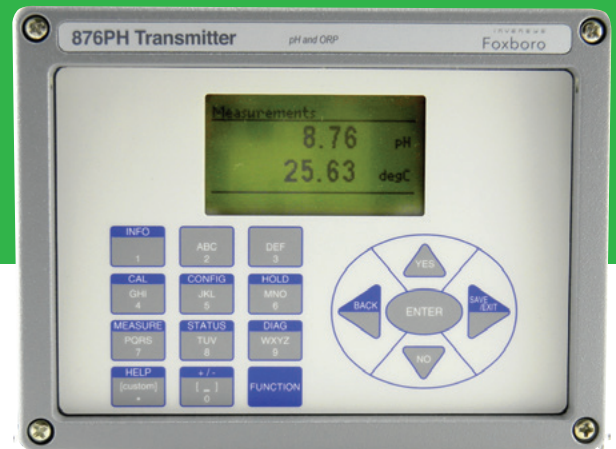


Foxboro® 876PH Transmitter*

For pH, ORP And ISE Measurement



Model 876PH Transmitter Description

The Foxboro® brand Model 876PH is a 2-wire loop powered intelligent transmitter that, when used with appropriate electrochemical sensors, provides measurement, local display, and transmission of pH, ORP (Oxidation-Reduction Potential), or ISE (Ion Selective Electrode) concentration. The transmitter outputs a HART digital signal and a 4 to 20 mA analog output.

For pH, ORP or ISE applications requiring a two-wire, loop powered transmitter, the Foxboro brand Model 876PH with Foxboro sensors provides the most flexible solution for wide ranging application conditions.

Unlike other pH measurement solutions, Foxboro's offering provides the widest choice of sensing and configuration selections, resulting in the best possible match for your application. The result is long service life, quick and easy application set changes, and savings in both material and labor costs.

Summary

The Foxboro Model 876PH is a full featured transmitter for pH, ORP or ISE applications. It offers easy configurability, a rugged field-mounted enclosure for the most challenging industrial environments, and agency certifications for hazardous electrical areas. HART communications and a time saving HART Device Type Manager integrates with your plant asset management strategies.

Business Value

Unlike other pH measurement solutions, Foxboro's offering provides the widest choice of sensing and configuration selections, resulting in the best possible match for your application. The result is long service life, quick and easy application set changes, and savings in both material and labor costs.

876PH Transmitter

For pH, ORP And ISE Measurement



Features / Benefits

Application Flexibility:

Transmitter can be rapidly customized to specific application requirements. One basic transmitter handles all applications, simplifying inventory.

Simultaneous pH and ORP Measurement:

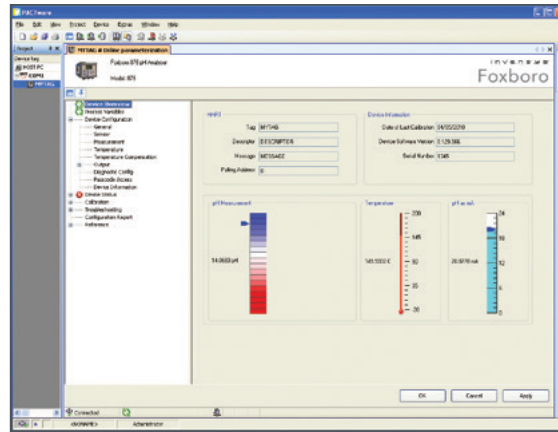
One transmitter handles two measurements, and outputs both measurements digitally via HART, greatly reducing cost and space requirements.

Sensor and Transmitter Diagnostics:

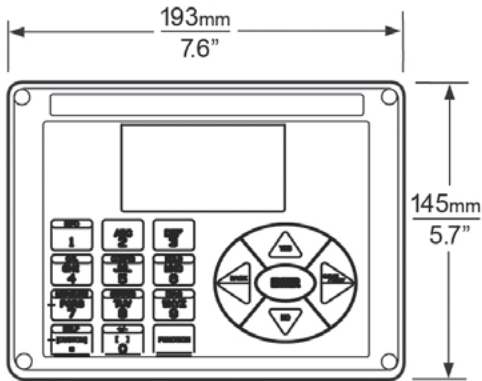
Sensor faults such as broken glass and coated reference are continuously checked. This feature allows maintenance to be better managed, reducing costs and ensuring asset availability.

Save and Restore Configurations:

Up to two unique configuration profiles can be saved, facilitating a quick and easy change, saving operator time and cost.



HART DTM: A time-saving HART Device Type Manager (DTM) simplifies configuration and troubleshooting, and provides trend graph capabilities.



