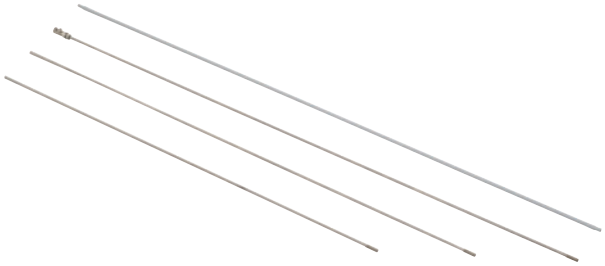
Electrodes and Accessories
F03-□

CSM_F03-__DS_E_8_1

A Wide Variety of Electrodes for Long Lasting Reliability

- Standard Electrodes are made of stainless steel (SUS 304) and can be used in applications for purified water.
- SUS316 Electrodes can be used in applications where resistance to corrosion is required. Titanium and Hastelloy Electrodes can be used in applications where resistance to acid is required.
- For applications where long electrodes are required, a connection nut and two Lock Nuts can be used to extend the electrodes 1 m at a time.



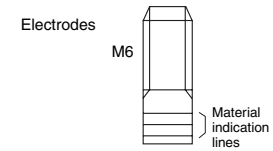
⚠ **Refer to *Safety Precautions for Electrodes and Electrode Holders.***

Ordering Information

Material indications are provided on all OMRON electrodes, connection nuts, and Lock Nuts.

Electrodes

Select an electrode appropriate for the type of liquid. Refer to *Technical Guide for Level Controllers*.

Model	Material	Weight (g)	Material indication lines	
F03-01 SUS304	SUS304	Approx. 170	1 line	
F03-01 SUS316	SUS316		2 lines	
F03-01 HAS B (See note 1.)	N10665 (See note 2.)	Approx. 195	3 lines	
F03-01 HAS C (See note 1.)	N10276 (See note 2.)	Approx. 190	4 lines	
F03-01 TITANIUM	Titanium	Approx. 100	5 lines	

Note: 1. HAS: HALSTELLOY is a registered trademark of Haynes International, Inc.
2. UNS No. (Unified Numbering System No.) is an international metal designation system that specifies a unique number for each material.

Insulated Electrodes

Electrodes are insulated with a plastic sheath to prevent them from touching each other and to isolate them from debris in the liquid. Before application, strip back about 10 cm of the sheath at the end to ensure sufficient conductivity.

Model	
F03-01 SUS304	Vinyl Tubing
F03-01 SUS304	Fluororesin Tubing
F03-01 SUS316	Vinyl Tubing
F03-01 SUS316	Fluororesin Tubing

Note: Tubing comes in 1-m lengths with a sheath thickness of 0.5 mm.

Connecting Nuts

Model	Material	Weight (g)	Material indication
F03-02 SUS304	SUS303 (Equivalent to SUS304)	Approx. 12	Blank
F03-02 SUS316	SUS316		6
F03-02 HAS B	N10665 (See note.)	Approx. 20	B
F03-02 HAS C	N10276 (See note.)		C
F03-02 TITANIUM	Titanium	Approx. 6	T

Note: UNS No. (Unified Numbering System No.) is an international metal designation system that specifies a unique number for each material.

Electrode Sets

An Electrode Set consists of an electrode, a connecting nut, and two Lock Nuts.

Set model	Components	No. of parts in an set	Weight (g)
F03-60 SUS304	F03-01 SUS304	1	Approx. 190
	F03-02 SUS304	1	
	F03-03 SUS304	2	
F03-60 SUS316	F03-01 SUS316	1	
	F03-02 SUS316	1	
	F03-03 SUS316	2	

Note: Hastelloy and titanium Electrodes do not come in sets.

Lock Nuts

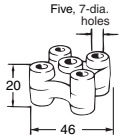
Model	Material	Weight (g)	Material indication
F03-03 SUS304 (See note 1.)	SUS303 (Equivalent to SUS304)	Approx. 2	Blank
F03-03 SUS316 (See note 1.)	SUS316		6
F03-03 HAS B	N10665 (See note 2.)	Approx. 5	B
F03-03 HAS C	N10276 (See note 2.)		C
F03-03 TITANIUM	Titanium	Approx. 2	T

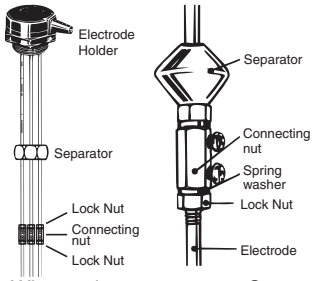
Note: 1. Only SUS304 and SUS316 Lock Nuts come with spring washers made of the same material. HAS B, HAS C and TITANIUM don't come with spring washer.

