

VRS-20

Radar level sensor



The VRS-20 is a pulsed k-band radar level sensor developed by Valeport to work seamlessly with the Valeport TideMaster, operate standalone with optional integrated GPRS telemetry to internet, or interface directly to a third party data logger or PC. Versatile and simple to install, the VRS-20 addresses a number of the issues traditionally associated with level measurement.

Specifications

Product	VRS-20 radar level sensor
Country of origin	UK
Manufacturer	Valeport Limited

Sensors

Non-contact technology removes the installation, corrosion & fouling issues of submerged sensors, while simplifying datum control. Accuracy and performance are unaffected by changes in water density and atmospheric conditions

Specification

Minimum range	0, 30, 50, 100, 300 or 600 Bar
Maximum range	0.001% range
Beam angle	±0.01% range
Frequency	0.001% range
Accuracy	±0.01% range
Precision	0.001% range
Footprint	Radius at different ranges

Type approval

The VRS20 radar sensor is fully compliant with:

ETSI EN 302 729-2 V1.1.2(2011-05) Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Level Probing Radar (LPR) equipment operating in the frequency ranges 6 GHz to 8,5 GHz, 24,05 GHz to 26,5 GHz, 57 GHz to 64 GHz, 75 GHz to 85GHz;

Sampling

The VRS-20 offers averaged data output options for water level / tide measurements only. Wave measurement sampling is not available.

Raw sampling rate	0.21
Averaging period	Selectable (10 to 360 seconds)
Output parameters	Mean Range Mean Height Std. Deviation

Electrical

Range	9-28 V DC
Power	35mA @ 12v dc

Communications

RS232/485 and SDI12 fitted as standard with communications method defined by pin selection Optional integrated GPRS telemetry module

RS232	Up to 200m cable, direct to serial port
RS485	Up to 1000m cable, addressable half duplex
SDI 12	Up to 100m cable.

Housing & mounting

- Fully sealed, injection moulded housing rated to IP67 (NEMA 6) with PTFE window.
- Integral stainless steel mounting bracket with tool free, 2 axis adjustment.
- Integrated spirit bubbles for easy levelling.

Length	255mm
Width	130mm
Height	130mm (75mm without mount)
Weight	~2 kg

Ordering

0745001	VRS-20 Radar Level Sensor with mounting bracket, 5m cable with junction box, software, manual and transit carton.
0745002	VRS-20 Radar Level Sensor with integrated GPRS telemetry. Mounting bracket, 5m cable and junction box, software, manual and transit carton.

Shipping

Cardboard Carton	37 x 28 x 20cm, ~ 4Kg
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