

# Electrode Holder PS-□S(R)/-31

CSM\_PS-S(R)-31\_DS\_E\_7\_3

## Separate Electrode Holders for Water Supply and Drainage Control in Buildings. Small, Lightweight Electrode Holders for Use as Built-in Components.

- The PS-□S(R) are separate Electrode Holders that allow the Electrodes to be withdrawn easily for inspection.
- The PS-□S(R) come in 3, 4, or 5 pole models for supply and drainage of tap water in buildings.
- PS-31 is a small and light-weight Electrode Holder that is suitable for installation in limited space and built-in components.



**⚠ Refer to Safety Precautions for Electrodes and Electrode Holders.**

## Ordering Information

### ■ Electrode Holders

Application	Model
General applications for purified water	
For 3-pole electrode	PS-3S
For 3-pole electrode (2-wire)	PS-3SR
For 4-pole electrode	PS-4S
For 4-pole electrode (2-wire)	PS-4SR
For 5-pole electrode	PS-5S
For 5-pole electrode (2-wire)	PS-5SR
For small spaces (3-pole)	PS-31 (SUS304, 300 mm) PS-31 (SUS304, 1,000 mm)

### ■ Accessories (Order Separately)

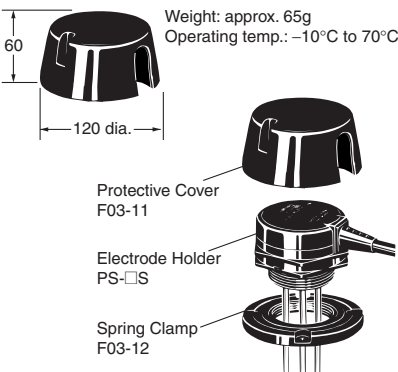
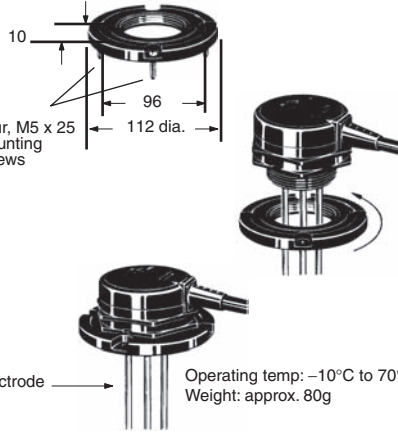
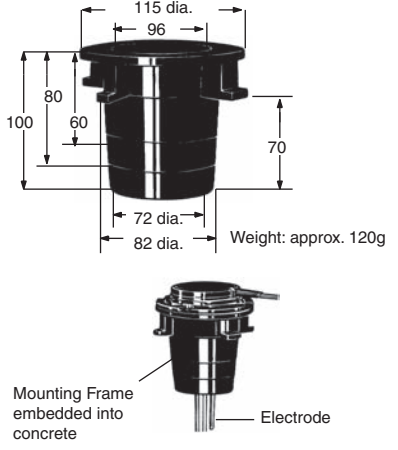
Application	Model
Protective Cover (for PS-□S and BF-3/-5)	F03-11
Mounting Frame (for PS-□S)	F03-12
Mounting Frame for Installing in Concrete (for PS-□S(R))	F03-13
Dust-proof Rubber Cap (for PS-31)	F03-31

## Specifications

Item	Model	PS-3S(R) (See note 1.)	PS-4S(R) (See note 1.)	PS-5S(R) (See note 1.)	PS-31 (See note 2.)
No. of Electrodes		3	4	5	3 (See note 3.)
Material		Resin (PBT = Polybutylene terephthalate)			
Insulation resistance		100 MΩ min.			
Operating temperature		-10 to 70°C (with no icing)			
Operating pressure		Atmospheric pressure			
Applications		Water supply and drainage control in buildings			Limited Mounting Space
Electrodes		Purchase F03-01 separately.			Single-piece construction

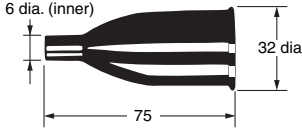
- Note:**
1. The Two-wire Electrode Holders (R models) have a built-in resistor of 6.8 kΩ. They should be used with the Two-wire 61F Controllers.
  2. Cut the electrodes to the desired length.
  3. PS-31 comes in a 3-pole model only.

