

## XLS-1 — Ultrasonic Level Switch

- ▶ No Moving Parts
- ▶ Zero Maintenance
- ▶ Ignores Condensation on Sensor
- ▶ Will Not Sense Foam as Liquid

XLS-1 ultrasonic level switches are compatible with water-based and hydrocarbon-based liquids, and are perfect for applications where condensation may affect other sensing technologies. The XLS-1 is an ideal solution for sensing liquid level in generators, water tanks, radiators, printers, and other industrial applications. XLS-1 ultrasonic level switches expands the Gems catalogue of solid-state level sensors.

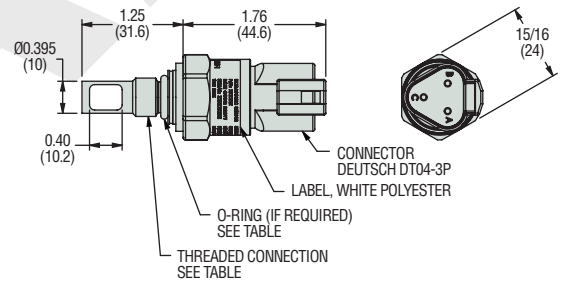
### Specifications

<b>Probe Length</b>	1.25" (including threads)
<b>Fluid Compatability</b>	Water, Water-based medias, Hydrocarbon-based chemicals, not compatible with high-viscosity liquids
<b>Materials</b>	
<b>Housing</b>	316L Stainless Steel
<b>Seal</b>	NBR; EPDM; Silicon, Kalrez® or Chemraz® available
<b>Connector Housing</b>	30% Glass-filled Polyester
<b>Reliability and Durability</b>	
<b>Expected</b>	Minimum 7 year service life (Target)
<b>MTBF</b>	>87k hours (Target)
<b>Performance</b>	
<b>Accuracy</b>	±1 mm from centerline
<b>Repeatability</b>	±1 mm
<b>Temperatures</b>	
<b>Fluid</b>	-40°F to +257°F (-40°C to +125°C)
<b>Ambient</b>	-40°F to +185°F (-40°C to +85°C)
<b>Pressures</b>	
<b>Operating</b>	-10 to 250 psig (Target)
<b>Burst</b>	1000 psig
<b>Environmental</b>	
<b>Moisture</b>	IP6K9K per DIN 40050-9 (High pressure and temperature washdown) with sealed connector IP67 (1 meter submergence) with sealed connector
<b>Vibration</b>	Per IEC 60068-2-6; 20 m/s <sup>2</sup> , 10-55 Hz
<b>Shock</b>	Per IEC 60068-2-27; 15G, 11ms
<b>Audio Frequency Immunity</b>	Per MIL 461D, CS101
<b>EMC Immunity</b>	IEC 61326-1; EN61000-4-(2 thru 6)
<b>Input Power</b>	5-28 VDC regulated power, max supply current 20 mA
<b>Outputs</b>	Open collector, Sinking output (Wet Sink/Dry Sink) Open collector specs 30 VDC, 30mA max
<b>Electrical Interface</b>	3 Pin Deutsch DT Series Connector, 18 AWG wire or cable
<b>Mechanical Interface</b>	1/4" NPT, 1/2" NPT, M12x1.0, M12x1.5, 1/2"-20, others available upon request
<b>Mounting Orientation</b>	Mounted Horizontally ±60 degrees
<b>Approvals</b>	CE (EMC 2004/108/EC) and RoHS, UL/cUL pending
<b>Calibration</b>	None required

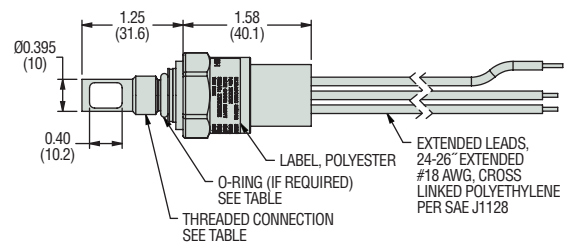


### Dimensions

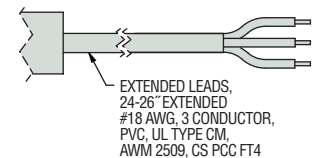
#### 3-PIN Deutsch Connector



#### 3-Wire Output



#### PVC Cable



Mounting Types

M12 x 1.0	1/2"-14 NPT	1/4"-18 NPT	M12 x 1.5 per ISO6149-3	1/2"-20 per SAE J1926-3

Dimensions in Inches

How To Order

Select a Part Number based on mounting type, connection and actuation condition.

Actuation Condition	Electrical Connection	Mounting Type				
		M12 x 1.0 (TYPE 10)	1/2"-14 NPT (TYPE 12)	1/4"-18 NPT (TYPE 14)	M12 x 1.5 per ISO6149-3 (TYPE 15)	1/2"-20 per SAE J1926-3 (TYPE 20)
Wet Sink	Integral 3-pin Deutsch® Connector	247670	247690	247700	247680	247660
	18 AWG, 24"-26" Extended Flying Leads	247740	247780	247800	247760	247720
	24"-26" PVC Cable	247750	247790	247810	247770	247730
Dry Sink	Integral 3-pin Deutsch® Connector	247675	247695	247715	247685	247665
	18 AWG, 24"-26" Extended Flying Leads	247745	247785	247805	247765	247725
	24"-26" PVC Cable	247755	247795	247815	247775	247735

LEVEL SWITCHES - SINGLE POINT