



REFLECT™

Technical Specification:

REFLECT™ is the innovative low power radar level measurement device from Pulsar Measurement, it automatically optimizes performance from install through to decommissioning.



GENERAL SPECIFICATIONS

Target Market:	Water and Wastewater Environmental
Measurement Parameters:	Level Volume

PHYSICAL SPECIFICATIONS

Dimensions:	Nominal 135 mm (H) x 102 mm (D) (5.3 in x 4.0 in)
Weight:	Nominal 1.2 kg (2.6 lbs) per 5 m (16.4 ft) cable length
Frequency:	V-band (63GHz)
Sensor Body Material:	Valox
Mounting Connection:	Rear: ATEX/IECEX approved sensors only: 1-inch BSP with BReez™ adapter; cFMus approved sensors only: 1-inch stainless steel NPT with BReez™ adapter Front: Optional, 1.5-inch BSP or 1.5-inch NPT
Enclosure Protection:	IP68 / NEMA 6P
Vibration Protection:	Fully Potted
Cable Lengths:	Standard: 5 m, 10 m, 20 m, or 30 m (16.4 ft, 32.8 ft, 65.5 ft, or 98.4 ft) Optional: 50 m or 100 m (164 ft or 328 ft)

PERFORMANCE

Measurement Range:	8 m or 20 m (26.2 ft or 65.6 ft)
Technology	FMCW
Beam Angle:	6°
Effective Beam Angle (using DATEM)	3°
Resolution:	1 mm (0.039 in)
Accuracy:	2 mm (0.079 in)
Repeatability:	1 mm (0.039 in)
Near Blanking:	75 mm (2.95 in) from drip shield
First Stable Measurement:	Cold Boot = 10 seconds Warm Boot = 5 seconds
Max Start-up Current:	20 mA
Current Consumption:	3.8-22mA, resolution 1uA
Input Voltage Range:	12 - 28 V DC

ENVIRONMENTAL

Ambient Operating Temperature:	-40 °C to +80 °C (-40 °F to +176 °F)
Humidity:	0 to 99% (non-condensing)

PRODUCT TECHNICAL SPECIFICATION

Process Connection Temperature:	-40 °C to +80 °C (-40 °F to +176 °F)
Process Pressure:	-1 to +3 bar

OUTPUT / COMMUNICATION

Connection:	2-wire loop powered
Analog Output:	4-20mA
Local Wireless Communication:	Encrypted Bluetooth with mobile interface (can be disabled)
Digital Communication:	HART with DTM
Wireless Range:	4 m - 40 m (13.1 ft - 31.2 ft) User Configurable
User Indicator:	Quad-color lights with tilt sensor

APPROVALS

Regulatory Approvals:	FCC, RED, CE, UKCA, IECEx, ATEX, UKEx, cFMus, Giteki
Explosive Atmosphere:	ATEX/IECEx/UKEx: Zones 0, 1, 2: Ex II 1G Exia IIC T4 Ga, Tamb.= -40°C to +80°C. Zones 20, 21, 22 : Ex II 1D Exia IIIC T100oC Da, Tamb.= -40°C to +80°C. cFMus: Intrinsically safe for Class I, Div 1, Groups A,B,C,D, T4; Class II, Div 1, Groups E,F,G, T4; Class III, T4
WEEE and ROHS:	Compliant

ACCESSORIES

BReez™ Adapter:	Greatly increases ease of use 1 supplied as standard, additional quantities sold separately
Front Thread Adapter:	Optional addition to standard list price Available in PVDF or PEEK For compatibility with chemical applications



www.pulsarmeasurement.com
info@pulsarmeasurement.com

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Registered Address: 1 Chamberlain Square CS, Birmingham B3 3AX
Registered No.: 3345604 England & Wales

United States
11451 Belcher Road South
Largo, FL 33773
888-473-9546

Canada
16456 Sixsmith Drive
Long Sault, Ont. K0C 1P0
855-300-9151

United Kingdom
Cardinal Building, Enigma
Commercial Centre
Sandy's Road, Malvern WR14 1JJ
00 44 (0) 1684 891 371