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by Schneider Electric

Foxboro® 875PH Series pH, ORP and ISE Analyzer

Model 875PH Series Description

This microprocessor-based, line-powered intelligent analyzer, when used with Foxboro® DolpHin® (PH10 or ORP10), 871A, 871PH, or EP460 Series pH and ORP sensors, provides high accuracy measurement of pH or ORP. The analyzer is also configurable for ion selective electrode (ISE) sensors. Functions include measurement display, dual analog outputs, dual relay contacts, and an RS-232 serial port for remote configuration. A human interface guides the user through intuitive, menu-driven configuration, calibration, status, and troubleshooting procedures.

The 875PH Analyzer is one member of a family of intelligent analyzers comprising contacting conductivity, resistivity and electrodeless conductivity.

875 Series Analyzers were designed with a flexible electronics architecture to allow compatibility with existing and future digital protocols. Analyzers can be specified either with or without optional digital protocols, such as HART®. In the future, as your needs change and/or new protocols evolve, you need only install an electronic module in the field to update your instrument to the desired communication platform. 875 Analyzers provide you with an insurance policy against obsolete liquid analytical equipment.

Features/Benefits

- Easy to use
- Sensor and analyzer diagnostics
- Flexible digital communication platform
- Auto buffer recognition for flawless pH calibrations
- RS-232 port and Windows-based configuration utility
- Compatible with a wide range of sensors, including preamplified and non-preamplified versions
- Dual alarms and dual 4 to 20 mA outputs
- Quick and informative status
- Single unit for pH, ORP or ion selective electrode applications
- Mounting for either field or panel applications
- History log for up to 100 time and date stamped events
- Remote auto-service for sensor cleaning and calibration
- Secure data and calibrations

875PH Series pH, ORP and ISE Analyzer

Specifications

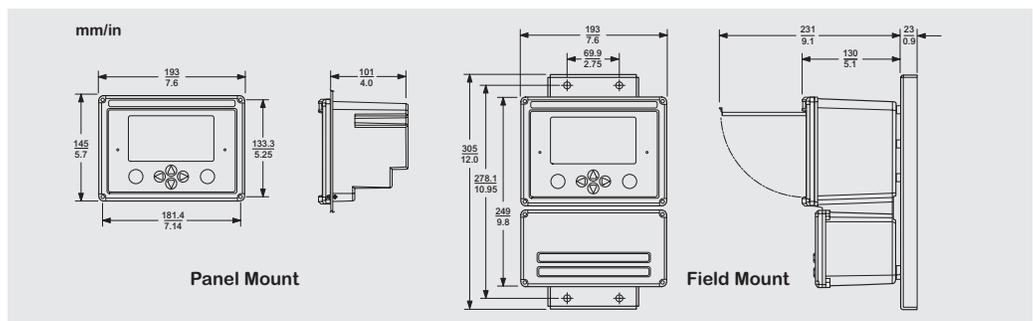|	
Accuracy and Repeatability:	± 0.1% of full scale
Electromagnetic Compatibility:	Compliant with EMC Directive 89-336-EEC
Measurement Ranges:	**pH:** -2 to +16
	ORP: -2000 to +2000 mV
	Ion Selective Electrode (ISE): 0 to 9999 ppm
Output Signals:	Dual 4 to 20 mA and single RS-232 standard. Optional digital communication port supports HART and future protocols.
Alarms:	Dual, adjustable 0 to 100% of full scale. Rated 5 amps noninductive, 24 V dc.
Temperature Compensations:	**Types:** Absolute, glass pH, antimony pH, or ISE. Chemical compensations for 1 ppm ammonia and custom. **Range**: -5 to +140°C, sensor dependent
Temperature Compensation Input and Measurement Ranges:	100Ω and 1000Ω RTD, -20 to +200°C; 3 KΩ Balco, -20 to +120°C
Ambient Temperature Limits:	-10 to +65°C
Enclosure:	**Panel mount version:** Noryl plastic; NEMA 4X front panel, NEMA 1 rear module **Field mount version:** Epoxy painted aluminum; NEMA 4X, IEC IP65, CSA Enclosure 4X
Sensor Cable Length, Maximum:	**For preamplified sensors:** 150 meters (500 feet)
	For non-preamplified sensors: 15 meters (50 feet)
Sensor Compatibility:	**Full compatibility:** PH10, ORP10, 871A-1, -3, -4; 871PH-3, -4, -5, -6; all EP460 Series **Compatibility less full diagnostic suite:** 871A-2; 871PH-1, -2
Sensor Diagnostics:	Broken glass electrode, aging glass electrode, liquid leakage, preamp failure, temperature device failure, fouled reference junction. Note: Check sensor specifications for diagnostics capability.
Sensor Inputs:	A single sensor may be connected to the analyzer.
Input Impedance:	$10^{12}Ω$ minimum on measurement and reference inputs. Screen (shield) drive provided.

Ordering Information

(please refer to product specifications for complete ordering instructions).

Construct your model code by selecting the attributes most appropriate for your application.

Example: 875PH-A2F-A is an 875PH analyzer, 120 VAC power, field (pipe) mounting, FM certified, with a storm door option.

875PH = Intelligent pH, ORP and ISE Analyzer.

Panel Mount

Field Mount

Supply Voltage	Mounting	Electrical Safety	Options
-A = 120 VAC	1 = Panel mounting	F = Factory Mutual nonincendive	-A = Storm door
-B = 220 VAC	2 = Field mounting, pipe	U = Underwriter's Labs, ordinary	-C = Digital HART and 4-20 mA
-C = 240 VAC	3 = Field mounting, surface	C = CSA certified	-F = Configurator utility
-J = 100 VAC		N = ATEX nonsparking	

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