	HSH	TOTTITT	2411111	12mm				
	HSS			20mm				
Drive system		Ball screw \phi12mm rolled C10	Ball screw \$12mm rolled C10	Ball screw \(\phi 10mm \) rolled C10				
Positioning repe	atability	±0.01mm		,				
Base material		Aluminum						
Ambient operatemperature, h	-	0~40°C, 85% RH or less (non-condensing)						

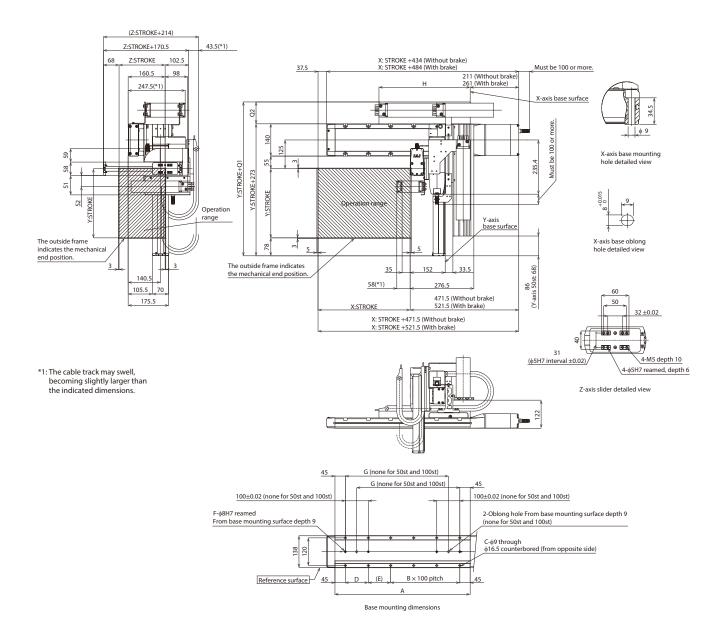
^{*} The maximum speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.137.

Options						
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis	
Brake *	В	See P.134	0	0	Standard equipment *	
Cable exit direction (Top)	CJT	See P.134	0			
Cable exit direction (Right)	CJR	See P.134	0	Cannot be		
Cable exit direction (Left)	CJL	See P.134	0	sele	cted	
Cable exit direction (Bottom)	CJB	See P.134	0			
Cable exit direction (Outside)	CIO	See P.134	Cannot be Standard equipmer			
Non-motor end specification	NM	See P.135	0	0	0	
Slider section roller specification	SR	See P.135	0	0	0	

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



- 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.136.



(*) 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.

,		-														
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	-	-
52	48.5	55	_	_

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

RCP6 3-axis XYB + Z-axis base mount configurations IK3-P6BBF3 X-axis: WSA14C (straight) Y-axis: SA7C (straight) Z-axis: SA6C (straight) — Encoder Type — First Axis — Second Axis — Third Axis — Controller — (Y-axis) — (Z-axis) ■ Model Type Specification Items IK3 − P6BBF3□□S − WA - - - - - - B - - PM1 - - - - -Cable First Configuration Direction Controller Speed Type Encoder Type Stroke Options Refer to Applicable Controllers table on the next page. St. : 5m Refer to Wiring | 1L : 1m Second Wir Wiring HSL: X High Speed/Y Ultra High Speed/Z Low Speed HSM: X High Speed/V 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 5: 50mm Refer to Options table on the next page. 1 to 4 Refer to Robot Type Descriptions on page 3 (Every 50mm) Refer to Cable Track table on



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

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 (Unit: kg)

			• •
Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)
0.1	4	0.1	2
		0.3	2
		0.5	2

■ 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

Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)	Y-axis (mr Acceleration/ deceleration (G)
0.1	1	0.1
0.3	1	0.3
0.5	1	0.5

50~400 (Every 50mm)
0.5
0.5
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.

S	troke												
Y-a	xis stroke (mm)		5	0			10	00		150			
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
-	300	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
s str	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		20	00			2	50			30	00	
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200	50	100	150	200
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
=	300	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
sstr	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		3:	50		400					
Z-a	xis stroke (mm)	50	100	150	200	50	100	150	200		
	50	0	0	0	0	0	0	0	0		
	100	0	0	0	0	0	0	0	0		
	150	0	0	0	0	0	0	0	0		
	200	0	0	0	0	0	0	0	0		
	250	0	0	0	0	0	0	0	0		
-	300	0	0	0	0	0	0	0	0		
stroke (mm)	350	0	0	0	0	0	0	0	0		
oke	400	0	0	0	0	0	0	0	0		
s str	450	0	0	0	0	0	0	0	0		
X-axis	500	0	0	0	0	0	0	0	0		
×	550	0	0	0	0	0	0	0	0		
	600	0	0	0	0	0	0	0	0		
	650	0	0	0	0	0	0	0	0		
	700	0	0	0	0	0	0	0	0		
	750	0	0	0	0	0	0	0	0		
	800	0	0	0	0	0	0	0	0		

Cable Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
	□L	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.

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)	CTM	See P.136	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

Applicable Controllers

Base material

Ambient operating

temperature, humidity

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

☐ X-axis: WSA14C, Y-axis: SA7C, Z-axis: SA6C

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} 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.

Item X-axis Y-axis Z-axis Axis configuration RCP6-WSA14C RCP6-SA7C RCP6-SA6C Stroke (Every 50mm) 50~800mm 50~400mm 50~200mm 170mm/s HSM 340mm/s Max. speed * 280mm/s 640mm/s HSH 680mm/s HSS 800mm/s Motor size 56□ Stepper motor 56□ Stepper motor 42□ Stepper motor HSL 3mm HSM **Ball screw** 6mm 16mm 24mm lead HSH 12mm HSS 20mm Ball screw \$12mm Ball screw \$12mm Ball screw \$10mm Drive system rolled C10 rolled C10 rolled C10 Positioning repeatability ±0.01mm

* 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.137.

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

Aluminum

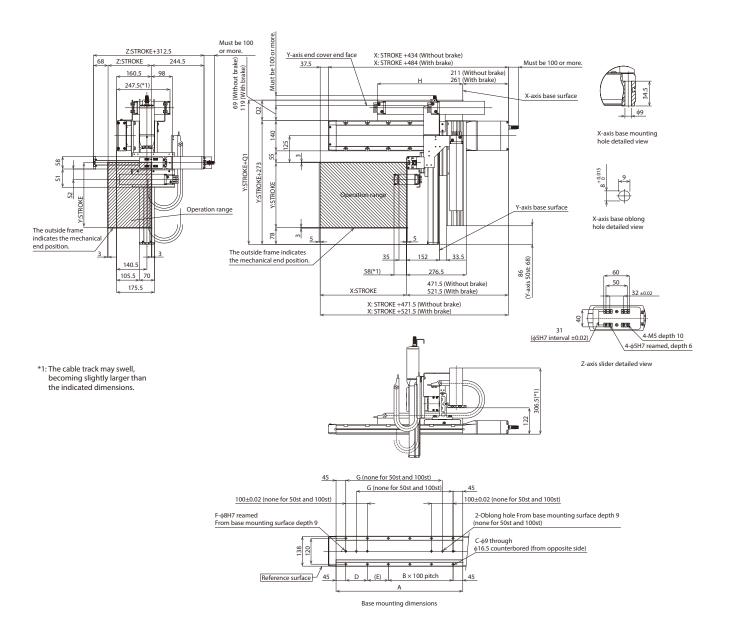
Options					
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake *	В	See P.134	0	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0		
Cable exit direction (Right)	CJR	See P.134	0	Cann	ot be
Cable exit direction (Left)	CJL	See P.134	0	sele	cted
Cable exit direction (Bottom)	CJB	See P.134	0		
Non-motor end specification	NM	See P.135	0	0	0
Slider section roller specification	SR	See P.135	0	0	0

^{*} Outside as standard. Be sure to specify.

^{*} Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.



- 3D CAD
- 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.136.



(*) 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.

,																
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.

RCP6 3-axis XYB + Z-axis base mount configurations (3-P6BBE1 X-axis: WSA16R (side-mounted) Y-axis: SA8R (side-mounted) Z-axis: SA7R (side-mounted) — Encoder Type — First Axis — Second Axis — Third Axis (Z-axis) ■ Model — Controller — Туре Specification Items IK3 - P6BBE1 - S - WA - - - - BCJO - PM1 - - - -Cable First Configuration Direction Speed Type Encoder Type Stroke Options Controller Refer to Applicable Controllers 1L : 1m Second Wiring 1L : 3m Second Wiring 1L : 5m Second Wiring 1L : 5m Refer to Cable Track the next page. Wiring MHL: X Medium Speed/Y High Speed/Z Low Speed MHM: X Medium Speed/Y High Speed/Z Medium Speed MHH: X Medium Speed/Y High Speed/Z High Speed MHS: X Medium Speed/Y High Speed/Z Ultra High Speed WA: Battery-less Absolute 5: 50mm Refer to Options table on page 100. 1 to 4 Refer to Robot Type Descriptions on page 3 (Every 50mm) Refer to Cable Track table on the next page.



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

Payload by Acceleration

■ MHL type: X medium speed/Y high speed/Z low speed ■ MHM type: X medium speed/Z medium speed (Unit: kg)

Y-axis (mm) Acceleration/ deceleration (G)	50~500 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~400	450~500 (Every 50mm)
0.1	6	0.1	4	4
		0.3	4	-

■ 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 (mm) Acceleration/ deceleration (G)	50~500 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~500 (Every 50mm)
0.1	2	0.1	1
0.3	2	0.3	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.

S	troke												
Y-a	xis stroke (mm)			5	0					10	00		
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
e .	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
ま	600	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0	0	0	0	0
(-a)	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)			15	50					20	00		
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	450	0	0	0	0	0	0	0	0	0	0	0	0
e e	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
stı	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
-a	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-ax	is stroke (mm)			2!	50					30	00		
Z-ax	is stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_ [400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
<u>ت</u>	500	0	0	0	0	0	0	0	0	0	0	0	0
š	550	0	0	0	0	0	0	0	0	0	0	0	0
stroke	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
×-a	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)			35	50					40	00		
	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	450	0	0	0	0	0	0	0	0	0	0	0	0
e E	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
븅	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
X-a	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)			4:	50					5(00		
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
u	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
str	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
X-a,	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Cable Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
	ΠL	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 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)	CT		0	0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	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

Applicable Controllers

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

☐ X-axis: WSA16R, Y-axis: SA8R

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

\square Z-axis: SA7R

Type	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P. 153
MSEL	See P139

^{*} 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 highoutput setting disabled.



Specificat	ions							
Item		X-axis	Y-axis	Z-axis				
Axis configuration		RCP6-WSA16R	RCP6-SA8R	RCP6-SA7R				
Stroke (Every 50mm)		50~1100mm	50~500mm	50~300mm				
	MHL			105mm/s				
Man	MHM	210	100/-	210mm/s				
Max. speed *	MHH	210mm/s	400mm/s	420mm/s				
	MHS	1		640mm/s				
Motor size		56□ High thrust	56□ High thrust	56 56				
Motor size		stepper motor	stepper motor	56□ Stepper motor				
	MHL			4mm				
Ball screw	MHM	10	20	8mm				
lead	MHH	10mm	20mm	16mm				
	MHS			24mm				
Duis sa assata na		Ball screw ϕ 16mm	Ball screw \phi16mm	Ball screw \phi12mm				
Drive system		rolled C10	rolled C10	rolled C10				
Positioning repeatability		±0.01mm						
Base material		Aluminum						
Ambient operature, h	-	0~40°C, 85% RH or less (non-condensing)						

Options					
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake	В	See P.134	-	-	Standard equipment *
Cable exit direction (Outside)	CIO	See P.134	Cann sele		Standard equipment *
Non-motor end specification	NM	See P.135	-	-	-
Slider section roller specification	SR	See P.135	-	-	-

^{*} Be sure to specify.



The outside frame indicates

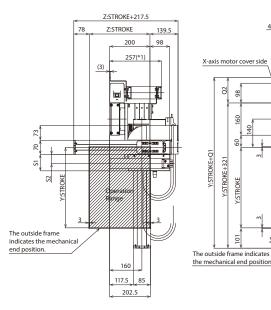
Note 1. The configuration position in the figure is home.

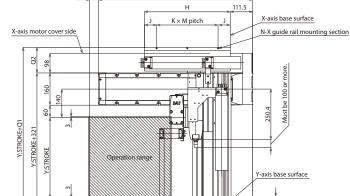
X:STROKE+365.5

- 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.136.

Must be 100 or more.

109 50st:





30

X:STROKE+409.5

53(*1)

X:STROKE



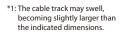
φ9 X-axis base mounting



hole detailed view

X-axis base oblong Work part installed

on the slider Pay attention to interference. 4-φ5H7 reamed depth 10 4-M5 depth 10 (36) । কৰা কৰিব **4 4 4** (88) (φ5H7 interval ±0.02), 42 ±0.02 65



(*) 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.

80 G (none for 50 and 100st) Z-axis slider detailed view G (none for 50 and 100st) 100±0.02 (none for 50 and 100st) 100±0.02 (none for 50 and 100st) F-\psi 8H7 reamed From base mounting 2-Oblong hole From base mounting surface depth 9 surface depth 9a 158 C-φ9 through Reference surface (E) B × 100 pitch φ16.5 counterbored (from opposite side) Base mounting dimensions

302

409.5

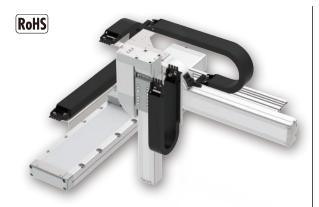
		,																					
X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
А	268	318	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268	1318	tr
В	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	
С	4	4	8	8	10	10	12	12	14	14	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	
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	1	1	4	4	1	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	-	-

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

^{*} 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.137.

RCP6 3-axis XYB + Z-axis base mount configurations IK3-P6BBE2 X-axis: WSA16C (straight) — Encoder Type — First Axis — Second Axis — (Y-axis) — Controller — ■ Model Third Axis (Z-axis) Type Specification Items WA IK3 — P6BBE2□ □S — ĪŢ, Ţ Cable First Configuration Direction Controller Speed Type Encoder Type Stroke Options Length Wiring Refer to Applicable Controllers table on the next page. Wiring MHL: X Medium Speed/Y High Speed/Z Low Speed MHM: X Medium Speed/Y High Speed/Z Medium Speed Absolute MHH: X Medium Speed/Y High Speed/Z High Speed MHS: X Medium Speed/Y High Speed/Z Utra High Speed 5: 50mm Refer to Options table on page 103. 1 to 4 Refer to Robot Type Descriptions on page 3 Second Wiring Refer to Cable Track table on (Every 50mm) the next page.



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

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 (Unit: kg)

,·		 •		/1		J .	
Y-axis (m Acceleration/ deceleration (G)	nm)	 0~500 y 50mn	n)	Y-a Acceleration/ deceleration (G)	xis (mm)	50~400	450~500 (Every 50mm)
0.1		6		0.1		4	4
				0.3		1	_

■ MHH type: X medium speed/Y high speed/Z high speed

MHS type: X medium speed/Y high speed/Z ultra high speed

A1	J J	. 71	J 1 J 1
Y-axis (mm) Acceleration/ deceleration (G)	50~500 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~500 (Every 50mm)
0.1	2	0.1	1
0.3	2	0.3	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.

S	Stroke													
Y-a	xis stroke (mm)			5	0					10	00			
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300	
	50	0	0	0	0	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	0	0	0	0	0	
	200	0	0	0	0	0	0	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	0	0	0	0	0	
	300	0	0	0	0	0	0	0	0	0	0	0	0	
	350	0	0	0	0	0	0	0	0	0	0	0	0	
_	400	0	0	0	0	0	0	0	0	0	0	0	0	
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0	
e -	500	0	0	0	0	0	0	0	0	0	0	0	0	
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0	
븅	600	0	0	0	0	0	0	0	0	0	0	0	0	
X-axis	650	0	0	0	0	0	0	0	0	0	0	0	0	
(-a)	700	0	0	0	0	0	0	0	0	0	0	0	0	
^	750	0	0	0	0	0	0	0	0	0	0	0	0	
	800	0	0	0	0	0	0	0	0	0	0	0	0	
	850	0	0	0	0	0	0	0	0	0	0	0	0	
	900	0	0	0	0	0	0	0	0	0	0	0	0	
	950	0	0	0	0	0	0	0	0	0	0	0	0	
	1000	0	0	0	0	0	0	0	0	0	0	0	0	
	1050	0	0	0	0	0	0	0	0	0	0	0	0	
	1100	0	0	0	0	0	0	0	0	0	0	0	0	

Y-a	xis stroke (mm)			15	50			200								
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300			
	50	0	0	0	0	0	0	0	0	0	0	0	0			
	100	0	0	0	0	0	0	0	0	0	0	0	0			
	150	0	0	0	0	0	0	0	0	0	0	0	0			
	200	0	0	0	0	0	0	0	0	0	0	0	0			
	250	0	0	0	0	0	0	0	0	0	0	0	0			
	300	0	0	0	0	0	0	0	0	0	0	0	0			
	350	0	0	0	0	0	0	0	0	0	0	0	0			
_	400	0	0	0	0	0	0	0	0	0	0	0	0			
(HH)	450	0	0	0	0	0	0	0	0	0	0	0	0			
ت ا	500	0	0	0	0	0	0	0	0	0	0	0	0			
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0			
1 #5	600	0	0	0	0	0	0	0	0	0	0	0	0			
-axis	650	0	0	0	0	0	0	0	0	0	0	0	0			
×	700	0	0	0	0	0	0	0	0	0	0	0	0			
^	750	0	0	0	0	0	0	0	0	0	0	0	0			
	800	0	0	0	0	0	0	0	0	0	0	0	0			
	850	0	0	0	0	0	0	0	0	0	0	0	0			
	900	0	0	0	0	0	0	0	0	0	0	0	0			
	950	0	0	0	0	0	0	0	0	0	0	0	0			
	1000	0	0	0	0	0	0	0	0	0	0	0	0			
	1050	0	0	0	0	0	0	0	0	0	0	0	0			
	1100	0	0	0	0	0	0	0	0	0	0	0	0			



								300									
	ixis stroke (mm)				50												
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300				
1	50	0	0	0	0	0	0	0	0	0	0	0	0				
1	100	0	0	0	0	0	0	0	0	0	0	0	0				
	150	0	0	0	0	0	0	0	0	0	0	0	0				
	200	0	0	0	0	0	0	0	0	0	0	0	0				
	250	0	0	0	0	0	0	0	0	0	0	0	0				
	300	0	0	0	0	0	0	0	0	0	0	0	0				
	350	0	0	0	0	0	0	0	0	0	0	0	0				
_	400	0	0	0	0	0	0	0	0	0	0	0	0				
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0				
ا ت	500	0	0	0	0	0	0	0	0	0	0	0	0				
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0				
str	600	0	0	0	0	0	0	0	0	0	0	0	0				
axis	650	0	0	0	0	0	0	0	0	0	0	0	0				
×-a	700	0	0	0	0	0	0	0	0	0	0	0	0				
^	750	0	0	0	0	0	0	0	0	0	0	0	0				
	800	0	0	0	0	0	0	0	0	0	0	0	0				
	850	0	0	0	0	0	0	0	0	0	0	0	0				
	900	0	0	0	0	0	0	0	0	0	0	0	0				
	950	0	0	0	0	0	0	0	0	0	0	0	0				
	1000	0	0	0	0	0	0	0	0	0	0	0	0				
	1050	0	0	0	0	0	0	0	0	0	0	0	0				
	1100	0	0	0	0	0	0	0	0	0	0	0	0				

Y-a	axis stroke (mm)			35	50					40	00		
Z-a	axis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	450	0	0	0	0	0	0	0	0	0	0	0	0
e .	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
1 42	600	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0	0	0	0	0
-a	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	ixis stroke (mm)			4:	50			500								
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300			
	50	0	0	0	0	0	0	0	0	0	0	0	0			
	100	0	0	0	0	0	0	0	0	0	0	0	0			
	150	0	0	0	0	0	0	0	0	0	0	0	0			
	200	0	0	0	0	0	0	0	0	0	0	0	0			
	250	0	0	0	0	0	0	0	0	0	0	0	0			
	300	0	0	0	0	0	0	0	0	0	0	0	0			
	350	0	0	0	0	0	0	0	0	0	0	0	0			
	400	0	0	0	0	0	0	0	0	0	0	0	0			
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0			
0 U	500	0	0	0	0	0	0	0	0	0	0	0	0			
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0			
st	600	0	0	0	0	0	0	0	0	0	0	0	0			
axis	650	0	0	0	0	0	0	0	0	0	0	0	0			
X-a	700	0	0	0	0	0	0	0	0	0	0	0	0			
^	750	0	0	0	0	0	0	0	0	0	0	0	0			
	800	0	0	0	0	0	0	0	0	0	0	0	0			
	850	0	0	0	0	0	0	0	0	0	0	0	0			
	900	0	0	0	0	0	0	0	0	0	0	0	0			
	950	0	0	0	0	0	0	0	0	0	0	0	0			
	1000	0	0	0	0	0	0	0	0	0	0	0	0			
	1050	0	0	0	0	0	0	0	0	0	0	0	0			
	1100	0	0	0	0	0	0	0	0	0	0	0	0			

Cable Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
	□L	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 1 m, 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		-	-	_
Cable track S size (inner width: 38mm)	СТ		-	-	_
Cable track M size (inner width: 50mm)	СТМ	See P.136	-	-	_
Cable track L size (inner width: 63mm)	CTL]	-	-	Cannot be selected *1
Cable track XL size (inner width: 80mm)	CTXL	1	-	Cannot be	selected *2

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

Applicable Controllers

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

☐ X-axis: WSA16C, Y-axis: SA8R

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Z-axis: SA7R

uxisi si i i i	
Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P. 153
MSEL	See P.139

* Operation is possible with the high output setting

When connecting to the MCON controller, "HIGH OUTPUT SETTING SPECIFICATION" must be selected. Please contact IAI regarding use with the highoutput setting disabled.

