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PRODUCT DATASHEET

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Rosemount™ 328A

Steam Sterilizable pH sensor



A robust pH sensor that meets steam sterilization requirements

The Rosemount 328A pH sensors are specifically built for service in applications that require repeated steam sterilization up to 130 °C. Sensors are suitable for use in many food, beverage, and pharmaceutical applications.

Overview



Rugged Sensor Design

- Mechanical and thermal shock resistant special pH sensitive glass membrane for extended sensor life in high temperature sterilizations.
- Non-flowing junction minimizes maintenance requirements and eliminates the need for expensive pressurization hardware.
- Extend sensor life with poisoning ion resistant double junction reference cell.
- Ceramic body and high temperature cable permits autoclave sterilization up to 130 °C.

Versatile Installation Options

- Designed to fit industry standard insertion hardware.
- 12 mm electrode diameter allows direct replacement of most manufacturers' steam sterilizable pH sensors.

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Ordering Information



The Rosemount 328A pH sensor comes with 15 ft. of integral cable and features a ceramic sensor body, double junction reference, and gelled reference electrolyte. Sensors require standard insertion mounting hardware for installation (PN 22924-00; sold separately).

Table 1. Rosemount 328A pH Sensor ordering information

Model	Sensor type
328A	pH Sensor
Cable Termination	
07	Spade Lug Connector
08	None (Undressed)
Typical Model Number: 328A-07	

Specifications

Table 2. Rosemount 328A pH sensor specifications

Process Connections	
Standard 12 mm insertion hardware (see Dimensional Drawing)	
Sensitivity	
± 0.02pH	
Temperature/Pressure Rating	
446 kPa abs at 130 °C (50 psig at 266 °F)	
584 kPa abs at 80 °C (70 psig at 176 °F)	
791 kPa abs at 40 °C (100 psig at 104 °F)	
Cable	
2-conductor, low-noise coax, 15 ft (4.5 m)	
Weight/Shipping Weight	
100 gms/180 gms (.2 lb/1.0 lb)	
Performance	
In typical applications, the sensor will perform continuously for 50 steam sterilization cycles.	
pH Range	
1.67-4.01 pH	96% linearity
4.01-12.0	99% linearity
12.0-13.0 pH	97% linearity
Repeatability	
± 0.05 pH	
Automatic Temperature Compensation	
Temperature compensation is generally not required since most applications operate very near pH 7 (isopotential point). When temperature compensation is required a separate RTD can be used with compatible instruments.	
Wetted Materials	
Ceramic, silicone and glass	
Recommended Accessories	
PN 22924-00	25mm Insertion Mounting Adapter Kit

Product Certifications

Please see online certificates for further details.

IECEX

Ex ia IIC T4 Ga (-20 °C ≤ Ta ≤ +60 °C)

Per standards IEC60079-0: 2011, IEC 60079-11: 2011

ATEX

–  II 1 G Ex ia IIC T4 Ga (-20 °C ≤ Ta ≤ +60 °C)

Per standards EN 60079-0: 2012 + A11:2013, EN 60079-11:2012

FM

Intrinsically Safe for use in Class I, II, and III, Division 1, Groups A, B, C, D, E, F, and G; Temperature Class T6 Ta = -20 °C to +60 °C

Intrinsically Safe for use in Class I, Zone 0, AEx ia IIC T6 Ta = -20 °C to +60 °C

Nonincendive for use in Class I, Division 2, Groups A, B, C, and D; Temperature Class T6 Ta = -20 °C to +60 °C

Suitable for use in Class II and III, Division 2, Groups E, F, and G; Temperature Class T6 Ta = -20 °C to +60 °C Hazardous (Classified) Locations

IS/I,II,III/1/ABCDEFG/T6 Ta = 60 °C - 1400332; Entity; I/0/AEx ia IIC/T6 Ta = 60 °C - 1400332; Entity; NI/I/2/ABCD/T6 Ta = 60 °C; S/II,III/2/EFG/T6 Ta = 60 °C

