

# 1066 Liquid Analytical Transmitter

- **WIDE RANGE OF SENSOR INPUTS** – measures pH, ORP, Contacting and Toroidal Conductivity, % Concentration, Total Chlorine, Free Chlorine, Monochloramine, Oxygen, Ozone and Temperature
- **LARGE DISPLAY** – large easy-to-read process measurements, user-definable display of measurement diagnostic parameters
- **DIGITAL COMMUNICATIONS** – HART® version 7 and FOUNDATION® fieldbus communication protocols available for host monitoring and configuration
- **INTUITIVE MENU SCREENS** with advanced diagnostics and help screens
- **SMART Enabled** – automatic calibration with SMART pH sensors
- **TWO 4-20mA CURRENT OUTPUTS** are standard on the 1066 HART



## FEATURES AND APPLICATIONS

This loop-powered analytical unit serves industrial, commercial and municipal applications with the widest range of liquid measurement inputs available for a two-wire liquid transmitter.

The 1066 SMART transmitter supports continuous measurement of one liquid analytical input. The design supports easy internal access and wiring connections. The large display gives excellent visibility for live measurements and displayed parameters. Conveniently, live process values are always displayed during programming and calibration routines.

**ANALYTICAL MEASUREMENTS:** Ordering options for pH/ORP, Resistivity/Conductivity, % Concentration, Total Chlorine, Free Chlorine, Monochloramine, Dissolved Oxygen, and Ozone.

**LARGE DISPLAY:** The high-contrast LCD provides live measurement readouts in large digits and shows up to four additional variables or diagnostic parameters. The display parameters can be customized to meet user requirements.



**DIGITAL COMMUNICATIONS:** HART version 7 digital communications are standard on the 1066. 1066 HART units communicate with the 475 HART® hand-held communicator and HART monitoring applications such as AMS™ Intelligent Device Manager.

**MENUS:** Menu screens for calibrating and programming are simple and intuitive. Plain language prompts and help screens guide the user through the procedures. All menu screens are available in eight languages. Live process values are displayed during programming and calibration.

**GENERAL SPECIFICATIONS**

**Case:** Polycarbonate. NEMA 4X, IP66.

**Dimensions:** Overall 155 x 155 x 131mm (6.10 x 6.10 x 5.15 in.). Cutout: 1/2 DIN 139mm x 139mm (5.45 x 5.45 in.).

**Conduit openings:** Six. Accepts PG13.5 or 1/2 in. conduit fittings.

**Display:** Monochromatic graphic liquid crystal display. No backlight. 128 x 96 pixel display resolution. Active display area: 58 x 78mm (2.3 x 3.0 in.). All fields of the main instrument display can be customized to meet user requirements.

**Ambient temperature and humidity:** -20 to 65°C (-4 to 149°F), RH 5 to 95% (non-condensing).

**Storage Temperature:** -20 to 70°C (-4 to 158°F).

**RFI/EMI:** EN-61326 **CE**

**Hazardous Areas:** Approved for Class I Division 1 Intrinsically Safe installation.

**Input:** One isolated sensor input. Measurement choices of pH/ORP, resistivity/conductivity/TDS, % concentration, ratio conductivity, total and free chlorine, dissolved oxygen, dissolved ozone, and temperature. For contacting conductivity measurements, temperature element can be a PT1000 RTD or a PT100 RTD. Other measurements (except ORP) and use PT100 or PT1000 RTDs or a 22k NTC (D.O. only).

**Analog Outputs:** Two-wire loop powered (Output 1 only). Two 4-20 mA electrically isolated current outputs (Output 2 must be externally powered). Fully scalable over the operating range of the sensor.

**Weight/Shipping Weight:** 2 lbs/3 lbs (1 kg/1.5 kg)

**Power & Load Requirements:** Minimum power supply voltage is 12.7 Vdc. Maximum power supply voltage is 42.4 Vdc (30 Vdc for intrinsically safe operation).

**Emerson Process Management**  
 Rosemount Analytical  
 2400 Barranca Parkway  
 Irvine, CA 92606  
 T 949.757.8500  
 T 800.854.8257  
 F 949.474.7250  
**RosemountAnalytical.com**  
**liquid.csc@emerson.com**

**ROSEMOUNT**<sup>®</sup>  
 Analytical

71A-1066

**PERFORMANCE SPECIFICATIONS – TRANSMITTER (pH INPUT)**

**Measurement Range [pH]:** 0 to 14 pH.

**Accuracy:** ±0.01 pH.

**Buffer recognition:** NIST, DIN 19266, JIS 8802, and BSI.

**Input filter:** Time constant 1 - 999 sec, default 4 sec.

**Response time:** 5 seconds to 95% of final reading.

**PERFORMANCE SPECIFICATIONS – TRANSMITTER (ORP INPUT)**

**Measurement Range [ORP]:** -1400 to +1400 mV.

**Accuracy:** ± 1 mV.

**Input filter:** Time constant 1 - 999 sec, default 4 sec.

**Response time:** 5 seconds to 95% of final reading.



**EMERSON**<sup>™</sup>  
 Process Management