

CLS Water Sensor

Sensor for water presence detection

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The CLS Water Sensor is a capacitive limit switch sensor. It is used for efficient and reliable detection of the presence of liquid in pipes or open tanks. The sensor operates on the principle of capacitance variation which is more reliable than resistive or inductive measurement between open probes.

The CLS Water Sensor is suitable as dry run protection for surface pump applications and can be also used to detect the presence of water in tanks.

Characteristics

- Water detection based on the capacitive change principle.
- Quick reaction time.
- Reliable fluid detection.
- Robust and corrosion resistant: Sensor made of AISI316, measuring tip made of PEEK (polyetheretherketone).
- Over current and reverse polarity protection.
- LED indicator on the sensor.
- NPN output for use with water sensor input on PS2 and PSk family controllers.
- Meets the requirements for CE.



Photo may differ from actual product



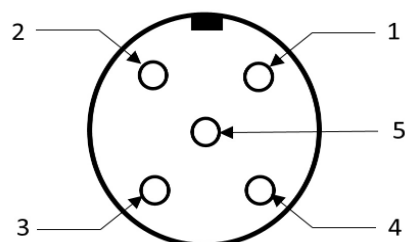
Technical Specification

Connection	Thread M14 x 1
Material	Sensor housing: Stainless steel 316 Sensor tip: PEEK
Operating pressure	0 - 10 bar [0 - 145,03 psi]
Temperature range	-25 °C ... 90 °C [-13 °F ... 194 °F]
Protection Class	IP 67
Electrical connection	M12-plug
Supply	12 ... 24 V DC
Output	NPN (max. 100 mA, short circuit protection) PNP output also possible ⁽¹⁾
Reaction time	Approx. 1 ½ s
Display	LED
Cable length	2 m [6.5 ft]

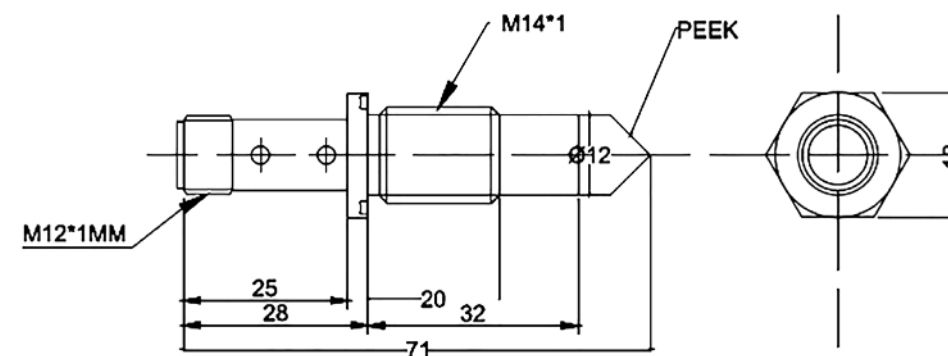
⁽¹⁾ Refer to the electrical connection

Connection – Water Sensor connection Electrical connection terminals

Controller	Jumper	Brown	Black	Blue	M12-Plug	Wire	Description
PS2	-	13	14	15	1	Brown	+12 ... 24 V DC
PSk2 (21 to 40)	6 to 16	15	5	6	2	White	PNP
PSk2 (60 to 100)	-	13	14	15	3	Blue	0 V
PSk3	-	14	15	16	4	Black	NPN
					5	Grey	NC



CLS Water Sensor Drawing and Dimensions



Order information

LORENTZ provides CLS Water Sensor for both millimeter and inch pipe installations, please consider the correct item number when ordering:

Item number	Description	Item Picture
19-000004	CLS Water Sensor with cable (Metric units). Includes: - CLS Water Sensor - PVC Adaptor, D 50 mm M14x1 - Ring w. seal for PVC Adaptor, 3 mm - Jumper cable wire ⁽²⁾	
19-000009	CLS Water Sensor with cable (U.S. units). Includes: - CLS Water Sensor - PVC Adaptor, 2", M14x1 - Ring w. seal for PVC Adaptor, 3 mm - Jumper cable wire ⁽²⁾	
19-000006 ⁽³⁾	Adaptor kit, for CLS Water Sensor, Welding, M14x1, Steel + Stainless Steel. Includes: - Adaptor for welding, M14x1, steel - Adaptor for welding, M14x1, stainless steel	
19-000008 ⁽³⁾	Adaptor, CLS Water Sensor, G1" x M14x1, stainless steel	

⁽²⁾ Applicable only for connection to PSk2-21 to PSk2-40 controllers.

⁽³⁾ These items can be ordered separately according to the pipework.

Weight and Volume information

Item number	19-000004	19-000009	19-000006	19-000008
Dimension (LxWxH)	190 x 105 x 75 mm [7.4 x 4.1 x 2.9 in]	190 x 105 x 75 mm [7.4 x 4.1 x 2.9 in]	190 x 105 x 75 mm [7.4 x 4.1 x 2.9 in]	190 x 105 x 75 mm [7.4 x 4.1 x 2.9 in]
Volume	0.0015 m³ [0.053 ft³]	0.0015 m³ [0.053 ft³]	0.0015 m³ [0.053 ft³]	0.0015 m³ [0.053 ft³]
Net Weight	0.19 kg [0.42 lb.]	0.21 kg [0.46 lb.]	0.16 kg [0.35 lb.]	0.14 kg [0.31 lb.]
Gross Weight	0.33 kg [0.73 lb.]	0.35 kg [0.77 lb.]	0.26 kg [0.57 lb.]	0.23 kg [0.50 lb.]