

Field Network Controllers

ROBO Cylinder Position Controller
PowerCON 150

ROBO Cylinder Position Controller
High-thrust Motor Type

PCON-CA
PCON-CFA

PCON-CA
PCON-CFA



PCON Controllers Now Support Field Networks

1 Supporting seven major field networks

DeviceNet, CC-Link, PROFIBUS-DP, CompoNet, MECHATROLINK (I, II), EtherCAT and EtherNet/IP are supported. Key features include wire-saving, direct numerical specification, position number specification, and current position read.

2 PCON-CFA for high-thrust motors

	Supported actuators
PCON-CA	ROBO Cylinder RCP4 / RCP3 / RCP2 series
PCON-CFA	ROBO Cylinder RCP2-RA8C / RA8R / RA10C / HS8C / HS8R series ROBO Cylinder splash-proof RCP2W-SA16C / RA10C series

List of Models

ROBO Cylinder Position Controller PowerCON 150 <PCON-CA>

External view											
I/O type		Positioner type	Pulse-train type	Field network type							
				 DeviceNet	 CC-Link	 PROFIBUS-DP	 CompoNet	 MECHATROLINK	EtherCAT	 EtherNet/IP	
I/O type model code	NP/PN	PLN/PLP	DV	CC	PR	CN	ML	EC	EP		
Standard price	Incremental specification	-	-	-	-	-	-	-	-	-	-
	With absolute battery	-	-	-	-	-	-	-	-	-	-
	Simple absolute specification	-	-	-	-	-	-	-	-	-	-
	No absolute battery	-	-	-	-	-	-	-	-	-	-

ROBO Cylinder Position Controller High-thrust Motor Type <PCON-CFA>

External view											
I/O type		Positioner type	Pulse-train type	Field network type							
				 DeviceNet	 CC-Link	 PROFIBUS-DP	 CompoNet	 MECHATROLINK	EtherCAT	 EtherNet/IP	
I/O type model code	NP/PN	PLN/PLP	DV	CC	PR	CN	ML	EC	EP		
Standard price	Incremental specification	-	-	-	-	-	-	-	-	-	-

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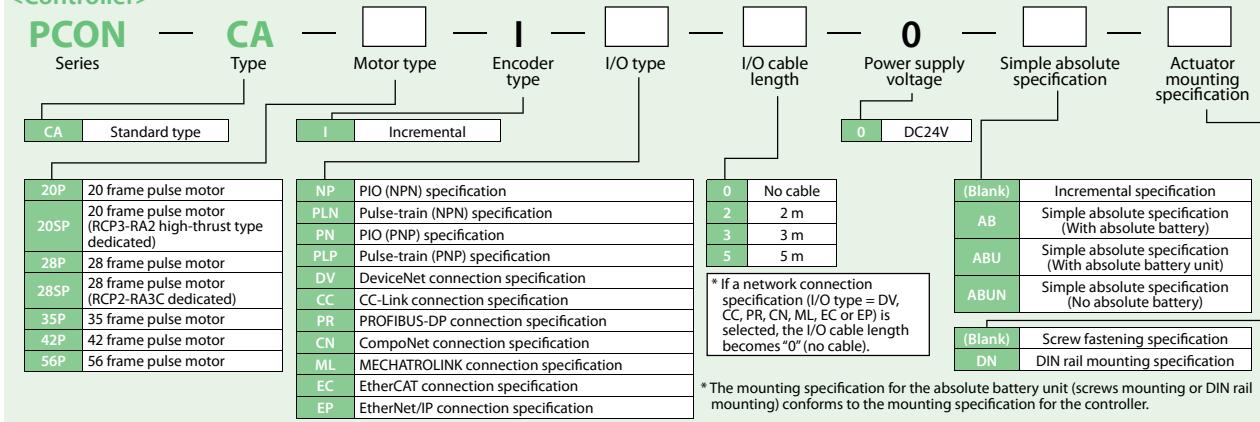
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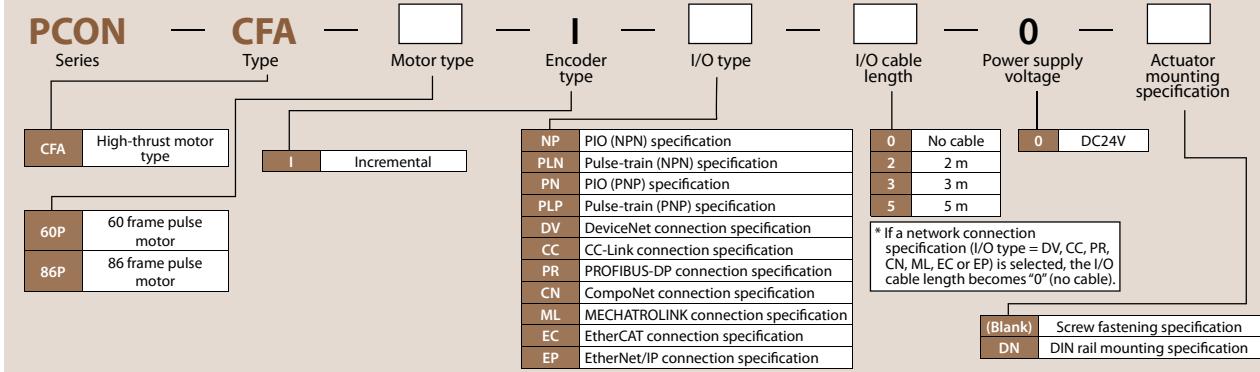
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Model Number

