PSEP / ASEP Controller

Model C/CW
3-position controller for RCP2/RCP3
Position Controller

Model C/CW
3-position controller for RCA/RCA2/RCL
Position Controller

Feature

1 Can operate with same signal as a solenoid valve.

The signal that operates the actuator is the same as the signal that operates the air cylinder. Therefore, the PLC program currently in use can be used without modification even if the air cylinder is replaced by an electric-powered cylinder. Either a single solenoid or a double solenoid may be used.

2 Establishes a dustproof type that supports IP53.

We provide dustproof type controllers with an IP53 equivalent (*1) protection structure, so that the controller can be mounted outside the control panel.

(1) Bottom surface excluded.

3 Provides the simple absolute type that can be operated immediately upon power-ON without homing.

Since the simple absolute type can store the current position with the assistance of the absolute battery unit during power-up or after the emergency stop is deactivated; it can start the next operation at that position.

(Note 1) When the actuator is connected to the simple absolute type controller, the model is considered an incremental model.
(Note 2) It cannot be used for the linear servo type.

4 Pushing and intermediate stop operation is available.

Like air cylinders, the pushing operation is available. In this operation, you can stop with a rod being pushed to a workpiece. Since the force for the push operation is adjustable within a range between 20 to 70% of the maximum pushing force and a signal is generated when it reaches the specified pushing force, it can be used to determine clamping or size of workpieces.

5 Easy data entry with the dedicated touch panel teaching unit.

Data, such as setting target positions or pushing force, are easily entered with the optional touch panel teaching model: CON-PT. Since the touch panel teaching unit provides an interactive menu and can be controlled directly on the screen, you can operate intuitively with no assistance from operation manuals.
## Model List

<table>
<thead>
<tr>
<th>Series name</th>
<th>PSEP</th>
<th>ASEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>C</td>
<td>CW</td>
</tr>
<tr>
<td>Name</td>
<td>Standard</td>
<td>Dustproof</td>
</tr>
<tr>
<td>Positioning method</td>
<td>Incremental encoder</td>
<td>Simple absolute type</td>
</tr>
<tr>
<td>Description</td>
<td>Position controller, for pulse motors, specialized to 2 positions / 3 positions positioning and easier control</td>
<td>PSEP-C dustproof type with an IP53 equivalent protection structure</td>
</tr>
<tr>
<td>Number of positions</td>
<td>2 positions / 3 positions</td>
<td>2 positions / 3 positions</td>
</tr>
<tr>
<td>Standard price</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

## Model

### PSEP

<table>
<thead>
<tr>
<th>Series</th>
<th>Type</th>
<th>Motor</th>
<th>Encoder type</th>
<th>I/O type</th>
<th>I/O cable length</th>
<th>Power supply voltage</th>
<th>Simple absolute compatible</th>
<th>High acceleration compatible model</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Standard type</td>
<td>Incremental type</td>
<td>NPN type</td>
<td>NP</td>
<td>No cable</td>
<td>DC24V</td>
<td>Blank</td>
<td>Standard</td>
</tr>
<tr>
<td>CW</td>
<td>Dustproof type</td>
<td>Incremental type</td>
<td>NPN type</td>
<td>NP</td>
<td>No cable</td>
<td>DC24V</td>
<td>ABU</td>
<td>Simple absolute type (with absolute battery unit)</td>
</tr>
</tbody>
</table>

### ASEP

<table>
<thead>
<tr>
<th>Series</th>
<th>Type</th>
<th>Motor</th>
<th>Option</th>
<th>Encoder type</th>
<th>I/O type</th>
<th>I/O cable length</th>
<th>Power supply voltage</th>
<th>Simple absolute compatible</th>
<th>High acceleration compatible model</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Standard type</td>
<td>Incremental type</td>
<td>Power-saving</td>
<td>LA</td>
<td>2W motor-compatible</td>
<td>NPN type</td>
<td>NP</td>
<td>DC24V</td>
<td></td>
</tr>
<tr>
<td>CW</td>
<td>Dustproof type</td>
<td>Incremental type</td>
<td>2W motor-compatible</td>
<td>NP</td>
<td>No cable</td>
<td>2m</td>
<td>2W motor-compatible</td>
<td>ABU</td>
<td>Simple absolute type (without absolute battery unit)</td>
</tr>
</tbody>
</table>

*If connecting to RCP3-SA4/SA5/SA6, specify “H”, for high-acceleration compatible model.*
PC Software
See P499
RS232 version:
<Model: RCM-101-MW>
USB version:
<Model: RCM-101-USB>
* Cable supplied with the PC software.
* Version older than 7.00.01.00 cannot be used with the SEP controller.