876PH Transmitter

For pH, ORP And ISE Measurement



Model 876PH Transmitter for pH, ORP, ISE Specifications

Accuracy:	+/- 0.009 pH with 3-wire, 1000 ohm RTD
Stability (After 6 Months):	+/- 0.009 pH with 3-wire, 1000 ohm RTD
NAMUR Compliance:	NAMUR NE 43 for analog overrange and underran NAMUR NE 21 for interference immunity requirements
Electromagnetic Compatibility (EMC):	Complies with European EMC Directive 2004/108/EC by conforming to EN 61326-1:2006
Measurement Range (Selectable):	-2 to +16 pH -2000 to +2000 mV ORP 0 to 9999 ppm Ion Selective Electrode concentration
Temperature Inputs:	100 ohm platinum RTD, 2 or 3 wires 1000 ohm platinum RTD, 2 or 3 wires 3000 ohm Balco RTD, 2 wires
Output Hold:	Hold OFF, Hold at PRESENT value, or Hold at MANUAL value
Auto Buffer Recognition:	Six (6) tables of preprogrammed buffer values
History Log:	100 most recent events stored in nonvolatile memory
Environmental and Corrosion Resistance:	IP66 and NEMA 4X
Electrical Safety Specifications:	Approved by FM, ATEX, CSA, IECEx and NEPSI. Zone 0 and Zone 2, Divisions 1 and 2

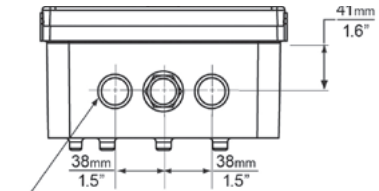
876PH Transmitter

For pH, ORP And ISE Measurement

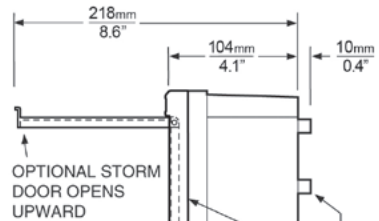


Model Code Specifications

Description	Model
Intelligent Transmitter for pH, ORP and ISE Measurement	876PH
Output Signal	
Intelligent; Digital HART and 4 to 20 mA	-T
Enclosure Mounting	
Panel Mounting	W
Surface Mounting	X
Pipe Mounting (Horizontal or Vertical Pipe)	Y
Electrical Safety (contact Foxboro for the current status of certifications)	
ATEX intrinsically safe; II 1 G, Ex ia IIC, Zone 0	AA
ATEX energy limited for II 3 G, Ex nL IIC, Zone 2; and intrinsically safe for II 3 G, Ex ic IIC, Zone 2	AN
CSA intrinsically safe; Class I, II, III, Division 1; and Ex ia IIC, Zone 0	CA
CSA for Class I, II, III, Division 2; and energy limited for Ex nL IIC Zone 2	CN
FM intrinsically safe; Class I, II, III, Division 1; and AEx ia IIC, Zone 0	FA
FM nonincendive for Class I, II, III, Division 2; and energy limited for AEx nL IIC, Zone 2	FN
IECEx intrinsically safe; II 1 G, Ex ia IIC, Zone 0	DA
IECEx energy limited II 3 G, Ex nL IIC, Zone 2; and intrinsically safe II 3 G, Ex ic IIC, Zone 2	DN
NEPSI, Ex ia IIC Ga; intrinsically safe for Zone 0	NA
NEPSI, Ex ic IIC Gc; intrinsically safe for Zone 2	NN
No Certification	ZZ
Optional Selections	
Special per Engineering Order (a)	-1
Storm Door (b)	-7
Detailed Instruction Manual (c)	-M



TWO 22 mm (0.87 in) DIAMETER HOLES FOR FIELD WIRING ENTRY. NEMA PLUG IN CENTER HOLE CAN BE REMOVED FOR ADDITIONAL WIRING.



FOUR BOSSES ON REAR SURFACE TAPPED 0.250-20, 6.4 mm (0.25 in) DEEP ARE USED FOR SURFACE OR PIPE MOUNTING OF TRANSMITTER. CENTERS OF BOSSES ARE ON A 89 mm (3.5 in) BOLT CIRCLE. GASKET BETWEEN CASE AND HINGED FRONT COVER. FRONT COVER HINGES DOWNWARD.

- (a) Provides ability to preconfigure the instrument with custom temperature compensation.
- (b) Used to protect front panel controls, particularly in field mounting applications.
- (c) A CD-ROM is shipped as standard with each transmitter. and Process Electrode Seal.