Specification	ons							
Item		X-axis	Y-axis	Z-axis				
Axis configuration	on	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	21011111/5	40011111/5	420mm/s				
	MHS			640mm/s				
Motor size		56□ High thrust	56□ High thrust	56□ Stepper motor				
WIOTOI SIZE		stepper motor	stepper motor	30 Stepper motor				
	MHL			4mm				
Ball screw	MHM	10mm	20mm	8mm				
lead	MHH	1011111	2011111	16mm				
	MHS			24mm				
Drive system		Ball screw \phi16mm	Ball screw \phi16mm	Ball screw ϕ 12mm				
Drive system		rolled C10	rolled C10	rolled C10				
Positioning repea	atability	±0.01mm						
Base material		Aluminum						
Ambient operat		0~40°C, 85% RH or less (non-condensing)						
temperature, hu	midity	0~40 C, 65% km of less (non-condensing)						

Options					
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake *	В	See P.134	0	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0		
Cable exit direction (Right)	CJR	See P.134	0	Cann	ot be
Cable exit direction (Left)	CJL	See P.134	0	sele	cted
Cable exit direction (Bottom)	CJB	See P.134	0		
Cable exit direction (Outside)	CJO	See P.134	Cannot be	e selected	Standard equipment *
Non-motor end specification	NM	See P.135	0	0	0
Slider section roller specification	SR	See P.135	0	0	0

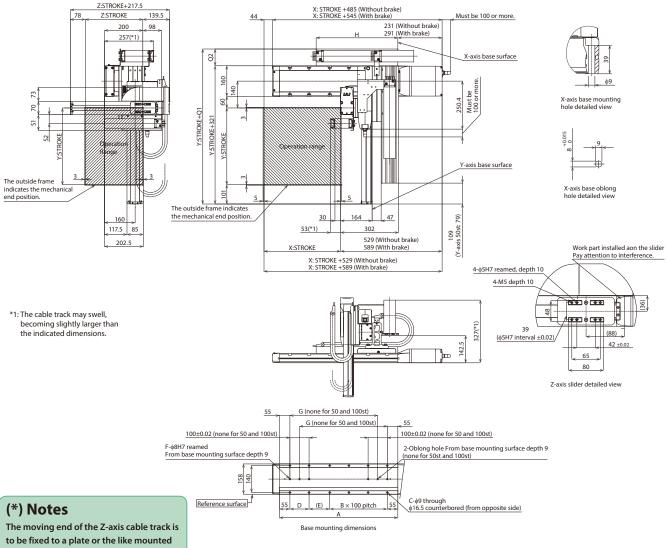
- * Be sure to specify.
- * Brake option for X-axis increases the length of the motor unit.
- Please contact IAI for more information.

* 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.137.

CAD drawings can be downloaded from our website. www.intelligentactuator.com



- 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.136.



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
Α	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
H	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	СТ	СТМ	CTL	CTXL
Q1	396.5	408.5	423.5	441.5
Q2	75.5	87.5	102.5	120.5
S1	82	94	-	-
S2	46	52.5	-	-

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

IK3-P6BBE3□ X-axis: WSA16C (straight) Y-axis: SA8C (straight) Z-axis: SA7C (straight) — Encoder Type — First Axis — Second Axis — Third Axis — Controller — (Y-axis) — (Z-axis) ■ Model Туре Specification Items IK3 - P6BBE3 - S - WA - - - - - B - PM1 - - - -工工厂 Cable First Configuration Direction Speed Type Encoder Type Stroke Options Controller Third Applicable Controllers 1L : 1m Second table on the next page. 3L : 3m Wiring SL : 5m Refer to Cable Track table on □L: □m the next page. Wiring MHL: X Medium Speed/Y High Speed/Z Low Speed MHM: X Medium Speed/Y High Speed/Z Medium Speed MHH: X Medium Speed/Y High Speed/Z High Speed MHS: X Medium Speed/Y High Speed/Z Ultra High Speed WA: Battery-less Absolute 5: 50mm Refer to Options table on page 106. 1 to 4 Refer to Robot Type Descriptions on page 3 (Every 50mm)



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

Payload by Acceleration

■ MHL type: X medium speed/Y high speed/Z low speed ■ MHM type: X medium speed/Z medium speed (Unit: kg)

Y-axis (mm) Acceleration/ deceleration (G)	50~500 (Every 50mm)	Y-axis (mm) Acceleration/ deceleration (G)	50~400 (Every 50mm)	450~500 (Every 50mm)
0.1	6	0.1	4	4
		0.3	4	-

■ 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 (mm) Acceleration/ deceleration (G)	50~500 (Every 50mm)	Y-axis (mm) eration/ eration (G)	50~500 (Every 50mm)
0.1	2	0.1	1
0.3	2	0.3	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.

S	troke												
Y-a	xis stroke (mm)			5	0					10	00		
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
	400	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	450	0	0	0	0	0	0	0	0	0	0	0	0
ا ت	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
l z	600	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0	0	0	0	0
(-a)	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	axis stroke (mm)			15	50					20	00		
Z-a	axis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
İ	300	0	0	0	0	0	0	0	0	0	0	0	0
İ	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
ا ا	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
l st	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
×	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-axis	s stroke (mm)			2:	50			300					
Z-axis	s stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(E =	450	0	0	0	0	0	0	0	0	0	0	0	0
<u>ت</u>	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
str	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
×-a,	700	0	0	0	0	0	0	0	0	0	0	0	0
^ _	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)			35	0					40	00		
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
e e	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
₹	600	0	0	0	0	0	0	0	0	0	0	0	0
-axis	650	0	0	0	0	0	0	0	0	0	0	0	0
-a	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)			45	50					5(00		
Z-a	xis stroke (mm)	50	100	150	200	250	300	50	100	150	200	250	300
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
l e	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
ts	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
-a	700	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Cable Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
	□L	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 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)	CT		0	0	0
Cable track M size (inner width: 50mm)	CTM	See P.136	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

Applicable Controllers

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

☐ X-axis: WSA16C, Y-axis: SA8C

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Z-axis: SA7C

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} Operation is possible with the high output setting

When connecting to the MCON controller, "HIGH OUTPUT SETTING SPECIFICATION" must be selected. Please contact IAI regarding use with the highoutput setting disabled.

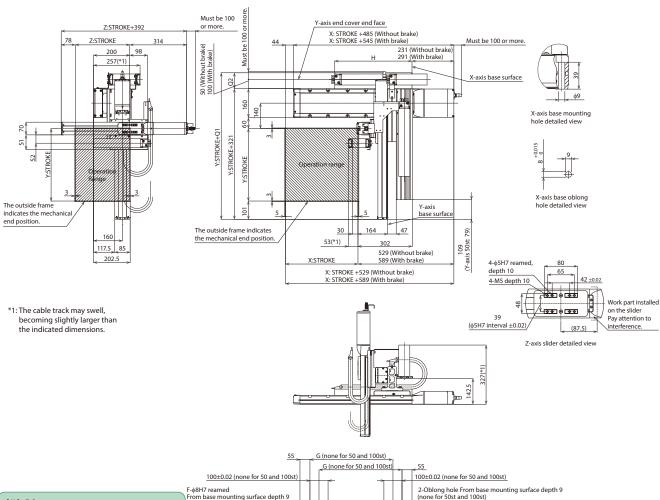
Specifications							
Item		X-axis	Y-axis	Z-axis			
Axis configuration	on	RCP6-WSA16C	RCP6-SA8C	RCP6-SA7C			
Stroke (Every 50	mm)	50~1100mm	50~500mm	50~300mm			
	MHL			105mm/s			
May amond *	MHM	210/	400	210mm/s			
Max. speed *	MHH	210mm/s	400mm/s	420mm/s			
	MHS			640mm/s			
Motor size		56□ High thrust stepper motor	56□ High thrust stepper motor	56□ Stepper motor			
	MHL			4mm			
Ball screw	MHM	10mm	20mm	8mm			
lead	MHH	TOMM	2011111	16mm			
	MHS			24mm			
Drive system		Ball screw \phi16mm rolled C10	Ball screw \phi16mm rolled C10	Ball screw \(\phi 12mm \) rolled C10			
Positioning repea	atability	±0.01mm					
Base material		Aluminum					
Ambient operati temperature, hu	-	0~40°C, 85% RH or less (non-condensing)					

Options						
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis	
Brake *	В	See P.134	0	0	Standard equipment *	
Cable exit direction (Top)	CJT	See P.134	0			
Cable exit direction (Right)	CJR	See P.134	0	Cannot be		
Cable exit direction (Left)	CJL	See P.134	0	selected		
Cable exit direction (Bottom)	CJB	See P.134	0			
Non-motor end specification	NM	See P.135	0	0	0	
Slider section roller specification	SR	See P.135	0	0	0	

- * Outside as standard. Be sure to specify.
- * Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.
- * 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.137.



- CAD
- 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.136.



(*) 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.

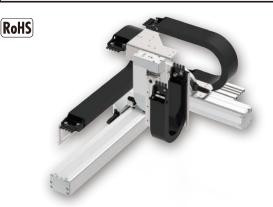
2-Oblong hole From base mounting surface depth 9 (none for 50st and 100st) 55 D (E) B×100 pitch Reference surface C-φ9 through φ16.5 counterbored (from opposite side) Base mounting dimensions

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Α	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	СТ	СТМ	CTL	CTXL
Q1	396.5	408.5	423.5	441.5
Q2	75.5	87.5	102.5	120.5
S1	82	94	-	-
S2	46	52.5	-	-

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

RCP6 3-axis XYB + Z-axis base mount configurations 3-P6BB**ŀ** X-axis: SA7R (side-mounted) Y-axis: SA6R (side-mounted) Z-axis: TA4R (side-mounted) — Encoder Type — First Axis — Second Axis — (Y-axis) Third Axis (Z-axis) — Controller — ■ Model Type Specification Items IK3 — P6BBH1□□S WA PM1 -- □BCJO□ ___ Configuration Direction Speed Type **Encoder Type** Stroke Stroke Options Controller Cable Length Wiring HHM: X High Speed/Y High Speed/Z Medium Spe HHH: X High Speed/Y High Speed/Z High Speed Refer to Applicable Controllers table below 5: 50mm 5: 50mm * Refer to Options table on the Second Wiring 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m (Every 50mm) (Every 25mm) next page. Refer to Cable Track table below * In case stroke like 75mm is selected, indicate "7" without 0.5.



The photograph above shows the configuration direction "1" where all axes have cable tracks.

Please refer to P.3 for other configuration directions.

Payload by Acceleration

■ HHM type: X high speed/

r nign speed/2 medium speed							
Y-axis (mm) Acceleration/deceleration (G)	50~200 (Every 50mm)						
0.1	2						
0.3	2						
0.5	1.5						

* 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.

Acceleration/ deceleration (G)

0.1

0.3

0.5

■ HHH type: X high speed/ Y high speed/Z high speed

(Unit: ka)

50~200

(Every 50mm)

1

1

1

Y-axis stroke (mm) 50			100			150		200				
Z-axis stroke (mm)	50	75	100	50	75	100	50	75	100	50	75	100
50	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0
200	0	0	0	0	0	0	0	0	0	0	0	0
250	0	0	0	0	0	0	0	0	0	0	0	0
300	0	0	0	0	0	0	0	0	0	0	0	0
E 350	0	0	0	0	0	0	0	0	0	0	0	0
400 450	0	0	0	0	0	0	0	0	0	0	0	0
450	0	0	0	0	0	0	0	0	0	0	0	0
500	0	0	0	0	0	0	0	0	0	0	0	0
× 550	0	0	0	0	0	0	0	0	0	0	0	0
600	0	0	0	0	0	0	0	0	0	0	0	0
650	0	0	0	0	0	0	0	0	0	0	0	0
700	0	0	0	0	0	0	0	0	0	0	0	0
750	0	0	0	0	0	0	0	0	0	0	0	0
800	0	0	0	0	0	0	0	0	0	0	0	0

Cable Length Cable code Type Length 1L 1m 3L Standard 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)	CT		0	0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0	Cannot be selected *1
Cable track XL size (inner width: 80mm)		0	Cannot be	selected *2	

^{*1} Only the first and second wiring can be selected

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.149			
PCON-CYB/PLB/POB	Please contact IAI for more information.			
MCON-C/CG	See P.153			
MCON-LC/LCG	See P.153			
MSEL	See P.139			

^{*} 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.

^{*2} Only the first wiring can be selected



Specificati	OHS						
Item		X-axis	Y-axis	Z-axis			
Axis configuration	on	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			
iviax speed "	HHH	42011111/5	50011111/5	350mm/s			
Motor size		56□ Stepper motor	42□ Stepper motor	35□ Stepper motor			
Ball screw	HHM	16mm	12mm	5mm			
lead	HHH	10111111	12111111	10mm			
Drive system		Ball screw \(\psi 12mm \) rolled C10	Ball screw \$10mm rolled C10	Ball screw φ8mm rolled C10			
Positioning repea	atability	±0.01mm					
Base material		Aluminum					
Ambient operat temperature, hu	_	0~40°C, 85% RH or less (non-condensing)				

Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake	В	See P.134	0	0	Standard equipment
Cable exit direction (Outside)	CJO	See P.134	Cannot be	e selected	Standard equipment *
Non-motor end specification	NM	See P.135	0	0	0
Slider section roller specification	SR	See P.135	0	0	Cannot be selected

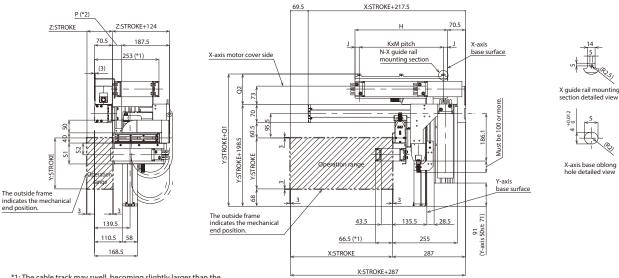
Be sure to specify.

Dimensions

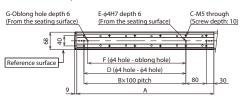
CAD drawings can be downloaded from our website. www.intelligentactuator.com



- 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.136.



- $\ensuremath{^{*}1}\xspace$ 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.



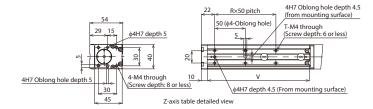
Base mounting dimensions

(Z:STROKE)

(*) 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.



X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
Е	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
M	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

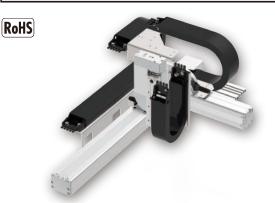
Z: Stroke	50	75	100
P (*2)	-13.5	11.5	36.5
R	1	2	2
T	4	6	6
V	117	142	167

Cable track size	CT	CTM	CTL	CTXL
Q1	306	319	332	349
Q2	107.5	120.5	133.5	150.5
S1	82	94	-	-
52	46	52.5	_	_

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

^{*} 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.137.

RCP6 3-axis XYB + Z-axis base mount configurations **3-P6BBH** X-axis: SA7C (Straight) Y-axis: SA6R (side-mounted) Z-axis: TA4R (side-mounted) Encoder Type — First Axis — Second Axis — (Y-axis) Third Axis — Controller — ■ Model Options Type Specification Items IK3 — P6BBH2□□S WA - PM1 - □-□-□ Ŧ Cable First Length Wiring 1L: 1m Second Wiring Configuration Direction Speed Type **Encoder Type** Stroke Stroke Options Controller Third Options Wiring Refer to Options table (1) on the next page. Refer to Applicable Controllers table below. Refer to Options table (2) on the next page. HHM: X High Speed/Y High Speed/Z Medium Speed HHH: X High Speed/Y High Speed/Z High Speed 5: 50mm 5:50mm* 1 to 4 Refer to Robot Type Description on page 3 (Every 50mm) (Every 25mm) 5L: 5m Refer to Cable Track table below □L: □m * In case stroke like 75mm is selected, indicate "7" without 0.5.



The photograph above shows the configuration direction "1" where all axes have cable tracks.

Please refer to P.3 for other configuration directions.

Payload by Acceleration

■ HHM type: X high speed/

r nign speea/2 meaium speea					
Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)				
0.1	2				
0.3	2				
0.5	1.5				

Y high speed/Z high speed (Unit: kg)

■ HHH type: X high speed/

Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)
0.1	1
0.3	1
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.