Teaching Pendant for
□□□□□□□SEP
See P497
<Model: CON-PT/CON-PD/CON-PG>
Teaching Pendant for SEP
<Model: SEP-PT>

PIO Cable
<Model: CB-APSEP-PIO020> (standard)
<Model: CB-APSEP-PW-PIO020> (for dustproof)
Standard 2m
(Supplied with the controller)
See P502

DC24V Power Supply
<Model: PS-241 (100V input)>
<Model: PS-242 (200V input)>

Absolute Battery Unit for SEP Controller
(Supplied with simple absolute type)
<Model: SEP-ABU> (standard)
<Model: SEP-ABU-W> (for dustproof)
See P500

Motor-encoder Integrated Cable
<Model: CB-PCS-MPA□□□>
Standard 1m / 3m / 5m
(Supplied with the actuator)
See P501

Motor-encoder Integrated Cable
<Model: CB-RPSEP-MPA□□□>
Standard 1m / 3m / 5m
(Supplied with the actuator)
See P502

Motor-encoder Integrated Cable
<Model: CB-APSEP-MPA□□□>
Standard 1m / 3m / 5m
(Supplied with the actuator)
See P501

Motor-encoder Integrated Cable
<Model: CB-APSEP-MPA□□□>
Standard 1m / 3m / 5m
(Supplied with the actuator)
See P501

Actuator: RCP2 series
Rotary type RCP2-RT
(See below for small rotary)
Gripper type RCP2-GRS/GRM/GR3□□

Actuator: RCP2 Small Rotary
(RCP2-RTBS/RTBSL/RTCS/RTC)
* The above models use a dedicated cable.

Actuator: RCP3 series
RCP2-GRSS/GRLS/GRST
RCP2-SRA4R/SRGS4R/SRGD4R
The SEP controller provides the following six PIO patterns from which you can choose for operation. Also, PIO patterns 0 to 2 support both the single solenoid and double solenoid signal configurations.

### PIO Pattern Description

#### PIO Pattern 0 (Standard 2-Position travel)

This PIO pattern involves movements between two positions—the end position and the home position. The positions can be set numerically to any position (by inputting to the controller using the optional touch panel teaching pendant).

Two motions are possible: A “positioning motion” moves the rod or the slider to the specified position, and a “pushing motion” pushes the rod against a workpiece.

#### Positioning Motion (Single Solenoid)

![Positioning Motion Diagram]

**Input Signals**

<table>
<thead>
<tr>
<th>Input 0</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input 1</td>
<td>–</td>
</tr>
<tr>
<td>Input 2</td>
<td>–</td>
</tr>
<tr>
<td>Input 3</td>
<td>–</td>
</tr>
</tbody>
</table>

When Input 0 is turned ON, the slider/rod moves to the end position (30mm coordinate) at a speed of 100mm/s.

![End Position Data]

**Input Signals**

<table>
<thead>
<tr>
<th>Input 0</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input 1</td>
<td>–</td>
</tr>
<tr>
<td>Input 2</td>
<td>–</td>
</tr>
<tr>
<td>Input 3</td>
<td>–</td>
</tr>
</tbody>
</table>

When input 0 is turned OFF, the slider/rod returns to the home position (0mm coordinate) at a speed of 50mm/s.
Positioning Motion (Double Solenoid)

End Position Data
<table>
<thead>
<tr>
<th>Position</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>100</td>
</tr>
<tr>
<td>Pushing force</td>
<td>–</td>
</tr>
<tr>
<td>Width</td>
<td>–</td>
</tr>
</tbody>
</table>

When Input 1 is turned ON and Input 0 is turned OFF, the slider/rod moves to the end position (30mm coordinate) at a speed of 100mm/s.

