PCON-CB/CFB

The Position Controllers for RCP6/RCP5/RCP4 (PowerCon Type)
Position Controller for RCP3/RCP2

Features

1 High resolution Battery-less Absolute Encoder type

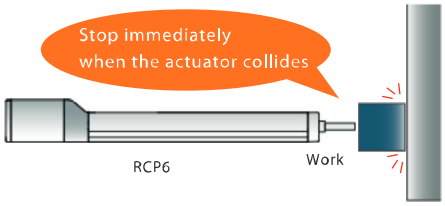
The RCP6 equipped with a high-resolution battery-less absolute encoder is supported. Since no battery is needed to retain position data, less space is required in the control panel, which in turn leads to lower cost of your equipment. The resolution is increased from 800 pulses /rev to 8192 pulses/rev.

2 PowerCon Equipped

PowerCon (high-output driver) which can enable the stepper motor to perform at its maximum capacity is now installed. By using PowerCon, the output of the pulse motor is increased by 50%. It contributes to cycle time reduction and productivity improvement.

3 Collision Detection Function Equipped

This function stops the operation immediately when the actuator comes into contact with an object.
The actuator stops without crashing, so that damage to the actuator can be minimized.



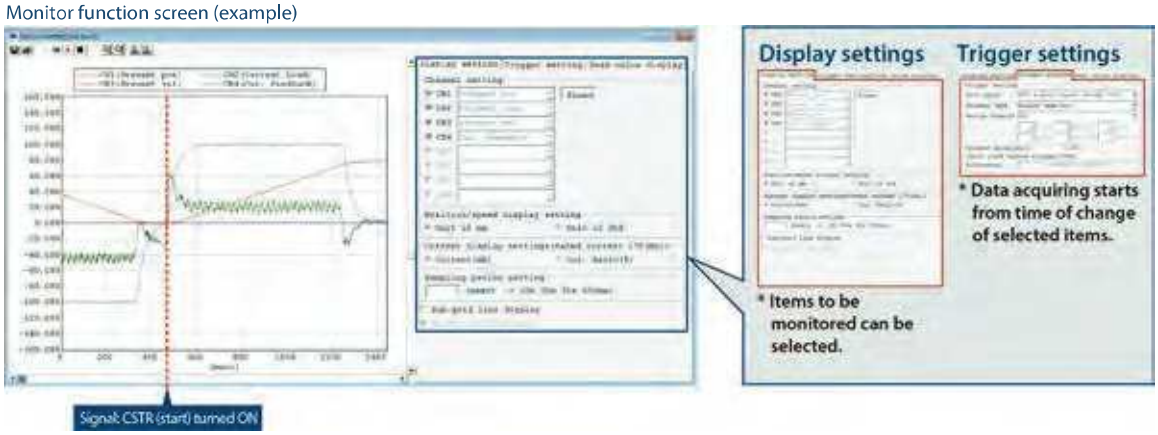
4 Enhanced Monitor Functions

The PC dedicated 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)



List of Models

Model number			PCON-CB•CGB/CFB•CGFB									
External view												
I / O type			Positioner type	Pulse-train type	Field network type							
					DeviceNet	CC-Link	CC-Link IE Field connection specification	PROFIBUSDP	CompoNet	–	–	EtherCAT	EtherNet/IP	PROFINET IO
I/O type model number			NP/PN	PLN/PLP	DV	CC	CIE	PR	CN	–	–	EC	EP	PRT
PCON-CB/CGB	Battery-less absolute specification Incremental specification		O	O	O	O	O	O	O	–	–	O	O	O
	Simple absolute spec.	With absolute battery	O	–	O	O	O	O	O	–	–	O	O	O
		With absolute battery unit	O	–	O	O	O	O	O	–	–	O	O	O
		Without absolute battery	O	–	O	O	O	O	O	–	–	O	O	O
PCON-CFB/CGFB	Battery-less absolute specification Incremental specification		O	O	O	O	O	O	O	–	–	O	O	O

Model Specification Items

PCON — [ ] — [ ] [ ] — [ ] — [ ] — **0** — [ ] — [ ]

Series — Type — Motor Type — Encoder Type — I/O Type — I/O Cable Length — Power Supply Voltage — Simple Absolute Specification — Controller Mounting Specification

CB	Standard
CGB	Safety category compliant type
CFB	56SP/60P/86P motor-compliant type
CGFB	Safety category compliant 56SP/60P/86P motor-compliant type

20P	20□	42SP	42□
20SP	20□	56P	56□
28P	28□	56SP	56□
28SP	28□	60P	60□
35P	35□	86P	86□
42P	42□		

(E.g.) 20P: 20□ pulse motor supported

Note

In principle, the same type of motor as the type of motor of the actuator to be connected should be entered, but there are some models where the motor type of some controllers and actuators do not match. Be sure to check the corresponding models listed below during selection.