<Controller>



<Controller>



Specification Table

Item		Description										
		PCON-CA			PCON-CFA							
Number of controlled axes		1 axis										
Power supply voltage		24 VDC ± 10%										
Load capacity (Current consumption of controlled axes included) (Note 1)	RCP2 RCP3	Motor type	20P, 28P, 28SP	1A max. 2.2A max.	42P, 56P	6A max.						
	RCP4	Motor type	60P, 86P	High-output setting disabled: 2.2 A max.	42P, 56P	High-output setting enabled: 3.5 A rated / 4.2 A max.						
Power supply for electromagnetic brake (for actuators with brake)		24 VDC ± 10%, 0.15 A (max.)										
Rush current (Note 2)		8.3 A										
Momentary power failure resistance		500 µs max.										
Applicable encoder		Incremental encoder of 800 pulses/rev in resolution										
Actuator cable length		20 m max.										
External interface	PIO specification Field network specification		Dedicated 24-VDC signal input/output (NPN or PNP selected) --- Up to 16 input points, up to 16 output points / Cable length: 10m max. DeviceNet, CC-Link, PROFIBUS, CompoNET, MECHATROLINK, EtherCAT, EtherNet/IP									
Data setting/input method		PC software, touch-panel teaching pendant										
Data retention memory		Position data and parameters are saved in the non-volatile memory (The memory can be written any number of times.)										
Operation modes		Positioner mode / Pulse-train control mode (Selectable by parameter setting)										
Number of positions in positioner mode		Up to 512 points for the positioner type, up to 768 points for the network type (Note) The number of positioning points varies depending on the PIO pattern selected.										
Pulse-train interface	Input pulse		Differential method (line driver method): 200 kpps max. / Cable length: 10 m max. Open collector method: Not supported * If the host uses open-collector output, convert the open-collector pulses to differential pulses using the AK-04 (available as an option).									
	Command pulse magnification (electronic gear ratio: A/B)		1/50 < A/B < 50/1 Setting range of A and B (set by parameters): 1 to 4096									
	Feedback pulse output		None									
Isolation resistance		500-VDC 100 MO or more										
Electric shock protection mechanism		Class I basic isolation										
Mass (Note 3)	Incremental specification		Screw fastening type: 250 g or less DIN rail securing type: 285 g or less				Screw fastening type: 270 g or less DIN rail securing type: 305 g or less					
	Simple absolute specification (190 g of battery weight included)		Screw fastening type: 450 g or less DIN rail securing type: 485 g or less									
Cooling method		Natural air cooling										
Environment	Ambient operating temperature		0 to 40°C									
	Ambient operating humidity		85%RH or less (non-condensing)									
	Operating ambience		Not exposed to corrosive gases									
Protection degree		IP20										

Note 1) The value increases by 0.3 A for the field network specification.

Note 2) After the power is turned on, rush current will flow for approx. 5 msec (at 40°C). Take note that the rush current varies depending on the impedance of the power-supply line.

Note 3) The value increases by 30 g for the field network specification.

External Dimensions

<PCON-CA>

Incremental specification	Screw fastening specification	Incremental specification	DIN rail mounting specification
Simple absolute specification With absolute battery		Simple absolute specification With absolute battery	
<p>Absolute battery</p> <p>* The absolute battery is installed on the left side when the controller is viewed from the front side.</p>			
Simple absolute specification With absolute battery unit	Screw fastening specification	Simple absolute specification With absolute battery unit	DIN rail mounting specification
<p>Absolute battery unit</p> <p>* The above absolute battery unit comes with the controller.</p>			<p>* The above absolute battery unit comes with the controller.</p> <p>Absolute battery</p> <p>DIN securing tab moving width: 5 mm</p>

<PCON-CFA>

Incremental specification	Screw fastening specification	Incremental specification	DIN rail mounting specification