

Transmitters

2-Wire Contacting Conductivity Transmitter

APT 2000 Series

FEATURES

- Corrosion resistant, IP65 enclosure
- Continuous diagnostics for calibration, probe health, and transmitter self-test
- Application in hazardous and safe areas
- Large display with easy-to-read 0.75 inch measured value
- Red, flashing LED with optional 22 mA current output if error or diagnostic present
- HART bi-directional communications protocol
- Temperature compensation algorithms for high purity and natural water

TYPICAL INDUSTRIES

- Power
- Chemical
- Pharmaceutical
- Pulp and Paper
- Water Quality



The Honeywell Analytical Process Transmitter (APT) 2000 Series transmitter is a two-wire 24-Volt device that continuously measures conductivity, resistivity and salinity in industrial processes within the power, chemical, pharmaceutical, pulp and paper, and water quality industries.

The APT 2000's specially packaged electronics and water/corrosion resistant IP65 rated enclosure is specifically designed to meet the needs of intrinsically safe, non-incendive and general-purpose areas. Honeywell conductivity cells or electrically compatible sensors can be used with the transmitter. For bi-directional remote monitoring/control of the process, the HART communications protocol is available as an option.

THE FEATURES YOU EXPECT

Five front panel keys allow simple and interactive setup, operation and calibration of the APT 2000. A large display allows quick identification of process variables and diagnostics. The robust, tightly sealed plastic transmitter housing design is both water and corrosion resistant, with an IP65 rating.

By continuously monitoring cell health and transmitter electronics, the APT 2000 alerts operators immediately (via the display or a blinking red LED) to a problem. A manual loop-back check tests the integrity of the 4-20 mA output. The HART communications option allows monitoring and changing of variables from remote locations.

EASILY INTEGRATED

The APT 2000 Series transmitters can be remote controlled via HART communications from a handheld terminal or the control room. This allows easy integration into fully automatic processes.

FULLY CERTIFIED

Area certifications for the APT 2000 include both intrinsically safe and non-incendive from FM, CSA and CENELEC. Each transmitter comes standard with the European CE mark.

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CONDENSED SPECIFICATIONS

Conductivity Input		
Ranges	(0.2 $\mu\text{S}/\text{cm}$ * Cell Constant) to (1000 mS/cm * Cell Constant)	
Accuracy	Less than 1% of Measured Value or \pm (0.4 (S/cm * Cell Constant), whichever is greater)	
Conductivity	0.00 $\mu\text{S}/\text{cm}$ to 999.9 mS/cm	
Resistivity	0.000 $\text{M}\Omega\text{-cm}$ to 999.9 $\text{M}\Omega\text{-cm}$	
Salinity	0.0% to 45.0% (0°C to 35°C)	
Temperature	Thermistor	RTD
Input Ranges	8550 Ω : -10.0°C to 130°C [14°F to 266°F]	Pt100/1000 Ω : -20.0°C to 150.0°C [-4°F to 302°F]
Resolution/Accuracy	0.1°C or 1°F / \pm 0.5°C	
Supply/Output		
Output current	4 to 20 mA (22 mA for error notification) current loop, floating (3.8 mA to 20.5 mA)	
Supply voltage	12 to 42 V; I _{max} = 100 mA; P _{max} = 0.8 W	
HART Protocol	Bi-directional digital communication	
Area Certifications / Compliance		
General Purpose	Zone 2 (USA/Canada) FM/CSA: NI, Class I, Div 2, Groups A - D, T4	
Intrinsically Safe	Zone 1 (USA/Canada) FM/CSA: IS, Class I, Div 1, Groups A - D, T4 Zone 1 (Europe) CENELEC: II 2G EEx ib [ia] IIC T6	
Physical		
Enclosure	Plastic enclosure made of PBT (polybutylene terephthalate) bluish-gray RAL 7031	
Display	LCD Display, H 48 mm, W 76 mm(1 7/8" X 3"), 7-segment	
Ambient Conditions	Operation/Environmental temp: -20°C to 55°C	Transport and storage temp: -20°C to 70°C
Dimensions / Weight	H 144 mm, W 144 mm, D 105 mm	Approx. 1 kg [2.2 lbs]
Protection	– IP 65: Dust-tight, protection from powerful water jets (USA, Canada: indoor use only) – Corrosion-proof housing	

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is **in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.**

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While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For application assistance call: 1-800-343-0228 USA

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Honeywell

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