

# Industrial Gel-filled pH/ORP Electrode

**6155 Series / 6855 Series**



Our gel-filled electrodes are  
easy to use and maintain.  
They are able to adapt to  
various sample conditions.

## Product Features

 **Long life**

Gel-filling technology has been improved to achieve 2 years life expectancy.\*1

 **Stability**

Stability has been enhanced with the adoption of a special two-layer structure for the liquid junction and water insoluble polymer gel. It minimizes the influence caused by flow-rate during measurement, and is able to support samples with conductivity as low as 10  $\mu\text{S}/\text{cm}$ .

 **Usability**

- Two types of line-up for various application. (Cable/Connector)
- Can be inserted directly into piping. (NPT3/4 thread)\*2

\*1 Life expectancy varies depending on factors such as sample type, frequency of use, and maintenance.

\*2 Connector-type recommended.

\*When measuring low conductivity samples under high pressure conditions, the measured value may fluctuate by about 0.3 pH (pH)/200 mV (ORP).

By reducing the sample flow rate, the fluctuation range can be reduced.



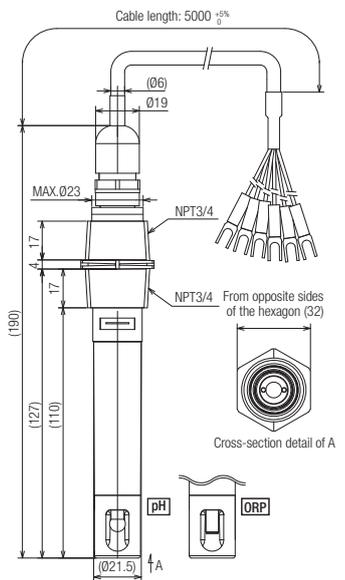
## Specifications

Product name	Industrial Gel-filled pH Electrode		Industrial Gel-filled ORP Electrode	
Model	6155 Series		6855 Series	
Electrode structure	Lead type GRT composite electrode	Connector type GRT composite electrode	Lead type MR composite electrode	Connector type MR composite electrode
Measurement range	0 to 14 pH*1		±1400 mV	
Sample water temperature	-10 to 100°C (No freezing)		-10 to 100°C (No freezing)	
Sample water pressure	Up to 0.7 MPa (under 40°C)*2		Up to 0.7 MPa (under 40°C)*2	
Sample water conductivity	10 µS/cm or more Flowrate needs to be lower than 0.05 m/s.		10 µS/cm or more Flowrate needs to be lower than 0.05 m/s.	
Storage temperature range	0 to 50°C, Relative humidity 85% or less (when unopened)		0 to 50°C, Relative humidity 85% or less (when unopened)	
Liquid junction structure	Double liquid junction structure		Double liquid junction structure	
Comparative electrode internal liquid	Water-insoluble polymer gel Potassium chloride supersaturated		Water-insoluble polymer gel Potassium chloride supersaturated	
Direct screw thread type	-		NPT 3/4	
Wetted material	Glass, PVDF, FKM, PE		Platinum, PVDF, FKM, PE	
Cable length	5 m (standard)/ 10 m/15 m/20 m (MAX)	Option 5 m/10 m/15 m/20 m (MAX)	5 m (standard)/ 10 m/15 m/20 m (MAX)	Option 5 m/10 m/15 m/20 m (MAX)
Temperature compensation component	Pt 1000 Ω (at 0°C)		-	
Adaptive converter	<ul style="list-style-type: none"> <li>HP-200/300 Series (excluding explosion-proof)</li> <li>HP-480/960 Series</li> </ul>		<ul style="list-style-type: none"> <li>HO-200/300 Series (excluding explosion-proof)</li> <li>HO-480 Series</li> </ul>	
Terminal agreement	Square destination opening crimp terminals (4 mm) G, S, R, T, E		Square destination opening crimp terminals (4 mm) M, S, R, E	

\*1. strong, if you need a high accuracy by a strong alkali, we recommend 6108. \*2. 40°C or more of the pressure range, please refer to the following Fig. 1.

\*When measuring low conductivity samples under high pressure conditions, the measured value may fluctuate by about 0.3 pH (pH)/200 mV (ORP).  
By reducing the sample flow rate, the fluctuation range can be reduced.

## External Dimensions (Unit: mm)



## Supplemental Products

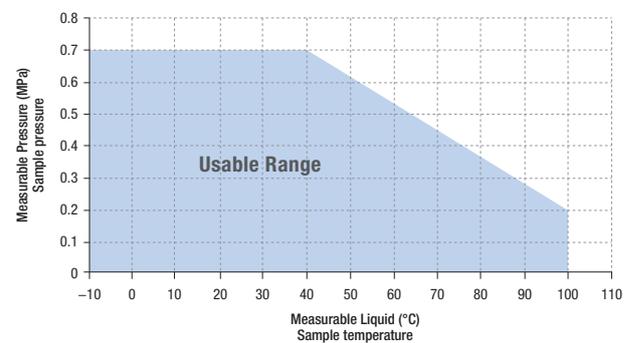
Category	Product name	Model	Notes
6X55 compatible holders	Immersion Type	SH-101 Series*3	-
	Flow Type	CF-601 Series	-
6X55 cleaner	Immersion-Type Ultrasonic Cleaner	UCH-201/211 Series	-
	Immersion-Type Jet Cleaner	JCH-201/211 Series	-
Accessories	Protective Cap (optional)*4	6X55-PCW	-
	Connector Cable (For connector type only)	C-50B-VP	5 m (Standard)
		C-100B-VP	10 m
		C-150B-VP	15 m
		C-200B-VP	20 m
Holder adapter*5	Drop-in Holder Adapter (NH-10 Series)	NH-AD-PVDF-6X55	-
	pH Flow Holder Adapter (made of PP)	CF-AD-PP-6X55	-
	pH Flow Holder Adapter (made of SUS)	CF-AD-SUS-6X55	-

\*3. Customers using the CH-101 Series should change to for this holder (Same bracket can be used).

\*4. However, this protective cap is highly recommended for harsh environments where high concentration of contaminants is present.

\*5. Adapter for attachment to previous electrode holders.

Fig. 1: Pressure Range Above 40°C



**IMS** The HORIBA Group adopts IMS (Integrated Management System) which integrates Quality Management System ISO9001, Environmental Management System ISO14001, and Occupational Health and Safety Management System OHSAS18001. We have now integrated Business Continuity Management System ISO22301 in order to provide our products and services in a stable manner, even in emergencies.



**Please read the operation manual before using this product to assure safe and proper handling of the product.**

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