PRODUCT OVERVIEW

Radar Stage Sensor (LX-80)

Ideal for:

- **Public works**
- **Emergency management**
- **Flood risk management**
- **Water management**
- **Government agencies**

Precise, contactless water level measurement

The Radar Stage Sensor uses radar technology to provide non-contact measurement of water level in lakes, rivers, and seas. Simple installation of this light weight, IP68 sensor above the water surface enables rapid deployment and ensures operation with minimal maintenance. Select from a variety of depths, 8m (26ft), 15m (49ft), 30m (98ft) and measurement frequencies (1, 10Hz) to suit your site.

Water Level

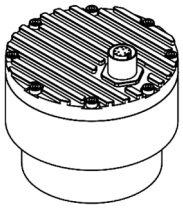
Radar Technology

HOW IT WORKS

Radar level measurement is achieved by transmitting modulated radar wave in 80 GHz frequency range (W-band). This ensures high accuracy and allows multiple radars to operate close to each other, without mutual interference. When compared to ultrasonic sensors for level measurement, radar technology provides advantage in precision, as the changes in air temperature which affect the quality of ultrasound measurements do not affect radar measurements.

ASK ABOUT: LT1 LOGGING TRANSCEIVER

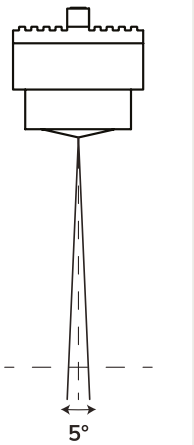
Improve response time with our compact, IoT-connected LT1 logging transceiver. Collect, store, and transmit real-time data and alerts from your Radar Stage Sensor for a complete hydrology solution.



Detailed Specifications

COMPONENT	1Hz	10Hz
Use Cases	Open water, rivers, stilling wells, commonly used by USGS	Oceanographic version, calculates wave parameters
ACCURACY		
Standard Range	+/- 2mm (0.007ft)	
MEASUREMENT		
Maximum	Up to 30m (98.4ft)	30m (98.4ft)
Blind Zone	0.2m (0.66ft)	
BEAM FREQUENCY		
Frequency Band	W-Band (80GHz)	
COMMUNICATION		
Output	SDI-12 | GLX-NMEA | Modbus-RTU | 4-20mA	
POWER		
Supply Current @ 12VDC	30mA typical 50mA max	161mA typical
Voltage Requirements	9 to 27VDC	
TEMPERATURE		
Operating	-40...+85C (-40... +185F)	
Storage	-40...+85C (-40... +185F)	
TEMPERATURE		
Housing Size	Ø80mm (3.14in) X H80mm (3.14in)	
Weight	1.02kg (2.25lbs)	
Housing Material	Aluminum	
Protection Rating	IP68	

DISTANCE	SDI-RADAR-LX80 BEAM WIDTH
3m (9.84ft)	0.26m (0.85ft)
6m (19.69)	0.52m (1.71ft)
9m (29.53ft)	0.70m (2.30ft)
12m (39.37ft)	1.05m (3.44ft)
15m (49.21ft)	1.31m (4.27ft)
20m (65.62)	1.75m (5.74ft)
25m (82.02ft)	2.19m (7.19ft)
30m (98.43ft)	2.62m (8.6ft)



Key Features:

- Contactless measurement of distance from the sensor to the surface
- Measurement up to 8m (26ft), 15m (49ft), or 30m (98ft) distance
- Measurement accuracy +/-2 mm
- Compact, low-power design
- Supports variety of communication interfaces for easy integration with existing telemetry equipment
- Rugged IP68-rated enclosure for outdoor applications and harsh environments
- Easy pole, wall, or enclosure mounting

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