

OFFICIAL MODEL-SPECIFIC GUIDE

Installation Instructions

396P-02-12-55

Rosemount 396P ORP sensor · insertion, submersion and flow-through mounting

01 VERIFIED CONFIGURATION

Sensor output	No integral preamplifier; 15 ft (4.57 m) cable
Measuring electrode	Oxidation reduction potential (ORP)
Transmitter compatibility	Rosemount 56, 1056, 1057, 1066 and 5081
Measurement range	ORP: -1500 to 1500 mV
Process connection	1 in (25 mm) MNPT front and rear threads

02 DOCUMENTED INSTALLATION SCOPE

- Use the Rosemount 396P dimensional drawing to confirm clearance, process threads and sensing-end orientation.
- For flow-through service, keep the sensor at least 10 degrees above horizontal as shown by the manufacturer.
- Confirm suffix 02, ORP electrode code 12 and transmitter code 55 before connecting the integral cable.

INSTALLATION CHECK

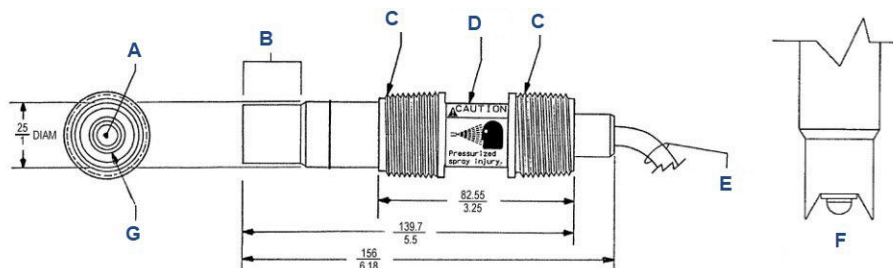
Match the complete sensor suffix, process fitting, cable and transmitter before installation.

DIMENSIONAL AND PROCESS-CONNECTION DRAWING

Rosemount 396

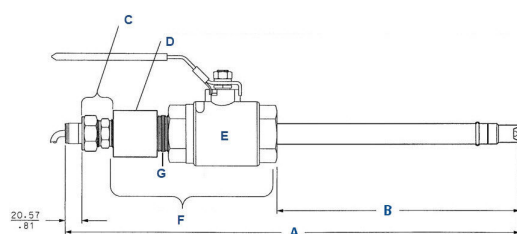
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Figure 4: Rosemount 396P/396PVP Dimensional Drawing



- A. Electrode
- B. Reference junction
- C. 1 in (25 mm) male national pipe thread (MNPT)
- D. 1 in (25 mm) wrench opening
- E. Cable or V connector (not shown)
- F. Sensing end tip, slotted tip option
- G. Solution ground

Figure 5: Retraction Assembly (PN 23240-00) and Process Connector (PN 23166-00 or 23166-01) with Rosemount 396R pH Sensor



- A. Dimension (see [Table 3](#))
- B. Dimension (see [Table 3](#))
- C. Process connector (PN 23166-00 or 23166-01) (not included with ball valve kit)
- D. 1 1/2-in (38 mm) to 1-in (25mm) reducer (PN 9310104)
- E. Ball valve (PN 9340065)
- F. Ball valve kit (PN 23240-00)
- G. 1 1/2-in close nipple (PN 9310102)

Note

Dimensions are in millimeters/inches.

Table 3: Rosemount 396R Insertion Lengths for Retraction Assembly 23240-00

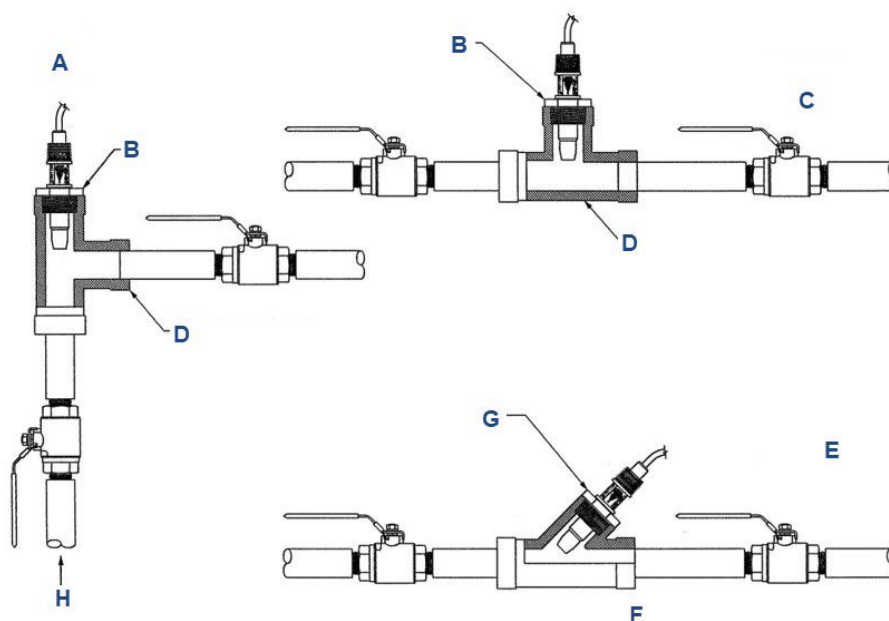
Sensor tube length	A	B (maximum)
21-in (533 mm)	23.1-in (587 mm)	12.9-in (328 mm)
36-in (914 mm)	37.58-in (954.5 mm)	27.4-in (696 mm)

TYPICAL FLOW-THROUGH INSTALLATION

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Figure 8: Typical Flow-through Installation



Sensor must be installed at least 10 degrees above the horizon.

- A. Angle flow shown
- B. 1.5 in (38 mm) x 1 in (25 mm) reducing bushing
- C. Straight flow shown
- D. 1.5 in (38 mm) pipe tee with reducing bushing PN 2002011
- E. Pipe "Y" installation shown
- F. 1.5 in (38 mm) pipe "Y" (by others)
- G. 1.5 in (38 mm) x 1 in (25 mm) reducing bushing PN 9330044
- H. Flow