HAZARDOUS LOCATION AND GENERAL USE RESISTIVE-CHAIN PROBE LEVEL MEASUREMENT
SERIES: RPX AND RPE

The Series RPX Hazardous Location and RPE General Use Resistive-Chain Probe Level Sensors are designed for use in the chemical, oil, shipping, food processing, waste treatment, and many other industries. Each RP is manufactured to the user’s specifications, making it fit to work precisely according to the application requirements.

Features

- Continuous level indication
- Durable float matched to liquid specific gravity
- Resistive chain or loop powered 4-20 mA output
- RPX hazardous location approvals - Explosion proof, Intrinsically safe, Non-incendive
**RP DIMENSIONS**

**Legend**
- **L** = Total Stem Length
- **M** = Measured Length
- **S1** = Top Deadband (1.75” / 44.5mm)
- **S2** = Bottom Deadband (1.75” / 44.5mm)

L = M + S1 + S2  
M = L - S1 - S2

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**RPX Outputs with Temperature and Power Requirements for Hazardous Locations**

<table>
<thead>
<tr>
<th>Output</th>
<th>Intrinsically Safe</th>
<th>Explosion Proof</th>
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</tr>
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<tbody>
<tr>
<td>A - 4-20 mA,</td>
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<tr>
<td>Hazardous</td>
<td>Groups C &amp; D T3C</td>
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<td></td>
<td></td>
<td>Class I, Zone 1</td>
<td>T3.</td>
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<td>Ex/AEx d, IIB T3</td>
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<tr>
<td>R - Resistive,</td>
<td></td>
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<td></td>
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**RPE with Small Housing**
- **Nylon or Aluminum**

**RPE with No Housing**

**RPE with Large Aluminum Housing**

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## RPX SPECIFICATIONS

### Performance
- **Resolution:** 0.25 in. (6 mm)
- **Accuracy:** ±0.12 in. (±3 mm)

### Connectivity
- **Output:** 4-20 mA; Resistive
- **Internet:** via RST-5003, 4-20 mA only

### Environmental
- **Maximum Pressure:** 72.5 PSI (5 bar)
- **Enclosure Protection:** NEMA 4 & 7, IP65

### Physical
- **Housing:** Aluminum Die Cast
- **Stem Length:** 96 in. (2440 mm) maximum
- **Cable Entry:** 3/4 in. NPT

### Electrical
- **Typical Current (Resistive Output):**
  \[ I = \frac{\text{Supply VDC}}{45\Omega \times \text{Probe Length in inches}} \]

### Certification
- **Class I, Division 1, Groups C & D T3 (Ta 40°C)**
- **Explosion Proof**
- **Ex d, IIB T3**
- **Class I, Zone 1, AEx d, IIB T3 (Ta 40°C)**
- **Class I, Division 2, Groups C & D T3 (Ta 85°C)**
- **Non-incendive**
- **Class I, Division 1, Groups C & D T3 (Ta 85°C)**
- **Intrinsically Safe**
- **Non-hazardous Use**

### MODEL CONFIGURATION OPTIONS

Model Number: RPX - ___ - ___ - ___ - S6 - ___ - ___ - __

**A. Output**
- **A** Hazardous, 4-20 mA output
- **R** Hazardous, resistive output
- **I** Intrinsic safety, 4-20 mA output

**B. Mounting Type, Option, and Size**
- **F** Flat Face ANSI Flange 150# (Size=1.5, 2, 2.5, 3, 4)
- **R** Raised Face ANSI Flange 150# (Size=1.5, 2, 2.5, 3, 4)
- **S** Tri Clamp (Size=2, 2.5, 3, 4)
- **P** Externally-mounted NPT Plug 150# (Size=1.5†, 2, 2.5, 3, 4)
- **N** None

**C. Mounting Connection**
- **W** Welded (fixed)
- **S** Slide with Compression Fitting

**D. Material**
- **S6** 316L SS

**E. Float Type**
- **E** 316L SS 2.01 in. (53 mm) Round; 0.57 SG
- **F** 316L SS 2.17h x 1.48w in. (55h x 38w mm); 0.65 SG
- **G** Buna 1.77h x 1.89w in. (45h x 48w mm); 0.39 SG

**F. Stem Length in Inches**
- **___** Min. 11 in. - Max 96 in.

†Note: Size 1.5 NPT Externally-mounted (P1.5) requires float F.
**Model Configuration Options**

Model Number: RPE - _____ - _____ - _____ - __S6__ - _____ - _____ - _____ - _____

A. Output
- □ A  4-20 mA output†
- □ R  Resistive output

B. Mounting Type, Option, and Size
- □ F  Flat Face ANSI Flange 150# (Size=1.5, 2, 2.5, 3, 4)
- □ R  Raised Face ANSI Flange 150# (Size=1.5, 2, 2.5, 3, 4)
- □ S  Tri Clamp (Size=2, 2.5, 3, 4)
- □ P  Externally-mounted NPT Plug 150# (Size=1.5††, 2, 2.5, 3, 4)
- □ I  Internally-mounted NPT Plug 150#††† (Size=0.25, 0.375, 0.5, 0.75, 1, 1.25, 1.5)
- □ N  None

C. Mounting Connection
- □ W  Welded (fixed)
- □ S  Slide with Compression Fitting

D. Material
- □ S6  316L SS

†Note: Output A 4-20 mA requires Housing A Large Aluminum.
††Note: Size 1.5 NPT Externally-mounted (P1.5) requires float F.
†††Note: Mounting Type I Internally-mounted NPT Plug requires Housing W Hookup Wire and Output R Resistive.