

Advanced
Non-Contact Radar
for Level Measurement
and Control

PULSAR[®] R96 RADAR

 **Magnetrol[®]**

PULSAR® R96 RADAR

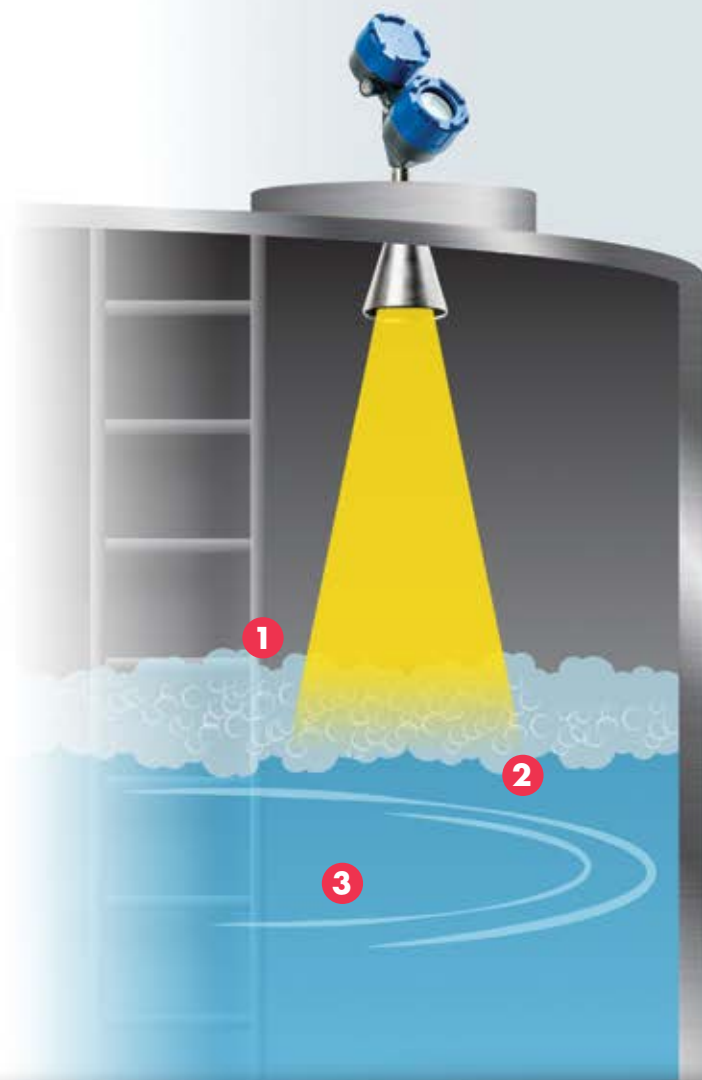
The new Pulsar® Model R96 Pulse Burst Radar transmitter is a two-wire, loop powered, 6 GHz non-contact radar transmitter engineered to measure a wide variety of liquid media in a broad range of process conditions. This includes calm product surfaces and water-based media, as well as turbulent surfaces and aggressive hydrocarbon media. The PULSAR Model R96 is virtually unaffected by the presence of vapors or air movement within a vessel's free space. In addition, a new powerful device type manager (DTM) brings to the user a new experience in field configuration and troubleshooting.

The Model R96:

- Exhibits best-in-class accurate and reliable level measurement
- Offers a 130-foot (40-meter) measurement range
- Offers advanced diagnostics with automatic waveform capture
- Offers a new, powerful DTM
- Has no moving parts and requires no calibration
- Offers HART® and FOUNDATION fieldbus™ digital output



Pulse burst radar technology and advanced signal processing help manage common disturbances: **1** False echoes caused by obstructions, or multi-path reflections caused by waves hitting a sidewall; **2** a layer of light to medium foam; and **3** turbulence generated by agitators or aggressive chemical reaction.



