



PRX

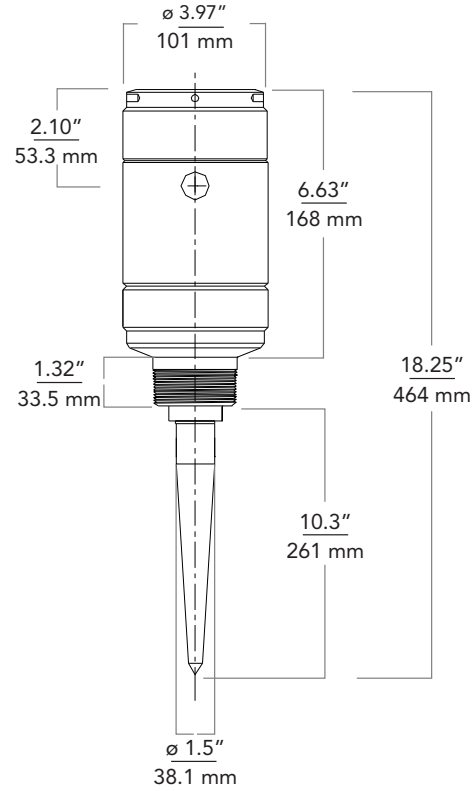
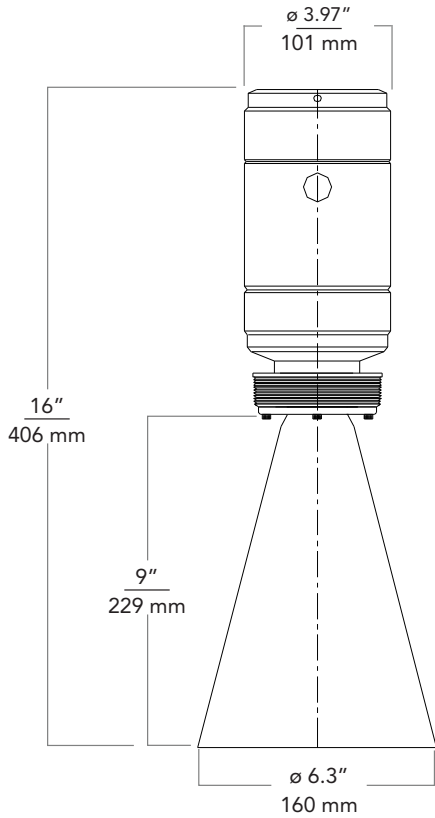
True Echo® Explosion Proof Pulse Radar Level Transmitter

The True Echo® PRX Explosion Proof Pulse Radar Level Transmitter brings the unassailable level readings of radar sensors to Class I, II, and III hazardous locations. The True Echo PRX automatically adjusts signal power for optimal accuracy and clarity, with echo masking and damping factors programmable via software. With a low dielectric requirement for target materials, and radar's reliable accuracy in environments with foam, vapors, and dust, the easy to install True Echo PRX makes getting dependable level readings in hazardous areas simple.

FEATURES

- Ranges: 17, 50, or 100 feet
- $\pm 0.25\%$ of measured range accuracy
- 6.1 μA output resolution
- Field configurable 4-20 mA/20-4 mA Output
- RS-232, RS-485, or HART communications
- PC calibration, diagnostic and data logging software
- PLC compatible (Modbus RTU)
- Nema 6/ IP68 enclosure rating
- FM Approval: Class I, Div 1; Class II/III, Div 1 ratings
- Simple installation and setup
- Automatic adjustments for most tank conditions
- Very low material dielectric constant requirement
- Optional Fast Firmware for quickly changing levels

TRUE ECHO® SERIES PRX SPECIFICATIONS



PERFORMANCE

- **Operating Range:**
 - PRX-017: 1 - 17 ft. (0.3 - 5 m)
 - PRX-050: 1 - 50 ft. (0.3 - 15 m)
 - PRX-100: 1 - 100 ft. (0.3 - 30 m)
- **Frequency:** 6.3 GHz
- **Accuracy:** ± 0.25% of measured range
- **4-20 mA Resolution:** 6.1 µA (approx. 2622 digital counts across range)
- **Target Dielectric Constant:** $\epsilon_r > 2$

