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 to 17, 50, or 100 feet
- ±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 $\varepsilon_r > 2$

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

Electrical
- Loop Resistance: $R_L = (V_S - 6) / 24 mA$
- Input Voltage: 12-30 VDC / 20-35 VDC (HART)
- Power Consumption: 0.07 A max, 1.68 W @ 24 VDC

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

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

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

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

Automation Products Group, Inc. | 888.525.7300 | sales@apgsensors.com | www.apgsensors.com

Rev. B1,02/07/2020
Common Model Configurations

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

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Model Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRX-050-V024-C4-AL-TE-T2-S</td>
<td>50’ range, Aluminum Body, Teflon Antenna, 2” NPT Mount, RS-485 communication</td>
</tr>
<tr>
<td>PRX-050-V024-C4-SS-TE-T2-S</td>
<td>50’ range, 316L SS Body, Teflon Antenna, 2” NPT Mount, RS-485 communication</td>
</tr>
<tr>
<td>PRX-050-V024-C4-AL-S6-T3-S</td>
<td>50’ range, Aluminum Body, 316L SS 6” Horn, 3” NPT Mount, RS-485 communication</td>
</tr>
<tr>
<td>PRX-050-V024-C4-SS-S6-T3-S</td>
<td>50’ range, 316L SS Body, 316L SS 6” Horn, 3” NPT Mount, RS-485 communication</td>
</tr>
<tr>
<td>PRX-100-V024-C4-AL-TE-T2-S</td>
<td>100’ range, Aluminum Body, Teflon Antenna, 2” NPT Mount, RS-485 communication</td>
</tr>
<tr>
<td>PRX-100-V024-C4-SS-TE-T2-S</td>
<td>100’ range, 316L SS Body, Teflon Antenna, 2” NPT Mount, RS-485 communication</td>
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</tr>
</tbody>
</table>

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

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PRX Accessories

Please order separately, by part number.

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB to RS-232 converter</td>
<td>122971-0104</td>
</tr>
<tr>
<td>USB to RS-485 converter</td>
<td>200501</td>
</tr>
</tbody>
</table>
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 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

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: † Indicates this option is standard
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

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