Home Position Data
<table>
<thead>
<tr>
<th>Position</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>50</td>
</tr>
<tr>
<td>Pushing force</td>
<td>–</td>
</tr>
<tr>
<td>Width</td>
<td>–</td>
</tr>
</tbody>
</table>

When Input 0 is turned ON and Input 1 is turned OFF, the slider/rod returns to the home position (0mm coordinate) at a speed of 50mm/s.

Push motion (single solenoid)

End Position Data
<table>
<thead>
<tr>
<th>Position</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>100</td>
</tr>
<tr>
<td>Pushing force</td>
<td>50</td>
</tr>
<tr>
<td>Width</td>
<td>10</td>
</tr>
</tbody>
</table>

When Input 0 is turned ON, the rod moves to the 20mm position at 100mm/s, and then starts pushing from the 20mm position to the 30mm position at slow speed.

* The pushing motion is performed only if there is a numerical value for the pushing force in the controller's position data. (If there is no numerical value for the pushing force, a positioning motion will be performed instead.)

Push motion (double solenoid)

End Position Data
<table>
<thead>
<tr>
<th>Position</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>100</td>
</tr>
<tr>
<td>Pushing force</td>
<td>50</td>
</tr>
<tr>
<td>Width</td>
<td>10</td>
</tr>
</tbody>
</table>

When Input 1 is turned ON and Input 0 is turned OFF, the rod moves to the 20mm position at 100mm/s, and then starts pushing from the 20mm position to the 30mm position at slow speed.

* The pushing motion is performed only if there is a numerical value for the pushing force in the controller's position data. (If there is no numerical value for the pushing force, a positioning motion will be performed instead.)
PIO Pattern 1 (Speed Change During Movement)
This PIO pattern involves movements between two positions—the end position and the home position. The speed can be changed in 2 stages. (The speed can be either increased or decreased.) The speed change occurs when the rod/slider passes the speed change position, specified in the position values.

(Single Solenoid)

If the speed change signal is OFF:
If the speed change signal is ON:

Home Position Data
End Position Data

<table>
<thead>
<tr>
<th>Position</th>
<th>Speed</th>
<th>Trigger point</th>
<th>Trigger speed</th>
<th>Pushing force</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>50</td>
<td>12</td>
<td>100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>30</td>
<td>100</td>
<td>12</td>
<td>50</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Input Signals

- Input 0: ON
- Input 1: OFF
- Input 2: ON
- Input 3: OFF

PIO Pattern 2 (Position Change)
This PIO pattern involves movements between two positions—the end position and the home position. You can set 2 sets of data for the end / home positions, speed, pushing force, and pushing width. Switching between the 2 sets of data can be done by turning ON/OFF Input 2, which is the signal for switching the target position.

(Single Solenoid)

If the position change signal is OFF:
If the position change signal is ON:

End Position Data 1
End Position Data 2

<table>
<thead>
<tr>
<th>Position</th>
<th>Speed</th>
<th>Pushing force</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>50</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
PIO Pattern 3 (2-Input 3-Position Travel)
This PIO pattern involves movements between 3 positions—the end position, the home position, and an intermediate position.
Changing between the positions is done by a combination of 2 signals, Input 0 and Input 1.

Positioning Motion

![Positioning Motion Diagram](image)

<table>
<thead>
<tr>
<th>Input Signals</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input 0: ON</td>
<td>When only Input 0 is turned ON, the rod moves to the home position at the specified speed.</td>
</tr>
<tr>
<td>Input 1: OFF</td>
<td>When Input 0 and Input 1 are both turned ON, the rod moves to the intermediate position at the specified speed.</td>
</tr>
<tr>
<td>Input 2: -</td>
<td>When only Input 1 is turned ON, the rod moves to the end position at the specified speed.</td>
</tr>
</tbody>
</table>

PIO Pattern 4 (3-Input 3-Position Travel)
This PIO pattern involves movements between 3 positions—the end position, the home position, and an intermediate position.
Changing between the positions is done by three signals—Input 0, Input 1 and Input 2, which are commanded to move to the home, end and intermediate positions, respectively.

