



## Nile radar

### Non-contact water level sensor

The **Nile radar** water level sensor is a rugged, innovative design that was built for extreme environmental conditions. It's the ideal sensor for tough-to-read sites where traditional level measurements aren't feasible. A reliable interface and simple SDI-12 communications ensure seamless integration with water monitoring stations.

#### Key features:

- High accuracy
- Measurement range up to 40 m
- Frequency range 26 GHz
- Low current operation (13.5 mA)
- Continuous operation, no warm-up or "lock on"
- NEMA 4x (IP-66) enclosure capability
- Optional keypad display and capped antenna
- Simple SDI-12 communication
- Surge protection
- Multi-echo tracking

## Nile radar specifications

Size (housing)	168 mm x 144 mm (6.61 in x 5.67 in)
Size (horn)	50 mm x 115 mm x 48 mm (2.00 in x 4.53 in x 1.89 in)
Weight	3.0 kg
Material (housing)	PBT plastic
Material (horn)	316L
Voltage input	10 to 16 VDC
Supply current	Active: <13.5 mA
Operating temperature	-40 °C to 60 °C
Storage temperature	-40 °C to 60 °C
KPD-LED display	-20 °C to 70 °C
Communication output	SDI-12
Connection type	M12 connector (part # 203360) or cable gland (part # 910125)
Warranty	2 years

## Nile radar measurement specifications

Range	1 to 40 m (3 to 131 ft); option for up to 70 m (230 ft)
Standard accuracy*	±2 mm (±0.08 in) over range of 1.06 to 20 m (3.5 to 66 ft)
Near target accuracy	±6 mm (±0.24 in) over range of 0.4 to 0.5 m (1.3 to 1.64 ft)
Temperature error (limited temperature change)	±2 mm (±0.08 in) max error per 10 °C change
Temperature error max	±2 mm (±0.08 in) max error per 10 °C change
Frequency	K-Band (~26GHz)
Transmitting power	1 < 12 nW/cm <sup>2</sup> 5 < 0.4 nW/cm <sup>2</sup>
Beam angle	18°

Measurement distance	Beam width
3 m (9.84 ft)	0.95 m (3.1 ft)
6 m (19.69 ft)	1.9 m (6.2 ft)
9 m (92.53 ft)	2.85 m (9.4 ft)
12 m (39.37 ft)	3.80 m (12 ft)
15 m (49.22 ft)	4.75 m (16 ft)
20 m (65.62 ft)	6.34 m (21 ft)
25 m (82.03 ft)	7.92 m (26 ft)
30 m (98.43 ft)	9.50 m (31 ft)
35 m (114.84 ft)	11.09 m (36 ft)
40 m (131.24 ft)	12.67 m (42 ft)

\*Accuracy was determined under the following reference conditions:  
+24 °C ± 5° C, 960 mbar abs., 60% ± 15% RH, using a metal plate reflector  
with a minimum diameter of 1 m, in accordance with EN 61298-3.



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