

CAP-300 Series – Reliable Coolant Level Sensor



- ▶ Durable sealed design – IP67, IP6K9K
- ▶ Developed for the most rugged coolant applications
- ▶ Tolerates coolant coating
- ▶ Small size – 2" (51 mm) long

The CAP-300 capacitive level sensor is one of our most durable and reliable point level sensors. Compatible with coolants, the CAP-300 is the ideal OEM solution for power generation equipment, off-highway vehicles and cell phone tower generators and can be mounted in any position. With nearly zero maintenance, the sensor is small in size, tolerates coating and will remain reliable even in the standby mode. Compatible with temperatures up to 257°F (125°C) the capacitive based sensor is suited for the most challenging environments. Available with a variety of mounting types and electrical connections, the CAP-300 is the ideal solution for coolant monitoring.

Specifications

Mountings	1/4" NPT, 1/2"-20 per SAE J1926-3, M12x1.0-8g, M12x1.5 ISO 6149-3
Materials	
Housing	Brass
O-Ring	EPDM
Probe Tip	Versaplast™
Operating Pressure	Up to 100 PSIG
Operating Temperature	
Common	-40°F to +257°F (-40°C to +125°C)
Cable Versions	-4°F to +158°F (-20°C to +70°C)
Supply Voltage	9 to 32 VDC
Current Consumption	15mA max. (no load)
Output	Open collector, sinking or sourcing output, 9-32 VDC, 30mA max.
Electrical Termination	3-pin Deutsch, 18 AWG Type SXL flying leads or 18 AWG PVC Cable
Sensing Element Length	1.02" (25.9mm) Max. (including thread length)
Approvals	CE, IP67, RoHS, IP6K9K, UL (pending)

How To Order

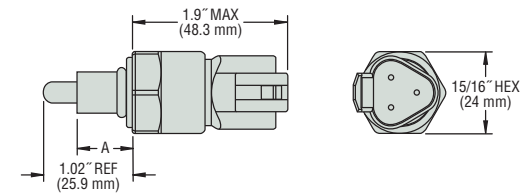
Select a Part Number based on mounting type, connection and actuation condition.

Actuation Condition	Electrical Connection	Thread Sizes			
		1/4"-18 NPT (male)	1/2"-20 per SAE J1926-3	M12x1.5 Stud End Per ISO6149-3	M12x1.0-8g
Wet Sink	Integral 3-pin Deutsch® DT04-3P Connector	240640	240700	240800	240900
	12" 18 AWG SXL Flying Leads	240660	240720	240820	240920
	36" PVC Cable	240680	240740	240840	240940
Dry Sink	Integral 3-pin Deutsch® DT04-3P Connector	240650	240710	240810	240910
	12" 18 AWG SXL Flying Leads	240670	240730	240830	240930
	36" PVC Cable	240690	240750	240850	240950
Wet Source	Integral 3-pin Deutsch® DT04-3P Connector	240645	240705	240805	240905
	12" 18 AWG SXL Flying Leads	240665	240725	240825	240925
	36" PVC Cable	240685	240745	240845	240945
Dry Source	Integral 3-pin Deutsch® DT04-3P Connector	240655	240715	240815	240915
	12" 18 AWG SXL Flying Leads	240675	240735	240835	240935
	36" PVC Cable	240695	240755	240855	240955