Positioning Motion

![Positioning Motion Diagram](image)

<table>
<thead>
<tr>
<th>Input Signals</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input 0: ON</td>
<td>When Input 0 is turned ON, the rod moves to the home position at the specified speed.</td>
</tr>
<tr>
<td>Input 1: OFF</td>
<td>When Input 2 is turned ON, the rod moves to the intermediate position at the specified speed.</td>
</tr>
<tr>
<td>Input 2: ON</td>
<td>When Input 1 is turned ON, the rod moves to the end position at the specified speed.</td>
</tr>
<tr>
<td>Input 3: -</td>
<td>When Input 3 is turned ON, the rod moves to the intermediate position at the specified speed.</td>
</tr>
</tbody>
</table>

PIO Pattern 5 (Continuous Cycle Operation)
This PIO pattern involves continuous cycling between 2 positions—the end and home positions.

When Input 0 (continuous operation signal) is turned ON, the rod continuously moves between the specified 2 positions.
If Input 0 is turned OFF while in motion, it stops after reaching the current destination.

Positioning Motion

![Positioning Motion Diagram](image)

<table>
<thead>
<tr>
<th>Input Signals</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input 0: ON</td>
<td>When Input 0 is turned ON, the rod moves continuously between the end and home positions at the specified speed.</td>
</tr>
<tr>
<td>Input 1: -</td>
<td>When Input 1 is turned OFF, the rod moves to the home position at the specified speed.</td>
</tr>
<tr>
<td>Input 2: -</td>
<td>When Input 2 is turned OFF, the rod moves to the end position at the specified speed.</td>
</tr>
<tr>
<td>Input 3: -</td>
<td>When Input 3 is turned OFF, the rod moves to the intermediate position at the specified speed.</td>
</tr>
</tbody>
</table>
## I/O Signal

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Cable color</th>
<th>PI0 pattern name</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>P0 pattern name</td>
<td>Standard 2-position motion</td>
<td>Speed change</td>
<td>Position change</td>
<td>2-input 3-position travel</td>
<td>3-input 3-position travel</td>
<td>Continuous cycle operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Solenoid type</td>
<td>Single</td>
<td>Double</td>
<td>Single</td>
<td>Double</td>
<td>Single</td>
<td>Double</td>
</tr>
<tr>
<td>1</td>
<td>Brown</td>
<td>COM</td>
<td>24V</td>
<td>24V</td>
<td>24V</td>
<td>24V</td>
<td>24V</td>
<td>24V</td>
</tr>
<tr>
<td>2</td>
<td>Red</td>
<td>COM</td>
<td>0V</td>
<td>0V</td>
<td>0V</td>
<td>0V</td>
<td>0V</td>
<td>0V</td>
</tr>
<tr>
<td>3</td>
<td>Orange</td>
<td>Input</td>
<td>ST0</td>
<td>ST0</td>
<td>ST0</td>
<td>ST0</td>
<td>ST0</td>
<td>ST0</td>
</tr>
<tr>
<td>4</td>
<td>Yellow</td>
<td></td>
<td>1</td>
<td>*STP</td>
<td>ST1(-)</td>
<td>*STP</td>
<td>ST1(-)</td>
<td>ST1</td>
</tr>
<tr>
<td>5</td>
<td>Green</td>
<td></td>
<td>2</td>
<td>*(RES)</td>
<td>SPDC(RES)</td>
<td>*(RES)</td>
<td>ST2(RES)</td>
<td>*(RES)</td>
</tr>
<tr>
<td>6</td>
<td>Blue</td>
<td></td>
<td>3</td>
<td>*(SON)</td>
<td>*(SON)</td>
<td>*(SON)</td>
<td>*(SON)</td>
<td>*(SON)</td>
</tr>
<tr>
<td>7</td>
<td>Purple</td>
<td></td>
<td>0</td>
<td>LS0/PE0</td>
<td>LS0/PE0</td>
<td>LS0/PE0</td>
<td>LS0/PE0</td>
<td>LS0/PE0</td>
</tr>
<tr>
<td>8</td>
<td>Grey</td>
<td></td>
<td>1</td>
<td>LS1/PE1</td>
<td>LS1/PE1</td>
<td>LS1/PE1</td>
<td>LS1/PE1</td>
<td>LS1/PE1</td>
</tr>
<tr>
<td>9</td>
<td>White</td>
<td></td>
<td>2</td>
<td>HEND/5V</td>
<td>HEND/5V</td>
<td>HEND/5V</td>
<td>LS2/PE2</td>
<td>LS2/PE2</td>
</tr>
<tr>
<td>10</td>
<td>Black</td>
<td></td>
<td>3</td>
<td>*ALM/5V</td>
<td>*ALM/5V</td>
<td>*ALM/5V</td>
<td>*ALM/5V</td>
<td>*ALM/5V</td>
</tr>
</tbody>
</table>

