



Conductivity electrode (9383-10D) Instruction Manual

Thank you for purchasing the HORIBA electrode. Read this manual carefully before using the electrode.

Conformable standards

This equipment conforms to the following standards:



RoHS: EN50581
9. Monitoring and control instruments

Authorised representative in EU

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Cautions during handling

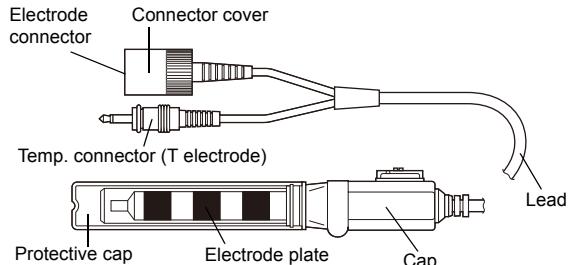
- Do not allow the electrode to come in contact with any hard surface.
- If the electrode pole plate is dry, immerse the electrode in pure (ion exchange) water for at least one hour, prior to use.
- The electrode connector requires high insulation. Do not allow the connector to be in contact with water or dirty hands.
- Do not rub the electrode plate with a brush or polish it with a polishing agent.
- The water-resistant construction of meters can be used in combination with this electrode to provide water-resistant construction (conforming to IP-67). When measuring, do not immerse the cap, the lead or the connector in the sample.

Packaged contents

Name	Q'ty
Electrode	1 pc
Operation Manual	1 copy

Specifications and names of parts

Names of parts



Specifications

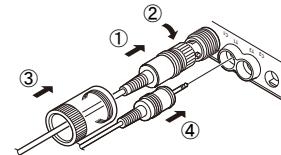
Model	9382-10D
Cell constant	100 m ⁻¹ (Former units: 1 cm ⁻¹)
Measurement range	0.1 mS/m to 10 S/m (Former units: 1 µS/cm to 100 mS/cm)
Usable temp. range	0°C to 80°C
Storage temp. range	0°C to 50°C
Electrode material	Titanium - platinum black
Wetted part materials	PPS, PSF and titanium

Electrode length	150 mm (incl. cap)
Max. height of electrode plate	53 mm (position from electrode tip)
Ext. diam. of wetted part	16 mm
Lead length	1 m

Preparations

Connecting to meter

- Insert the electrode connector into the connector port sleeve on the meter, after aligning with the pin. Do not insert the connector unless it is aligned properly with the connector port.
- Press the electrode connector into the connector port on the meter, while turning the connector to the right.
- Slide the connector cover over the connector. Then, push the cover in straight until it comes in light contact with the meter case. Do not turn the cover.
- Insert the temperature connector into the jack on the meter. Insert the connector firmly, until the O-ring on the connector can no longer be seen.



Setting cell constant

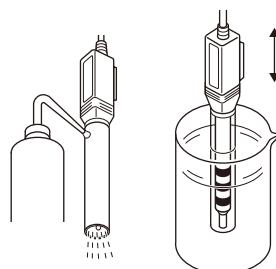
The cell constant for this electrode is displayed on the electrode cap.

Enter the cell constant (shown as 0.954 x 100, in this example) of the electrode, by following the instructions in the Operation Manual for the meter.

Example: **9383-10D** LOT.
0.954 x 100 m⁻¹

Preparing electrode

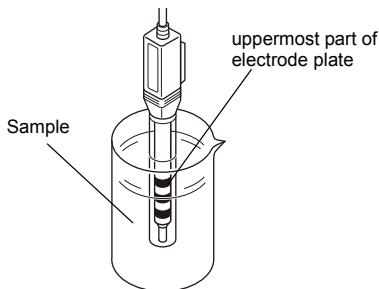
Either wash the electrode plate using a bottle that contains pure (ion exchange) water, or immerse the electrode in a beaker containing pure (ion exchange) water and lift the electrode up and down a few times to rinse it, then wipe it dry using filter or tissue paper.





■ Measurement

1. Immerse the electrode in the sample, so that the uppermost part of the electrode plate is completely immersed.



2. After immersing the electrode in the sample, lightly stir the electrode around to optimize the contact area with the sample and remove any air bubbles.

Note

- When measuring pure water or other water having low conductivity (a few 100 $\mu\text{S}/\text{m}$ or less), the absorption of Carbon Dioxide from the air or other external interference may affect results. In such cases, measurement should take place under air-tight conditions; or, using a flow-form conductivity electrode is recommended.
- Avoid measuring samples having a viscosity of 0.1 $\text{Pa} \cdot \text{s}$ (1P) or more and samples containing large amounts of oils.
- The surface of the electrode plate absorbs various kinds of macromolecular substances (such as proteins and fats). Wash the electrode carefully, after measuring samples that contain these substances.
- Wash the electrode carefully when measuring a low conductivity sample after measuring a high conductivity sample. Then immerse electrode in the low conductivity sample after making sure that there is no influence of the high conductivity sample.

■ Maintenance

- Wash the electrode carefully using pure (ion exchange) water, to remove any sample still clinging to the electrode.
- If the electrode is very dirty and cannot be washed correctly using pure (ion exchange) water, wash it using the appropriate method below. Then, rinse the electrode well using pure (ion exchange) water.
- A long term-use of the electrode may result in shifts of the cell constant, due to changes in the surface condition of the electrode plate. We recommend measuring the cell constant once every two or three months. For further details, refer to the Operation Manual.

● General/oily dirt

Immerse the electrode in a neutral cleansing agent, then rinse the dirt off.

● Inorganic or other dirt

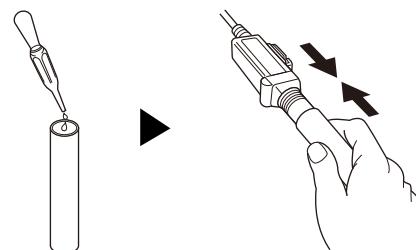
Immerse the electrode in 5% nitric hydrochloric acid for approximately 30 minutes.

■ Storage

1. Wash the electrode carefully using pure (ion exchange) water, to remove any sample still clinging to the electrode.



2. Wash inside of the protective cap with pure (ion exchange) water, then add enough pure (ion exchange) water to immerse the uppermost of the electrode plate. And attach the protective cap.



Note

- Storing the electrode for an extended period of time while the inside of the protective cap is dry may lead to a decline in electrode responsiveness and sensitivity.
- Avoid storing the electrode in hot place or places with high humidity. Store the electrode indoors and out of direct sunlight.