Str	roke												
Y-axi	is stroke (mm)		50			100			150			200	
Z-axi	is stroke (mm)	50	75	100	50	75	100	50	75	100	50	75	100
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
_	300	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
sstr	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Cable Length						
Type	Cable code	Length				
	1L	1m				
Standard	3L	3m				
type	5L	5m				
	□L	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.

				_			
	а	n	Δ		ra	c	k
	ш	سنا	-		ш.		-

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)	CT		0	0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	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

Applicable Controllers

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

☐ X-axis: SA7C, Y-axis: SA6R, Z-axis: TA4R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P 153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} 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.

Specifications									
Item		X-axis	Y-axis	Z-axis					
Axis configuration	on	RCP6-SA7C	RCP6-SA6R	RCP6-TA4R					
Ctroko		50 ~ 800mm	50 ~ 200mm	50 ~ 100mm					
Stroke		(Every 50mm)	(Every 50mm)	(Every 25mm)					
May apped *	HHM	420,000 /0	E60mm/s	260mm/s					
мах ѕреец "	HHH	420mm/s	500mm/s	350mm/s					
Motor size		56□ Stepper motor	42□ Stepper motor	35□ Stepper motor					
Ball screw	HHM	16mm	12mm	5mm					
lead	HHH	10111111	1211111	10mm					
Drive system		Ball screw ϕ 12mm	Ball screw \$12mm Ball screw \$10mm B						
Drive system		rolled C10	rolled C10	rolled C10					
Positioning repea	atability	±0.01mm							
Base material		Aluminum							
Ambient operatir temperature, hur	_	0~40°C, 85% RH or less (non-condensing)						
Ball screw lead Drive system Positioning repeation Base material Ambient operation	HHH HHH HHH atability	(Every 50mm) 420mm/s 56□ Stepper motor 16mm Ball screw \$\phi\$12mm rolled C10 ±0.01mm Aluminum	(Every 50mm) 560mm/s 42□ Stepper motor 12mm Ball screw \$\phi\$10mm rolled C10	(Every 25mm) 260mm/s 350mm/s 35□ Stepper moto 5mm 10mm Ball screw \$68mm					

^{*} 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.110.

Options (1)								
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis			
Brake*	В	See P.134	0	0	Standard equipment *			
Cable exit direction (Top)	CJT	See P.134	0					
Cable exit direction (Right)	CJR	See P.134	0	Cann	ot be			
Cable exit direction (Left)	CJL	See P.134	0	sele	cted			
Cable exit direction (Bottom)	CJB	See P.134	0					
Cable exit direction (Outside)	CIO	See P.134	Cannot be	e selected	Standard equipment *			
Non-motor end specification	NM	See P.135	0	0	0			
Slider section roller specification	SR	See P.135	0	0	Cannot be selected			

^{*} Be sure to specify.

^{*} Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information.

					100
T O	Ta1	110	m	C	(2)

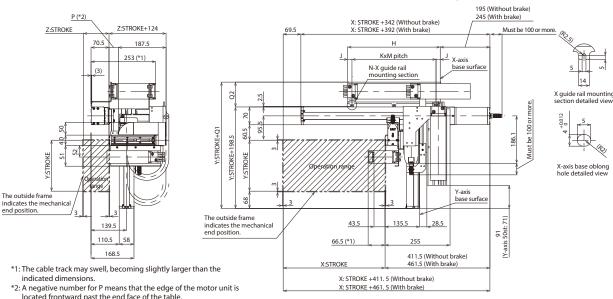
Type	Option code	Reference page
Foot plate	FTP	See P.134

Dimensions

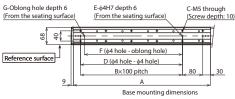
CAD drawings can be downloaded from our website. www.intelligentactuator.com

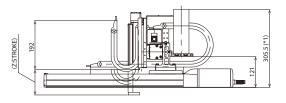


- Note 1. The configuration position in the figure is home.
- Note 2. The diagram shows first, second and third wirings all with cable tracks.
- Note 3. For details on the cable track and cable track moving end bracket, refer to P.136.



located frontward past the end face of the table.



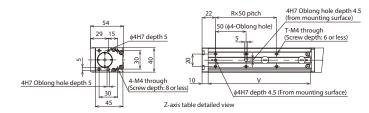


(*) Notes

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. 134)

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

	,															
X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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

	Ψ,	200	270		520					
1	Q2	84.5	97.5	110.5	127.5					
1	S1	82	94	-	-					
1	S2	S2 46 52.5								
l	* Dimensions Q1, Q2, S1 and S2 change									

Cable track size CT CTM CTL CTXL

Z: Stroke	50	75	100
P (*2)	-13.5	11.5	36.5
R	1	2	2
T	4	6	6
V	117	142	167

Dimensions Q	1, Q2, S1	and S2	2 chan	ge
depending on	the size	of the	cable	track.

RCP6 3-axis XYB + Z-axis base mount configurations **3-P6BBH** X-axis: SA7C (Straight) Y-axis: SA6C (straight), Z-axis: TA4C (straight) Encoder Type — First Axis — Second Axis — Third Axis — Controller — (Y-axis) ■ Model Type Specification Items IK3 — P6BBH3□□S WA □B□ PM1 -T. Cable First Length Wiring Second Wiring Configuration Direction Speed Type **Encoder Type** Stroke Stroke Options Controller Third Options Refer to Options table (1) on the next page. Refer to Applicable Controllers table below. Refer to Options table (2) on the next page. HHM: X High Speed/Y High Speed/Z Medium Speed HHH: X High Speed/Y High Speed/Z High Speed 5: 50mm 5: 50mm * 1 to 4 Refer to Robot Type Descriptions on page 3 (Every 50mm) (Every 25mm) 5L: 5m Refer to Cable Track table below □L: □m * In case stroke like 75mm is selected, indicate "7" without 0.5.



The photograph above shows the configuration direction "1" where all axes have cable tracks.

Please refer to P.3 for other configuration directions.

Payload by Acceleration

■ HHM type: X high speed/

r nigh speed/2 medium speed									
Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)								
0.1	2								
0.3	2								
0.5	1.5								

■ HHH type: X high speed/ Y high speed/Z high speed (Unit: ka)

5 1	J -
Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)
0.1	1
0.3	1
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.

Si	troke												
Y-a	xis stroke (mm)		50			100			150			200	
Z-a	xis stroke (mm)	50	75	100	50	75	100	50	75	100	50	75	100
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
-	300	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
sstr	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Cable Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
	□L	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)	CT		0	0	0	
Cable track M size (inner width: 50mm)	CTM	See	0	0	0	
Cable track L size (inner width: 63mm)	CTL	P.136	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

Applicable Controllers

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.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

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.

эрсептеис	10113							
Item		X-axis	Y-axis	Z-axis				
Axis configurati	on	RCP6-SA7C	RCP6-SA6C	RCP6-TA4C				
Stroke		50 ~ 800mm	50 ~ 200mm	50 ~ 100mm				
Stroke		(Every 50mm)	(Every 50mm)	(Every 25mm)				
May an and *	HHM	420mm/s	560mm/s	260mm/s				
Max speed *	HHH	42011111/5	30011111/5	350mm/s				
Motor size		56□ Stepper motor	42□ Stepper motor	35□ Stepper motor				
Ball screw	HHM	16mm	12mm	5mm				
lead	HHH	TOTTITI	1211111	10mm				
Drive system		Ball screw φ10mm rolled C10 Ball screw φ10mm rolled C10 Ball screw φ8mm						
Positioning repea	tability	±0.01mm						
Base material		Aluminum						
Ambient operat temperature, hu	_	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.137.

Options (1)								
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis			
Brake*	В	See P.134	0	Standard equipment *				
Cable exit direction (Top)	CJT	See P.134	0					
Cable exit direction (Right)	CJR	See P.134	0	Cannot b				
Cable exit direction (Left)	CJL	See P.134	0	Cannot b	e selected			
Cable exit direction (Bottom)	CJB	See P.134	0					
Non-motor end specification	NM	See P.135	0	0	0			
Slider section roller specification	SR	See P.135	0	0	Cannot be selected			

- * Outside as standard. Be sure to specify.
- * Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

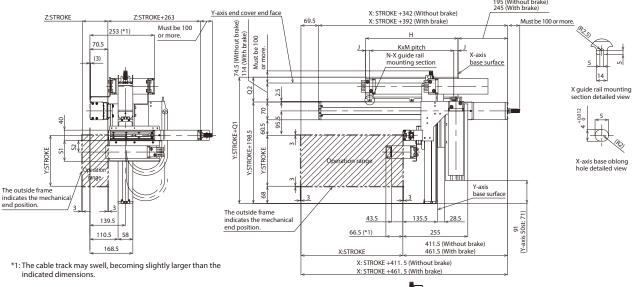
Options (2)		
Туре	Option code	Reference page
Foot plate	FTP	See P.134

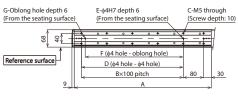
Specifications

CAD drawings can be downloaded from our website. www.intelligentactuator.com



- 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.136.





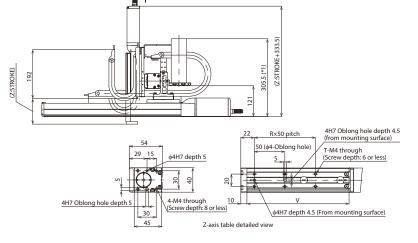
Base mounting dimensions

(*) 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. 134)

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.



X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
Е	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
T	4	6	6
V	117	142	167

Cable track size	CT	CTM	CTL	CTXL
Q1	283	296	309	326
Q2	84.5	97.5	110.5	127.5
S1	82	94	-	-
52	46	52.5	_	_

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

RCP6 3-axis XYB + Z-axis base mount configurations 3-P6BBG X-axis: SA8R (side-mounted) Y-axis: SA7R (side-mounted) Z-axis: TA6R (side-mounted) Encoder Type — First Axis — Second Axis — (Y-axis) Third Axis ■ Model Type Specification Items IK3 — P6BBG1□ □S — WA - PM1 -___ Cable First Length Wiring Second Wiring Configuration Direction Speed Type **Encoder Type** Stroke Stroke Options Controller Refer to Applicable Controllers table below HSL: X High Speed/Y Ultra High Speed/Z Low Speed HSM: X High Speed/Y Ultra High Speed/Z Medium Speed 5: 50mm 5: 50mm * Refer to Options table on the

(Every 50mm) (Every 25mm)

* In case stroke like 75mm is selected, indicate "7" without 0.5.



HSH: X High Speed/Y Ultra High Speed/Z High Speed

The photograph above shows the configuration direction "1" where all axes have cable tracks.

Please refer to P.3 for other configuration directions.

Payload by Acceleration

■ HSL type: X high speed/ Y ultra high speed/Z low speed

Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)	250								
0.1	4	3								
0.3	4	3								
0.5	4	3								
■ HSH type: X high speed/										

next page.

■ HSM type: X high speed/ Y ultra high speed/Z medium speed (Unit: kg)

5L:5m $\square L:\square m$ Refer to Cable Track table below

• .		
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

Y ultra high speed/Z high speed

Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)	250
0.1	1.5	1
0.3	1.5	1
0.5	1.5	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.

S	troke															
Y-axi	s stroke (mm)			50					100			150				
Z-axi	s stroke (mm)	50	75	100	125	150	50	75	100	125	150	50	75	100	125	150
	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
stroke (mm)	450	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
e e	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
l £	600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-a	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Y-axis	stroke (mm)			200					250		
Z-axis stroke (mm)		50	75	100	125	150	50	75	100	125	150
	50	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0
Ì	200	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0
stroke (mm)	400	0	0	0	0	0	0	0	0	0	0
	450	0	0	0	0	0	0	0	0	0	0
	500	0	0	0	0	0	0	0	0	0	0
	550	0	0	0	0	0	0	0	0	0	0
str	600	0	0	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0	0	0
- Ģ	700	0	0	0	0	0	0	0	0	0	0
×	750	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0
	1100	Ō	O	0	Ō	0	0	0	0	0	0

Applicable Controllers

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

☐ X-axis: SA8R

Type	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Y-axis: SA7R, Z-axis: TA6R

Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	3ee F.133
MSEL	See P.139

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 Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
1		Specified longth (15m may)

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)	CTM	See	0	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	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



Specifications											
Item		X-axis	Y-axis	Z-axis							
Axis configurat	ion	RCP6-SA8R	RCP6-SA7R	RCP6-TA6R							
Stroke		50 ~ 1100mm	50 ~ 250mm	50 ~ 150mm							
Stroke		(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	56□ Stepper motor	42□ Stepper motor							
WIOTOI SIZE		stepper motor	36□ Stepper motor	42 Stepper motor							
Ball screw	HSL			3mm							
lead	HSM	20mm	24mm	6mm							
leau	HSH			12mm							
Drive system		Ball screw \phi16mm	Ball screw ϕ 12mm	Ball screw ϕ 10mm							
Drive system		rolled C10	rolled C10	rolled C10							
Positioning repe	atability	±0.01mm									
Base material		Aluminum									
Ambient opera temperature, h	_	0~40°C, 85% RH or less (non-condensing)									

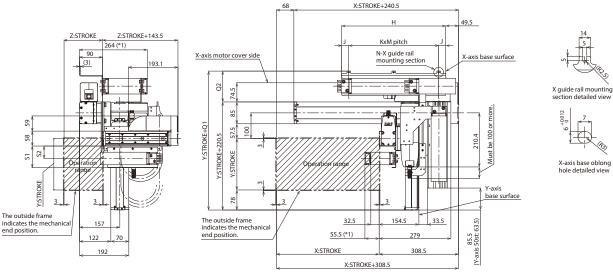
Options					
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake	В	See P.134	0	0	Standard equipment *
Cable exit direction (Outside)	CIO	See P.134	Cannot be	e selected	Standard equipment *
Non-motor end specification	NM	See P.135	0	0	0
Slider section roller specification	SR	See P.135	0	0	Cannot be selected

^{*} Be sure to specify.

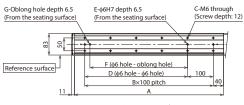
CAD drawings can be downloaded from our website. www.intelligentactuator.com



- 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.136.



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

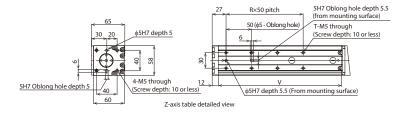


Base mounting dimensions

(Z:STROKE)

(*) 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.



X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Α	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

G	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	change
Н	230	255	280	305	330	355	380	405	430	455	480	505	530	555	580	605	630	655	680	705	730	755	the cab
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	the Cab
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	
		•																					

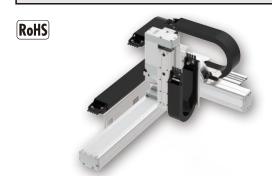
Z: Stroke	50	75	100	125	150
R	1	2	2	3	3
T	4	6	6	8	8
V	140	165	190	215	240

Cable track size	СТ	СТМ	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 ge depending on the size of ble track.

^{*} 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.137.

RCP6 3-axis XYB + Z-axis base mount configurations 3-P6BBG X-axis: SA8C (straight) Encoder Type — First Axis — Second Axis — (Y-axis) Third Axis — Controller — Options ■ Model Type Specification Items IK3 - P6BBG2□□S WA PM1 - 🗆 - 🗆 -FE Cable First Length Wiring Second Wiring Configuration Direction Speed Type **Encoder Type** Stroke Stroke **Options** Controller Third Options 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 Refer to Options table (1) on the next page. Refer to Applicable Controllers table below Refer to Options table (2) on the next page. 5: 50mm 5: 50mm * 1 to 4 Refer to Robot Type Descriptions on page 3 5L : 5m Refer to Cable Track table below. □L: □m (Every 50mm) (Every 25mm) * In case stroke like 75mm is selected, indicate "7" without 0.5.



The photograph above shows the configuration direction "1" where all axes have cable tracks.

Please refer to P.3 for other configuration directions.

Payload by Acceleration

■ HSL type: X high speed/ Y ultra high speed/Z low speed

r undu mgm s	JCCU, 1011	opecu							
Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)	250							
0.1	4	3							
0.3	4	3							
0.5	4	3							
■ HSH type: X high speed/									

Y ultra high speed/Z high speed

		-
Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)	250
0.1	1.5	1
0.3	1.5	1
0.5	1.5	1

■ HSM type: X high speed/ Y ultra high speed/Z medium speed (Unit: kg)

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

 $\mbox{\ensuremath{^{\ast}}}$ 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.

S	troke															
Y-axi:	stroke (mm)			50					100					150		
Z-axi	stroke (mm)	50	75	100	125	150	50	75	100	125	150	50	75	100	125	150
	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
e .	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
±	600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-a	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Y-axis	stroke (mm)			200					250		
Z-axis	stroke (mm)	50	75	100	125	150	50	75	100	125	150
	50	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0
ĺ	150	0	0	0	0	0	0	0	0	0	0
Ì	200	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0
_ [400	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0
(I)	500	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0
str	600	0	0	0	0	0	0	0	0	0	0
-axis	650	0	0	0	0	0	0	0	0	0	0
-g	700	0	0	0	0	0	0	0	0	0	0
×	750	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0
ľ	950	0	0	0	0	0	0	0	0	0	0
Ī	1000	0	0	0	0	0	0	0	0	0	0
ľ	1050	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0

Applicable Controllers

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

☐ X-axis: SA8C

Type	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Y-axis: SA7R, Z-axis: TA6R

Type	Reference page			
PCON-CB/CGB	See P.149			
PCON-CYB/PLB/POB	Please contact IAI for more information.			
MCON-C/CG	See P.153			
MCON-LC/LCG	See P.153			
MSEL	See P.139			

* 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 Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
		Specified langth (15m may)

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) C1			0	0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0	0
Cable track L size (inner width: 63mm)		P.136	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

Specificati	ons						
Item		X-axis	Y-axis	Z-axis			
Axis configuration	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 stepper motor	56□ Stepper motor	42□ Stepper motor			
Ball screw	HSL			3mm			
lead	HSM	20mm	24mm	6mm			
leau	HSH			12mm			
Drive system		Ball screw φ16mm Ball screw φ12mm rolled C10 rolled C10		Ball screw \(\phi 10mm \) rolled C10			
Positioning repea	atability	±0.01mm					
Base material		Aluminum					
Ambient operat temperature, hu	_	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 P137	

Option code	Reference page	X-axis	Y-axis	Z-axis	
В	See P.134	0	0	Standard equipment *	
CJT	See P.134	0		,	
CJR	See P.134	0	C		
CJL	See P.134	O Cannot be		e selected	
CJB	See P.134	0			
CJO	See P.134	Cannot be selected e		Standard equipment *	
NM	See P.135	0	0	0	
SR	See P.135	0	0	Cannot be selected	
	CODE B CJT CJR CJL CJB CJO NM	code page B See P.134 CJT See P.134 CJR See P.134 CJB See P.134 CJB See P.134 CJO See P.134 NM See P.135	Code page X-axis B See P.134 CJT See P.134 CJR See P.134 CJL See P.134 CJB See P.134 CJO See P.134 CJO See P.134 CJO See P.135 NM See P.135	Code page X-axis Y-axis B See P.134	

^{*} Be sure to specify.

^{*} Brake option for X-axis increases the length of the motor unit. Please contact IAI for more information.