Note: The above signals marked with * are normally ON and turn OFF when active.

## Specification Table

### Item

<table>
<thead>
<tr>
<th>Item</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled power supply capacity</td>
<td>DC24Vs10%</td>
</tr>
</tbody>
</table>

### Motor encoder cable

- **For RCP2 connection**: CB-PSEP-MPA (Connection not possible)
- **For RCA connection**: CB-SEP-MPA (Connection not possible)
- **For RCP3/RCA2 connection**: CB-APSEP-MPA (Connection not possible)
- **For RCP2 mini rotary connection**: CB-APSEP-MPA (Connection not possible)

### Position detection method

- Incremental encoder (Attaching an absolute battery unit makes the simple absolute specification possible) *3

### Motor power capacity

<table>
<thead>
<tr>
<th>Motor size</th>
<th>Rated value</th>
<th>Max. (*4)</th>
<th>Motor power output</th>
<th>Rated value</th>
<th>Maximum Power-saving (%)</th>
<th>Standard (%) high-acceleration/ deceleration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20P</td>
<td>0.4A</td>
<td>2.0A</td>
<td>2W</td>
<td>0.8A</td>
<td>Not specified</td>
<td>6.4A</td>
</tr>
<tr>
<td>28P</td>
<td>0.4A</td>
<td>2.0A</td>
<td>5W</td>
<td>1.0A</td>
<td>Not specified</td>
<td>6.4A</td>
</tr>
<tr>
<td>35P</td>
<td>1.2A</td>
<td>2.0A</td>
<td>10W (for RCL)</td>
<td>1.3A</td>
<td>Not specified</td>
<td>6.4A</td>
</tr>
<tr>
<td>42P</td>
<td>1.2A</td>
<td>2.0A</td>
<td>10W (for RCA/RCA2)</td>
<td>1.3A</td>
<td>2.5A</td>
<td>4.4A</td>
</tr>
<tr>
<td>56P</td>
<td>1.2A</td>
<td>2.0A</td>
<td>20W</td>
<td>1.3A</td>
<td>2.5A</td>
<td>4.4A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20W (for 20S motor)</td>
<td>1.7A</td>
<td>3.4A</td>
<td>5.1A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30W</td>
<td>1.3A</td>
<td>2.2A</td>
<td>4.4A</td>
</tr>
</tbody>
</table>

### Inrush current (*1)

Max: 10A

### Amount of heat generated

8.4W

### Dielectric strength voltage

DC2500V 1MO

### Resistance to vibration

XYZ directions: 10~57Hz (one-side width 0.035mm (continuous), 0.075mm (intermittent))

### Ambient operating temperature

0~40°C

### Ambient operating humidity

10~85%RH (non-condensing)

### Protection level

IP20

### Weight

About 130g

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(*1) Upon power-ON, an electrical current of 5 to 12 times as much as the rated current, called “inrush current” flows for 1 to 2 ms. Note that the amount of inrush current varies based on the impedance of power source lines.

(*2) This applies to the case where two position data points are set at each of the end and home positions during a "position change" motion pattern process.

(*3) The simple absolute type controllers cannot be used for the linear servo type.

(*4) The current reaches its maximum level during the servo motor excitation phase detection performed during the initial servo ON process after the power has been turned on. (Usually: Approx. 1 to 2 seconds, max. 10 seconds.)