Per standards 3600:1998, 3610:2010, 3611:2004, 3810:2005

CSA

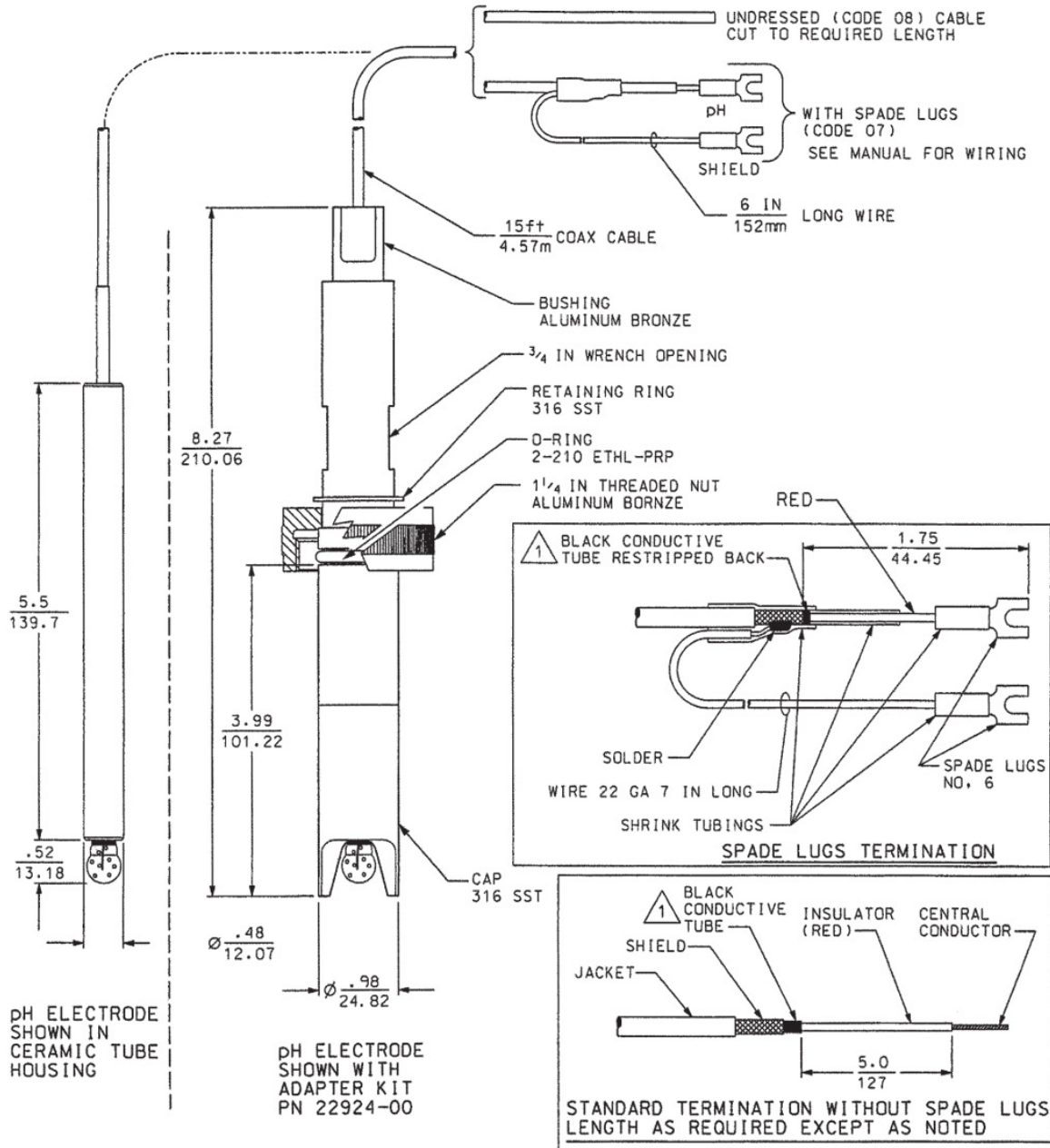
Intrinsically Safe and Non-Incendive:

Class I, Division 1, Groups ABCD; Class II, Division 1, Groups EFG; Class III; Class I, Division 2, Groups ABCD; Ex ia IIC; T6; Ambient temperature rating -20 °C to +60 °C: (Simple Apparatus)

Per standards C22.2 No. 142 – M1987, C22.2 No 157 – M1992, CAN/CSA E60079-0:07, CAN/CSA E60079-11:02, UL 50:11th Ed., UL 508:17th Ed., UL 913: 7th Ed., UL 60079-0: 2005, UL 60079-11: 2002

Dimensional and Installation Drawings

Figure 1. Dimensional drawing of Rosemount 328A and optional mounting adapter hardware kit (PN 22924-00)



⚠ CAUTION:
CONDUCTIVE TUBE CANNOT BE NEAR SPADE
LUG OR TOUCH CENTRAL CONDUCTOR.

Accessories

Table 3. Rosemount 328A pH Sensor accessories information


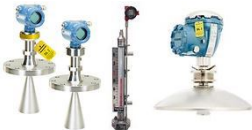










Part number	Description
22924-00	Sensor Mounting Assembly, 25 mm Insertion
9210012	pH 4.01 Buffer Solution, 16 oz
9210013	pH 6.86 Buffer Solution, 16 oz
9210014	pH 9.18 Buffer Solution, 16 oz



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	<p>Temperature Measurement</p>		<p>Flow Measurement</p>
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	<p>Liquid Analysis</p>		<p>Flame and Gas Detection</p>
	<p>Tank Gauging</p>		<p>Wireless Infrastructure</p>
	<p>Acoustic & Discrete</p>		

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