

RPE SERIES

General Use Resistive-Chain

Probe Level Measurement

The 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 RPE 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
- CSA certified for non-hazardous locations



RPE SPECIFICATIONS

PERFORMANCE

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

CONNECTIVITY

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

ENVIRONMENTAL

- **Temperature:** -40° to 85°C (-40° to 185°F)
- **Max Pressure:** 72.5 PSI (5 bar)
- **Enclosure Protection:**
 - Large Aluminum NEMA 4 & 7, IP65
 - Small Nylon IP65
 - Small Aluminum NEMA 4X, IP68

CERTIFICATION

- Non-hazardous Use



PHYSICAL

- **Housing:**
 - Large: Cast Aluminum
 - Small: Nylon
 - Small: Epoxy-painted Aluminum
- **Stem Length:** 153 in. (3890 mm) maximum
- **Cable Entry:**
 - Large Aluminum: 3/4 in. NPT
 - Small Nylon: 1/2 in. NPT
 - Small Aluminum: 3/4 in. NPT

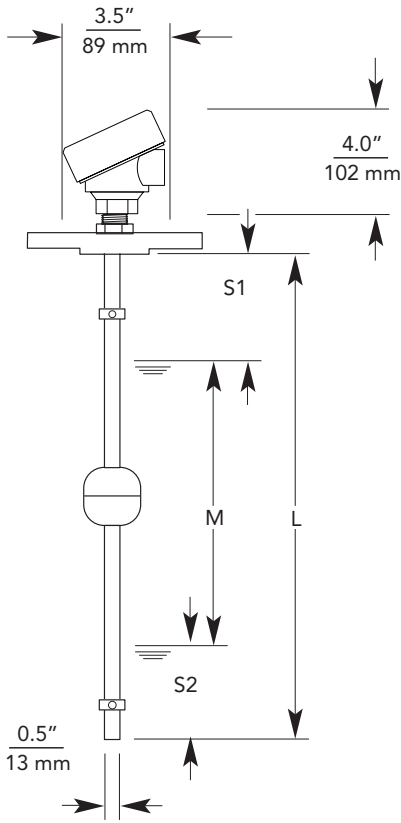
ELECTRICAL

- **Voltage and Current Max. Ratings:**
 - Resistive: 5 - 24 VDC, 100 mA (max)
 - 4-20 mA: 12 - 24 VDC, 4-20 mA
- **Typical Current (Resistive Output):**

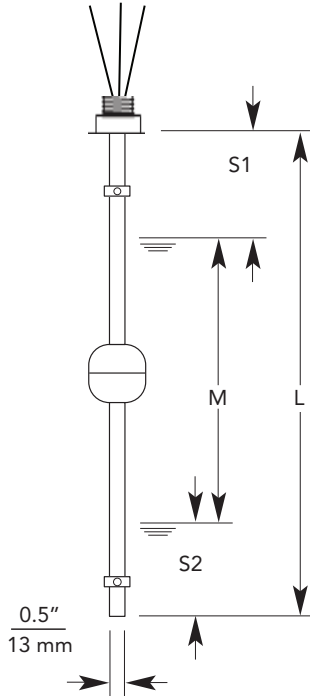
$$I = \text{Supply VDC} / (45\Omega * \text{Probe Length in inches})$$
- **Hookup Wire:** 22 AWG

RPE DIMENSIONS

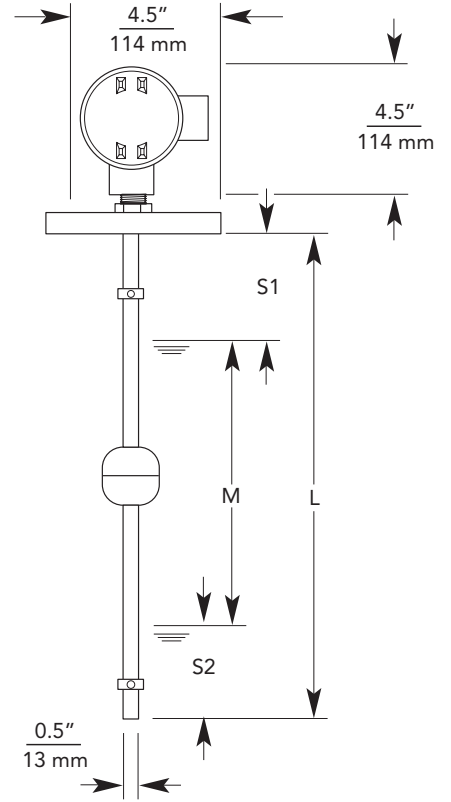
RPE with Small Housing
Nylon or Aluminum



RPE with No Housing



RPE with Large Aluminum Housing



LEGEND

L = Total Stem Length

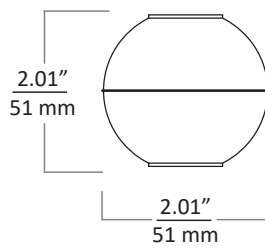
M = Measured Length

S1 = Top Deadband (1.75" / 44.5mm)

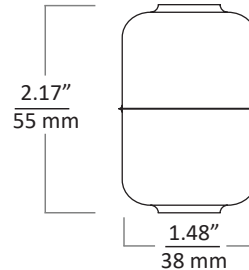
S2 = Bottom Deadband (1.75" / 44.5mm)

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

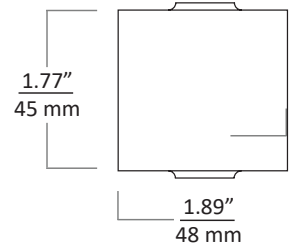
Float E



Float F



Float G



MODEL CONFIGURATION OPTIONS

MODEL NUMBER: RPE - - - - S6 - - - -
 A B C D E F G H

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

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 153 inch

G. Housing, Cable Entry Size

- A Large Aluminum, 3/4" NPT
- B Small Nylon, 1/2" NPT
- C Small Aluminum, 3/4" NPT
- W Hookup wire (no housing)

H. Hookup Wire Length

- 12 12 inch
- 24 24 inch
- ___ Specify length in inches

†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 option W Hookup Wire and Output option R Resistive.



SETTLER

Your Gateway to Smarter Monitoring

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.

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

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/.