(*5) When power to the motor is turned ON after shutting it OFF, current of about 6.0 A flows (for aprox.1~2ms).

(*6) The max. value of current can be detected in the magnetic pole detection process or during collision or constraint. The condition continues for up to 10 seconds in the magnetic pole detection process. In this process the above current is required.

(*7) The bottom surface is excluded.
Names

ASEP, PSEP, Incremental type

ASEP, PSEP, Simple absolute type

Outer dimensions

Standard type

Dustproof type

Movable width of DIN securing tab: 5mm
**Touch Panel Teaching Pendant for Position Controller**

**Feature 1**  A data input device with an intuitive touch panel menu screen that is easy to operate, even for first-time users. You can use it to configure settings such as home / end positions, intermediate position, speed, and pushing force, or to run an adjustment operation such as jogging, inching, and moving to a specified position.

**Feature 2**  Intuitive and interactive touch panel menus allow for easy configuration, even for first-time users.

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### Model & Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
<td>CON-PT-M-ENG</td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>Standard type</td>
</tr>
<tr>
<td><strong>Connectible controllers</strong></td>
<td>PSEP/PCON/RPCON</td>
</tr>
<tr>
<td><strong>3-position enable switch</strong></td>
<td>×</td>
</tr>
<tr>
<td><strong>Functions</strong></td>
<td>Input and edit position data</td>
</tr>
<tr>
<td>Movement functions (move to specified position, jog, inch)</td>
<td>Test input and output signals</td>
</tr>
<tr>
<td>Edit parameters</td>
<td></td>
</tr>
<tr>
<td><strong>Display</strong></td>
<td>3-color LED with backlight</td>
</tr>
<tr>
<td><strong>Operating ambient temp./Humidity</strong></td>
<td>0–50°C</td>
</tr>
<tr>
<td><strong>Environmental resistance</strong></td>
<td>IP40</td>
</tr>
<tr>
<td><strong>Weight (incl. 5m cable)</strong></td>
<td>Approx. 750g</td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td>• Touch pen</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard Price</strong></td>
<td>-</td>
</tr>
</tbody>
</table>

(*) If an ERC2 type controller does not have "4904" on the serial number label, it cannot be connected.

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**Caution:** If you have a "CON" type controller (i.e. PCON, RPCON, ACON, RACON, SCON, ERC2) and an "SEP" type controller (PSEP or ASEP) linked together, you cannot connect the teaching pendant to it.
Names of Parts/Exterior Dimensions

- Strap anchor
- Wall mount hook
- Enable switch
- CON-PT label
- Model number/serial number label
- Touch pen
- Emergency stop button
- Control panel
- Controller insertion connector

Option

- Strap

Model STR-1

Option

- CON-PT-M
- CON-PG-M-S

* Please note that the CON-PG-M-S has a controller insertion connector that is different from the other models.

CON-PG-M-S Wiring Drawing

- PCON
- ACON
- SCON
- PSEP
- ASE
- ROBONET

Controller connection cable CB-CON-LB005

0.5m

TP adaptor RCB-LB-TG

Safety circuit

Safety circuit

5m

CON-PG

Standard Mini Standard Controllers Integrated
Bolt Type Small Mini Standard Controllers Integrated
Table/Arm/Flat Type Mini Standard Gripper/Rotary Type
Linear Servo Type Cleanroom Type Splash-Proof

PSEP / ASEP 498
### Features
A startup support software for inputting positions, performing test runs, and monitoring. With enhancements for adjustment functions, the startup time is shortened.

### Model RCM-101-MW
(External device communication cable + RS232 conversion unit)

### Configuration
- **PC Software (CD)**
- **RS232 adapter RCB-CV-MW**
- **5m**
- **0.3m**
- **External device communication cable CB-RCA-SIO050**

### Model RCM-101-USB
(External device communication cable + USB adapter + USB cable)

### Configuration
- **PC Software (CD)**
- **USB adapter RCB-CV-USB**
- **USB cable CB-SEL-USB030**
- **5m**
- **3m**
- **External device communication cable CB-RCA-SIO050**
Absolute battery unit for SEP controllers

**Description**
Supplied with the PSEP and ASEP simple absolute controllers. This is a battery unit used for backing up the current position data.