## ■ PS-□S(R) Electrode Holder Accessories (Order Separately)

F03-11 Protective Cover	F03-12 Spring Clamp	F03-13 Mounting Frame for installing in concrete
<p>Use this Cover for PS-series Electrode Holders with Mounting Frames (upper one in the following illustration), This Cover can also be used when installing the BF-series Electrode Holders outdoors. This Cover is for protection from rain and wind. It is not waterproof.</p> <p>Applicable Electrode Holders: BF-3, BF-4, BF-5, PS-3S(R), PS-4S(R), PS-5S(R)</p>  <p>Weight: approx. 65g Operating temp.: -10°C to 70°C</p> <p>Protective Cover F03-11 Electrode Holder PS-□S Spring Clamp F03-12</p>	<p>Used to clamp an Electrode Holder with ease, as shown in the illustrations, when the Electrode Holder is applied to a tank without a coupling. Squeeze the mounting frame into the Holder as shown below.</p> <p>Applicable Electrode Holders: PS-3S(R), PS-4S(R), PS-5S</p>  <p>Four, M5 x 25 mounting screws</p> <p>Electrode</p> <p>Operating temp: -10°C to 70°C Weight: approx. 80g</p>	<p>Firmly secure the F03-12 Spring Clamp to the F03-13 Mounting Frame with M5 x 25 screws and embed it into the concrete production water tank. Cut the F03-13 to match the depth of the concrete.</p>  <p>Weight: approx. 120g</p> <p>Mounting Frame embedded into concrete</p> <p>Electrode</p> <p>Commonly used with Mounting Frame</p>

**Note:** If the F03-11 and F03-12 are used together, the screws and bolts that are provided with the F03-11 cannot be used.

## ■ PS-31 Electrode Holder Accessories (Order Separately)

F03-31 Dust-proof Rubber Bushing
<p><b>Note:</b> This Bushing is not waterproof.</p>  <p>6 dia. (inner) 32 dia. 75</p> <p>Material: Silicon rubber</p>

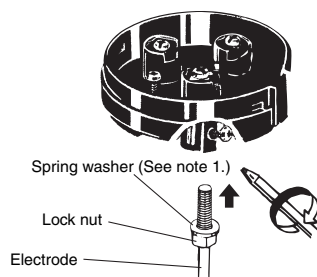
## ■ Accessories Required for Connecting the PS-□S(R) and Electrodes (Order Separately)

### Electrodes Shorter than 1 m

The following items are required for each pole.

- 1 × F03-01 Electrode
- 1 × F03-03 Lock Nut

The Electrode can be cut anywhere based on the control level.

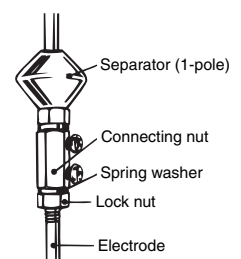


### Electrode Longer than 1 m

The following items are required for every additional meter of electrode for each pole.

- 1 × F03-01 Electrode
- 1 × F03-02 Connecting Nut
- 2 × F03-03 Lock Nuts

Use F03-14 1P, 3P, and 5P Separators to prevent the electrodes from touching each another.

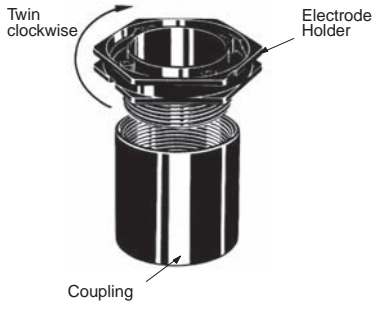
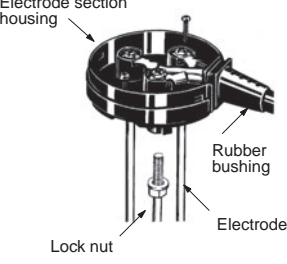
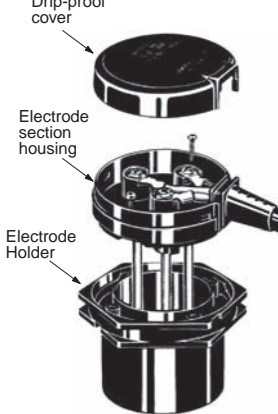


