RADAR SCOUT

900 MHz Wireless Radar Level Transmitter

INTEGRATED NON-CONTACT RADAR AND 900MHZ WIRELESS TRANSMITTER WITH AN 8 M (26.2 FT) MEASURING RANGE

DIRECT 900 MHZ CONNECTIVITY WITH REMOTE CONFIGURATION AND MONITORING THROUGH A SIGNALFIRE GATEWAY

BATTERY LIFE OF 2 YEARS AT ONE-MINUTE UPDATES OR 5 YEARS AT FIVE-MINUTE UPDATES



FEATURES

- Integrated non-contact radar with an 8 m (26.2 ft) rated range
- Reports distance, level, percent full, radar echo strength, and wireless signal strength
- 900 MHz FHSS communications with an integrated omnidirectional antenna
- Configurable sampling, scheduled reporting, and report-on-exception

PRODUCT OVERVIEW

The SignalFire Radar Scout combines a non-contact radar level sensor and wireless transmitter in one battery-powered device. Its integrated design simplifies installation by eliminating the connection between a separate level sensor and transmitter. An 8 m (26.2 ft) rated measuring distance supports water, wastewater, chemical tank, and river or lake level monitoring applications.

Radar Scout transmits measurements over a 900 MHz wireless link to a SignalFire Gateway or RANGER900. Gateway interfaces connect measurements to a supervisory system. With RANGER900, measurements can be forwarded to SignalFire Cloud over cellular connectivity.

The 1½-inch male NPT process fitting is made entirely from PEEK for chemical compatibility. An optional L-bracket provides an alternative mounting method. The IP67 enclosure and field-replaceable 4DPAK battery support outdoor installations without external power wiring.

SIGNALFIRE
WIRELESS TELEMETRY

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TECHNICAL SPECIFICATIONS

Physical Specifications	
Dimensions	7.7” x 4.6” (19.55cm x 11.68cm)
Weight	1.94 Lbs (0.88Kg)
Housing Material	Industrial polycarbonate UV rated
Enclosure Protection	IP67
Mounting	Threaded process fitting or optional L-bracket
Electrical Specifications	
Power Supply	4DPAK field-replaceable four D-cell lithium battery pack
Estimated Battery Life	2 years at one-minute sampling/reporting; 5 years at five-minute sampling/reporting *Battery life is an estimate and depends on temperature, configuration, and exception reports.*
Environmental	
Ambient Operating Temperature	-40 to +85°C (-40 to +185°F)
Process Temperature	-40 to +85°C (-40 to +185°F)
Process Specifications	
Process Connection	1½-inch male NPT
Process Fitting Material	PEEK
Pressure Rating	Not pressure rated
Communications	
Sampling Interval	Configurable; as fast as every 5 seconds
Reporting Interval	5 seconds to 2 hours
Report-on-exception	Configurable measurement threshold
Wireless Interface	902–928 MHz FHSS
Radio Transmit Power	40 mW
Antenna	Internal omnidirectional antenna
Wireless Range	Up to 0.5 mile (800 m); installation and site conditions affect range
Data Integration	SignalFire Gateway or RANGER900; host interfaces depend on gateway model *Gateway interfaces include Modbus RTU, Modbus TCP, EtherNet/IP, or MQTT/Sparkplug, depending on the selected gateway.*
Local configuration	4-pin serial port; SignalFire USB-4pin cable required
Approvals	
Hazardous Locations *(pending)*	Class 1 Division 1 Groups C, D. Temperature Code T4

