



True Echo™ Dual Frequency Pulse Radar Level Transmitter For Solids Series: PRS



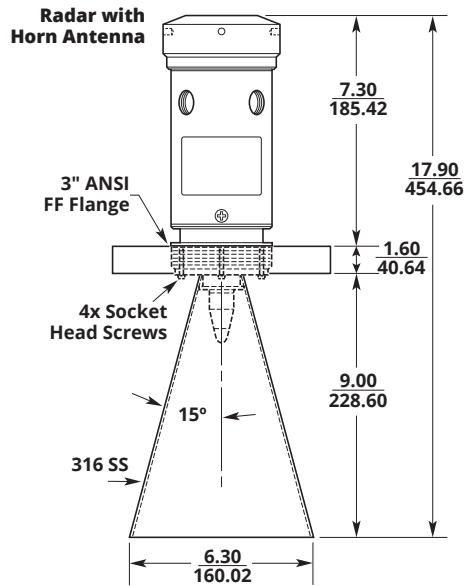
The True Echo™ PRS Dual Frequency Pulse Radar Level Transmitter For Solids brings the unassailably accurate level readings of radar sensors to difficult to measure solids. Whether powders or pellets, grains or granules, the True Echo™ PRS's dual frequencies to allow it to quickly and accurately read the complex reflections from piled solids. The True Echo™ also automatically adjusts signal power for optimal accuracy and clarity. With echo masking and damping factors programmable via software, getting dependable level readings from difficult materials is 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 6/ IP68 enclosure rating
- Simple installation and setup
- Automatic adjustments for most tank conditions
- Very low material dielectric constant requirement



True Echo™ Series PRS Specifications



Performance

- Operating Range:
 - PRS-050: 1 - 50 ft. (0.3 - 15 m)
 - PRS-100: 1 - 100 ft. (0.3 - 30 m)
- Frequency: 6.3 GHz and 26 GHz
- Accuracy: $\pm 0.25\%$ of maximum range
- Resolution:
 - PRS-050: 0.22 in. (5.7 mm)
 - PRS-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: 316L SS Horn: -40° to 140°F (-40 to 60°C)
- Maximum Process Pressure: 5 bar (72.5 psi)
- Enclosure: NEMA 6: Aluminum or 316L Stainless Steel, IP68 Sealing

Electrical

- Loop Resistance: $R_L = (V_s - 6) / 24 \text{ mA}$
- Input Voltage: 12-30 VDC; 115 VAC 60 Hz; 230 VAC 50 Hz
- Power Consumption:
 - 0.07 A max, 1.68 W @ 24 VDC
 - 1.7 VA for 115/230 VAC

Connectivity

- Output: 4-20 mA (Active)

Programming

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

Physical

- Antenna
 - Horn: 316L Stainless Steel, 7.3" (185 mm)

Certifications

- FCC
 - Part 15 for low power communications class II install

Common Model Configurations

6.3 & 26 GHz, 3" NPT mount, 316L SS 6" Ø Horn, Isolated 4-20 mA output

Model Number	Model Description
PRS-050-V024-C4-AL-S6-T3	50' range, 12-30 VDC supply, Aluminum Body , RS-485 communication
PRS-050-V024-C4-SS-S6-T3	50' range, 12-30 VDC supply, 316L Stainless Steel Body , RS-485 communication
PRS-050-V115-C4-AL-S6-T3	50' range, 115 VAC supply, Aluminum Body , RS-485 communication
PRS-050-V115-C4-SS-S6-T3	50' range, 115 VAC supply, 316L Stainless Steel Body , RS-485 communication
PRS-100-V024-C4-AL-S6-T3	100' range, 12-30 VDC supply, Aluminum Body , RS-485 communication
PRS-100-V024-C4-SS-S6-T3	100' range, 12-30 VDC supply, 316L Stainless Steel Body , RS-485 communication
PRS-100-V115-C4-AL-S6-T3	100' range, 115 VAC supply, Aluminum Body , RS-485 communication
PRS-100-V115-C4-SS-S6-T3	100' range, 115 VAC supply, 316L Stainless Steel Body , RS-485 communication

PRS 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
Swivel aiming mount	200091

Model Configuration Options

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

A. Range

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

B. Supply Voltage

- ☐ **V115** 115 VAC (60 Hz)
- ☐ **V230** 230 VAC (50 Hz)
- ☐ **V024**▲ 12-30 VDC

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

- ☐ **S6** 316L Stainless Steel 6" Ø Horn

F. Mounting

- ☐ **T3** 3 in. NPT

▲ This option is standard

since 1976

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