<28SP target actuator>

- Controller motor type [28SP]
  RCP2-RA3C

WAI	Battery-less absolute specification Incremental specification
SA	Simple absolute spec.

NP	PIO (NPN)
PLN	Pulse train (NPN)
PN	PIO (PNP)
PLP	Pulse train (PNP)
DV	DeviceNet
CC	CC-Link
CIE	CC-Link IE Field connection specification
PR	PROFIBUS-DP
CN	CompoNet
EC	EtherCAT
EP	EtherNet/IP
PRT	PROFINET IO

0	No cable
2	2m
3	3m
5	5m

* When a field network specification is selected, the I/O cable length is "O".

0	24VDC

(Blank)	Battery-less absolute specification Incremental specification
AB	Simple absolute spec. (With absolute battery. No battery unit included)
ABU	Simple absolute spec. (With absolute battery and battery unit)
ABUN	Simple absolute spec. (Without absolute battery and battery unit)

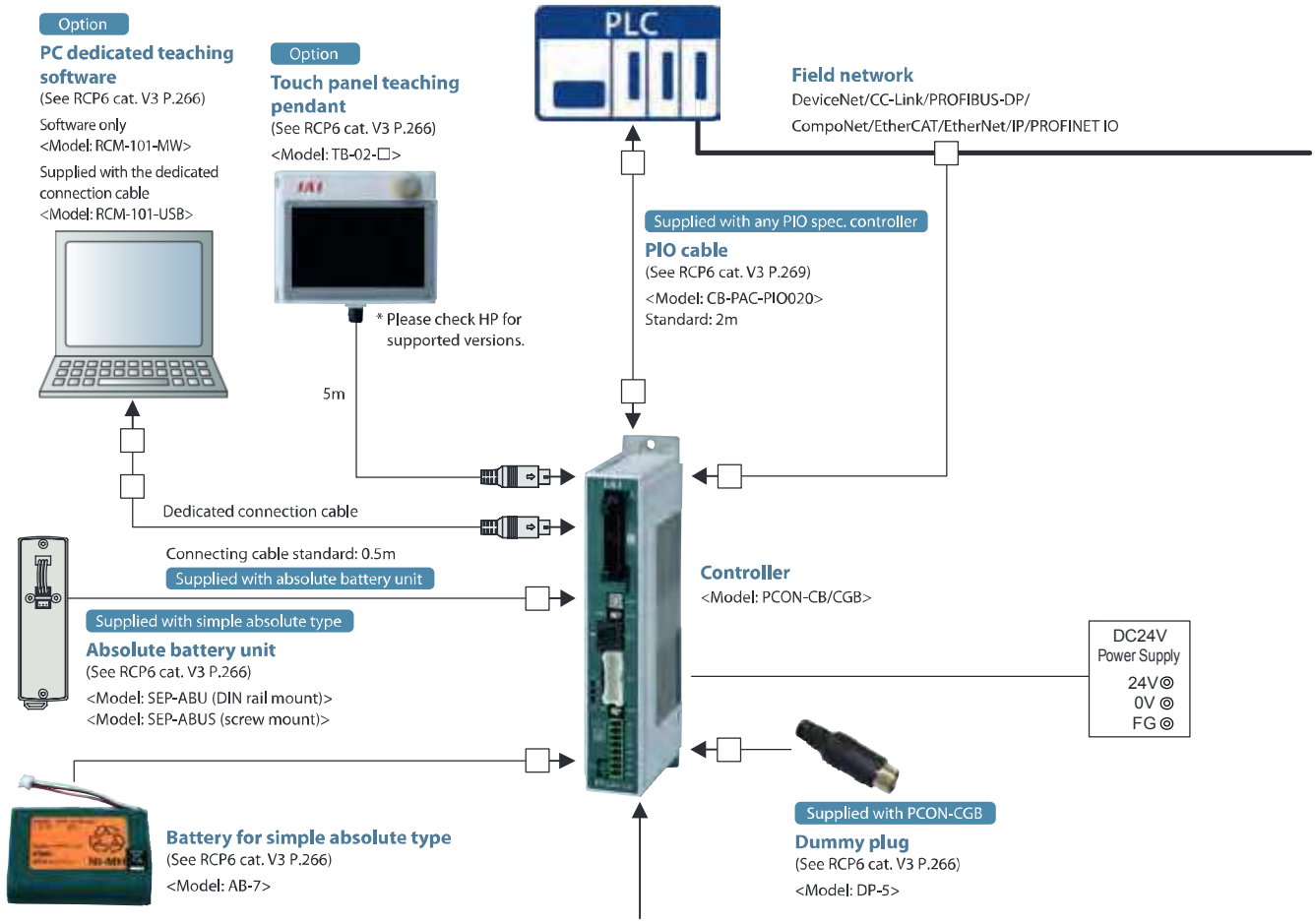
* PCON-CFB/CGFB does not support a simple absolute specification.