**Note:** 1. The spring washer comes with the lock nut.

2. Refer to F03-□ for details on Electrodes, Connecting Nuts, Lock Nuts, and Separators.

# Mounting

## ■ PS-3S Electrode Holders

1. Mounting Electrode Holder	2. Attaching Electrode(s) to Electrode section	3. Inserting Electrode section into Electrode Holder
<ul style="list-style-type: none"> <li>Screw the Electrode Holder into the coupling secured at the installation location.</li> </ul>	<ul style="list-style-type: none"> <li>Insert each Electrode into the connecting nut, secure the Electrode with the clamp screws, and then tighten the lock nut.</li> <li>Connect the leads, inserted through the hole of the rubber bushing, into the respective terminals.</li> </ul>	<ul style="list-style-type: none"> <li>Fit the Electrode section into the Electrode Holder and secure it with the two screws.</li> <li>Check the Electrode section for proper wiring, fit the rubber bushing in position, and then cover the Electrode Holder with the drip-proof cover.</li> </ul>
 <p>Twin clockwise</p> <p>Electrode Holder</p> <p>Coupling</p>	 <p>Electrode section housing</p> <p>Lock nut</p> <p>Rubber bushing</p> <p>Electrode</p>	 <p>Drip-proof cover</p> <p>Electrode section housing</p> <p>Electrode Holder</p>

**Note:** 1. OMRON does not sell couplings.

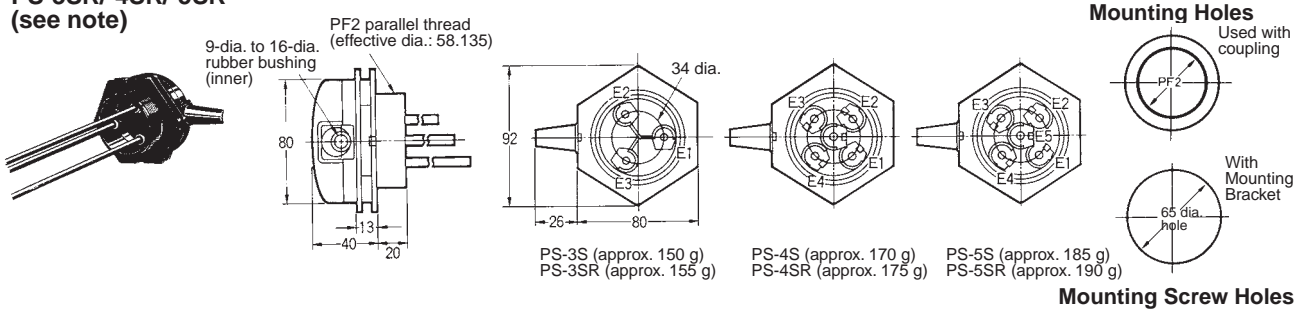
2. Screw in the Electrode until it reaches the bottom of the nut. Insufficient insertion will cause a faulty connection.

# Dimensions

Note: All units are in millimeters unless otherwise indicated.

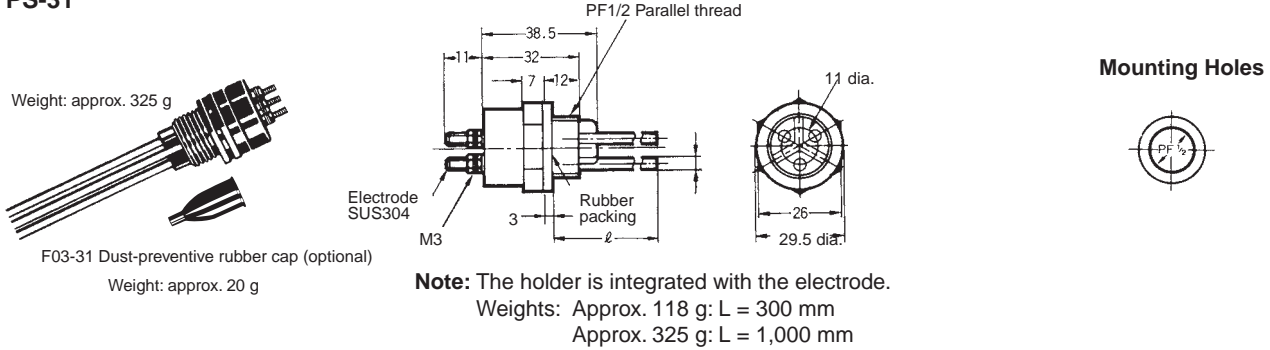
## Electrode Holders

PS-3S/-4S/-5S  
PS-3SR/-4SR/-5SR  
(see note)



Note: The PS-3SR, PS-4SR, and PS-5SR have built-in resistor of 6.8 kΩ and used for the two-wire 61F models.

## PS-31



## Safety Precautions

Refer to *Safety Precautions for All Level Controllers*.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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