

# RPX SERIES

## Hazardous Location Resistive-Chain Probe Level Measurement

The Series RPX Hazardous Location Resistive-Chain Probe Level Sensors are designed for use in the chemical, oil, shipping, food processing, waste treatment, and many other industries. Each RPX 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



## RPX SPECIFICATIONS

### PERFORMANCE

- **Resolution:** 0.25 inch (6 mm)
- **Accuracy:** ±0.12 inch (±3 mm)

### CONNECTIVITY

- **Output:** 4-20mA, Resistive

### 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):**  
 $I = \text{Supply VDC} / (45\Omega * \text{Probe Length in inches})$

### 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)  
Explosion Proof
- Class I, Division 2, Groups C & D T3 (Ta 85°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

# RPX DIMENSIONS

## LEGEND

L = Total Stem Length

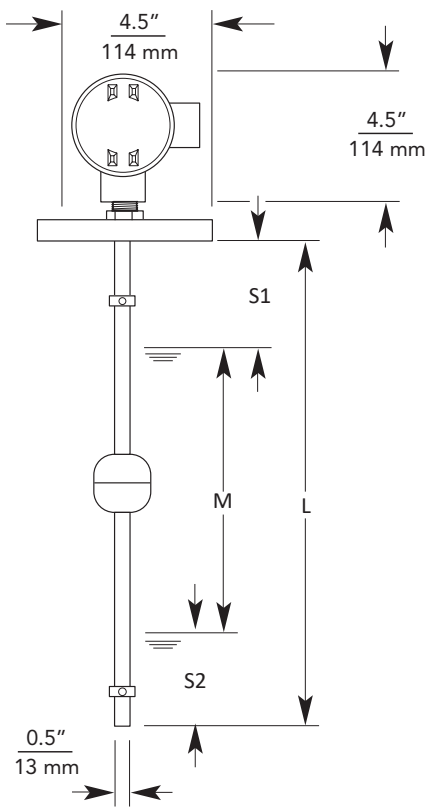
M = Measured Length

S1 = Top Deadband (1.75" / 44.5mm)

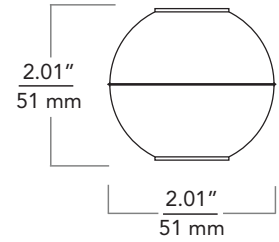
S2 = Bottom Deadband (1.75" / 44.5mm)

$$L = M + S1 + S2 \quad M = L - S1 - S2$$

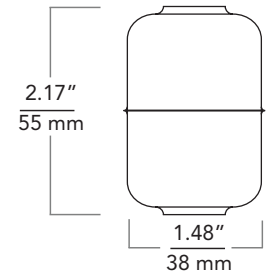
RPX with Large Aluminum Housing



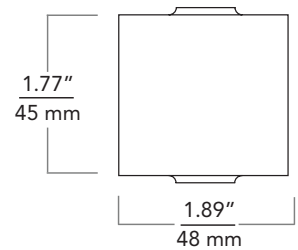
Float E



Float F



Float G



## RPX OUTPUTS WITH TEMPERATURE AND POWER REQUIREMENTS FOR HAZARDOUS LOCATIONS

Output	Intrinsically Safe Class I, Div. 1 Groups C & D T3C	Explosion Proof Class I, Div. 1 Groups C & D T3; Class I, Zone 1 Ex/AEx d, IIB T3	Non-incandive Class I, Div. 2 Groups C & D T3	Class I, Div. 2 Groups C & D, T3.
A – 4-20 mA, Hazardous	—	12-24 VDC Supply -40° to 40° C (-40° to 104°F)	12-24 VDC Supply; Install per dwg 9001932 -40° to 85° C (-40° to 185°F)	12-24 VDC Supply -40° to 85° C (-40° to 185°F)
R – Resistive, Hazardous	—	5-24 VDC Supply, 100 mA max -40° to 40° C (-40° to 104°F)	5-15 VDC Supply, 100 mA max Install per dwg 9001932 -40° to 85° C (-40° to 185°F)	5-15 VDC Supply, 100 mA max -40° to 85° C (-40° to 185°F)
I – 4-20 mA, Intrinsically Safe	Loop powered 24 VDC; Install per dwg 9001930 -40° to 85° C (-40° to 185°F)	—	—	—

# MODEL CONFIGURATION OPTIONS

MODEL NUMBER: RPX -  $\frac{\quad}{A}$  -  $\frac{\quad}{B}$  -  $\frac{\quad}{C}$  -  $\frac{S6}{D}$  -  $\frac{\quad}{E}$  -  $\frac{\quad}{F}$

## 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

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

## 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 inch to Max 96 inch



# SETTLER

Your Gateway to Smarter Monitoring

Designed for general-purpose environments, Settler is not intended for use in hazardous areas.

Settler, APG's next remote monitoring gateway, makes getting real-time level data easier than ever.

Settler seamlessly connects Modbus and 4-20 mA sensors—transmitting encrypted data securely to Explorer, APG's cloud-based interface. View tank and well levels anytime, anywhere, with reliable Ethernet connectivity and robust data security powered by MQTT with AES (Advanced Encryption Standard). Plus, with over-the-air (OTA) firmware updates, your system stays up to date without hassle.

Explorer makes monitoring simple. Access real-time readings, enable datalogging, and set up alarms so you're always informed of critical changes—right from your smartphone, tablet, or desktop.

Save time, reduce costs, and gain peace of mind with remote monitoring powered by Settler and Explorer. Contact us today to learn more or visit [apgsensors.com/settler-remote-monitoring-gateway/](https://apgsensors.com/settler-remote-monitoring-gateway/).