Ω		38	_			12
v	p	ш	u	ш	5	۱Z

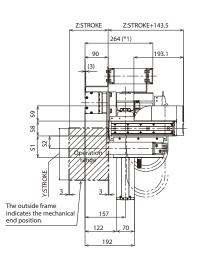
Туре	Option code	Reference page		
Foot plate	FTP	See P.134		

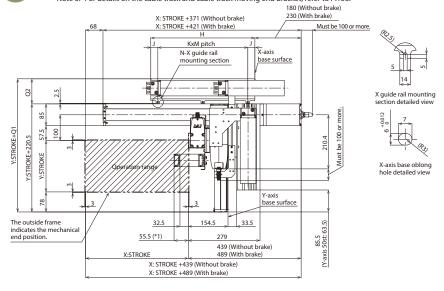
Dimensions

CAD drawings can be downloaded from our website. www.intelligentactuator.com

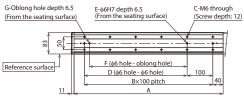


- 3D CAD
- Note 1. The configuration position in the figure is home.
- Note 2. The diagram shows first, second and third wirings all with cable tracks.
- Note 3. For details on the cable track and cable track moving end bracket, refer to P.136.





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

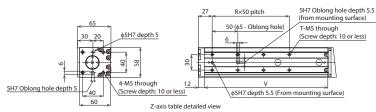


Base mounting dimensions

(Z:STROKE+233.5) 323 138.5

(*) 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

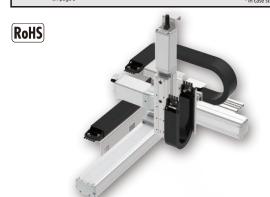
X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Α	230	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280
В	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12
С	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	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
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

track size	CT	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.

Z: Stroke	50	75	100	125	150
R	1	2	2	3	3
T	4	6	6	8	8
V	140	165	190	215	240

RCP6 3-axis XYB + Z-axis base mount configurations X-axis: SA8C (straight) Y-axis: SA7C (straight), Z-axis: TA6C (straight) Encoder Type — First Axis — Second Axis — Third Axis — Controller — (Y-axis) ■ Model Type Specification Items IK3 - P6BBG3□□S $\Box \mathbf{B} \Box$ ŦŦ Configuration Direction Speed Type **Encoder Type** Stroke Stroke Options Controller Cable First Third Options Wiring | Second Length 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 Refer to Applicable Controllers table below. 5: 50mm 5: 50mm * Refer to Options table Refer to Options table 1 to 4 Refer to Robot Type Descriptions on page 3 Wiring (1) on the next page. (2) on the next page. (Every 50mm) (Every 25mm) Refer to Cable Track table below * In case stroke like 75mm is selected, indicate "7" without 0.5.



The photograph above shows the configuration direction "1" where all axes have cable tracks.

Please refer to P.3 for other configuration directions.

Payload by Acceleration

■ HSL type: X high speed/ Y ultra high speed/Z low speed

r ditta nigir speed/2 low speed									
Y-axis (mm) Acceleration/deceleration (G)	50~200 (Every 50mm)	250							
0.1	4	3							
0.3	4	3							
0.5	4	3							
I USU to an a Wilder and a diff									

Yultra high speed/Z medium speed (Unit: kg)

■ HSM type: X high 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

■ HSH type: X high speed/ Y ultra high speed/Z high speed

	_	•
Y-axis (mm) Acceleration/ deceleration (G)	50~200 (Every 50mm)	250
0.1	1.5	1
0.3	1.5	1
0.5	1.5	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.

S	Stroke															
Y-axis stroke (mm) 50								100					150			
Z-axis	s stroke (mm)	50	75	100	125	150	50	75	100	125	150	50	75	100	125	150
	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
stroke (mm)	450	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
e e	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Š	550	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$t	600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
××	650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
^	750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Y-axis	stroke (mm)			200			250								
Z-axis	s stroke (mm)	50	75	100	125	150	50	75	100	125	150				
	50	0	0	0	0	0	0	0	0	0	0				
Ì	100	0	0	0	0	0	0	0	0	0	0				
(mm)	150	0	0	0	0	0	0	0	0	0	0				
	200	0	0	0	0	0	0	0	0	0	0				
Ì	250	0	0	0	0	0	0	0	0	0	0				
	300	0	0	0	0	0	0	0	0	0	0				
	350	0	0	0	0	0	0	0	0	0	0				
_	400	0	0	0	0	0	0	0	0	0	0				
Ē	450	0	0	0	0	0	0	0	0	0	0				
<u>-</u>	500	0	0	0	0	0	0	0	0	0	0				
쏭	550	0	0	0	0	0	0	0	0	0	0				
stroke	600	0	0	0	0	0	0	0	0	0	0				
X-axis	650	0	0	0	0	0	0	0	0	0	0				
9	700	0	0	0	0	0	0	0	0	0	0				
×	750	0	0	0	0	0	0	0	0	0	0				
	800	0	0	0	0	0	0	0	0	0	0				
	850	0	0	0	0	0	0	0	0	0	0				
	900	0	0	0	0	0	0	0	0	0	0				
	950	0	0	0	0	0	0	0	0	0	0				
	1000	0	0	0	0	0	0	0	0	0	0				
	1050	0	0	0	0	0	0	0	0	0	0				
	1100	0	0	0	Ō	Ō	0	Ō	Ō	Ō	0				

Applicable Controllers

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

☐ X-axis: SA8C

Туре	Reference page
PCON-CFB/CGFB	See P.149
MSEL-PCF/PGF	See P.139

☐ Y-axis: SA7C, Z-axis: TA6C

Type	Reference page				
PCON-CB/CGB	See P.149				
PCON-CYB/PLB/POB	Please contact IAI for more information.				
MCON-C/CG	C D152				
MCON-LC/LCG	See P.153				
MSEL	See P.139				

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 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.

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)	CT		0	0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	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

Specificati	ons							
Item		X-axis	Y-axis	Z-axis				
Axis configuration	on	RCP6-SA8C	RCP6-SA7C	RCP6-TA6C				
Stroke		50 ~ 1100mm 50 ~ 250mm (Every 50mm) (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 stepper motor	56□ Stepper motor	42□ Stepper motor				
Ball screw HSL				3mm				
lead	HSM	20mm	24mm	6mm				
leau	HSH			12mm				
Drive system		Ball screw φ16mm rolled C10	Ball screw φ12mm rolled C10	Ball screw \(\phi 10mm \) rolled C10				
Positioning repea	tability	±0.01mm						
Base material		Aluminum						
Ambient operat temperature, hu	_	0~40°C, 85% RH or less (non-condensing)						

Options (1)						
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis	
Brake *	В	See P.134	0	0	Standard equipment *	
Cable exit direction (Top)	CJT	See P.134	0			
Cable exit direction (Right)	CJR	See P.134	0	Cannot b	o coloctod	
Cable exit direction (Left)	CJL	See P.134	0	Cannot be selected		
Cable exit direction (Bottom)	CJB	See P.134	0			
Non-motor end specification	NM	See P.135	0	0	0	
Slider section roller specification	SR	See P.135	0	0	Cannot be selected	

- * Outside as standard. Be sure to specify.
- $\mbox{\ensuremath{^{\ast}}}$ Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

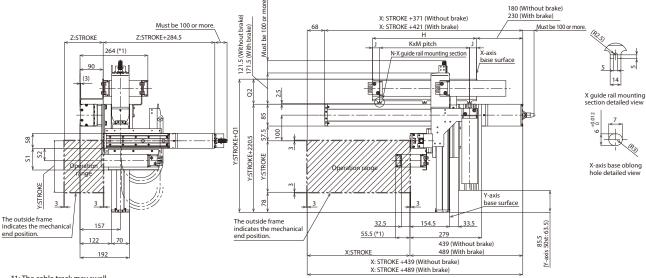
Options (2)		
Туре	Option code	Reference page
Foot plate	FTP	See P.134

^{*} 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.137.

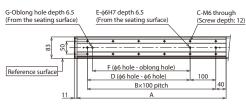
CAD drawings can be downloaded from our website. www.intelligentactuator.com



- 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.136.



*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 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

			J (1 O 1 (_																				
X: Stro	ke 50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	Cable	T.
Α	230	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280	track size	4 '
В	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	Q1	3
C	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	Q2	8
D	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800	800	900	900	1000	1000	1100	S1	8
E	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	S2	4
F	0	0	80	180	180	280	280	380	380	480	480	580	580	680	680	780	780	880	880	980	980	1080	* Dimer	nsic
G	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	chang	
Н	230	255	280	305	330	355	380	405	430	455	480	505	530	555	580	605	630	655	680	705	730	755	the ca	
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	tile ca	DIC
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		

(Z:STROKE)

5H7 Oblong hole depth

100	Cable	CT	CTM
280	track size	Ci	CTIVI
12	Q1	305	318
26	Q2	84.5	97.5
100	S1	84.5	96.5
3	S2	48.5	55
080	* Dimen	sions (01. 02
1			

138.5

φ5H7 depth 5

4-M5 through (Screw depth: 10 or less)

R×50 pitch

(φ5 - Oblong hole

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

φ5H7 depth 5.5 (From mounting surface)

Z: Stroke	50	75	100	125	150
R	1	2	2	3	3
T	4	6	6	8	8
V	140	165	190	215	240

5H7 Oblong hole depth 5.5

CTL CTXL 331 348 110.5 127.5

from mounting surface)

T-M5 through (Screw depth: 10 or less)



Payload by Acceleration

■ MM type: X medium speed/Y medium speed

(Unit: ka)

_ ······ ., p - · · · · · · · · · · · · · · · · · ·		(Offic. kg)
Y-axis stroke (mm) Acceleration/deceleration (G)		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.

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

Y-a	axis stroke (mm)		5	0			10	00			15	50		
Z-a	axis stroke (mm)	10	00	15	50	10	00	1:	50	100		15	150	
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	
	50	0	0	0	0	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	0	0	0	0	0	
	200	0	0	0	0	0	0	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	0	0	0	0	0	
	300	0	0	0	0	0	0	0	0	0	0	0	0	
	350	0	0	0	0	0	0	0	0	0	0	0	0	
~	400	0	0	0	0	0	0	0	0	0	0	0	0	
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0	
e.	500	0	0	0	0	0	0	0	0	0	0	0	0	
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0	
stı	600	0	0	0	0	0	0	0	0	0	0	0	0	
axis	650	0	0	0	0	0	0	0	0	0	0	0	0	
×-a	700	0	0	0	0	0	0	0	0	0	0	0	0	
	750	0	0	0	0	0	0	0	0	0	0	0	0	
	800	0	0	0	0	0	0	0	0	0	0	0	0	
	850	0	0	0	0	0	0	0	0	0	0	0	0	
	900	0	0	0	0	0	0	0	0	0	0	0	0	
	950	0	0	0	0	0	0	0	0	0	0	0	0	
	1000	0	0	0	0	0	0	0	0	0	0	0	0	
	1050	0	0	0	0	0	0	0	0	0	0	0	0	
	1100	0	0	0	0	0	0	0	0	0	0	0	0	

Y-a	xis stroke (mm)		20	00			25	50			30	00	
Z-a	xis stroke (mm)	10	00	150		100		150		100		150	
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
e .	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
1 5	600	0	0	0	0	0	0	0	0	0	0	0	0
-axis	650	0	0	0	0	0	0	0	0	0	0	0	0
, eg	700	0	0	0	0	0	0	0	0	0	0	0	0
×	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Cable Length

Type	Cable code	Length	l
	1L	1m	h
Standard	3L	3m	1
	5L	5m	1
type		Specified length	ĺ
	□ L	(Max. 15m)	l

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 Traci		1.1		-	94
	t a	010	2	100	T GI

Туре	Model	Reference page	First wiring (X-axis lateral)	Second wiring (Y-axis lateral)
Without cable track (cable only)	N		-	-
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm)	CTXL		0	Cannot be selected *1

^{*1} Only the first wiring can be selected

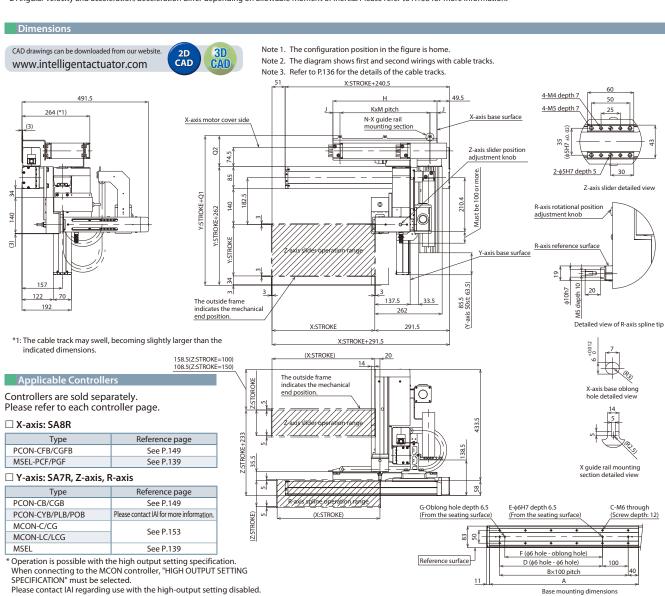


Specifications								
Item	X-axis	Y-axis	Z-axis	R-axis				
Axis configuration	RCP6-SA8R	RCP6-SA7R	TTPIK-AZR					
Stroke	50 ~ 1100mm 50 ~ 300mm (Every 50mm) (Every 50mm		100, 150mm	180deg., 360deg.				
Max. speed *1	300mm/s	280mm/s	400mm/s	1,000deg/s *2				
Allowable moment of inertia *2	-	0.01kg·m ²						
Motor size	56□ High thrust stepper motor	56□ Stepper motor	42□ Stepper motor	42□ Stepper motor				
Ball screw lead	10mm	8mm	12mm	-				
Drive system	Ball screw φ16mm rolled C10	Ball screw φ12mm rolled C10	Ball screw φ10mm 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)							

Option code	Y-avic V-avic		Z-axis	
В	See P.134	0	0	Standard equipment *
со	See P.134	Cannot be	e selected	0
NM	See P.135	0	0	0
SR	See P.135	0	0	Cannot be selected
	B CO	code page B See P.134 CO See P.134 NM See P.135	code page X-axis B See P.134 O CO See P.134 Cannot be NM See P.135 O	code page X-axis Y-axis B See P.134 O O CO See P.134 Cannot be selected NM See P.135 O O

^{*} Be sure to specify.

^{*2} Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.138 for more information.



(*) 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.

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Α	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
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	СТМ	CTL	CTXL
Q1	369.5	382.5	395.5	412.5
Q2	107.5	120.5	133.5	150.5

^{*} Dimensions Q1 and Q2 change depending on the size of the cable track.

^{*1} 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.137.

RCP6 2-axis XYB + ZR unit configurations IK4-P6BBB2 X-axis: SA8C (straight) Encoder Type — First Axis — Second Axis — Third Axis — Fourth Axis — Controller — (X-axis) — (R-axis) — Controller — ■ Model Type Specification Items IK4 - P6BBB2□ □S WA - 🗆 \Box - \Box Jr Configuration Direction First Second Wiring Wiring Speed Type Encoder Type Stroke Options Stroke Options Stroke Controller Cable Options 5: 50mm Refer to 10: 100mm to Options table 15: 150mm (Every 50mm) (1) on the next page. MM: X Medium Speed/Y Medium Speed WA: Battery-less $\begin{array}{lll} \mbox{Refer to} & 18 & \pm 180 \mbox{deg.} \\ \mbox{Options table} & 36L & \pm 360 \mbox{deg.} \\ \mbox{(1) on the} & (\mbox{Equipped with} \\ \mbox{next page.} & \mbox{home limit switch)} \\ \end{array}$ Refer to Options table (2) on the next page. 1L : 1m 3L : 3m 5L : 5m □L: □m 1 to 4 Refer to Robot Type Descriptions on page 3 Absolute Refer to Cable Track table below.



The photograph above shows the configuration direction "1" where all axes have

cable tracks.

Please refer to P.3 for other configuration directions.

Payload by Acceleration

■ MM type: X medium speed/Y medium speed

(Unit: ka)

Y-axis stroke (mm) Acceleration/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.

S	troke												
Y-a	ixis stroke (mm)		5	0			10	00			15	50	
Z-a	ixis stroke (mm)	10	00	15	50	10	00	1:	50	10	00	1:	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
_	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
÷	650	0	0	0	0	0	0	0	0	0	0	0	0
-axis	700	0	0	0	0	0	0	0	0	0	0	0	0
×	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		20	00			2.	50		300				
Z-a	xis stroke (mm)	10	00	1:	50	10	00	1:	50	10	00	15	50	
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	
	50	0	0	0	0	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	0	0	0	0	0	
	200	0	0	0	0	0	0	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	0	0	0	0	0	
	300	0	0	0	0	0	0	0	0	0	0	0	0	
	350	0	0	0	0	0	0	0	0	0	0	0	0	
=	400	0	0	0	0	0	0	0	0	0	0	0	0	
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0	
e .	500	0	0	0	0	0	0	0	0	0	0	0	0	
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0	
str	600	0	0	0	0	0	0	0	0	0	0	0	0	
axis	650	0	0	0	0	0	0	0	0	0	0	0	0	
-a	700	0	0	0	0	0	0	0	0	0	0	0	0	
~	750	0	0	0	0	0	0	0	0	0	0	0	0	
	800	0	0	0	0	0	0	0	0	0	0	0	0	
	850	0	0	0	0	0	0	0	0	0	0	0	0	
	900	0	0	0	0	0	0	0	0	0	0	0	0	
	950	0	0	0	0	0	0	0	0	0	0	O	Ó	
	1000	0	0	0	0	0	0	0	0	0	0	0	0	
	1050	0	0	0	0	0	0	0	0	0	0	0	0	
	1100	0	0	0	0	0	0	0	0	0	0	0	0	

Cable Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
	5L	5m
type		Specified length
	□ L	(Max. 15m)

- 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 lateral)	Second wiring (Y-axis lateral)
Without cable track (cable only)	N		-	-
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm)	CTXL		0	Cannot be selected *1

^{*1} Only the first wiring can be selected



Specifications								
Item	X-axis	Y-axis	Z-axis	R-axis				
Axis configuration	RCP6-SA8C	RCP6-SA7R	TTPIK-AZR					
Stroke	50 ~ 1100mm (Every 50mm)			180deg., 360deg.				
Max. speed *1	300mm/s	280mm/s	400mm/s	1,000deg/s *2				
Allowable moment of inertia *2	-	0.01kg·m ²						
Motor size	56□ High thrust stepper motor	56□ Stepper motor	42□ Stepper motor	42□ Stepper motor				
Ball screw lead	10mm	8mm	12mm	_				
Drive system	Ball screw \$\$\phi\$16mm rolled C10	Ball screw \$\$\phi\$12mm rolled C10	Ball screw φ10mm 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)							

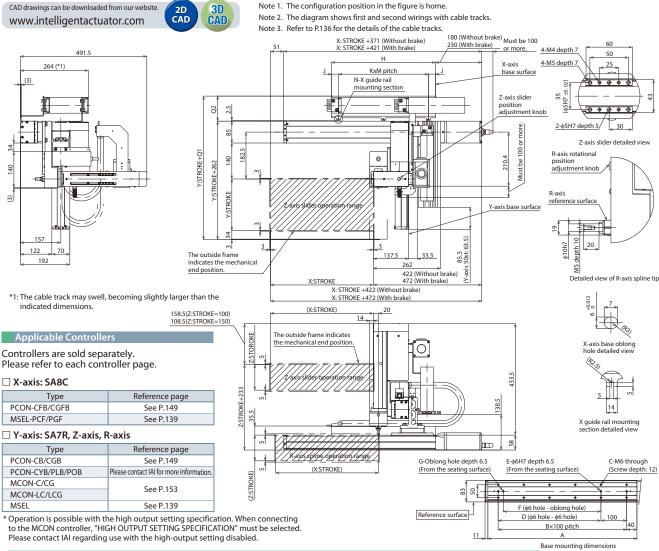
- *1 The maximum speed may not be reached if the travel distance is short or acceleration is low. Maximum speed may change depending on the stroke. For details, refer to the Maximum Speed by Stroke table on P.137.
- *2 Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.138 for more information.