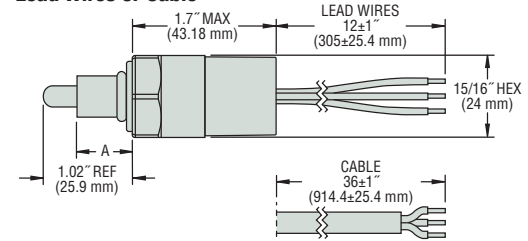


Dimensions

Deutsch® Connector



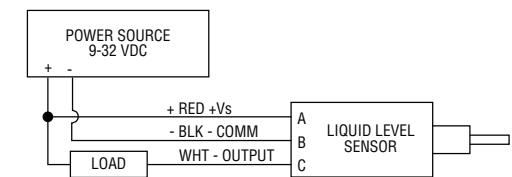
Lead Wires or Cable



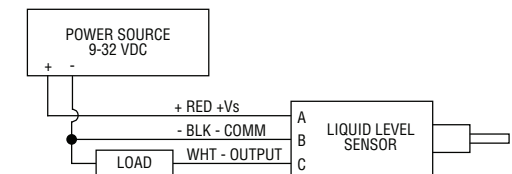
Thread Sizes		A DIM. REF.	EPDM O-Ring
		1/2"-20	0.43" (10.9 mm)
M12x1-8g	0.53" (13.5 mm)	2-110	
M12x1.5	0.6" (15.2 mm)	9.3 x 2.2 mm	
1/4"-18NPT	0.62" (15.7 mm)	None	

Wiring Diagram

Sinking



Sourcing



*Specialists in Valves, Controls,
Pneumatics, Fluid Measurement*

CAP-200 Series – Compact, 1/2" NPT Mount

- ▶ For metallic and non-metallic containers
- ▶ Food grade plastic housing
- ▶ No sensor well required
- ▶ Potentiometer for sensitivity adjustment

The CAP-200 Series is easily threaded directly into 1/2" NPT fittings for an easy level sensing solution within a wide variety of metal and non-metal tanks. The highly accurate sensor is built from durable Delrin® material, and is available in both aqueous and non-aqueous versions. The easy to calibrate sensor can be delivered with factory preset sensitivity for quick installation by OEM.

Specifications

Performance	
Nominal Sensing Distance, Sn	0.39" (10mm)
Sensing Range	0-0.39" (0-10mm)
Repeat Accuracy - (% of Sn)	<10%
Hysteresis - (% of Sn)	<20%
Mechanical	
Enclosure Ratings	IP67, NEMA 1,3,4,6,13
Operating Temperature Range	-13°F to +158°F (-25°C to +70°C)
LED Signal Indicator	Yellow
Power On LED Indicator	Green
Potentiometer	Yes
Sensor Type	
Unshielded	L-Type, Non-Embeddable
Shielded	D-Type, Embeddable
Barrel Material	Delrin®
Termination	78.74" (2 meter), 3 Wire PVC
Shock	30g, 11ms
Vibration	55Hz, 1mm amplitude in all planes
Electrical	
Supply Voltage	10-48 VDC
Continuous Switching Current	300 mA
Voltage Drop	<2 VDC
Current Consumption	<10 mA
Switching Frequency	100 Hz
Transient Protection	2kV, 1ms, 1 kOhm
Overload Protection	Yes
Short Circuit	Yes
Reverse Polarity Protection	Yes
Approvals	CE

How To Order

Select a Part Number based on Fluid Properties and Sink State.

Fluid Properties	Min. Container Wall Thickness	Container Material	Wet/Dry Sink	Part Number
Water Based, Conductive (unshielded sensor)	5/8"	Non-Metallic	N.O. Wet	230077
			N.C. Dry	230078
Non-Water Based, Not Conductive (shielded sensor)	3/8"	Non-Metallic or Metallic	N.O. Wet	230082
			N.C. Dry	230083

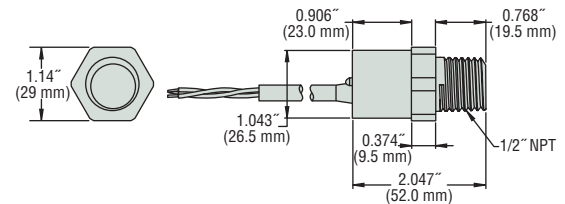


Typical Applications

Fluid Monitoring:

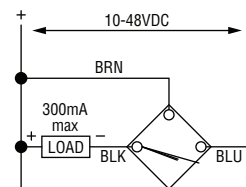
- Waste
- Reagents
- Diluent
- Detergent/Wash
- Coolant
- Printing Ink

Dimensions

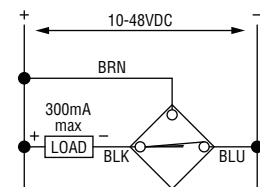


Wiring Diagram

Normally Open



Normally Closed



O'Keefe Controls Co.

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Pneumatics, Fluid Measurement