(Blank)	Screw mounting specification
DN	DIN rail mounting specification

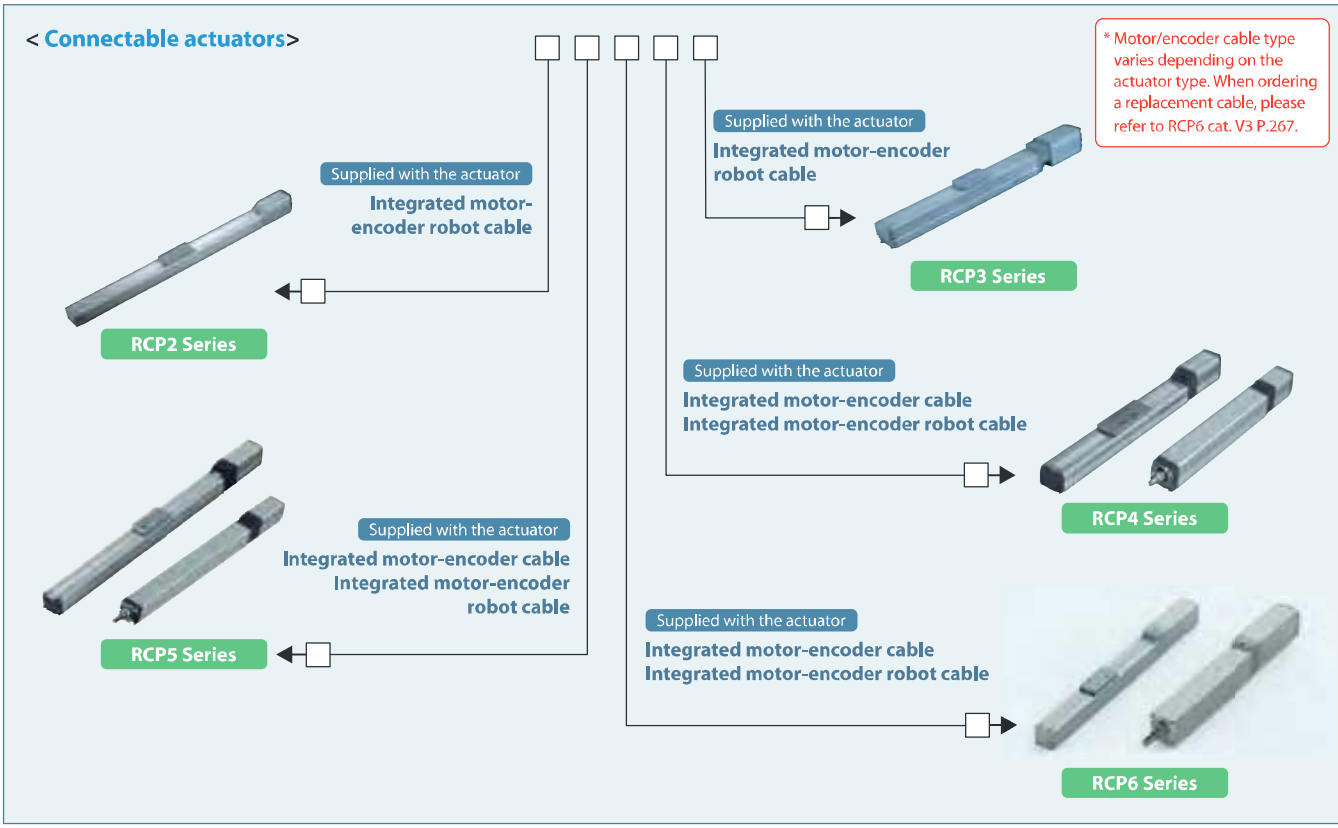
* The mounting type (screw or DIN rail) of the absolute battery unit and the controller must be the same.