2. UNS No. (Unified Numbering System No.) is an international metal designation system that specifies a unique number for each material.

Electrode Separators

When long electrodes are required, use Separators at each joint (every 1 m) to prevent the Electrodes from touching each other. Use a 1-pole Separator with BF Electrode Holders. The five-pole model can be used with PS-5S and PS-4S Electrode Holders. Separators cannot be used with PS-31 Electrode Holders.

Model	No. of Electrodes	Dimensions	Applicable Electrode Holder	Weight (g)	Material	Operating Temperature
F03-14 1P	1		BF-□(R)	Approx. 15	Ceramic	250°C max.
F03-14 3P	3		PS-3S(R)	Approx. 30		
F03-14 5P	5		PS-4S(R) PS-5S(R)			



Note: When using two or more Separators, be careful with the mounting direction of the connecting nut screws which connect electrodes. Avoid the screws from touching each other.

Note: The Electrode Separators cannot be used unless the Electrodes are coupled.

Accessories (Order Separately)

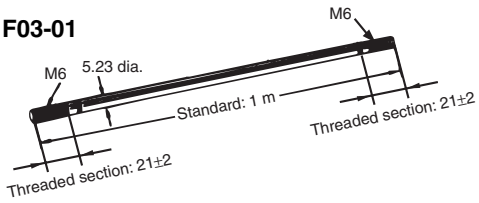
Application	Model
Protective Cover (for PS-□S and BF-3/-5)	F03-11
Mounting Frame (for PS-□S)	F03-12
Mounting Frame for Installing in Concrete (for PS-□S)	F03-13
Dust-proof Rubber Cap (for PS-31)	F03-31

Dimensions of Electrodes and Accessories

Note: All units are in millimeters unless otherwise indicated.

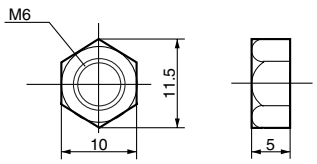
Electrode

F03-01

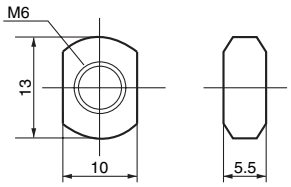


Lock Nut

F03-03
SUS304
SUS316
Titanium

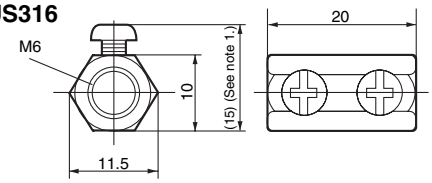


F03-03
HAS B
HAS C

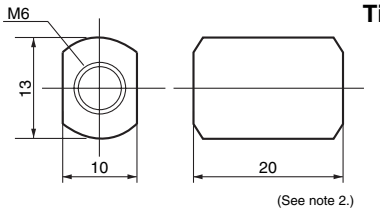


Connecting nut

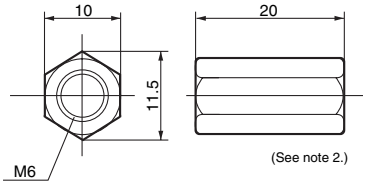
F03-02
SUS304
SUS316



F03-02
HAS B
HAS C



F03-02
Titanium



Note: 1. Dimension when mounting Electrodes.

2. Clamp screws are not provided for Hastelloy B, Hastelloy C, or titanium models. F03-03 Lock Nuts are used to mount Electrodes.

■ Safety Precautions

Refer to *Safety Precautions for All Level Controllers*.

■ Precautions for Correct Use

Cleaning Electrodes

Electrodes are clean when they are dispatched. In the rare occasion that they become dirty during transit or storage, such as forming an oil film on the surface, clean them again before using them.

Operating Environment

Use the Electrode within the ambient operating temperature range of the Holder.

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

In the interest of product improvement, specifications are subject to change without notice.

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Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

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