

NILE RADAR SERIES

NON-CONTACT WATER LEVEL SENSORS

The **Nile 502/504/517** make up the **Nile** series of radar water level sensors. The rugged, innovative design was built for extreme environmental conditions—making this series ideal for tough to reach sites. Its reliable interface and simple SDI-12 and RS-232 communication ensure seamless integration with current water monitoring stations.

APPLICATIONS

Accurately measure river, lake, well, ocean and waste water levels through continuous, non-contact transmission.

NILE 502 / 504

KEY FEATURES

- High accuracy
- Out of the box measurement range up to 70 m (Nile 517)
- NEMA 4x (IP66) enclosure compatibility
- Frequency range 26 Ghz
- Low current operation (<13.5 mA)
- Continuous operation, no warm-up or "lock on"
- Mounting enclosures, radio communication links and other accessories are available
- Optional keypad display
- Capped antenna (Nile 502/504)
- Simple SDI-12 communication
- Surge protection
- Multi-Echo Tracking

YSI

a xylem brand

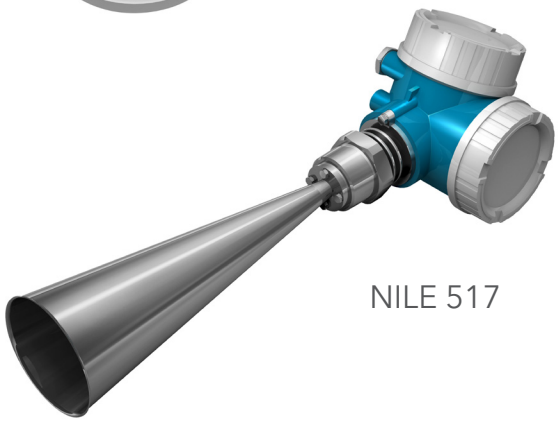
SPECIFICATIONS

MEASUREMENTS			
	Nile 502	Nile 504	Nile 517
Range	1 to 20 m (3 to 66 ft)	2 to 40 m (7 to 131 ft)	2 to 70 m (7 to 230 ft)
Standard Accuracy*	±2 mm (0.08 in) over range of 1.06 to 20 m (3.5 to 66 ft)	±3 mm (±0.1 in) over range of 2.1m to 40 m (7.0 to 131 ft)	±3 mm (±0.1 in) over range of 2.1m to 70 m (7.0 to 2309 ft)
Near Target Accuracy	±5 mm (±0.2 in) over range of 0 to 1.06 m (0 to 3.5 ft)	±21 mm (±0.8 in) over range of 0 to 2.1 m (0 to 7.0 ft)	±21 mm (±0.8 in) over range of 0 to 2.1 m (0 to 7.0 ft)
Temperature Error (Limited Temperature Change)	±2 mm (±0.08 in) max error per 10°C change	±5 mm (±0.2 in) max error per 10°C change	±5 mm (±0.2 in) max error per 10°C change
Temperature Error Max	±5 mm (±0.2 in) max error from -40° C to 60° C	±15 mm (±0.6 in) max error from -40° C to 60° C	±15 mm (±0.6 in) max error from -40° C to 60° C
Frequency	~26 GHz	~26 GHz	~26 GHz
Transmitting Power	<0.4 nW/cm^2	<2.5 nW/cm^2	<2.5 nW/cm^2
Beam Angle	10°	8°	8°
Measurement Distance	Nile 502	Nile 502	Nile 502
	Beam Width	Beam Width	Beam Width
3 m (9.84 ft)	.53 m (1.74 ft)	.42 m (1.38 ft)	.42 m (1.38 ft)
6 m (19.69 ft)	1.05 m (3.45 ft)	.84 m (2.76 ft)	.84 m (2.76 ft)
9 m (29.53 ft)	1.58 m (5.18 ft)	1.26 m (4.13 ft)	1.26 m (4.13 ft)
12 m (39.37 ft)	2.10 m (6.89 ft)	1.68 m (5.51 ft)	1.68 m (5.51ft)
15 m (49.22 ft)	2.63 m (8.63 ft)	2.10 m (6.89 ft)	2.10 m (6.89 ft)
20 m (65.62 ft)	3.50 m (11.48 ft)	2.80 m (9.19 ft)	2.80 m (9.19 ft)
25 m (82.03 ft)		3.50 m (11.48 ft)	3.50 m (11.48 ft)
30 m (98.43 ft)		4.20 m (13.78 ft)	4.20 m (13.78 ft)
35 m (114.84 ft)		4.89 m (16.04 ft)	4.89 m (16.04 ft)
40 m (131.24 ft)		5.59 m (18.34 ft)	5.59 m (18.34 ft)
45 m(147.65 ft)			6.29 m (20.64 ft)
60 m (196.86 ft)			8.39 m (27.53 ft)
70 m (229.67 ft)			9.79 m (32.12 ft)
COMMUNICATION			
Output	SDI-12, RS-232		
POWER			
Voltage Input	10 to 16 VDC		
Supply Current	Active: <13.5 mA		
ENVIRONMENTAL			
Operating Temperature	-40° C to + 60° C		
Storage Temperature	-40° C to + 60° C		
KPD-LED Display	-20° C to + 70° C		

PHYSICAL			
Size (Housing)	168 mm (6.61 in) x 144 mm (5.67 in)		
Size (Horn)	80 mm (3.15 in), 115 mm (4.53 in) x 137.9 mm (5.43 in)	100 mm (3.94 in), 135 mm (5.31 in) x 150.5 mm (5.93 in)	100 mm (3.94 in), 95 mm (3.74 in) x 282 mm (11.10 in)
Weight	2.7 kg	2.7 kg	4.2 kg
Material (Housing)	PBT Plastic	PBT Plastic	PBT Plastic
Material	PP Cladded	PP Cladded	316L

WARRANTY	
The Nile series radars are warranted against defects in materials and workmanship for two years from date of shipment. For complete terms and conditions, visit http://www.ysi.com/terms-and-conditions.php	
Note	For detailed specifications, see user manual. Specifications subject to change without prior notice due to ongoing commitment to product testing and improvement. LR October, 2016 (D51-05 1016) * 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.

NILE 502 / 504



NILE 517

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