IAI
Quality and Innovation

Program Controllers that
support Simple Absolute

PSEL-C-ABU

The Absolute
specification
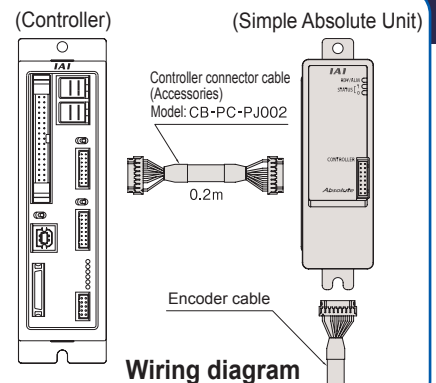has been added
to these PSEL
controllers

Model
PSEL-C
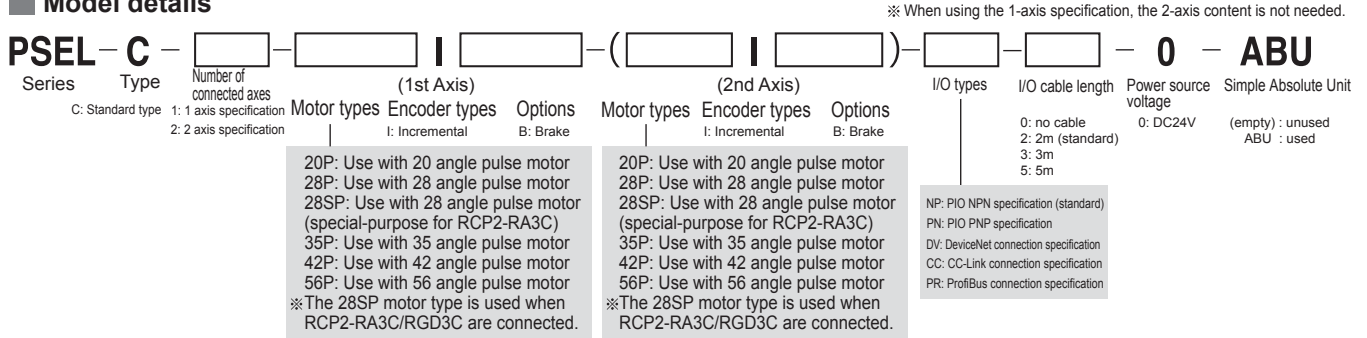1 axis specification
2 axis specification

Model
PCON-ABU

Features

1 Once installed, the Simple Absolute Unit eliminates the need for home return. The unit works immediately when connected to a power source.

2 The controller can interpolate on two axes.
The proprietary SEL language enables easy programming of even difficult operations.

3 Encoder data can be saved for a maximum of 20 days.

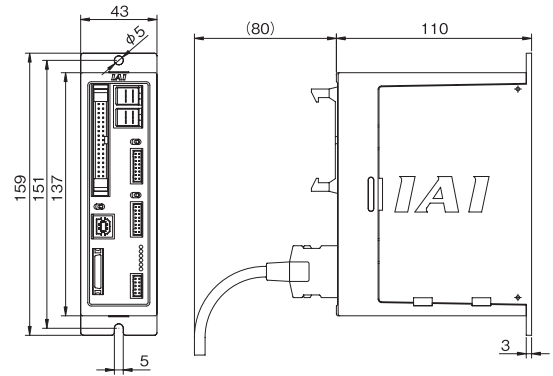(Controller)　　　　　　　(Simple Absolute Unit)

Controller connector cable
(Accessories)
Model: CB-PC-PJ002

0.2m

Encoder cable

Wiring diagram

Model details

※ When using the 1-axis specification, the 2-axis content is not needed.

PSEL－C－□□ □□ **I** □ **－(**□□ **I** □**)－**□□**－**□**－ 0 － ABU**

Series	Type	Number of connected axes	Motor types	Encoder types	Options	Motor types	Encoder types	Options	I/O types	I/O cable length	Power source voltage	Simple Absolute Unit

C: Standard type

1: 1 axis specification
2: 2 axis specification

(1st Axis)
(2nd Axis)

I: Incremental — Encoder types
B: Brake — Options

20P: Use with 20 angle pulse motor
28P: Use with 28 angle pulse motor
28SP: Use with 28 angle pulse motor (special-purpose for RCP2-RA3C)
35P: Use with 35 angle pulse motor
42P: Use with 42 angle pulse motor
56P: Use with 56 angle pulse motor
※The 28SP motor type is used when RCP2-RA3C/RGD3C are connected.

