

True Echo™ Explosion Proof Pulse Radar Level Transmitter Series: PRX



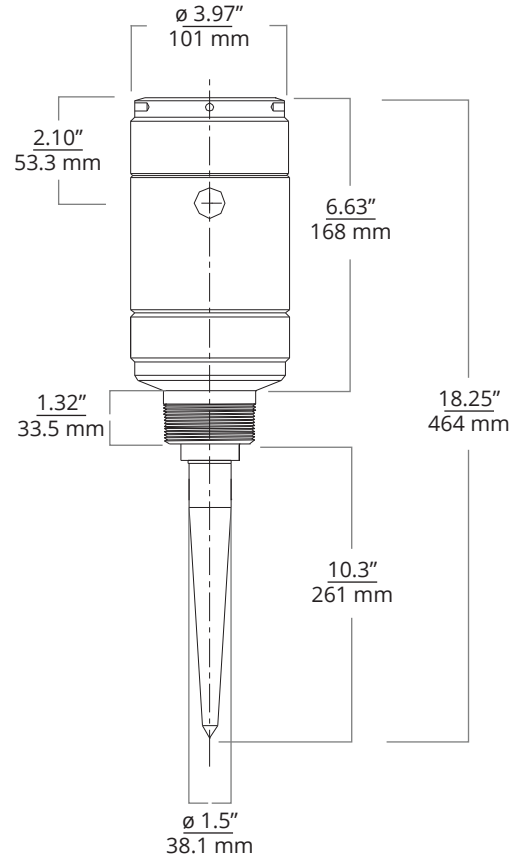
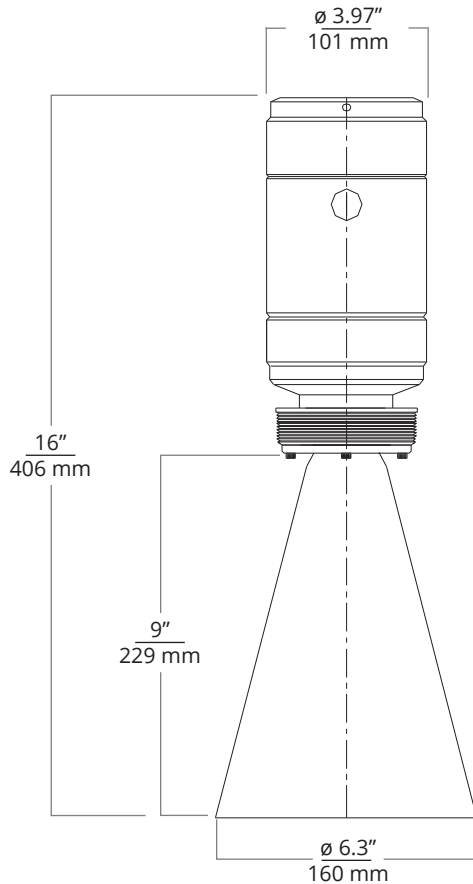
The True Echo™ PRX Explosion Proof Pulse Radar Level Transmitter brings the unassailable level readings of radar sensors to Class I, Division 1 hazardous locations. The True Echo™ PRX automatically adjusts signal power for optimal accuracy and clarity, with echo masking and damping factors programmable via software. With a low dielectric requirement for target materials, and radar's reliable accuracy in environments with foam or vapors, the easy to install True Echo™ PRX makes getting dependable level readings in hazardous areas simple.

FEATURES

- Ranges to 50 or 100 feet
- $\pm 0.25\%$ of max. range accuracy
- 6.1 μA output resolution
- Field configurable, 3-wire, 4-20 mA/20-4 mA Output
- Optional RS-232 or RS-485 communications
- PC calibration, diagnostic and data logging software
- PLC compatible (Modbus RTU)
- Nema 4/4X / IP65 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



True Echo™ Series PRX Specifications



Performance

- Operating Range:
 - PRX-050: 1 - 50 ft. (0.3 - 15 m)
 - PRX-100: 1 - 100 ft. (0.3 - 30 m)
- Frequency: 6.3 GHz
- Accuracy: $\pm 0.25\%$ of maximum range
- Resolution
 - PRX-050: 0.22 in. (5.7 mm)
 - PRX-100: 0.44 in. (11 mm)
- Target Dielectric Constant $\epsilon_r > 2$

Environmental

- Enclosure Operating Temperature: -40° to 140°F (-40 to 60°C)
- Process/Probe temperature
 - High Temp PFTE: -40° to 350°F (-40 to 177°C)
- Maximum Process Pressure: 5 bar (72.5 psi)
- Enclosure: NEMA 4/4X: Aluminum or 316L Stainless Steel, IP65 Sealing

Electrical

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

Connectivity

- Output: 4-20 mA (Active)

Programming

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

Physical

- Antenna
 - Rod: Teflon, 10.3" (261.6 mm)

Certifications

- FCC
 - Part 15 for low power communications class II install
- 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, Isolated 4-20 mA output, Explosion Proof

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

PRX Accessories

Please order separately, by part number.

Description	Part Number
Pulse Radar PC Software	200092
Pulse Radar RS-232 cable	200093
USB to RS-232 converter	122971-0104
RS-485 to RS-232 conveter	122907-0078
High pressure (70 bars / 1015 psi) Teflon antenna	200094
Long Teflon antenna (with built-in extension)	200095
High temperature Teflon antenna, (1) 2 in. to 1.5 in. NPT Teflon decoupler†	200096
High temperature Teflon antenna (1) 3 in. to 2 in. NPT Teflon decoupler††	200097
6 in. Teflon antenna extension	200098
8 in. Teflon antenna extension	200099

† Requires Antenna Mounting option T15: 1.5" NPT

†† Requires Antenna Mounting option T2: 2" NPT

Model Configuration Options



Model Number: PRX - - - - - -
 A B C D E F

A. Range

- 050** 50 ft (15m)
- 100** 100 ft (30m)

B. Supply Voltage

- V24** 12-30 VDC

C. PC Communications (Calibration & Diagnostics)

- C2** RS-232
- C4**[▲] RS-485
- H4** Hart*

D. Housing Material

- AL**[▲] Aluminum
- SS** 316L Stainless Steel

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.††

F. Mounting

- T15** 1.5 in. NPT††
- T2**[▲] 2 in. NPT
- T3** 3 in. NPT†

Note: † S6 and HS 316L SS horns require T3 3 in. NPT mount.

Note: †† HT Teflon Rod requires T15 1.5 in. NPT mount

Note: [▲] Indicates this option is standard

Note: * Indicates this option does not carry FM approvals