

Rosemount™ 245

Toroidal Flow Through Conductivity Sensor



A noninvasive sanitary sensor for high conductivity applications

Rosemount 245 toroidal conductivity sensors feature a noninvasive flow through design allowing for in-line installations without any obstruction to sample flow. These sensors are ideal for use in viscous, abrasive, or fibrous liquids and are intended for use in the pharmaceutical, biopharmaceutical, and food and beverage industries

Overview



High Performance and Reliability

- Robust measurements - insensitive to process flow rate and direction.
- Avoid accumulation of solids with no part of the sensor protruding into the sample flow.
- Steam sterilizable up to 130 °C.

Meet Flow Through Installation Requirements

- Available with 0.5, 1.0, 1.5, and 2 in. Tri Clamp connections.
- Liner and O-rings meet FDA and USP Class VI requirements.
- Plugging resistant and suitable for liquids containing high levels of suspended solids.
- Simplified wiring with integral junction box.

Contents

| | | | |
|----------------------------|---|----------------------------|---|
| Overview | 2 | Dimensional Drawings | 5 |
| Ordering Information | 3 | Accessories | 6 |
| Specifications | 4 | | |

Ordering Information



Rosemount 245 sanitary toroidal flow through conductivity sensors come with a NEMA 7D junction box. Required mating flanges, clamps, gaskets, and Pt-1000 RTD is customer supplied. The extension cable required for wiring from the junction box to a transmitter must be ordered separately.

Table 1. Rosemount 245 Toroidal Flow Through Conductivity Sensor ordering information

| Model | Sensor type |
|---|------------------------------|
| 245 | Toroidal Conductivity Sensor |
| Line Size | |
| 01 | 1/2 in. |
| 02 | 1 in. |
| 03 | 1½ in. |
| 04 | 2 in. |
| Process Connection | |
| 12 | TriClamp |
| Contact Ring Material | |
| SS | 316 Stainless Steel |
| Line Material | |
| PK | Virgin PEEK |
| Process O-ring Material | |
| EP | EP O-rings, FDA-Compliant |
| Typical Model Number: 245-01-12-SS-PK-EP | |

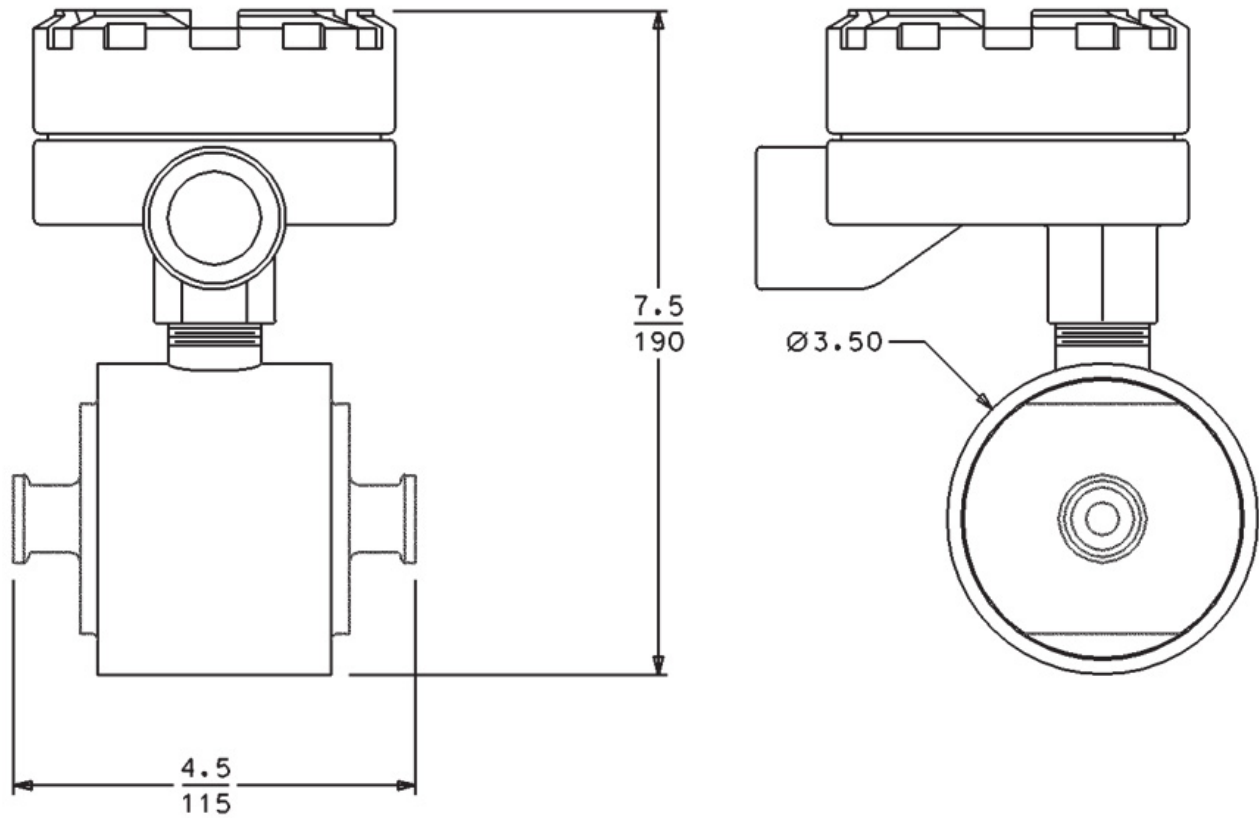
Specifications

Table 2. Rosemount 245 Toroidal Flow Through Conductivity Sensor specifications

| |
|---|
| Installation Type |
| Flow through |
| Conductivity Range |
| Consult transmitter product data sheet |
| Process Connections |
| ½ in., 1 in., 1 ½ in., and 2 in. Tri Clamp |
| Wetted Materials |
| 316L stainless steel (mounting flanges); unfilled PEEK (liner); EPDM (O-rings). PEEK liner meets 21CFR177.2415 and USP Class VI. EPDM O-rings meet 21CFR177.2600 and USP Class VI |
| Surface Finish |
| Mounting flanges have a 16 micro in. (0.41 um) Ra surface finish. PEEK liner has a 32 micro in. (0.81 um) Ra surface finish. |
| Minimum Temperature |
| 32 °F (0 °C) |
| Maximum Temperature |
| 250 °F (121 °C) continuous; 266 °F (130 °C) in steam for 45 minutes |
| Maximum Pressure (½ in. sensor only) |
| 300 psig (2170 kPa abs) |
| Maximum Pressure (all others) |
| 100 psig (791 kPa abs) |
| Shipping Weight |
| 9 lb (4.5 kg) |

Dimensional Drawings

Figure 1. Sanitary Flow-Through Toroidal Conductivity Sensor



Accessories

Table 3. Rosemount 245 Toroidal Flow Through Conductivity Sensor accessories information

| Part number | Description |
|-------------|---|
| 23909-00 | Extension cable, prepped, for connection to instruments 1056, 56, 5081, 1066-T (Specify length) |
| 24086-00 | RTD Mounting Accessory Kit, consisting of ¾ in. NPT tee, nipple, and cable connectors |

Notes:

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