CAP-150 Series – Capacitive Level Sensor

▶ For non-metallic containers
▶ Non-intrusive level sensing
▶ Optional Sight Glass Bracket
▶ Potentiometer for sensitivity adjustment

The CAP-150 series offers a unique level sensing solution for a wide variety of bottle types including plastic, glass and fiberglass. The non-contact sensor is ideally suited for medical applications such as waste, reagent or diluent liquids as well as dark, sticky or viscous fluids. The easy-to-calibrate sensor is available in both aqueous and non-aqueous versions and can be delivered with factory preset sensitivity for quick installation for OEM orders. The CAP-150 may also be used as a proximity sensor to detect the presence of solids such as pulp & paper.

Delrin® Body with Valox® Sensor Face

Ni-Plated Brass Body with Valox® Sensor Face

Specifications

Performance

Nominal Sensing Distance, Sn	0.2˝ (5mm)
Repeat Accuracy - (% of Sn)	<2%
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
Termination	78.74˝ (2 meter), 3 Wire PVC
Shock	30g, 11ms

Electrical

Supply Voltage	5-48 VDC
Continuous Switching Current	300 mA
Voltage Drop	<2 VDC
Current Consumption	<10 mA
Switching Frequency	100 Hz, maximum
Overload Protection	No
Short Circuit	Yes
Reverse Polarity Protection	Yes
Approvals	CE

How To Order

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

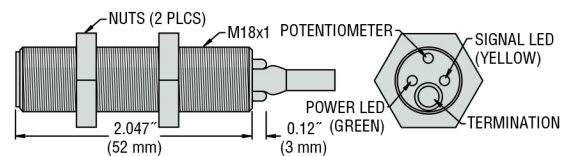| Fluid Properties	Sensor Material	Flush Mountable	Sensing Range	Shielded	Sink/Source		Logic	Part Number
Aqueous, Conductive (Unshielded Sensor)	Delrin® Body with Valox® Sensor Face	No	2-8mm	No	Sink		Wet	239890
							Dry	239891
					Source		Wet	241366
							Dry	241367
Non-Aqueous, Non-Conductive (Shielded Sensor)	Ni-Plated Brass Body with Valox® Sensor Face	Yes	1-5mm	Yes	Sink		Wet	240607
							Dry	240612
					Source		Wet	241368
							Dry	241369

Typical Applications

Fluid Monitoring:
- Waste
- Reagents
- Diluent
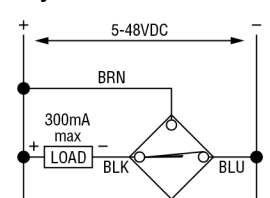- Detergent/Wash
- Coolant
- Printing Ink

Dimensions

NUTS (2 PLCS) — M18x1 — POTENTIOMETER — SIGNAL LED (YELLOW) — POWER LED (GREEN) — TERMINATION — 2.047˝ (52 mm) — 0.12˝ (3 mm)

Wiring Diagram

Wet Sink

5-48VDC — BRN — 300mA max — LOAD — BLK — BLU

Dry Sink

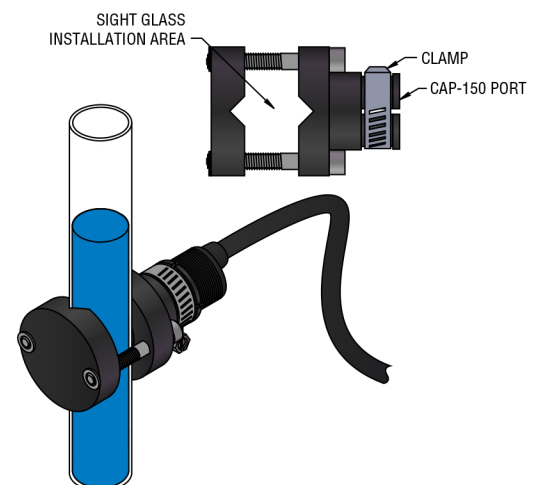5-48VDC — BRN — 300mA max — LOAD — BLK — BLU
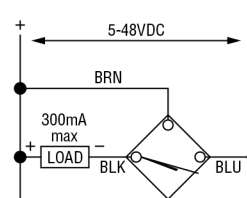
Convert Simple Sight Glass into Switch Actuation Device

- For glass tubing 1/4˝ to 1˝ Dia.

Use this easy-to-install clamp with the CAP-150 to provide liquid level sensing and switch actuation along the length of sight glasses 1/4˝ to 1˝ in diameter.

Part Number: 240836

SIGHT GLASS INSTALLATION AREA — CLAMP — CAP-150 PORT

Visit www.GemsSensors.com for most current information.