Options (1)						
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis	
Brake *	В	See P.134	0	0	Standard equipment *	
Cable exit direction (Top)	CJT	See P.134	0			
Cable exit direction (Right)	CJR	See P.134	0	Cannot be selected		
Cable exit direction (Left)	CJL	See P.134	0	Calliot b	e selected	
Cable exit direction (Bottom)	CJB	See P.134	0			
Slider cover	co	See P.134	Cannot be	e selected	0	
Non-motor end specification	NM	See P.135	0	0	0	
Slider section roller specification	SR	See P.135	0	0	Cannot be selected	

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

Options (2)		
Type	Option code	Reference page
Foot plate	FTP	See P.134

Specifications



(*) 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.134)

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
Е	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	CT	CTM	CTL	CTXL
Q1	346.5	359.5	372.5	389.5
Q2	84.5	97.5	110.5	127.5

^{*} Dimensions Q1 and Q2 change depending on the size of the cable track.



Payload by Acceleration

■ MM type: X medium speed/Y medium speed

(Unit: kg)

Y-axis stroke (mm) Acceleration/ 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.

The photograph above shows the configuration direction "1" where all axes have cable tracks.

Please refer to P.3 for other configuration directions.

S	troke												
Y-a	xis stroke (mm)		5	0			10	00		150			
Z-a	xis stroke (mm)	10	00	15	50	10	00	1:	50	10	00	1:	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
=	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
e e	500	0	0	0	0	0	0	0	0	0	0	0	0
stroke	550	0	0	0	0	0	0	0	0	0	0	0	0
str	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
X-a	700	0	0	0	0	0	0	0	0	0	0	0	0
×	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		20	00			2!	50			3(00	
Z-a	xis stroke (mm)	100		15	150		00	1:	50	10	00	1:	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
	350	0	0	0	0	0	0	0	0	0	0	0	0
	400	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	450	0	0	0	0	0	0	0	0	0	0	0	0
ke	500	0	0	0	0	0	0	0	0	0	0	0	0
*	550	0	0	0	0	0	0	0	0	0	0	0	0
stro	600	0	0	0	0	0	0	0	0	0	0	0	0
axis	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
×	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0
	850	0	0	0	0	0	0	0	0	0	0	0	0
	900	0	0	0	0	0	0	0	0	0	0	0	0
	950	0	0	0	0	0	0	0	0	0	0	0	0
	1000	0	0	0	0	0	0	0	0	0	0	0	0
	1050	0	0	0	0	0	0	0	0	0	0	0	0
	1100	0	0	0	0	0	0	0	0	0	0	0	0

Cable Length

Type	Cable code	Length	1	
	1L	1m	1	
Chamalanal	3L	3m		
Standard	5L	5m		
type		Specified length	ĺ	
	□ L	(Max. 15m)		

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.

avı	eт	rac	:К	

Туре	Model	Reference page	First wiring (X-axis lateral)	Second wiring (Y-axis lateral)
Without cable track (cable only)	N		-	-
Cable track S size (inner width: 38mm)	CT		0	0
Cable track M size (inner width: 50mm)	CTM	See	0	0
Cable track L size (inner width: 63mm)	CTL	P.136	0	0
Cable track XL size (inner width: 80mm)	CTXL		0	Cannot be selected *1

^{*1} Only the first wiring can be selected



Specifications							
Item	X-axis	Y-axis	Z-axis	R-axis			
Axis configuration	RCP6-SA8C	RCP6-SA7C	TTPIK	(-AZR			
Stroke	50 ~ 1100mm (Every 50mm)	50 ~ 300mm (Every 50mm)	100, 150mm	180deg., 360deg.			
Max. speed *1	300mm/s	280mm/s	400mm/s	1,000deg/s *2			
Allowable moment of inertia *2	-			0.01kg·m ²			
Motor size	56□ High thrust stepper motor	56□ Stepper motor	42□ Stepper motor	42□ Stepper motor			
Ball screw lead	10mm	8mm	12mm	_			
Drive system	Ball screw \$\$\phi\$16mm rolled C10	Ball screw \$\$\phi\$12mm rolled C10	Ball screw φ10mm 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 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.137.
- *2 Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.138 for more information.

Options (1)						
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis	
Brake *	В	See P.134	0	0	Standard equipment *	
Cable exit direction (Top)	CJT	See P.134	0			
Cable exit direction (Right)	CJR	See P.134	0	Cannot be selected		
Cable exit direction (Left)	CJL	See P.134	0			
Cable exit direction (Bottom)	CJB	See P.134	0			
Slider cover	co	See P.134	Cannot be	e selected	0	
Non-motor end specification	NM	See P.135	0	0	0	
Slider section roller specification	SR	See P.135	0	0	Cannot be selected	

- * Outside as standard. Be sure to specify.
- * Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

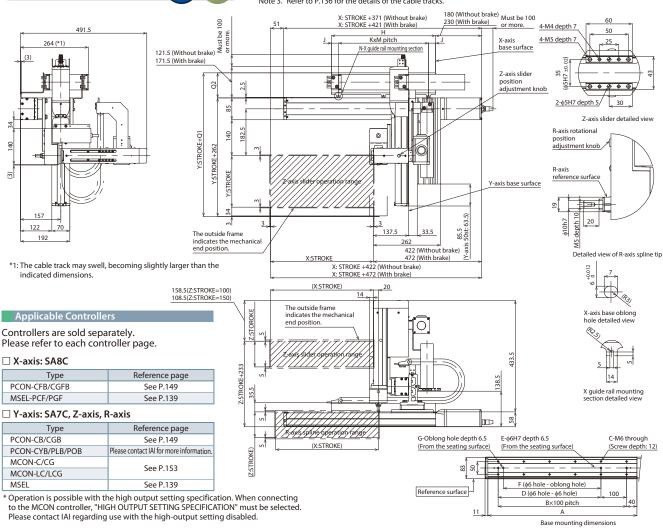
Type	Option code	Reference page
Foot plate	FTP	See P.134

Specifications

CAD drawings can be downloaded from our website. www.intelligentactuator.com



- - 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.136 for the details of the cable tracks



(*) Notes

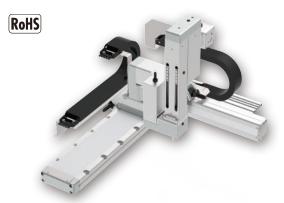
The X-axis cable track guide rail is to be fixed to the surface on which the X-axis is installed by the customer. When the foot plate option is selected, the unit will be shipped fixed on the foot plate. (See P.134)

X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Α	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
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

track size	CT	CTM	CTL	CTXL
Q1	346.5	359.5	372.5	389.5
Q2	84.5	97.5	110.5	127.5

^{*} Dimensions Q1 and Q2 change depending on the size of the cable track.

RCP6 2-axis XYB + ZR unit configurations IK4-P6BBF1 X-axis: WSA14R (side-mounted) Encoder Type — First Axis — Second Axis — Third Axis — Fourth Axis — Controller — (X-axis) ■ Model Specification Items IK4 − P6BBF1 □ □S − WA - - - - - B - - - - PM1 - - - -FŦŢŢŢ Configuration Direction Speed Type Encoder Type Stroke Options Stroke Options Stroke Cable First Second Length Wiring Wiring Controller 5.50mm 1 Refer to Options 10:100mm 15:150mm Refer to Options 18:±180deg. 36L:±360deg. 16:20ped with next page. (Every 50mm) table on the next page. table on the ne Refer to Applicable Controllers table on the MM: X Medium Speed/Y Medium Speed WA: Battery-less Absolute 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to Cable Track table on the next page. next page.



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

MM type: X medium speed/Y medium speed Y-axis stroke (mm) (Every 50mm) (Unit: kg) 400												
■ MM type: X medium	speed/Y medium sp	peed	(Unit: kg)									
	50~300	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. \\

S	troke												
Y-a	xis stroke (mm)		5	0			10	00			1:	50	
Z-a	xis stroke (mm)	10	00	15	50	10	00	1:	50	1	00	1:	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
sstr	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		20	00			2.	50			3(00	
Z-a	xis stroke (mm)	10	00	15	50	10	00	1:	50	10	00	1:	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
=	300	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
s str	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		3:	50			40	00	
Z-a	xis stroke (mm)	10	00	1:	50	10	00	15	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
2	300	0	0	0	0	0	0	0	0
stroke (mm)	350	0	0	0	0	0	0	0	0
oke	400	0	0	0	0	0	0	0	0
s str	450	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0

Cable Length Type Cable code Length										
Cable code	Length									
1L	1m									
3L	3m									
5L	5m									
□L	Specified length (15m max.)									
	Cable code 1L 3L									

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)	CTM	See P.136	0	0							
Cable track L size (inner width: 63mm)	CTL	See P.130	0	0							
Cable track XL size (inner width: 80mm)	CTXL		0	Cannot be selected *1							

^{*1} Only the first wiring can be selected

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.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P 153
MCON-LC/LCG	See P.153
MSEL	See P.126

^{*} 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.

Specifications							
Item	X-axis	Y-axis	Z-axis	R-axis			
Axis configuration	RCP6-WSA14R	RCP6-SA7R	TTPI	<-AZR			
Stroke	50 ~ 800mm (Every 50mm)	50 ~ 400mm (Every 50mm)	100, 150mm	180deg., 360deg.			
Max. speed *1	210mm/s	280mm/s	400mm/s	1,000deg/s *2			
Allowable moment of inertia *2	_			0.01kg·m²			
Motor size	56□ Stepper motor	56□ Stepper motor	42□ Stepper motor	42□ Stepper motor			
Ball screw lead	8mm	8mm	12mm	_			
Drive system	Ball screw φ12mm rolled C10	Ball screw φ12mm rolled C10	Ball screw φ10mm 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 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.137.

Options					
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake	В	See P.134	0	0	Standard equipment *
Slider cover	co	See P.134	Cannot b	e selected	0
Non-motor end specification	NM	See P.135	0	0	0
Slider section roller specification	SR	See P.135	0	0	Cannot be selected

^{*} Be sure to specify.

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

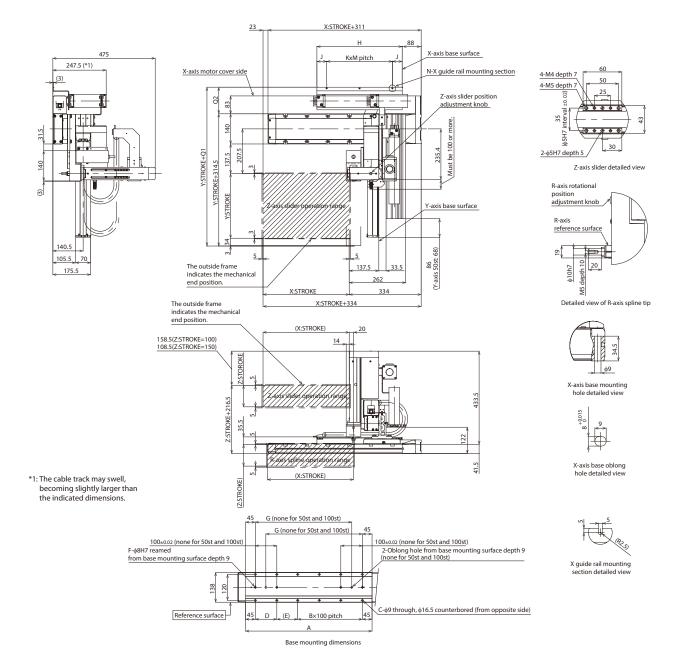
^{*2} Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.138 for more information.

CAD drawings can be downloaded from our website. www.intelligentactuator.com





- 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.136 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.

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
H	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
K	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	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.

RCP6 2-axis XYB + ZR unit configurations IK4-P6BBF2□ X-axis: WSA14C (straight) — Encoder — First Axis — Second Axis — Third Axis — Fourth Axis — Controller — (X-axis) — (X-axis) — (R-axis) ■ Model Type Specification Items **IK4** − **P6BBF2** □ **S** − $\textbf{WA} \ - \ \square \ - \ \square \ - \ \square \textbf{B} \square \ - \ \square \ - \ \textbf{PM1} \ - \ \square \ - \ \square \ - \ \square$ ٦٦٢ First Second Wiring Wiring Configuration Direction Encoder Type Stroke Options Stroke Options Cable Speed Type Stroke Controller Length 5:50mm Refer to plotions 10:100mm Refer to plotions 18:±180deg. Refer to plotions (Every 950mm) 1able on the table on the next page. 1able on the plotic ploting plo MM: X Medium Speed/Y Medium Speed WA: Battery-less Absolute 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5 : 5m □L : □m Refer to Cable Track table on the next page. next page.



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

Payload by Accelerat	ion									
■ MM type: X medium s	■ MM type: X medium speed/Y medium speed (Unit:									
Y-axis stroke (mm) Acceleration/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.

5	troke													
Y-a	xis stroke (mm)		5	60			1	00			150			
Z-a	xis stroke (mm)	1	00	1:	50	1	00	150		100		150		
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	
	50	0	0	0	0	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	0	0	0	0	0	
	200	0	0	0	0	0	0	0	0	0	0	0	0	
	250	0	0	0	0	0	0	0	0	0	0	0	0	
-	300	0	0	0	0	0	0	0	0	0	0	0	0	
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0	
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0	
sstr	450	0	0	0	0	0	0	0	0	0	0	0	0	
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0	
×	550	0	0	0	0	0	0	0	0	0	0	0	0	
	600	0	0	0	0	0	0	0	0	0	0	0	0	
	650	0	0	0	0	0	0	0	0	0	0	0	0	
	700	0	0	0	0	0	0	0	0	0	0	0	0	
	750	0	0	0	0	0	0	0	0	0	0	0	0	
	800	0	0	0	0	0	0	0	0	0	0	0	0	

Y-a	ixis stroke (mm)		20	00			2	50		300			
Z-a	xis stroke (mm)	10	00	15	50	1	00	1:	50	10	00	1:	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
	300	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
s str	450	0	0	0	0	0	0	0	0	0	0	0	0
-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		3.	50		400					
Z-a	xis stroke (mm)	10	00	1:	50	10	00	15	50		
R-axis	operation range (deg.)	±180	±360	±180 ±360		±180	±360	±180	±360		
	50	0	0	0	0	0	0	0	0		
	100	0	0	0	0	0	0	0	0		
	150	0	0	0	0	0	0	0	0		
	200	0	0	0	0	0	0	0	0		
	250	0	0	0	0	0	0	0	0		
_	300 🔾		0	0	0	0	0	0	0		
stroke (mm)	350	0	0	0	0	0	0	0	0		
oke	400	0	0	0	0	0	0	0	0		
str	450	0	0	0	0	0	0	0	0		
X-axis	500	0	0	0	0	0	0	0	0		
×	550	0	0	0	0	0	0	0	0		
	600	0	0	0	0	0	0	0	0		
	650	0	0	0	0	0	0	0	0		
	700	0	0	0	0	0	0	0	0		
	750	0	0	0	0	0	0	0	0		
	800	0	0	0	0	0	0	0	0		

Cable Length

Type	Cable code	Length					
	1L	1m					
Standard	3L	3m					
type	5L	5m					
	□L	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	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)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee F.130	0	0
Cable track XL size (inner width: 80mm)			0	Cannot be selected *1

^{*1} Only the first wiring can be selected

Applicable Controllers

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

☐ X-axis: WSA14C, Y-axis: SA7R, Z-axis, R-axis

	,
Туре	Reference page
PCON-CB/CGB	See P.149
PCON-CYB/PLB/POB	Please contact IAI for more information.
MCON-C/CG	See P.153
MCON-LC/LCG	See P.153
MSEL	See P.139

^{*} 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.

Specifications

Specifications							
ltem	X-axis	Y-axis	Z-axis	R-axis			
Axis configuration	RCP6-WSA14C	RCP6-SA7R	TTPII	K-AZR			
Stroke	50 ~ 800mm (Every 50mm)	50 ~ 400mm (Every 50mm)	100, 150mm	180deg., 360deg.			
Max. speed *1	210mm/s	280mm/s	400mm/s	1,000deg/s *2			
Allowable moment of inertia *2	_			0.01kg·m²			
Manager	56□	56□	42□	42□			
Motor size	Stepper motor	Stepper motor	Stepper motor	Stepper motor			
Ball screw lead	8mm	8mm	12mm	_			
Drive system	Ball screw φ12mm rolled C10	Ball screw φ12mm rolled C10	Ball screw φ10mm 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 maximum speed may not be reached if the travel distance is short or acceleration is low.

Options						
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis	
Brake *	В	See P.134	0	0	Standard equipment *	
Cable exit direction (Top)	CJT	See P.134	0			
Cable exit direction (Right)	CJR	See P.134	0	Cannot b		
Cable exit direction (Left)	CJL	See P.134	0	Carinot b	e selecteu	
Cable exit direction (Bottom)	CJB	See P.134	0			
Slider cover	co	See P.134	Cannot b	e selected	0	
Non-motor end specification	NM	See P.135	0	0	0	
Slider section roller specification	SR	See P.135	0	0	Cannot be selected	

Maximum speed may change depending on the stroke.

For details, refer to the Maximum Speed by Stroke table on P.137.

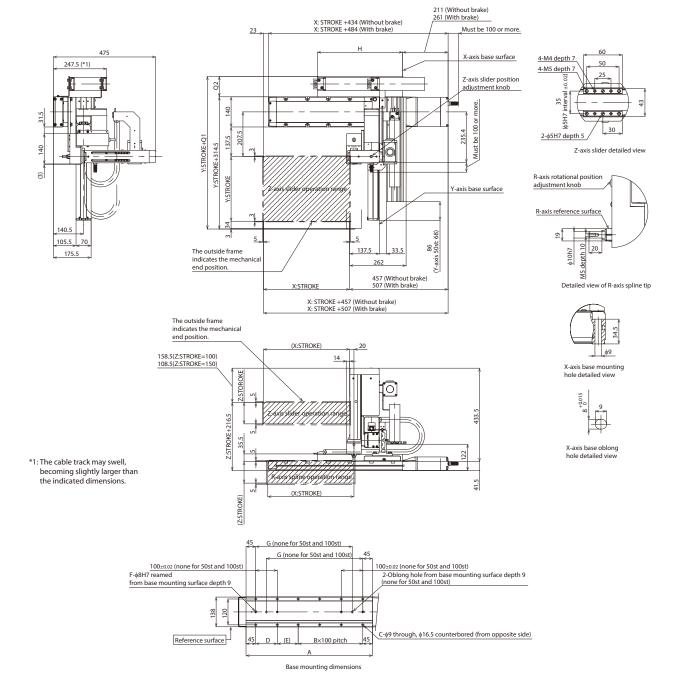
*2 Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia.

