

ULS-02 & ULS-06

Ultrasonic Level Sensor



The ULS-02 ultrasonic level sensor transmits series of ultrasonic pulses which propagate towards the liquid surface. The reflected acoustic wave is received back in the ULS-02 transducer and processed in the electronic module. The distances calculations are based on time flight of the acoustic wave to the level and back.

The ULS-02 and ULS-06 sensors can easily be combined with the new generation open channel non-contact RAVEN-EYE® radar velocity sensor and constitute a custom-tailored non-contact open channel area/velocity flowmeter.

The ULS sensors are ultrasonic level sensors providing continuous level measurement of liquids like water and wastewater. They are self-contained units that include the electroacoustic transducer and the electronic module.

The ULS-02 and ULS-06 level sensors are suited to continuous non-contact level measurement of liquid in closed conduit or open channel applications.

Technical Specifications

Method

Ultrasonic pulse echo

Measuring Range

ULS-02 0,00 to 2 m (0.00 to 5.74 ft)
ULS-06 0,00 to 6 m (0.00 to 18.87 ft)
25 cm deadband (9.84 inch)

Supply Voltage

ULS-02/ULS-06 12-36 VDC

Current Supply

ULS-02/ULS-06 Max. 22 mA

Resolution

ULS-02/ULS-06 1 mm (0.04")

Accuracy

ULS-02 0,3% FS
ULS-06 0,2% FS

Temperature Error

ULS-02/ULS-06 max. 0,04%/K

Beamwidth (-3dB)

ULS-02 10°
ULS-06 14°

Operating Temperature Range

ULS-02/ ULS-06 -30°C to +70°C (-22° to +158° F)

Measuring Period

ULS-02 0,6s
ULS-06 1,0s

Filter

ULS-02/ULS-06 on 4 measurements

Short time temperature Stress Resistance

ULS-02/ULS-06 +90°C/1 hour
(+194°F/1 hour)

Max. Operation Overpressure (on transmission surface)

ULS-02/ULS-06 0,1 MPa

Protection Class

ULS-02/ULS-06 IP68

Weight

ULS-02 0,55kg (1.21 lbs)
ULS-06 0,65kg (1.43 lbs)



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Technical Specifications

Outputs

ULS-02/ULS-06

4-20mA

(limit values 3,9-20,5 mA)

Sensor Cable

Material

Polyurethane jacketed

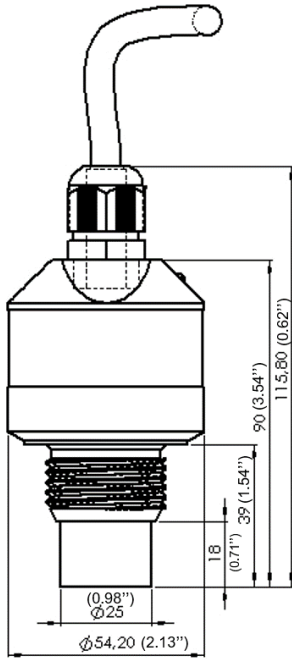
Shielded

Yes

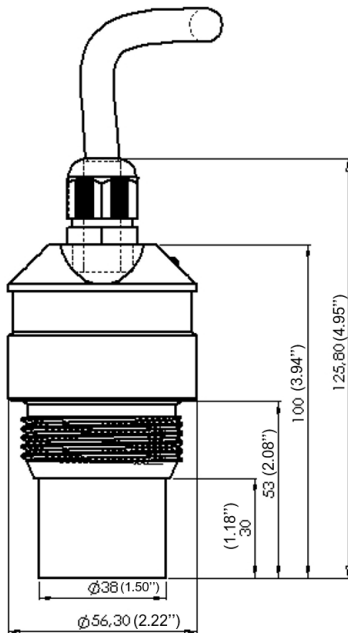
Length

Standard: 10 m (32,81 ft)

Optional: 20 m (65,61 ft), 30 m (98,43 ft) or length as needed up to 300 m (984,25 ft)



ULS-02



ULS-06



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*Specifications are subject to change without notice
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