

## APT 2000 Series 2-Wire pH/ORP Transmitter

*The Features You Expect with the Reliability You Need*

Honeywell Analytical Process Transmitter (APT) 2000 Series transmitters offer the widest available selection of advanced features in a reliable and economical instrument. Honeywell's APT 2000 Series transmitters continuously measure pH or ORP in many industrial processes, including intrinsically safe, non-incendive and general-purpose areas.

The APT2000 pH transmitter is designed to meet the measurement needs of a number of industries including chemical, pharmaceutical, petrochemical, pulp and paper, and wastewater.

### Summary of Key Features

The APT 2000 transmitter features include:

- 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

### The Features You Expect

A front panel with five keys allows 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 electrode 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 4-20mA output. The HART communications option allows monitoring and changing of variables from remote locations.

### Works with a Variety of Electrodes

Input to the APT 2000 Series includes the Honeywell Durafet II non-glass or Meredian II glass pH electrodes, metallic ORP electrodes or a wide variety of other manufacturers' electrodes.

### Simple to Operate with Visual Feedback

The APT 2000 employs visual feedback to quicken setup times, minimize errors made during calibrations, and reduce maintenance times. Visual feedback refers to pictograph type characters that appear on the display both to prompt and respond to setup, calibration, and operation actions. Pictograph type characters also appear during problem conditions to report diagnostics for easy troubleshooting.

### User-friendly Calibration

Calibration is easy with automatic buffer recognition, utilizing a variety of buffer standards recognized worldwide. Simple messages with

pictographs provide feedback on the status of the calibration. The APT 2000 performs calibration diagnostics during each step to ensure no mistakes are made. Manual one or two-point calibrations can also be performed.

### 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.

### 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.

### Warranty and Technical Assistance

All APT 2000 Series Transmitters carry a two-year warranty backed by unmatched Honeywell service and support.



## Condensed Specifications

pH/mV Input		
Ranges	pH value: 0.00 to +14.00	mV value: -1500 to +1500 mV
Electrode input types (Internal Preamplifier)	Honeywell Durafet II Electrodes, Honeywell Meredian Glass pH and Metallic ORP Electrodes. Other Manufacturer's Electrodes (Consult factory for applicability)	
Accuracy	pH: <0.02 mV: <1 mV	Tc: 0.0021 pH/K Tc: 0.1 mV/K
Temperature	Thermistor	RTD
Input Ranges	8550Ω: -10.0 to 110.0°C (14 to 230°F)	Pt100/1000Ω: -20.0 to 150.0°C (-4 to 302°F)
Resolution/Accuracy	0.1°C or 1°F / ± 0.5°C	
Supply/Output		
Output current	4 to 20 mA (22 mA for error notification) current loop, floating (3.8 to 20.5 mA)	
Supply voltage	12 to 42 V; I <sub>max</sub> = 100 mA; P <sub>max</sub> = 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 to 55°C	Transport and storage temp: -20 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	

For more information on the APT 2000 pH/ORP transmitter or other Honeywell instrumentation, contact your local Honeywell representative. Or visit our World

Wide Web site at <http://www.honeywell.com/sensing>.  
Or in the U.S. call 1-800-784-3011.

**Honeywell**

### Sensing and Control

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