

## 5081 (2-wire)

## Model 5081 pH & ORP 2-Wire Loop-Powered Transmitter & Analyzer



pH/ORP/ISE Sensors WITHOUT preamplifier Hook-Up Schematic
pH/ORP/ISE Sensors WITH preamplifier Hook-Up Schematic
pH/ORP/ISE Sensors with Mini External Preamplifier Hook-Up Schematic
Guide to quick disconnect Q7M/Q7F snap cable system for Rosemount transmitters

- The Transmitter has a rugged, weatherproof, corrosion-resistant enclosure.
- NEMA 4X and IP65 of epoxy-painted aluminum.
- This enclosure also meets NEMA 7B explosion-proof standards.
- 24V DC Operation Standard, 12 V minimum and 42.4 maximum.
- Continous Diagnostics monitor sensor performance and warns of failure (FAULT) or approaching failure (WARNING).

- CE Certification for Class I, Division I Areas and FM group A-G.
- Automatic Two-Point Buffer Calibration reduces errors.
- Choice of Communication Protocol: HART® or Foundation Fieldbus.
- Non-Volatile Memory retains program settings and calibration data during power failures.
- Solution Temperature Compensation converts measured pH into the pH at 25°C.

## Product Specifications for Hart & Fieldbus (242K-PDF)

5081 pH/ORP Operation Manual (2,465K-PDF)

Measurement	Input	Measurement Range	Outputs	Calibration Points	Compatible Sensor(s)	Special Features
pH/ORP	Single or Dual Channel — pH/ORP	- 0 to 14 pH (standard) - Fully Scalable from 1 to 13 pH units	- Analog 0-20 mA or 4-20 mA output for pH/ORP/ISE or temperature for each input channel - Optional HART or ProfiBUS Digital Outputs	- 2 point auto buffer recognition for pH for slope determination - 1 point user defined pH standardize calibration to correct for offset (drift)	- Any Suitable ASTI pH/ORP Sensor with 100 or 1000 Ohm Platinum TC - Any Suitable ASTI pH/ORP Sensor with 100 or 1000 Ohm Platinum TC & 1056 compatible preamplifier	- Excellent option for severe service pH & ORP measurement in areas with flammable gas and corrosive environments.
Contacting Conductivity	Single or Dual Channel - Conductivity Cell	- Cell from 0.01 to 10.0, user selectable - Ranges from 0-200 microSiemens (0.01/cm) to 0-200 milliSiemens (10.0/cm) as mates with cell	<ul> <li>Analog 0-20 mA</li> <li>or 4-20 mA output</li> <li>for Conductivity or</li> <li>temperature for</li> <li>each input channel</li> <li>Optional HART or</li> <li>ProfiBUS Digital</li> <li>Outputs</li> </ul>	- Zero Calibration (Capitance) - Cell Constant calibration tofFind exact effective (apparent) cell constant in standard solution or process media	<pre>- Any Suitable Contacting Conductivity Sensor with 1000 Ohm Platinum TC</pre>	- Support for displaying in concentration units of acids, bases and electrolytes as well as salinity - Special ultrapure water temperature compensation and support for display in resistivity units

Toroidal Conductivity (Contactless Inductive)	Single or Dual Channel — Toroidal Conductivity Sensor	- Range from 0.050 to 2,000 milliSiemens (2 Siemens)	<ul> <li>Analog 0-20 mA</li> <li>or 4-20 mA output</li> <li>for Conductivity or</li> <li>temperature for</li> <li>each input channel</li> <li>Optional HART or</li> <li>ProfiBUS Digital</li> <li>Outputs</li> </ul>	- Zero Calibration (Capitance) - Cell Constant calibration to find exact effective (apparent) cell constant in standard solution or process media	- Any Suitable Toroidal Conductivity Sensor with 20/20 Windings and 1000 Ohm Platinum TC	- Support for displaying in concentration units of acids, bases and electrolytes as well as salinity - Excellent choice for strong acid, strong base and strong electrolyte solutions at elevated temperatures
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