Please refer to P.138 for more information.

^{*} Be sure to specify.
* Brake option for X-axis increases the length of the motor unit. Please contact IAI for 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.136 for the details of the cable tracks.



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.

RCP6 2-axis XYB + ZR unit configurations IK4-P6BBF3 X-axis: WSA14C (straight) ____ Encoder ___ First Axis __ Second Axis ___ Third Axis __ Fourth Axis ___ Controller ___ ■ Model Specification Items IK4 − P6BBF3 □ □S − WA \Box - \Box First Second Wiring Wiring FŦŢŢŢ Configuration Direction Speed Type Encoder Type Stroke Options Stroke Options Stroke Controller Length 5:50mm Refer to Options 15:150mm ls:15:150mm Refer to Options 18:±180deg. 36L:±360deg. 36L:±360d Refer to Applicable Controllers table on the MM: X Medium Speed/Y Medium Speed WA: Battery-less Absolute 1 to 4 Refer to Robot Type Descriptions on page 3 1L : 1m 3L : 3m 5L : 5m □L: □m Refer to Cable Track table on the next page. next page.



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

Payload by Accelerat	ion		
■ MM type: X medium s	speed/Y medium sp	peed	(Unit: kg)
Y-axis stroke (mm) Acceleration/ deceleration (G)	50~300 (Every 50mm)	350	400
0.1	5	3	2
0.2	2		

 * 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.

S	troke												
Y-a	xis stroke (mm)		5	0			10	00			1:	50	
Z-a	xis stroke (mm)	10	00	15	50	10	00	1:	50	10	00	1:	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0	0	0	0	0
=	300	0	0	0	0	0	0	0	0	0	0	0	0
(m m)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
sstr	450	0	0	0	0	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0

Y-a	xis stroke (mm)		20	00			2.	50			3(00	
Z-a	xis stroke (mm)	1	00	1:	50	1	00	1:	50	10	00	15	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0	0	0	0	0
İ	250	0	0	0	0	0	0	0	0	0	0	0	0
_	300	0	0	0	0	0	0	0	0	0	0	0	0
(mm)	350	0	0	0	0	0	0	0	0	0	0	0	0
stroke	400	0	0	0	0	0	0	0	0	0	0	0	0
s str	450	0	0	0	0	0	0	0	0	0	0	0	0
-axis	500	0	0	0	0	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0	0	0	0	0



Y-a	axis stroke (mm)		3	50			40	00	
Z-a	axis stroke (mm)	10	00	1:	50	10	00	15	50
R-axis	operation range (deg.)	±180	±360	±180	±360	±180	±360	±180	±360
	50	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0
	200	0	0	0	0	0	0	0	0
	250	0	0	0	0	0	0	0	0
=	300	0	0	0	0	0	0	0	0
stroke (mm)	350	0	0	0	0	0	0	0	0
se	400	0	0	0	0	0	0	0	0
str	450	0	0	0	0	0	0	0	0
X-axis	500	0	0	0	0	0	0	0	0
×	550	0	0	0	0	0	0	0	0
	600	0	0	0	0	0	0	0	0
	650	0	0	0	0	0	0	0	0
	700	0	0	0	0	0	0	0	0
	750	0	0	0	0	0	0	0	0
	800	0	0	0	0	0	0	0	0

Cable Length

Type	Cable code	Length
	1L	1m
Standard	3L	3m
type	5L	5m
	□L	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)	CTM	See P.136	0	0
Cable track L size (inner width: 63mm)	CTL	3ee 7.130	0	0

CTXL

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.149				
PCON-CYB/PLB/POB	Please contact IAI for more information.				
MCON-C/CG	See P.153				
MCON-LC/LCG	3ee F.133				
MSEL	See P.139				

^{*} 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.

Specifications

Specifications						
Item	X-axis	Y-axis	Z-axis	R-axis		
Axis configuration	RCP6-WSA14C	RCP6-SA7C	TTPI	K-AZR		
Stroke	50 ~ 800mm (Every 50mm)	50 ~ 400mm (Every 50mm)	100, 150mm	180deg., 360deg.		
Max. speed *1	210mm/s	280mm/s	400mm/s	1,000deg/s *2		
Allowable moment of inertia *2	0.01kg·m²					
Manager de la	56□	56□	42□	42□		
Motor size	Stepper motor	Stepper motor	Stepper motor	Stepper motor		
Ball screw lead	8mm	8mm	12mm	-		
Drive system	Ball screw φ12mm rolled C10	Ball screw φ12mm rolled C10	Ball screw φ10mm rolled C10	_		
Positioning repeatability	±0.01mm			±0.01 deg.		
Base material	Aluminum					
Ambient operating emperature, humidity 0~40°C, 85% RH or less (non-condensing)						

^{*1} 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.137.

Options					
Туре	Option code	Reference page	X-axis	Y-axis	Z-axis
Brake*	В	See P.134	0	0	Standard equipment *
Cable exit direction (Top)	CJT	See P.134	0		
Cable exit direction (Right)	CJR	See P.134	0	Cannoth	e selected
Cable exit direction (Left)	CJL	See P.134	0	Cannot b	e selected
Cable exit direction (Bottom)	CJB	See P.134	0		
Slider cover	co	See P.134	Cannot b	e selected	0
Non-motor end specification	NM	See P.135	0	0	0
Slider section roller specification	SR	See P.135	0	0	Cannot be selected

Cannot be

selected *1

0

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

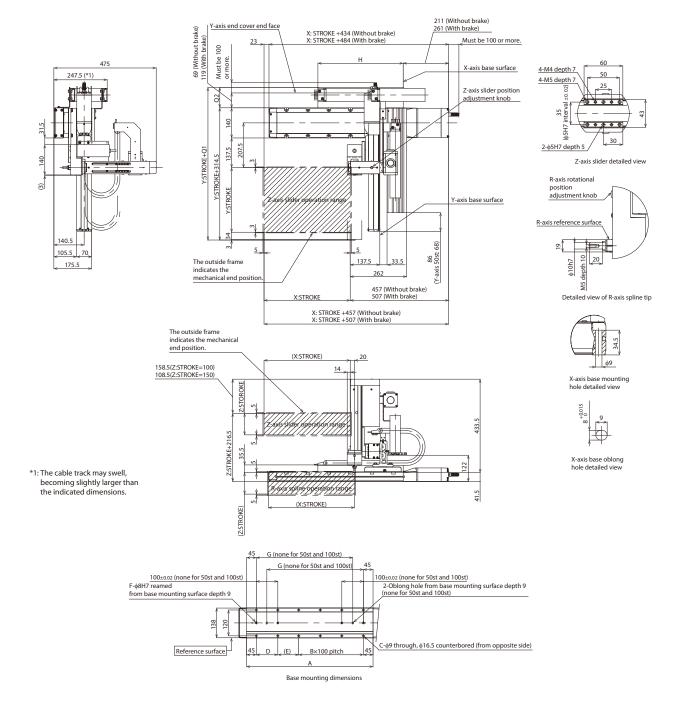
^{*2} Angular velocity and acceleration/deceleration differ depending on allowable moment of inertia. Please refer to P.138 for more information.

^{*} Outside as standard. Be sure to specify.
* Brake option for X- and/or Y-axes increases the length of the motor unit(s). Please contact IAI for more information.

CAD drawings can be downloaded from our website. www.intelligentactuator.com



- 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.136 for the details of the cable tracks.



X: Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Α	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
Ω2	83	95	110	128

^{*} Dimensions Q1 and Q2 change depending on the size of the cable track.

Cartesian Robot Options

Brake

Option Code B

Description This is a holding mechanism that prevents the slider from falling and damaging any attached fittings when the power or servo is turned off. As the Z-axis is designed to be used vertically, a brake will be equipped as a standard feature. For axes other than the Z-axis, please use the brake option as required.

Slider Cover (IK4 dedicated)

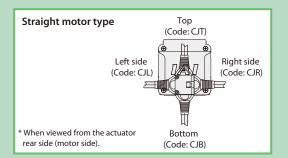
Option Code CO

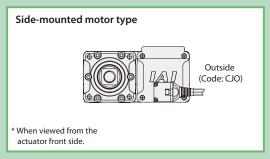
Equips the IK4 (rotational axis specification) with a slider cover for when the Z-axis slider is not in use.

Cable Exit Direction

Option Code CJT / CJR / CJL / CJB / CJO

Description This option allows you to change the exit direction of the motor-encoder cable to top, bottom, left, or right.

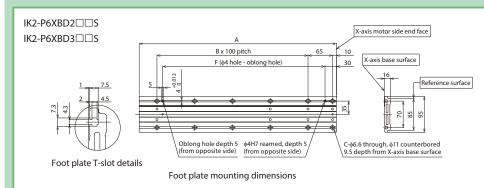




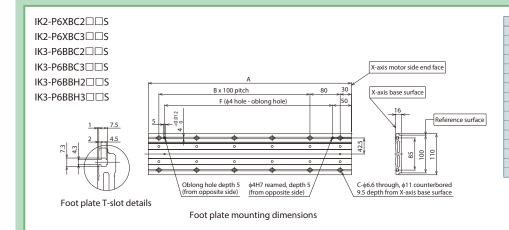
Foot Plate

Option Code FTP

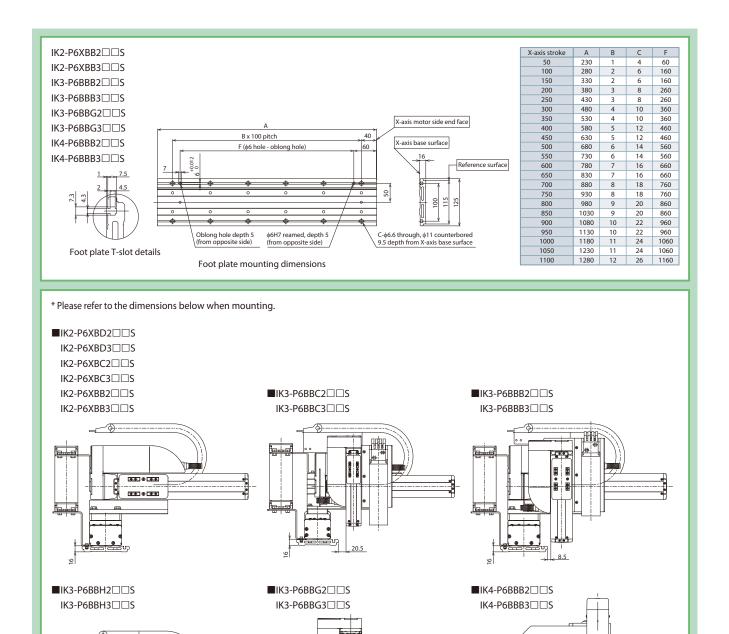
Description X-axis can be installed from the top with this Foot Plate.



X-axis stroke	Α	В	C	F
50	172	0	4	30
100	222	1	6	130
150	272	1	6	130
200	322	2	8	230
250	372	2	8	230
300	422	3	10	330
350	472	3	10	330
400	522	4	12	430
450	572	4	12	430
500	622	5	14	530
550	672	5	14	530
600	722	6	16	630
650	772	6	16	630
700	822	7	18	730
750	872	7	18	730
800	922	8	20	830



X-axis stroke	Α	В	C	F
50	188	0	4	45
100	238	1	6	145
150	288	1	6	145
200	338	2	8	245
250	388	2	8	245
300	438	3	10	345
350	488	3	10	345
400	538	4	12	445
450	588	4	12	445
500	638	5	14	545
550	688	5	14	545
600	738	6	16	645
650	788	6	16	645
700	838	7	18	745
750	888	7	18	745
800	938	8	20	845



Non-motor End Specification

Option Code

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

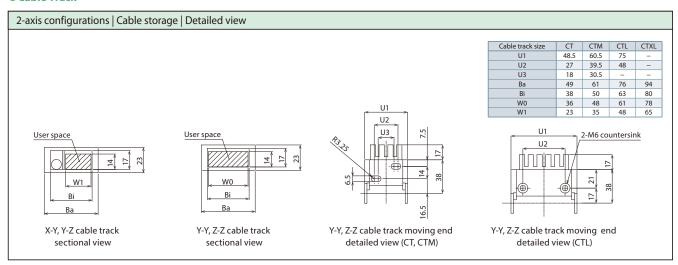
Option Code SR

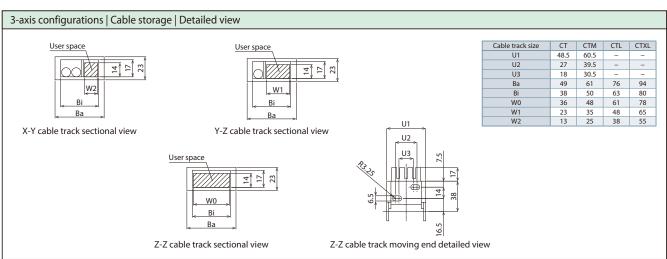
Description The slider of the standard slider type specification is changed to the same roller structure as the cleanroom type. When using the slider roller spec., the appearance and dimensions of the slider cover will be the same as the cleanroom type.

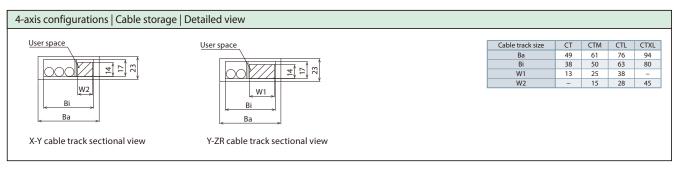
Changing to roller specification will make the external view and dimensions of the slider cover the same as the cleanroom type.

IAI

Cable Track







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

(Unit: mm/s)

Stroke	50~750	800
Speed type	(Every 50mm)	(mm)
SS	640	575

- IK2-P6XBC1□□S X-axis: SA7R
- IK2-P6XBC2□□S X-axis: SA7C
- IK2-P6XBC3□□S X-axis: SA7C

(Unit: mm/s)

Stroke Speed type	50~700 (Every 50mm)	750 (mm)	800 (mm)
MM	280	275	245
НН	56	50	500
SS	640		

- IK2-P6XBB1□□S X-axis: SA8R
- IK2-P6XBB2□□S X-axis: SA8C
- IK2-P6XBB3□□S X-axis: SA8C

(Unit: mm/s)

Stroke Speed type	50~900 (Every 50mm)	950 (mm)	1000 (mm)	1050 (mm)	1100 (mm)
MM	300	285	260	235	220
HH			400		
SS			650		

- IK2-P6XBE1□□S X-axis: WSA16R
- IK2-P6XBE2□□S X-axis: WSA16C
- IK2-P6XBE3□□S X-axis: WSA16C

(Unit: mm/s)

Stroke Speed type	50~1050 (Every 50mm)	1100 (mm)	
MH	210	205	
HH	365		

- IK2-P6YBD1□□S Y-axis: SA6R
- IK2-P6YBD2□□S Y-axis: SA6C
- IK2-P6YBD3□□S Y-axis: SA6C

(Unit: mm/s)

Stroke Speed type	50~650 (Every 50mm)	700 (mm)	750 (mm)	800 (mm)
SM	900	725	650	E7E
SH	800	735	650	575

- IK2-P6YBI1□□S Y-axis: SA6R
- IK2-P6YBI2□□S Y-axis: SA6C
- IK2-P6YBI3□□S Y-axis: SA6C

(Unit: mm/s)

Stroke	50~650	700	750	800
Speed type	(Every 50mm)	(mm)	(mm)	(mm)
SH	800	735	650	575

■ IK3-P6BBE1□□S X-axis: WSA16R

■ IK3-P6BBE2□□S X-axis: WSA16C

■ IK3-P6BBE3□□S X-axis: WSA16C

(Unit: mm/s)

Stroke Speed Type	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

■ IK4-P6BBB3□□S X-axis: SA8C

(Unit: mm/s)

Stroke	30 12 900	950	1000	1050	1100
Speed Type	(Every 50mm)	(mm)	(mm)	(mm)	(mm)
MM	300	285	260	235	220

R-Axis Allowable Moment of Inertia, and Angular Velocity and Angular Acceleration/Deceleration

R-axis allowable moment of inertia	Set angular velocity	Set acceleration/deceleration
0.010kg⋅m²	300 deg/s	0.10 G (1,000 deg/s²)
0.008kg·m²	400 deg/s	0.18 G (1,778 deg/s²)
0.006kg·m²	500 deg/s	0.28 G (2,778 deg/s²)
0.005kg·m²	600 deg/s	
0.004kg·m²	800 deg/s	0.30 G (2,940 deg/s²)
0.003kg·m² or less	1,000deg/s	

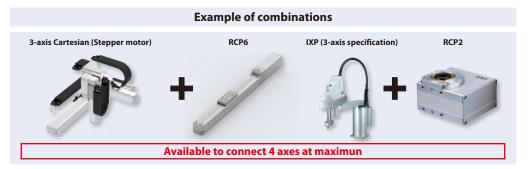


RCP6/RCP5/RCP4/RCP3/RCP2 **Program Controller**

Features

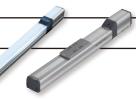
Control maximum of 4 axes available with stepper motor mounted ROBO Cylinder

It is also available for interpolation operation, widening the range of possible applications



Available to connect ROBO Cylinders RCP6/RCP5/RCP4

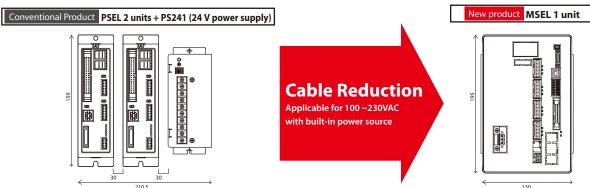
By applying PowerCON, it is now possible to perform interpolation operation with ROBO Cylinders RCP6/RCP5/RCP4, which are applicable for high-output driver, but were not feasible with the program controller PSEL in the past.



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.

In 4-axis controlling of actuator



Equipped with expansion I/O slot

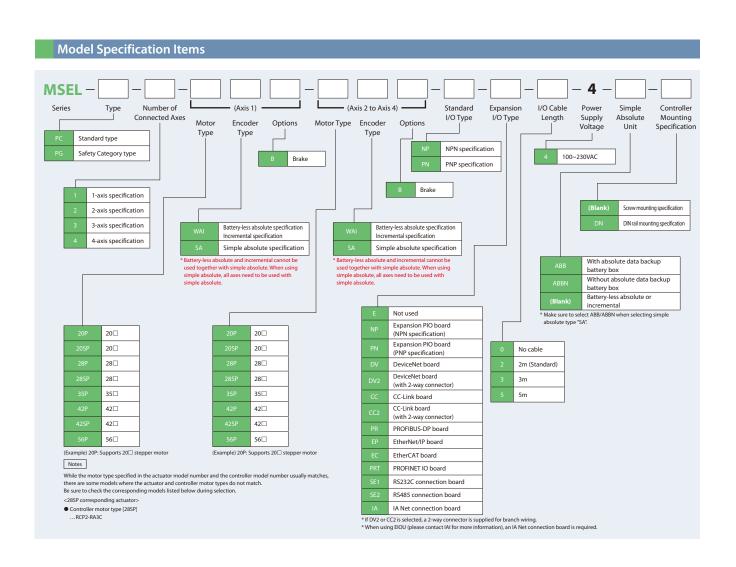
In addition to standard IO (IN 16 points / OUT 16 points), one slot is available as the expansion I/O slot. The expansion I/O is available to select from either a PIO (IN 16 points / OUT 16 points) or one of the various available communication boards.