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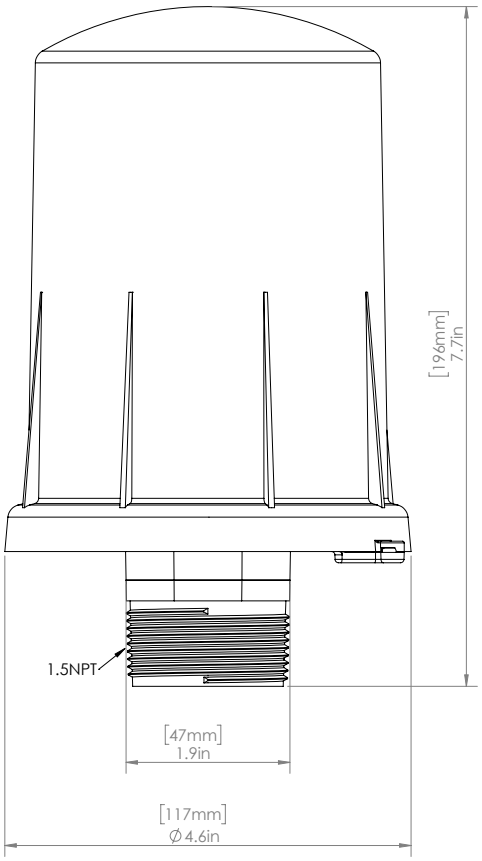
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Radar Measurement Specifications	
Measurement Technology	60 GHz pulsed coherent radar
Maximum Measuring Distance	8 m (26.2 ft)
Minimum Measuring Distance	7 cm (2.8 in)
Blocking Distance	Configurable
Measurement Accuracy	±7 mm (±0.28 in) at 25°C (77°F)
Reported Resolution	2.5 mm (0.10 in)
Beam Width	12°
Reported Values	Distance, level, percent full, radar echo strength, and wireless signal strength

DIMENSIONS

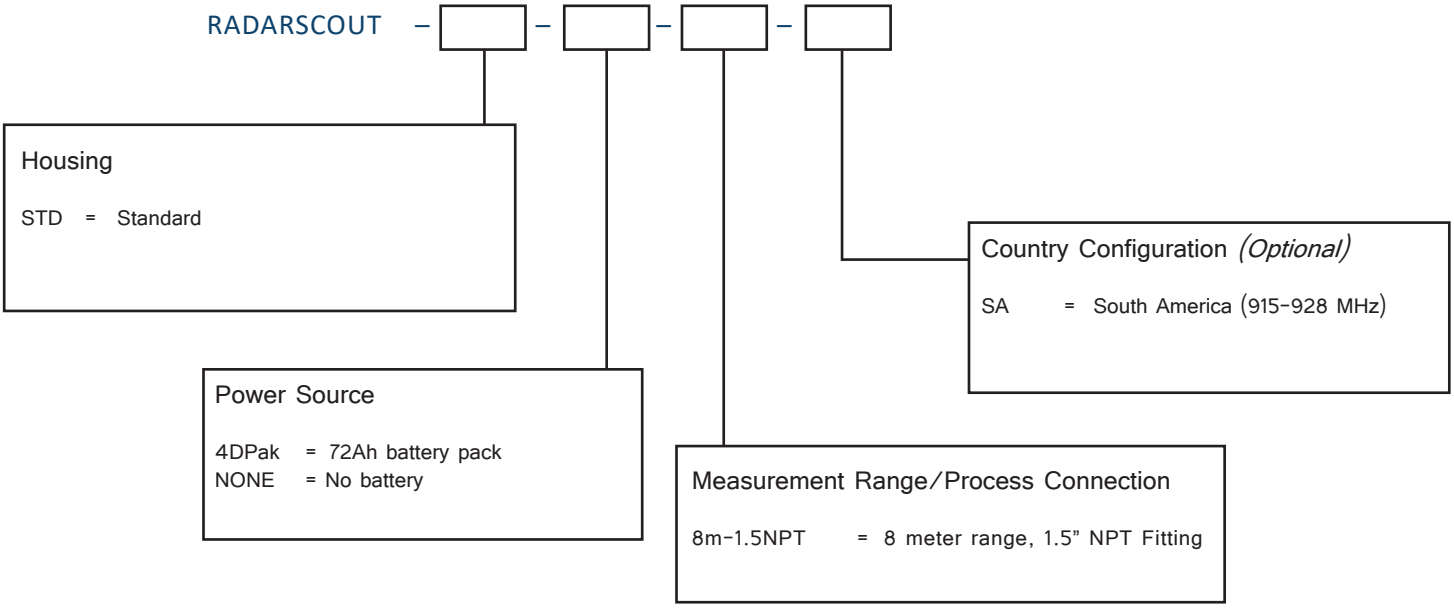


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HOW TO ORDER



SIGNALFIRE WIRELESS TELEMETRY