



Recorder



Flow



Pressure



Temp



Analyzer



Level

Datasheet

ORP Plastic Shell Electrode

SUP-ORP-6050

Supmea[®]

Committed to process automation solutions

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Datasheet

ORP Plastic Shell Electrode SUP-ORP-6050

The industrial 6050 sensor USES the ring-type polytetrafluoroethylene reference liquid interface, solid electrolyte and ring-type platinum ring, which makes the reaction speed and anti-pollution ability of the sensor strengthened, and the performance is perfect, reaching the level of the international similar sensor.

Applications

- Drinking water treatment
- Industrial wastewater treatment
- Soil environmental monitoring
- Environmental monitoring of water bodies
- Food and Beverage Industry
- Biomedical research
- Chemical production

Features

- High accuracy, fast response and good repeatability.
- There is no need for additional dielectric and there is a little amount of maintenance.
- It adopts the world-class solid dielectric and a large area of PTFE liquid for junction, difficult to block and easy to maintain.
- Long-distance reference diffusion channel greatly extends the service life of electrodes in the harsh environment.



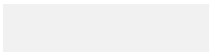
ORP Plastic Shell Electrode

Principle

ORP6050 works based on the principle of electrochemical redox reaction. It consists of a sensing electrode and a reference electrode. When the sensing electrode is in contact with the measured solution, redox reactions occur on its surface. The potential difference generated by the transfer of electrons between the oxidants and reductants in the solution is detected by the sensing electrode. The reference electrode provides a stable potential reference. The ORP6050 device then measures and converts this potential difference into an ORP value, which is usually displayed in millivolts (mV). This value reflects the relative tendency of the solution to undergo oxidation or reduction reactions, enabling users to understand the oxidation-reduction state of the solution and monitor related chemical processes.

Parameters	
Measurement Range (ORP)	-2000mV ~ 2000mV
Sensor Unit (ORP Value under Specific Conditions)	(245 ~ 270)mV (15 ~ 30°C, 256mV Calibration Fluid)
Temperature Compensation Element	NTC10K/PT100/PT1000
Pressure Range	≤0.6Mpa
Sensor Stability	± 4mV /24h
Measurement Range (pH)	2 ~ 12pH
Operating Temperature	(0 ~ 80)°C
Thread Connection	3/4NPT
Shell Material	PPS
Slope (PTS Value, 25°C)	≧ 95%
Resistance	≧ 250 mΩ

Wiring



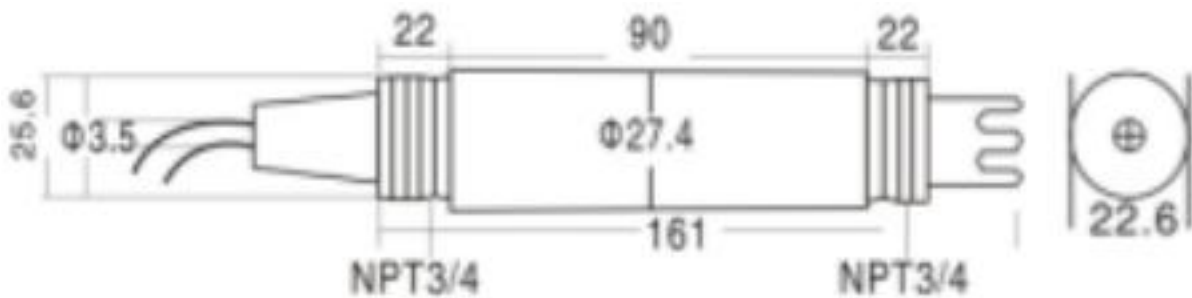
BNC (Q9) Plug

Pin

Y Plate

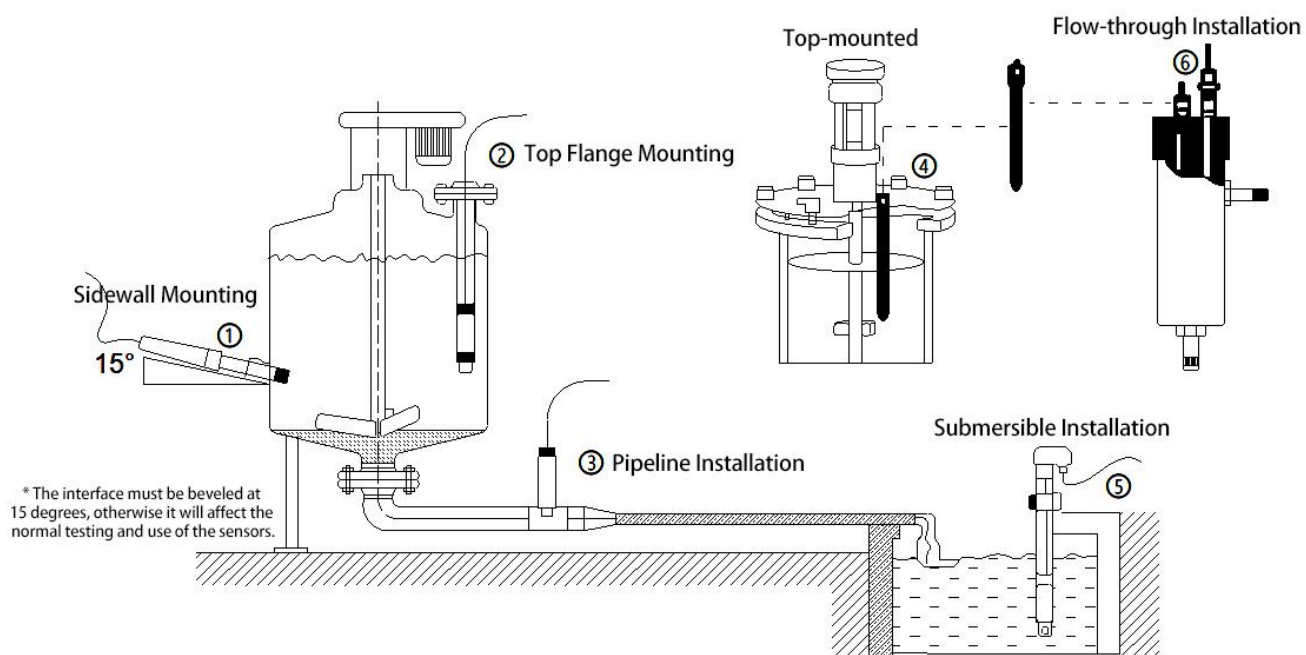


Dimension



Installation

■ Installation



Sensors Common Installation Methods

Ordering code

SUP-ORP-6050 -ZY-C-0-00-PE						Description
SUP-ORP-6050	-	-	-	-	-	
Electrode Connector	ZY					Cable Connector
	S8					S8
	VP					VP
	XX					Others
Salt Bridge Type	C		0 1 3 4 5 2			Ring Shaped PTFE Diaphragm
Temperature Compensation Type						No
						NTC 10K
						NTC 30K
						PT1000
						PT100
						NTC 22K
Cable Length			00	0m		
			05	5m		
			10	10m		
			15	15m		
			20	20m		
			30	30m		
			XX	Others		
Housing Material and Thread Type					PE XX	Plastic PPS, NPT3/4 Thread Others