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PRODUCT OVERVIEW

Radar Stage Sensor (LX-80)



Ideal for:

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



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ASK ABOUT: LT1 LOGGING TRANSCEIVER

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

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.



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.



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)	
BlindZone	0.2m (0.66ft)		
BEAM FREQUENCY			
Frequency Band	W-Band	d (80GHz)	
COMMUNICATION			
Output	SDI-12 (Modbus-R1	GLX-NMEA IU 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	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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