CONNECTIVITY

- **Output:** 4-20 mA (shared common); HART 7

ENVIRONMENTAL

- **Enclosure Operating Temperature:** -40° to 140°F (-40 to 60°C)
- **Process/Probe Temperatures:**
 - Standard: -40° to 176°F (-40 to 80°C)
 - High Temp: -40° to 350°F (-40 to 177°C)
 - Sanitary: -40° to 400°F (-40 to 204°C)
 - Extreme Temp: -40° to 572°F (-40 to 300°C)
- **Maximum Process Pressures:**
 - Standard Temp/Pressure: 5 bar (72.5 psi)
 - Standard Temp/High Press: 70 bar (1015.3 psi)
 - High/Sanitary/Extreme Temps: 2 bar (29.0 psi)
- **Enclosure:**
 - NEMA 6: Aluminum or 316L Stainless Steel, IP68 Sealing

PHYSICAL

- **Antenna**
 - Rod: Teflon, 10.3" (261.6 mm)
 - Beam Spread: 6° from center
 - Horn: 316L Stainless Steel, Ø 6.3" (160 mm)
 - Beam spread: 3° from center

ELECTRICAL

- **Loop Resistance:**

$$R_L = (V_s - 6) / 24 \text{ mA}$$
- **Input Voltage:** 12-30 VDC; 20-35 VDC (HART);
- **Power Consumption:** 0.07 A max, 1.68 W @ 24 VDC

PROGRAMMING

- RS-485, RS-232, or HART for calibration and diagnostics

CERTIFICATION

- **FCC**
 - Part 15 for low power communications class II instal
- **FM**
 - Class I, Div 1, Groups B, C, D
 - Class II/III, Div 1, Groups E, F, G

COMMON MODEL CONFIGURATIONS

6.3 GHz*, 12-30 VDC supply, 4-20 mA output, Explosion Proof

Model Number	Model Description
PRX-050-V024-C4-AL-TE-T2-S	50' range, Aluminum Body, Teflon Antenna, 2" NPT Mount, RS-485 communication
PRX-050-V024-C4-SS-TE-T2-S	50' range, 316L SS Body, Teflon Antenna, 2" NPT Mount, RS-485 communication
PRX-050-V024-C4-AL-S6-T3-S	50' range, Aluminum Body, 316L SS 6" Horn, 3" NPT Mount, RS-485 communication
PRX-050-V024-C4-SS-S6-T3-S	50' range, 316L SS Body, 316L SS 6" Horn, 3" NPT Mount, RS-485 communication
PRX-100-V024-C4-AL-TE-T2-S	100' range, Aluminum Body, Teflon Antenna, 2" NPT Mount, RS-485 communication
PRX-100-V024-C4-SS-TE-T2-S	100' range, 316L SS Body, Teflon Antenna, 2" NPT Mount, RS-485 communication
PRX-100-V024-C4-AL-S6-T3-S	100' range, Aluminum Body, 316L SS 6" Horn, 3" NPT Mount, RS-485 communication
PRX-100-V024-C4-SS-S6-T3-S	100' range, 316L SS Body, 316L SS 6" Horn, 3" NPT Mount, RS-485 communication

*Note: For dual-frequency, explosion proof radar, please contact APG.

PRX ACCESSORIES

Please order separately, by part number.

Description	Part Number
USB to RS-232 converter	122971-0104
USB to RS-485 converter	200501

MODEL CONFIGURATION OPTIONS

MODEL NUMBER: PRX - - - - - - -
 A B C D E F G

A. Range

- 017 17 ft (5m)
- 050 50 ft (15m)
- 100 100 ft (30m)

B. Supply Voltage, Signal

- V024* 12-30 VDC - 3 wire, 4-20 mA w/ shared com
- V20L 20-35 VDC - 2 wire HART†

C. PC Communications (Calibration & Diagnostics)

- C2 RS-232
- C4* RS-485
- CH HART†

D. Housing Material

- AL* Aluminum
- SS 316L Stainless Steel

*Note: This option is standard

Note: † CH HART PC Communications requires V20L 20-35 VDC Supply Voltage

E. Antenna Material

- TE* Teflon Rod Ant.
- S6 316L Stainless Steel 6" Ø Horn†
- HS High Temperature Radar, 316L SS 6" Ø Horn†
- HT High Temperature Radar, Teflon Rod Ant.
- PT High Pressure Teflon Ant. (≤ 70 bar)††

F. Mounting

- T15 1.5 in. NPT
- T2* 2 in. NPT
- T3 3 in. NPT
- BF 13 in. Ø 316L SS Bottom Flange (S6, HS only)

G. Firmware

- S* Standard
- F Fast Firmware

Note: † S6 and HS 316L SS horns require T3 3 in. NPT or BF 13 in. Bottom Flange mount

Note: †† PT High Pressure Teflon Rod requires T2 2 in. NPT mount