(2nd Axis)

I: Incremental
B: Brake

20P: Use with 20 angle pulse motor
28P: Use with 28 angle pulse motor
28SP: Use with 28 angle pulse motor (special-purpose for RCP2-RA3C)
35P: Use with 35 angle pulse motor
42P: Use with 42 angle pulse motor
56P: Use with 56 angle pulse motor
※The 28SP motor type is used when RCP2-RA3C/RGD3C are connected.

I/O types:
NP: PIO NPN specification (standard)
PN: PIO PNP specification
DV: DeviceNet connection specification
CC: CC-Link connection specification
PR: ProfiBus connection specification

I/O cable length:
0: no cable
2: 2m (standard)
3: 3m
5: 5m

Power source voltage:
0: DC24V

Simple Absolute Unit:
(empty) : unused
ABU : used

PSEL controller specification

Item	Specification
Connection actuator	RCP2/RCP3 Series Actuators (Note 1)
Input voltage	DC24V±10%
Current amperage	Max 5.5A
Number of controlled axes	1 Axis/2 Axes
Number of programs	64 points
Number of program steps	2000 steps
Number of multitask programs	8 points
Number of positioning points	1500 points
Data storage device	FLASHROM (can be added as an optional system memory backup)
Data input method	Teaching box or personal computer software
Number of I/O points	Input 24 points / output 8 points (can choose NPN or PNP)
Serial communications functions	RS232C (Half-pitch connector) / USB connector
Field network	DeviceNet / CC-Link / ProfiBus support
Ambient temperature and humidity	0~40°C 10~95% (no freezing)
Ambient atmosphere	No corrosive gas, no extreme amounts of dust
IP Code	IP20
Weight	Approx. 450g
External dimensions	43mm (W) ×159mm(H) ×110mm (D)

（Note 1） High thrust (RA10C), High speed (HS8C/HS8R) and waterproof (RCP2W-SA16) models cannot operate with this unit.
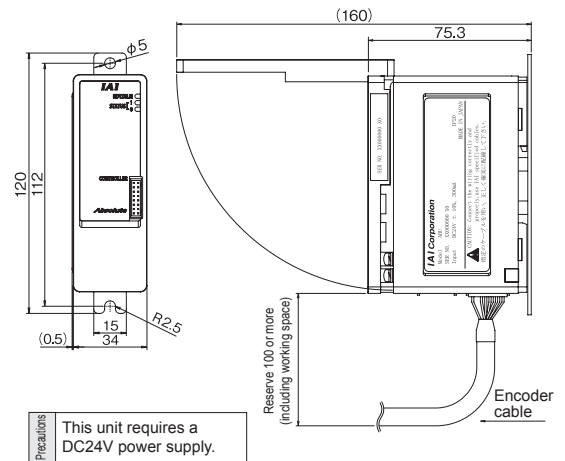
PSEL controller external diagram

Simple Absolute Unit specification

Item	Specification			
Model	PCON-ABU			
Connection actuator	RCP3/RCP2 Series(※1)			
Controller connection cable (accessories)	Model CB-PC-PJ002 (0.2m)			
Simple Absolute Unit main unit	Model ABU			
Backup battery (accessories)	Model AB-7 (Ni-MH battery with life of around 3 years)			
Power supply voltage	DC24V±10%			
Power supply amperage	max300mA			
Ambient operating temperature	0~40°C (around 20°C is ideal)			
Ambient operating humidity	95%RH or less (non-condensing)			
Operating atmosphere	No corrosive gas, no dust			
Weight	330g			
Permissible number of revolutions when encoder is recording data (※2)	800rpm	400rpm	200rpm	100rpm
Position data retention time period (※2)	120h	240h	360h	480h

（※1） This unit cannot be used with the following models: RCP2-RA2C, RA10C, HS8C, HS8R, GRS, RTB, RTC, RCP2W-SA16C.

（※2） This changes according to the value set as the number of permissible encoder revolutions while position data is being recorded.
(800rpm →120h/400rpm →240h/200rpm →360h/100rpm →480h)

External diagram of the Simple Absolute Unit

Precautions: This unit requires a DC24V power supply.

Safety precautions for users

- During encoder data recording, an error will occur if the actuator slider and rod are moved faster than a predetermined speed. For permissible speed, (number of revolutions), please see the Simple Absolute Unit specification noted above.

- The PC software that can be used on the PSEL controller to support the Simple Absolute Unit is program IA-101-X-MW/USB, Ver. 7.4.0.0 or later. For the teaching box, use program IA-T-X/XD, Ｖer. 1.50 or later, or SEL-T/TD, Ｖer.1.09 or later.

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