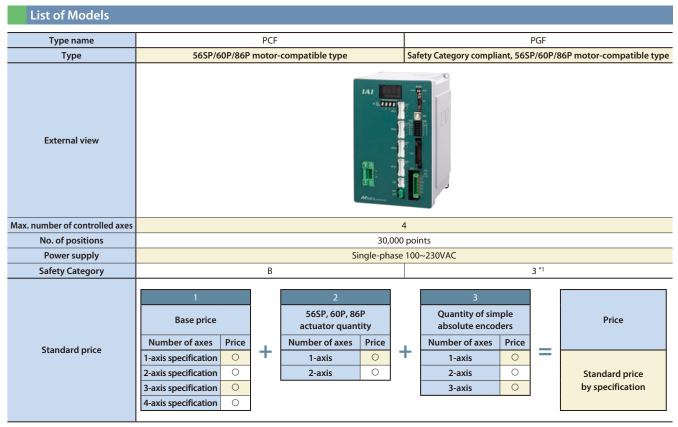
Program controller available for operation of RCP6/RCP5/RCP4/RCP3/RCP2 series actuator. A single unit can handle various forms of control.

Type name		PC	PG	
Туре		Standard type	Safety Category type	
External view		IAI THE STATE OF T		
Max. number of controlled axes		4		
No. of positions		30,000 points		
Power supply		Single-phase 100~230VAC		
Safety Category		В	3 *1	
Battery-less absolute	Rattery-less absolute 1-axis			
Incremental 2-axis		C		
	3-axis	C		
Simple absolute	4-axis	C		

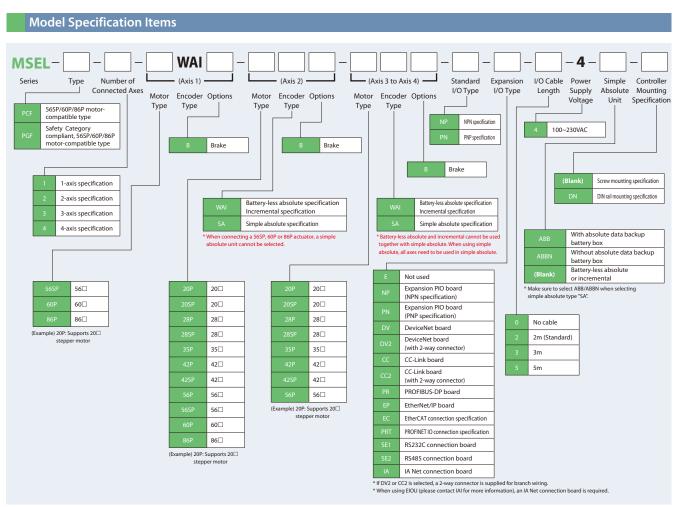
^{*1:} To comply with the safety category, the customer will need to install a safety circuit external to the controller.



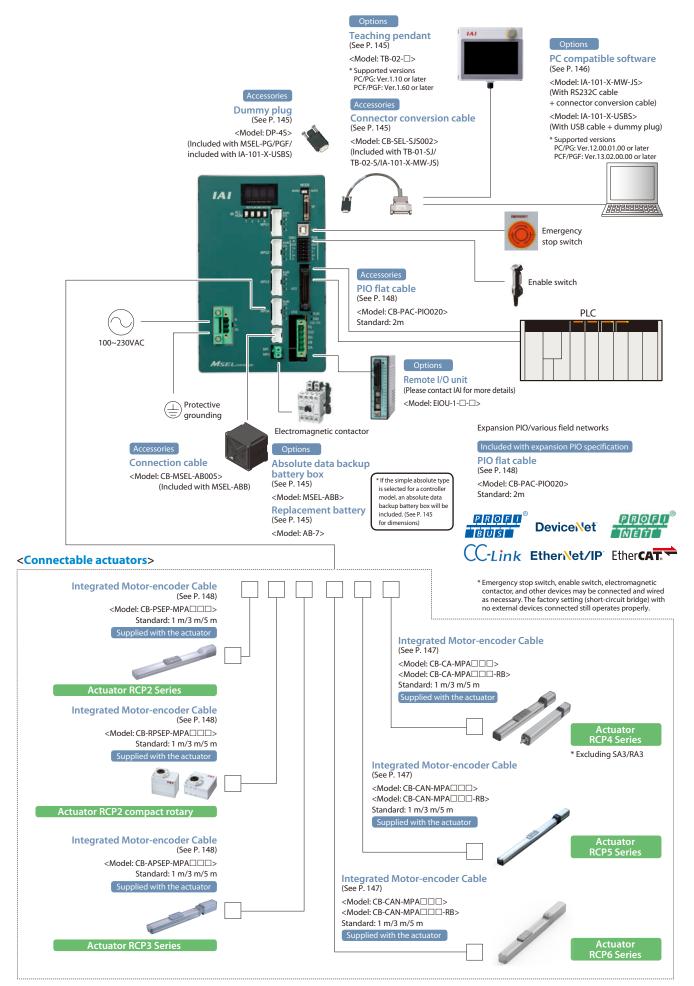
When connecting an actuator with the motor type 56SP, 60P, or 86P.



^{*1:} To comply with the safety category, the customer will need to install a safety circuit external to the controller.







Basic Controller Specifications

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			Stepper motor (servo control)		
Supported encoders			Incremental Encoder/Battery-Less Absolute Encoder		
Data storage device			FlashROM/FRAM		
Number of program steps			9,999		
Number of positions			30,000		
Number of programs			255		
Number of multi-tasks			16		
Serial communication			0		
Operation mode	Program		0		
SIO interface	Communication method		RS232 (asynchronous communication)		
	Baud rate		9.6, 19.2, 38.4, 57.6, 76.8, 115.2kbps		
	Live wire	TP port	х		
	connection	USB	0		
		Number of input points	16 points		
		Input voltage	24VDC ± 10%		
	Input specification	Input current	7mA/circuit		
		ON voltage	Min.16VDC		
		OFF voltage	Max.5VDC		
Standard PIO interface		Leak current	Allowable leak current: 1mA max.		
		Isolation method	Photocoupler insulation		
	Output specification	Number of output	16 points		
		Load voltage	24VDC ± 10%		
		Max. current	100mA/1 point, 400mA/8 points (Note 1)		
		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)		
77			CC-Link (remote device station), DeviceNet, PROFIBUS-DP, PROFINET IO, EtherCAT, EtherNet/IP, IA Net, 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 method		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			Approx. 1400g		
Note 1: The total load current is 400mA for eve	ry eight points from	standard I/O No. 316. (Th	ne maximum current per point is 100mA.)		

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 Layouts for Standard PIO Connector/Expansion PIO Connector

Pin No.	Category	Assignment	Pin No.	Category	Assignment
1A	24V 24V	P24	1B		OUT0
2A		P24	2B		OUT1
3A		-	3B		OUT2
4A	-	-	4B		OUT3
5A	Input	IN0	5B	Output	OUT4
6A		IN1	6B		OUT5
7A		IN2	7B		OUT6
8A		IN3	8B		OUT7
9A		IN4	9B		OUT8
10A		IN5	10B		OUT9
11A		IN6	11B		OUT10
12A		IN7	12B		OUT11
13A		IN8	13B		OUT12
14A		IN9	14B		OUT13
15A		IN10	15B		OUT14
16A		IN11	16B		OUT15
17A		IN12	17B	-	-
18A		IN13	18B	-	-
19A		IN14	19B	0V	N
20A		IN15	20B	0V	N

Standard I/O (NPN Specification) Internal Circuit

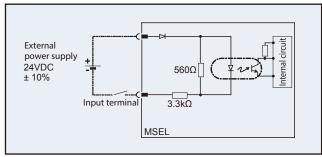


[Input] External input specification (NPN specification)

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.

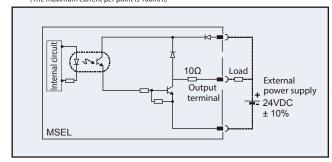


^{*} Please refer to the instruction manual for standard I/O (PNP specification).

[Output] External output specification (NPN specification)

ltem	Specification		
Load voltage	24VDC ±10%	TD62084	
Maximum load current	100mA/1 point, 400mA/8 points (Note)	(equivalent) used	
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

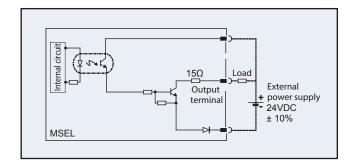
[Input] External input specification

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				

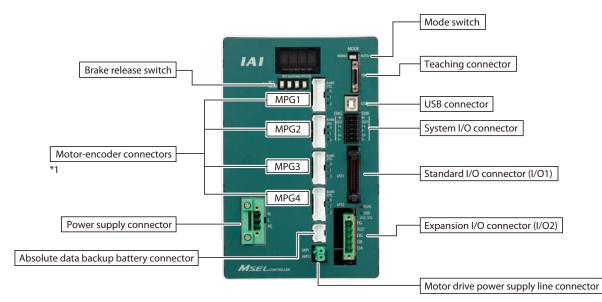
External power supply 24VDC 5.6kΩ ± 10% Input terminal circuit MSEL

[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

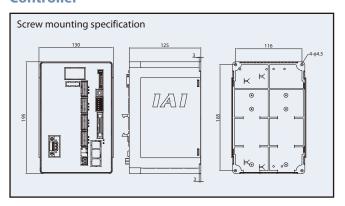


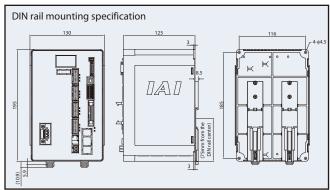
Name of Each Component



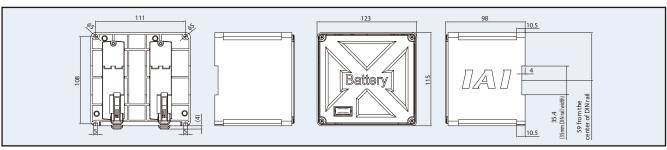
^{*1:} Do not connect a motor to the wrong MPG1, MPG2, MPG3, or MPG4 connector. This may lead to malfunction or failure.

Controller





Absolute data backup battery box



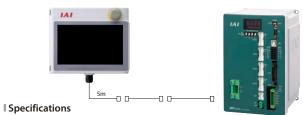
Options

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)

Dummy plug

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

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



Absolute data backup battery box

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 P. 145





for the absolute data backup battery box.

Model AB-7



^{*} The number of required absolute batteries is the same as the number of axes.

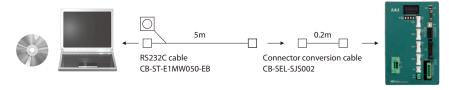


PC compatible software (Windows only)

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.

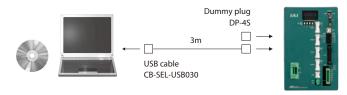
IA-101-X-MW-JS (With RS232C cable + connector conversion cable) Model

| Configuration

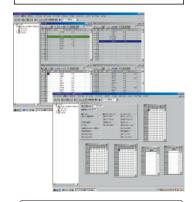


■ Model IA-101-X-USBS (With USB cable + dummy plug)

| Configuration



Compatible with Windows XP SP2 or later/Vista/7/8



MSEL-PC/PG is supported by Ver.12.00.01.00 or later.

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.)

Maintenance Parts

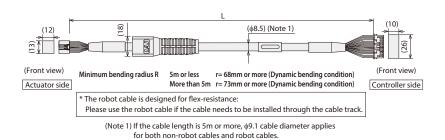
When placing an order for a replacement cable, please use the model name shown below. (* For connectable actuators, please contact IAI for more information.)

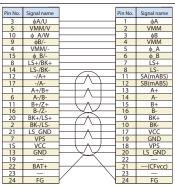
■ Table of compatible cables

		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□□□-RB		
2	RCP4	SA3/RA3/GR				
3	RCP6/RCP6CR RCP5 RCP5 RCP5W 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))	CB-CA-MPA□□□	CB-CA-MPA□□-RB		
(5)	RCP4	RA6C (High thrust specification)	CB-CFA2-MPA□□□	CB-CFA2-MPA□□□-RB		
6	RCP4W	RA7C (High thrust specification)	CD-CI AZ-IVII ALI LI	CD-CI AZ-IVII ALI LI -IID		
7		RCP3				
8	RCP2	GRSS/GRLS/GRST/GRHM/GRHB/SRA4R/ SRGS4R/SRGD4R	_	CB-APSEP-MPA□□□		
9		RTBS/RTBSL RTCS/RTCSL	-			
10		GRS/GRM GR3SS/GR3SM				
11)	RCP2CR RCP2W	RTBS/RTBSL RTCS/RTCSL/RTB/RTBL/RTC/RTCL/RTBB/ RTBBL/RTCB/RTCBL	CB-CAN-MPA□□□	CB-CAN-MPA□□□-RB		
12	RCP2 RCP2CR RCP2W	RA10/HS8 RA8	CB-CFA-MPA□□□	CB-CFA-MPA□□□-RB		
13	RCP2W	SA16C				
14)	(/)	RCP2 Models other than (8)~(13))	-	CB-PSEP-MPA□□□		

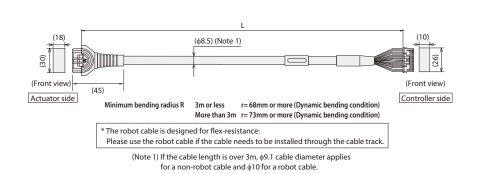
	Model name	PIO flat cable				
15)	PCON-CB-CGB/CFB-CGFB	CB-PAC-PIO□□□				

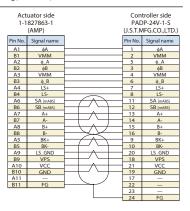
* Please indicate the cable length (L) in □□□, e.g.) 080 = 8m, maximum 20m



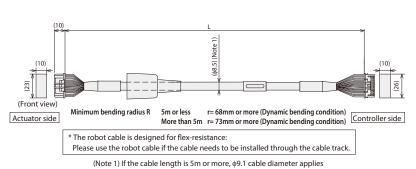


* Please indicate the cable length (L) in $\square\square\square$, e.g.) 080 = 8m, maximum 20m





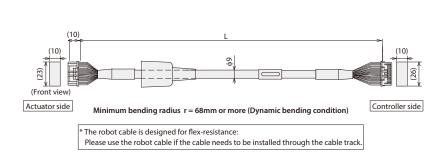
* Please indicate the cable length (L) in $\square\square\square$, e.g.) 080 = 8m, maximum 20m



1-1	uator side 827863-1 (AMP)		PAE	troller side P-24V-1-S IFG.CO.,LTD.)
Pin No.	Signal name		Pin No.	Signal name
A1	φА		1	φA
B1	VMM		2	VMM
A2	φ_Α		- 5	φ_A
B2	φВ		3	φВ
A3	VMM		4	VMM
B3	φ_B		6	ф_В
A4	LS+		7	LS+
B4	LS-	_	8	LS-
A6	_	-	11	_
B6	_	+-	12	_
A7	A+	\vdash	13	A+
B7	A-	+-	14	A-
A8	B+	\vdash \land \vdash	15	B+
B8	B-		16	B-
A5	BK+	-	9	BK+
B5	BK-	+-	10	BK-
A9	LS_GND	\vdash	20	LS_GND
B9	VPS	+-	18	VPS
A10	VCC	\vdash	17	VCC
B10	GND	++	19	GND
A11	_		21	_
B11	FG	\vdash	22	_
		'	23	_
			24	FG

for a non-robot cable and $\phi 10$ for a robot cable.

* Please indicate the cable length (L) in $\square\square\square$, e.g.) 080 = 8m, maximum 20m

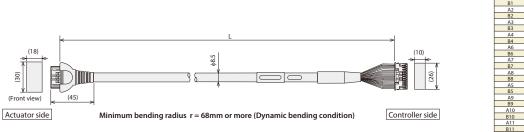


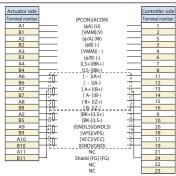
Actuator side Controller side								
1-1827	863-1(AMP)	PAI	S (J.S.T.MFG.CO.,L	TE				
Pin No.	Signal name		Pin No.	Signal name	1			
A1	φА		1	φA	1			
B1	VMM		2	VMM	1			
A2	φ_A		- 5	φ_A]			
B2	φB		- 3	φB				
A3	VMM		4	VMM]			
B3	ф_В		6	φ_B				
A4	LS+		7	LS+				
B4	LS-		- 8	LS-				
A6	_	-	- 11	_]			
B6		H - H	12	_				
A7	A+	\vdash	13	A+				
B7	A-	+-	14	A-				
A8	B+	$\vdash \land \vdash$	15	B+]			
B8	B-		16	B-				
A5	BK+	-	9	BK+				
B5	BK-	$H \rightarrow H$	10	BK-				
A9	LS_GND	\vdash	20	LS_GND]			
B9	VPS	+-	18	VPS	1			
A10	VCC	+	21	VCC				
B10	GND	+-	19	GND				
A11	_		17	_				
B11	FG		22					
			23					
			24	FG	1			



Model: CB-APSEP-MPA

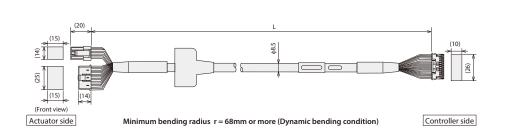
- * Please indicate the cable length (L) in $\square\square\square$,

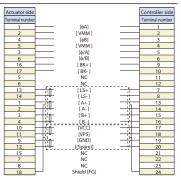




$\textbf{Model: CB-PSEP-MPA} \ \square \ \square * \textbf{Only the robot cable is available for this model}.$

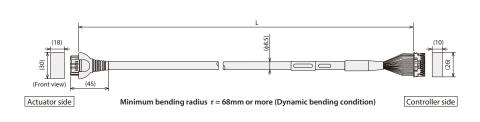
* Please indicate the cable length (L) in $\Box\Box\Box$, e.g.) 080 = 8m, maximum 20m

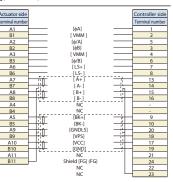




Model: CB-RPSEP-MPA * Only the robot cable is available for this model.