System Configuration

■ PowerCon150 <PCON-CB/CGB>

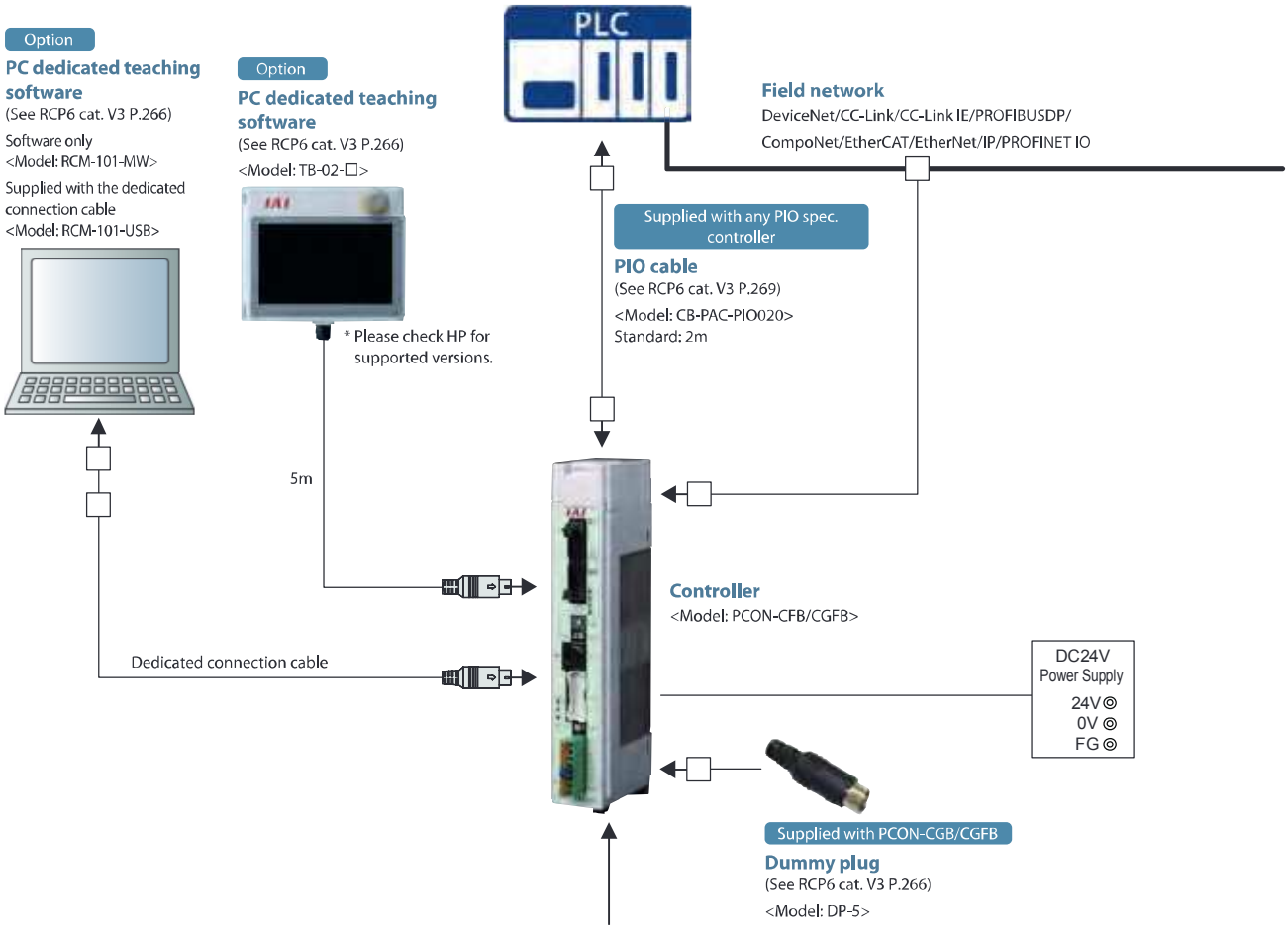


< Connectable actuators>



System Configuration

■ 56SP/60P/86P Motor Compatible <PCON-CFB/CGFB>



< Connectable actuators>

* Motor/encoder cable type varies depending on the actuator type. When ordering a replacement cable, please refer to RCP6 cat. V3 P.267.

RCP2 Series	RCP4 Series	RCP5 Series	RCP6 Series
Supplied with the actuator Integrated motor-encoder cable Integrated motor-encoder robot cable	Supplied with the actuator Integrated motor-encoder cable Integrated motor-encoder robot cable	Supplied with the actuator Integrated motor-encoder cable Integrated motor-encoder robot cable	Supplied with the actuator Integrated motor-encoder cable Integrated motor-encoder robot cable