Superior Signal Performance

Signal processing is critically important in the operation of a non-contacting radar device because radar exhibits interference effects similar to those that affect light. It is this signal processing and the improved dynamic range of the Pulsar® Model R96 that separates it from other leading-edge transmitters.

Advanced Diagnostics

The PULSAR Model R96 takes the user interface experience to new levels of convenience and functionality. The LCD diagnostics convey critical real-time waveform and trend data with outstanding ease of use.

- 4-button user interface and graphical LCD display provide enhanced depth of data, indicating on-screen waveforms and troubleshooting tips.
- Can be programmed to automatically capture waveform data by time or by event occurrence.
- Conforms to NE 107 standards.



New redesigned DTM has been developed for advanced troubleshooting.

Antenna Selection

The PULSAR Model R96 offers dielectric rod and horn type antennas. The maximum measuring range of the instrument is chiefly dependent upon the dielectric and degree of turbulence of a given application.



Quick Disconnect feature: Transmitter and antenna separation can be accomplished without opening the tank and compromising process uptime.

Minimum Dielectric: 2.0 ϵ_r			
Maximum Pressure:			
<u>TFE</u>	<u>PP</u>	<u>All PP</u>	<u>All Halar®</u>
675 psig 46.5 bar	750 psig 51.7 bar	200 psig 14 bar	50 psig 3.5 bar
Maximum Temperature:			
<u>TFE</u>	<u>PP</u>	<u>All PP</u>	<u>All Halar®</u>
+400° F +204° C	+200° F +93° C	+200° F +93° C	+300° F +150° C

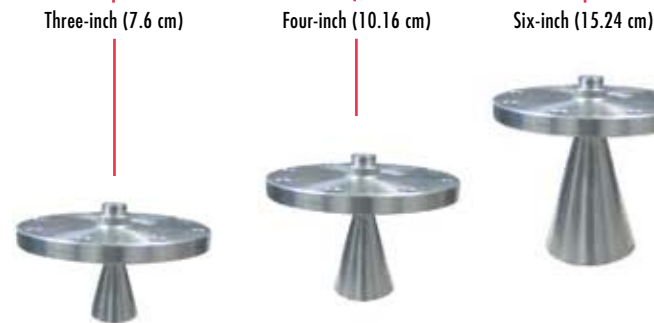


Antenna Extensions

HORN:
3" (7.6 cm)

ROD:
4" (10.16 cm)
8" (20.3 cm)
12" (30.4 cm)

Horn Antennas



Minimum Dielectric: 1.7 ϵ_r (1.4 in stillwell)
Maximum Pressure: 675 psig 46.5 bar
Maximum Temperature: +400° F +204° C

Convenient Pre-Configuration

Our exclusive "Pre-Configuration" feature brings simplicity to an often complex technology.

Pulsar® R96 Radar Application Suitability



Measurement Capability	Level or Volume of Liquid or Slurry
Operating Frequency	6 GHz
Vessel Types	Most metal and concrete vessels
Stillwell	Metal Stillwells Only
Volume	Utilize 30-point strapping table
Range	Up to 130-feet (40-meters)
Maximum Antenna Temperature	+ 400F (+ 204C) @ atmos
Maximum Antenna Pressure	675 psig (46.5 bar)
Minimum Dielectric Constant	1.7 (1.4 in Stillwell)
Quick Connect/Disconnect	Yes
Aggressive Chemicals	Use All Polypropylene or All Halar® Antennas
Digital Communication Outputs	HART® 7.0, FOUNDATION fieldbus™
Safety Integrity Levels (SIL)	SIL 2 Capable, SFF = 92.7%
Agency Approvals	FM, CSA, IEC (IS, XP, Non-Incendive)
Telecommunications	FCC, IC, RTTE, ETSI

Push the Limits of Level Performance for Your Operation.
 Contact your Magnetrol® representative to learn how the PULSAR Model R96
 radar transmitter can take your non-contact applications to the next level.



CORPORATE HEADQUARTERS

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