



## 1057 (4-wire)

**Model 1057 Single, Dual or Triple Channel pH, ORP, Ion Selective (ISE), Contacting and Toroidal Conductivity 4-Wire Transmitter, Controller & 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](#)  
[Contacting Conductivity Sensor Hook-Up Schematic](#)  
[Toroidal Conductivity Sensor Hook-Up Schematic](#)

### COMPARISON CHART FOR 1056, 1057 & 56 ANALYZERS

- Chemically & Mechanically Resilient Polycarbonate NEMA 4X / CSA 4 IP65 Enclosure – Standard 1/2 DIN Cutout

- 115/230 VAC & 24 VDC 4-Wire Power Operation Standard With Relays
- Standard Dry Contact 5A Relays for alarm or simple on/off control functionality, 4 each included with each controller
- **Available in any combination of Single, Dual or Triple Channel pH / ORP / ISE / Conductivity Configurations**
- Extremely cost effective solution to simple pH, ORP, ISE & Conductivity Analyzer / Transmitter / Controller Requirements
- Automatic Temperature Compensation via 100 or 1000 Ohm Platinum Temperature Compensation Element (Available in Standard and ACCU-TEMP configurations)
- Quad (4 each) Isolated & Independent 0-20 or 4-20 mA outputs for Signal and/or temperature standard, fully user configurable
- Large LCD Display with touch membrane keypad – Menu Driven Interface and Programming
- Automatic Temperature Compensation from 0 to 150 °C (32 to 302 °F) for pH & ISE and 0 to 200 °C (32 to 392 °F) for Conductivity

## **1057 Product Specifications**

## **1057 Operation Manual**

Measurement	Input	Measurement Range	Outputs	Calibration Points	Compatible Sensor(s)	Special Features
Ion Selective (ISE) *	Single or Dual Channel – Ion Selective Solid State & Organic Membrane	5 Decades Maximum Concentration Range from 1 ppb to 1 Molar (varies with each ion; please inquire to ASTI)	– Analog 0-20 mA or 4-20 mA output for pH/ORP/ISE or temperature for each input channel	– 2 point user defined to determine ISE slope – 1 point user defined for ISE standardize to correct for offset (drift)	– Any Suitable ASTI ISE Sensor with 100 or 1000 Ohm Platinum TC – Any Suitable ASTI ISE Sensor with 100 or 1000 Ohm Platinum TC & 1056 compatible preamplifier	– Cost Effective Solution for Triple Channel ISE measurements
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	– 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	– Cost Effective Solution for Triple Channel pH/ORP measurements

Contacting Conductivity	Single or Dual Channel – Conductivity Cell	<ul style="list-style-type: none"> <li>– Cell from 0.01 to 10.0, user selectable</li> <li>– Ranges from 0-200 microSiemens (0.01/cm) to 0-200 milliSiemens (10.0/cm) as mates with cell</li> </ul>	– Analog 0-20 mA or 4-20 mA output for Conductivity or temperature for each input channel	<ul style="list-style-type: none"> <li>– Zero Calibration (Capitance)</li> <li>– Cell Constant calibration to find exact effective (apparent) cell constant in standard solution or process media</li> </ul>	– Any Suitable Contacting Conductivity Sensor with 1000 Ohm Platinum TC	<ul style="list-style-type: none"> <li>– Support for displaying in concentration units of acids, bases and electrolytes as well as salinity</li> <li>– Special ultrapure water temperature compensation and support for display in resistivity units</li> </ul>
Toroidal Conductivity (Contactless Inductive)	Single or Dual Channel – Toroidal Conductivity Sensor	<ul style="list-style-type: none"> <li>– Range from 0.050 to 2,000 milliSiemens (2 Siemens)</li> </ul>	– Analog 0-20 mA or 4-20 mA output for Conductivity or temperature for each input channel	<ul style="list-style-type: none"> <li>– Zero Calibration (Capitance)</li> <li>– Cell Constant calibration to find exact effective (apparent) cell constant in standard solution or process media</li> </ul>	– Any Suitable Toroidal Conductivity Sensor with 20/20 Windings and 1000 Ohm Platinum TC	<ul style="list-style-type: none"> <li>– Support for displaying in concentration units of acids, bases and electrolytes as well as salinity</li> <li>– Excellent choice for strong acid, strong base and strong electrolyte solutions at elevated temperatures</li> </ul>

*\* Ion selective measurement type must be set at time of purchase at ASTI factory. Transmitters configured for ISE measurement not sold separately but rather only as part of complete ISE system including ISE transmitter AND ISE sensor supplied complete from ASTI factory. ISE measurement must be validated for feasibility by ASTI prior to sale.*