* Please indicate the cable length (L) in $\Box\Box\Box$, e.g.) 080 = 8m, maximum 20m





MSEL/PCON-CA/MSEP-LC PIO flat cable

Model: CB-PAC-PIO

* Please indicate the cable length (L) in $\Box\Box\Box$, e.g.) 080 = 8m, maximum 10m

	L S
No connector	® A20 88 B20
No connector	B A20 BB1 Half-pitch MIL socket: HIF6-40D-1. 27R (Hirose)

HIF6-	40D-1.2	7R								
No.	Signal name	Cable color	Wiring	No.	Signal name	Cable color	Wiring			
A1	24V	Brown-1		B1	OUT0	Brown-3				
A2	24V	Red-1]	B2	OUT1	Red-3				
A3		Orange-1	1	B3	OUT2	Orange-3				
A4	_	Yellow-1]	B4	OUT3	Yellow-3				
A5	IN0	Green-1	1	B5	OUT4	Green-3				
A6	IN1	Blue-1]	B6	OUT5	Blue-3				
A7	IN2	Purple-1]	B7	OUT6	Purple-3				
A8	IN3	Gray-1		B8	OUT7	Gray-3				
A9	IN4	White-1	Flat cable (A)	B9	OUT8	White-3	Flat cable ®			
A10	IN5	Black-1	(pressure-welded)	B10	OUT9	Black-3	(pressure-welded)			
A11	IN6	Brown-2	AWG28	OUT10	Brown-4	AWG28				
A12	IN7	Red-2		OUT11	Red-4	AWG20				
A13	IN8	Orange-2		B13	OUT12	Orange-4				
A14	IN9	Yellow-2		B14	OUT13	Yellow-4				
A15	IN10	Green-2		B15	OUT14	Green-4				
A16	IN11	Blue-2		B16	OUT15	Blue-4				
A17	IN12	Purple-2		B17		Purple-4				
A18	IN13	Gray-2]	B18	_	Gray-4				
A19	IN14	White-2]	B19	0V	White-4				
A20	IN15	Black-2		B20	0V	Black-4				

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 8,192 pulses/rev.



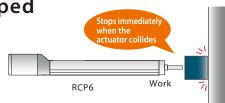
PowerCON Equipped

PowerCON (high-output driver) which can enable the stepper motor to perform at its maximum capacity is now installed. By using PowerCON, the output of the stepper 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.

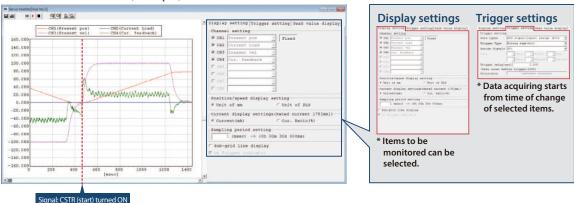
The actuator stops without crashing, so that damage to the actuator can be minimized.



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.

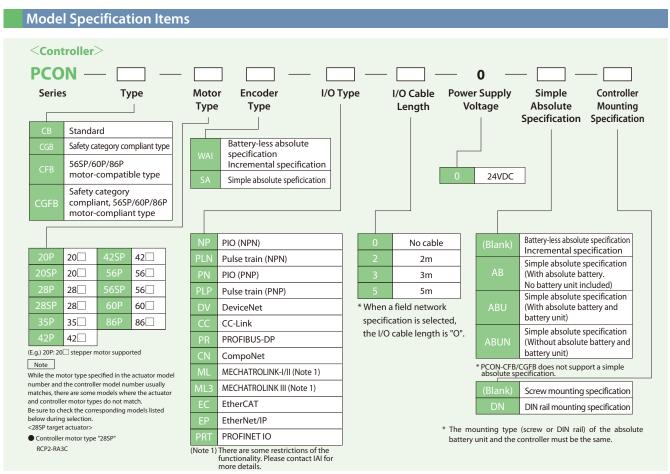
Monitor function screen (example)

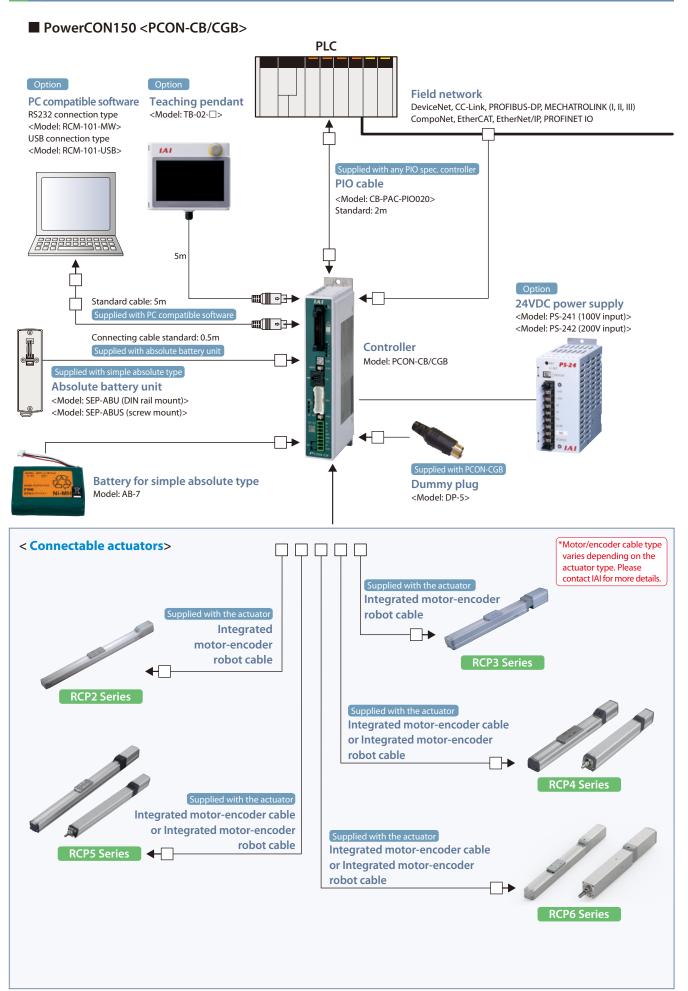




М	odel nu	umber					PCON-C	B/CGB, CF	B/CGFB				
E	xternal	view											
	I/O type							Field	l network	type			
				Pulse- train type	DeviceNet*	CC-Link	PROFT®	CompoNet	MECHATROLINK	MECHATROUNK	Ether CAT.	Ethern\et/IP	PROFII®
					DeviceNet	CC-Link	PROFIBUS- DP	CompoNet	MECHATROLINK I,II*1	MECHATROLINK III*1	EtherCAT	EtherNet/IP	PROFINET IO
I/O typ	e mod	el number	NP/PN	PLN/PLP	DV	CC	PR	CN	ML	ML3	EC	EP	PRT
	Battery-le specificat Incremen	ess absolute tion tal specification	0	0	0	0	0	0	0	0	0	0	0
PCON- CB/CGB	Cinnella	With absolute battery	0	0	0	0	0	0	0	0	0	0	0
CD/CGD	Simple absolute spec.	With absolute battery unit	0	_	0	0	0	0	0	0	0	0	0
	-	Without absolute battery	0	-	0	0	0	0	0	0	0	0	0
PCON- CFB/CGFB	specificat	ss absolute ion tal specification	0	_	0	0	0	0	0	0	0	0	0

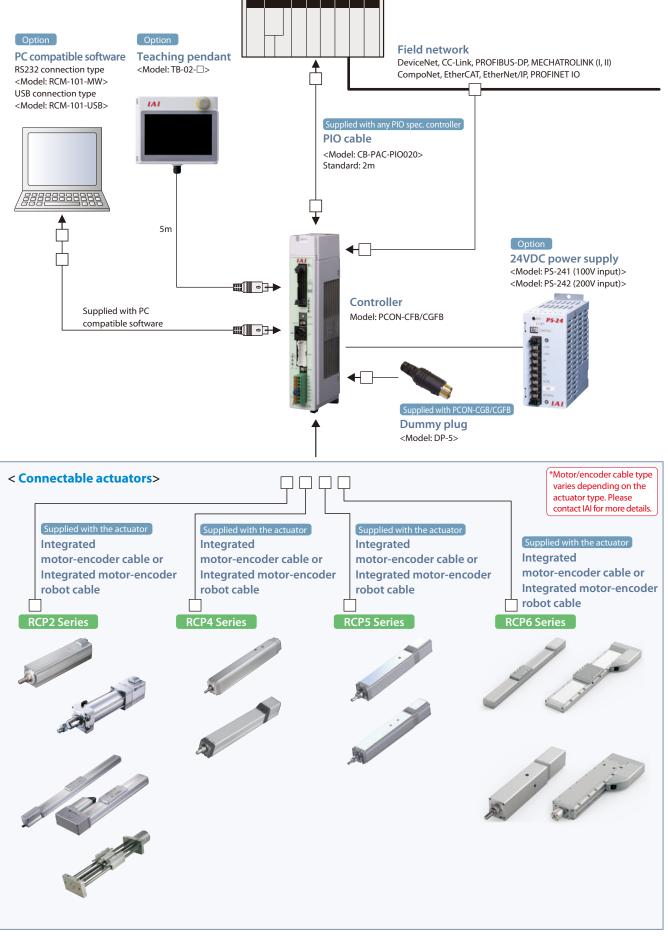
^{*1}MECHATROLINK I/II is treated as an Intelligent I/O and supports only asynchronous commands. MECHATROLINK III is compatible with standard servo profiles.







■ 56SP/60P/86P Motor Compatible < PCON-CFB/CGFB>



MCON-C/CG

CON Series Position Controller 8-axis type



MCON-LC/LCG CON Series Position Controller PLC function equip

PLC function equipped type



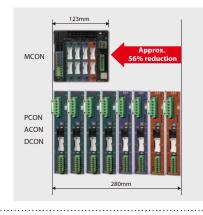
Features

MCON-C/CG, MCON-LC/LCG Common

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



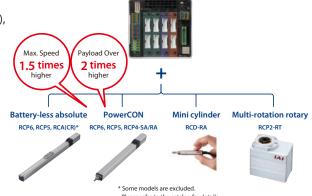
Accommodates a wide range of actuators

It corresponds to actuators with battery-less absolute encoders, ultra-compact minicylinders, 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 stepper motor
- (2) Simple absolute driver board for stepper 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 AC servo motor
- (6) Simple absolute driver boards for AC servo motor
- (7) Incremental driver boards for brush-less DC 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 AC servo motor)

· The optimum gain is set according to the payload.

Vibration control function (For AC servo motor)

· 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.

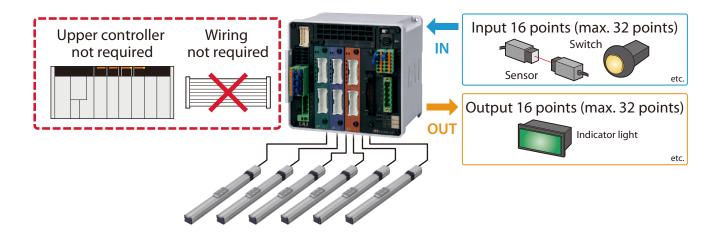
* Some functions cannot be used, depending on the network. Please refer to the instruction manual.



PLC function added

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.

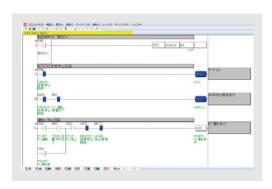
The editing software "LC-LADDER" can be used to easily write, monitor and debug ladder programs.

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.).

Debug function

Run the program under the specified conditions to check the operation of the program.



Monitoring

The state when the program is run can be checked by respective functions.

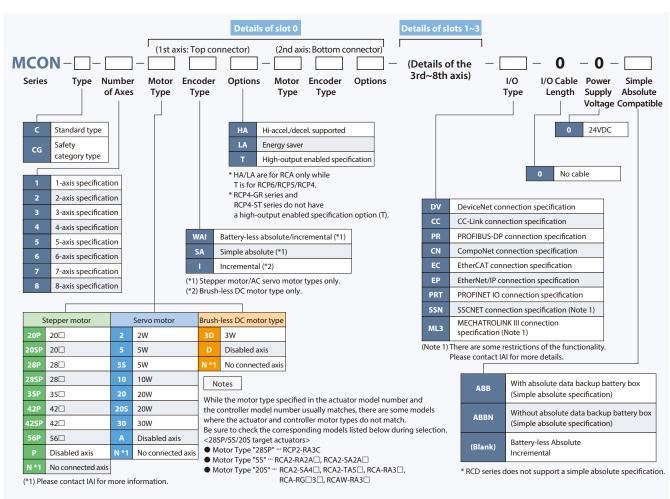
Simulation

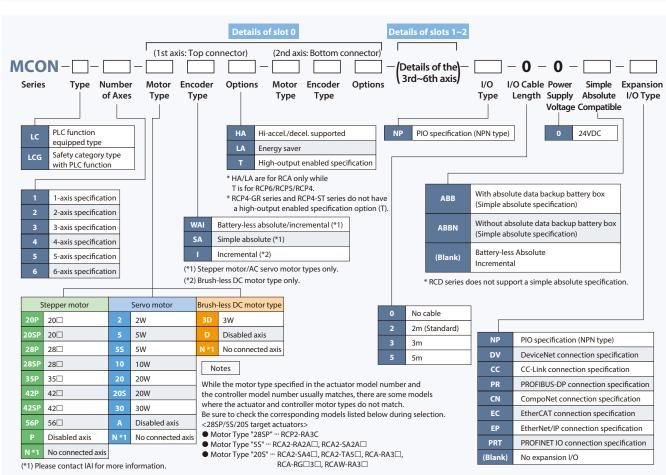
You can check the program on a PC (test run) without operating it on the controller.



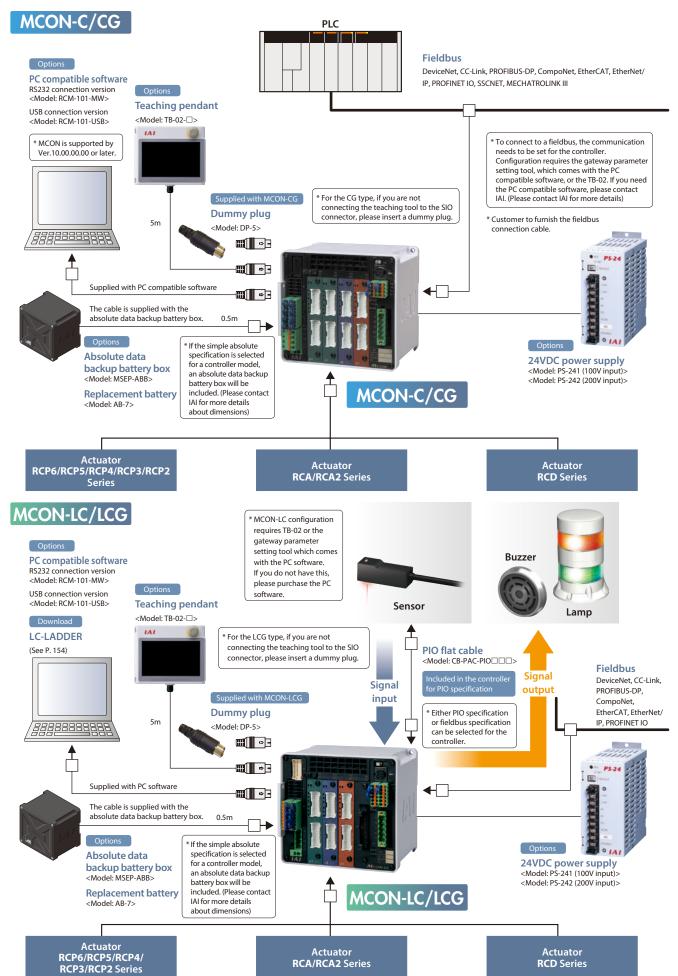
* LC ladder can be downloaded for free here:

www.intelligentactuator.com/welcome-to-our-members-area/









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.

Base price by type

Select a standard type controller (MCON-C/CG) or PLC function equipped type (MCON-LC/LCG).

2 Slot model price

+

Add the price of the slot models specified in the $0\sim3$ slots.

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	0			
Safety Category type	MCON-CG	0			
PLC function equipped type	MCON-LC	0			
Safety Category type with PLC function	MCON-LCG	0			

2					
Slot model price (Add the total amount of slots to be used)					
Details of slot		Model Specification Items	Price		
Stepper motor	1-axis	Battery-less Absolute/ Incremental (For PowerCON)	□PWAIT-N	0	
		Simple absolute (For PowerCON)	□PSAT-N	0	
		Battery-less Absolute/ Incremental (For standard)	□PWAI-N	0	
		Simple absolute (For standard)	□PSA-N	0	
	2-axis	Simple absolute (For standard) + Simple absolute	□PSA-□PSA	0	
		(For standard) Battery-less absolute/ Incremental (For standard) + Battery-less abs./ Incremental (For standard)	□PWAI-□PWAI	0	
AC servo motor	axis	Battery-less Absolute/ Incremental (For standard)	□WAI-N	0	
	1-2	Simple absolute (For standard)	□SA-N	0	
	-axis	Battery-less absolute/ Incremental (For standard) + Battery-less abs./ Incremental (For standard)	□WAI-□WAI	0	
	(V	Simple absolute (For standard) + Simple absolute (For standard)	□SA-□SA	0	
Brush-less DC motor	1-axis	Incremental (For standard)	3DI-N	0	
	2-axis	Incremental (For standard) + Incremental (For standard)	3DI-3DI	0	

3				
Quantity of si absolute enc	ntity of simple blute 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			

4 Quantity of batteries for simple absolute encoders

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 batteries for simple absolute encoders Number Price of axes 0 1-axis 2-axis 0 \circ 3-axis 0 4-axis 0 5-axis 0 6-axis 0 7-axis 0 8-axis

I/O type (NP is only available for the PLC function equipped types.) Model Specification Price Type Items PIO specification (NPN specification) NP 0 DeviceNet 0 connection specification CC-Link 0 connection CC specification PROFIBUS-DP PR 0 connection specification CompoNet 0 CN connection specification EtherCAT 0 connection EC specification EtherNet/IP connection ΕP 0 specification **PROFINET IO** connection PRT 0 specification SSCNET 0 connection SSN specification MECHATROLINK III 0 ML3 connection specification

6 Expansion I/O type (PLC function equipped type only) Model Specification Price Type Items PIO specification (NPN specification) NP 0 DeviceNet 0 connection specification CC-Link connection CC 0 specification PROFIBUS-DP PR 0 connection specification CompoNet 0 CN connection specification EtherCAT EC 0 connection specification EtherNet/IP connection ΕP 0 specification PROFINET IO connection **PRT** 0 specification

+

Price Standard price by specification

^{*} No need to add 3 and 4 for the battery-less absolute type.

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IAI America, Inc.

 Headquarters: 2690 W. 237th Street, Torrance, CA 90505
 (800) 736-1712

 Chicago Office: 110 E. State Pkwy, Schaumburg, IL 60173
 (800) 944-0333

 Atlanta Office: 1220 Kennestone Circle, Suite 108, Marietta, GA 30066
 (888) 354-9470

www.intelligentactuator.com

The information contained in this product brochure may change without prior notice due to product improvements. Please contact IAI for latest information.

IAI Industrieroboter GmbH

Ober der Röth 4, D-65824 Schwalbach am Taunus, Germany

IAI (Shanghai) Co., Ltd.

Shanghai Jiahua Business Center A8-303, 808, Hongqiao Rd., Shanghai 200030, China

IAI Robot (Thailand) Co., Ltd.

825 Phairojkijja Tower 12th Floor, Bangna-Trad RD., Bangna, Bangna, Bangkok 10260, Thailand