**Model**
SEP-ABU (standard type)
SEP-ABU-W (dustproof type)

**Specifications**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient operating temp./Humidity</td>
<td>0~40°C (around 20°C preferred), 95% RH or below (non-condensing)</td>
</tr>
<tr>
<td>Ambient operating environment</td>
<td>No corrosive gases</td>
</tr>
<tr>
<td>Absolute battery (*1)</td>
<td>Model: AB-7 (Ni-MH battery/Approx. 3-year life)</td>
</tr>
<tr>
<td>Controller-absolute battery unit cable (*1)</td>
<td>Model: CB-APSEP-AB005 (0.5m long)</td>
</tr>
<tr>
<td>Weight</td>
<td>Standard type: Approx. 230g; Dustproof type: Approx. 260g</td>
</tr>
<tr>
<td>Allowable encoder RPM during data retention (*2)</td>
<td></td>
</tr>
<tr>
<td>Position data retention duration (*2)</td>
<td>800rpm 240h 360h 480h</td>
</tr>
</tbody>
</table>

(*1) The absolute battery unit comes with a cable to connect the controller and the absolute battery unit.

(*2) Position data retention time changes with the allowable encoder RPMs during data retention.

(800rpm→120h, 400rpm→240h, 200rpm→360h, 100rpm→480h)

**Cautions on Controllers and Options**

- When mounting the controller to a DIN rail, use the supplied spacer between the controllers to prevent them from contacting each other, to deal with heat dissipation. (See Fig. 1)
- When mounting the absolute battery units and controllers, place the absolute battery units below the controllers. (See Fig. 2)
  
If there is not enough space below the controllers, mount the absolute battery units in such a way that the temperature around the controllers stays at 40°C or below.

- Teaching pendants for PCON, ACON, and SCON (e.g. CON-T, RCM) cannot be used with PSEP or ASEP. For PSEP and ASEP, use the SEP-PT.
- The SEP-PT cannot communicate to the linked controllers. (Please connect them directly to the controller.)
When you need spare parts after purchasing the product, such as when replacing a cable, refer to the list of models below.

**Motor-encoder integrated cable for connecting [RCP3/RCA2/RCL] and [PSEP/ASEP]**

Model **CB-APSEP-MPA**

* Enter the cable length (L) into □□□. Compatible to a maximum of 20 meters.

Ex. 080 = 8m

**Motor-encoder integrated cable for connecting [RCP2] and [PSEP]**

Model **CB-PSEP-MPA**

* Enter the cable length (L) into □□□. Compatible to a maximum of 20 meters.

Ex. 080 = 8m

**Motor-encoder integrated type cable for RCP3/RCP2 (Limited to RCP2-GRSS/GRLS/GRST/SRA4R/SRGS4R/SRGD4R types)**

Model **CB-PCS-MPA**

* Enter the cable length (L) into □□□. Compatible to a maximum of 20 meters.

Ex. 080 = 8m

**Motor-encoder integrated cable for connecting [RCA] and [ASEP]**

Model **CB-ASEP-MPA**

* Enter the cable length (L) into □□□. Compatible to a maximum of 20 meters.

Ex. 080 = 8m
Motor-encoder integrated cable for connecting [RCA2/RCL] and [ACON/RACON/ASEL]

Model CB-ACS-MPA

* Enter the cable length (L) into [ ]. Compatible to a maximum of 20 meters. Ex. 080 = 8m

Motor-encoder integrated cable for connecting [RCP2 mini rotary] and [PSEP]

Model CB-RPSEP-MPA

* Enter the cable length (L) into [ ]. Compatible to a maximum of 20 meters. Ex. 080 = 8m

I/O cable for PSEP-C/ASEP-C

Model CB-APSEP-PIO

* Enter the cable length (L) into [ ]. Compatible to a maximum of 10 meters. Ex. 080 = 8m

I/O cable for PSEP-CW/ASEP-CW

Model CB-APSEPW-PIO

* Enter the cable length (L) into [ ]. Compatible to a maximum of 10 meters. Ex. 080 = 8m