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871PH Series Sensors

Rebuildable pH and ORP Sensors



Description

New options bring Foxboro's flagship DolpHin™ sensing technology and other enhancements to our popular rebuildable sensor line.

Purchasers who choose from the Foxboro® 871PH family of rebuildable pH and ORP sensors can now specify our innovative DolpHin pH glass as an electrode selection. This allows applications up to 250° F (121° C), and has proven to offer significantly longer life in high-temperature and temperature cycling environments. Other benefits: greater accuracy and faster response in those applications than competitively tested sensors.

In addition, an optional double junction ion barrier reference — also a patented DolpHin technology — adds improved measurement stability and longer life to your 871PH sensor.

Other enhancements include the options to specify a Variopin quick cable connector on sensor or cable end; alternate O-ring materials (Viton® is standard; new options are epdm and Chemraz®); and a smooth, nonstick ptfе collar for added electrode protection and minimal coating.

All options above are also supported via available new rebuild kits, adding an economical alternative to disposable sensors.

Features/Benefits

- Reuseable sensor body
 - Replaceable electrode and junction
 - Economical alternate to disposable sensor
- DolpHin pH glass option
 - Proven longer life in high temperatures and temperature cycling environments
 - Greater application range
 - Increased accuracy
 - Faster response
- DolpHin reference junction option — double-junction ion barrier
 - Improved measurement stability
 - Longer sensor life
- Variopin connector option
 - Quick, easy connection
- O-ring material options
 - Viton, Chemraz, and epdm available
- Nonstick (ptfe) collar option
 - Added electrode protection plus smooth surface to minimize coating
- Available rebuild kits for all new options

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871PH Series Rebuildable pH and ORP Sensors

Description Model

Rebuildable Style pH/ORP Sensor 871PH

Sensor Body Material and Diagnostic Configuration

Ryton, Standard Configuration, Integral Pre-amplifier (a)	-1
CPVC, Standard Configuration, Integral Pre-amplifier (a)	-2
Ryton, Intelligent Configuration, Integral Pre-amplifier (b)	-3
CPVC, Intelligent Configuration, Integral Pre-amplifier (b)	-4
Ryton, Intelligent Configuration, No Pre-amplifier (b)	-5
CPVC, Intelligent Configuration, No Pre-amplifier (b)	-6

Measuring Electrode and Body Material

Spherical Glass, pH, Ryton	A
Antimony, pH, Ryton	B
Platinum, ORP, Ryton	D
Gold, ORP, Ryton	E
Flat Ruggedized Glass, pH, Ryton (c)	F
Domed High Temperature Glass, pH, Ryton	G
Spherical Glass, pH, ptfe	P
Antimony pH, ctfe	Q
Platinum, ORP, ctfe	R
Gold, ORP, ctfe	S
Flat Ruggedized Glass, pH, ptfe (c)	T
Domed High Temperature Glass, pH, ptfe	U
None	X

Sensor Wetted Metallic Parts Material

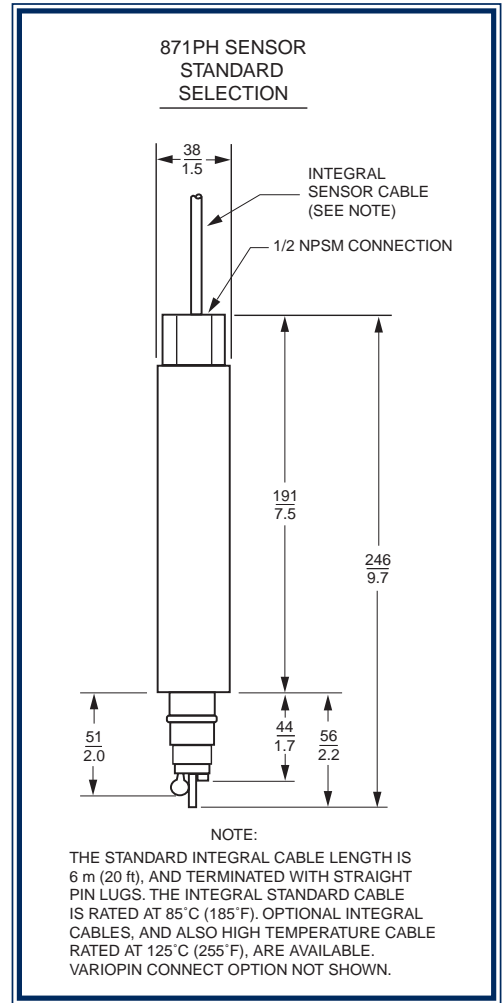
Titanium	1
Carpenter 20 Cb	2
AISI Type 316L Stainless Steel (316L ss)	3
Monel®	5
Tantalum	6

Reference Junction and Body Material

Ceramic, Ryton	A
Ceramic, ptfe	B
Ceramic, Double Junction, Ion Barrier, pvdf	D

Optional Selections

Nonstandard Integral Cable Length (d)	-3
Nonstandard Integral Cable Length, terminated in generic connector plug (d)(e)(f)(g)	-5
Standard Integral Cable Length 6m (20ft), terminated in generic connector plug (e)(f)(g)	-7
Integral High Temperature Cable rated 125°C (255°F) (with sensor body -5, -6)	-H
Integral Cable Terminated w/Variopin Quick Connector (f)(i)	-B
Variopin Quick Connector Integral to Sensor Body (f)(i)	-Q
EPDM O-Rings (standard O-rings are Viton®)	-E
Chemraz O-Rings (standard O-rings are Viton)	-C
No spade lug terminals attached to end of cable (h)	-4
Nonstick ptfe Collar	-T



- a. Does not support the sensor diagnostic features of 870ITPH Transmitter and 875PH Analyzer.
- b. Compatible with 870ITPH Intelligent Transmitter and 875PH Analyzer only.
- c. Optimum accuracy is in the range of 2 to 12 pH. It can, however, be used with pH instruments ranged from 0 to 14 pH.
- d. Standard cable length if not specified = 6 m (20 ft). Maximum integral cable length with Transmitters or Analyzers is:
 - 33 m (100 ft) for 870PH pH/ORP transmitters
 - 150 m (500 ft) for 870ITPH Transmitters, and for 873PH, 873APH, and 873DPX, and 875PH Analyzers.
- e. Requires Patch Cable. See Accessories section in PSS 6-1C2A.
- f. Not compatible with ball valve assembly mountings.
- g. Compatible with 871PH-1 and 871PH-2 only; this option is NOT a Variopin style connector.
- h. All cables that do not have connectors, have leads terminated with straight pin lugs, and are now compatible with all Foxboro Analyzers and Transmitters. Option -4 is no longer required for compatibility with 873 Series. Option -4 is included for customers who automatically order it.
- i. When used with 871PH-3, -4, the standard 3-wire 1000 ohm RTD is supplied as a 2-wire, 1000 ohm RTD.



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