

CLS 210

"Suitable for use in water and water based liquids,
Sink (NPN) or Source (PNP) output, IP67
protection"



- Suitable for water and water based liquids
- Alarm delay time: Standard 10 sn (or a value between 0...40 sn can be selected at the order stage according to customer demand)
- 40 Bar pressure resistance
- Sink (NPN) or source (PNP) output type
- High accuracy and stability
- IP67 protection class

The CLS 210 capacitive level sensor is a device designed to give an alarm signal if the liquid falls below or rises above a predetermined level. It can be specified with a delay according to customer request to eliminate false alarms due to turbulence. Provides sink or source output. Its small footprint and limited entry into the tank means the risk of damage is reduced, and a wide range of customer-specifiable options make it suitable for most applications. For high accuracy, it is ideally mounted horizontally at the point where the alarm or control signal is required. However, it can also be mounted vertically.

APPLICATIONS

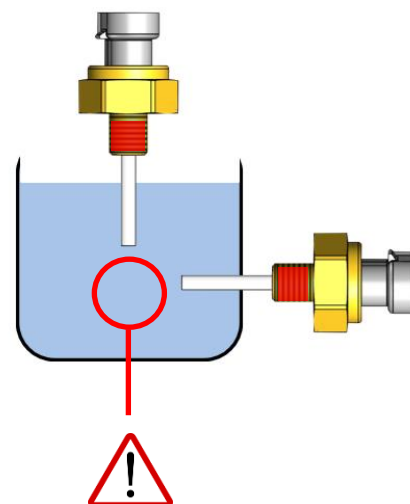
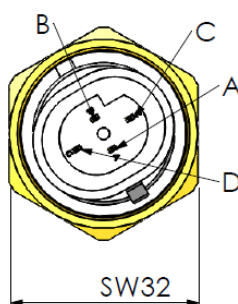
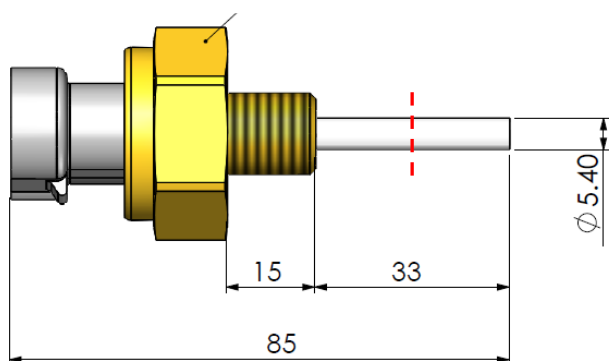
Water based liquids, such as coolant or washer fluid, compatible with with brass, PTFE and FVMQ.

- Water technology
- Tanks
- Energy production equipment
- Generators
- Process industry
- Food and beverage industry
- Railway applications
- HVAC applications
- Automotive
- Coolant monitoring in various vehicles

MECHANICAL DIMENSIONS (mm) and ALARM POINT

Recommended Mounting Tightening Torques

G1/4	9 Nm
1/4" NPTF	9 Nm
3/8" NPTF	11 Nm
1/2" NPTF	20 Nm
1/2" BSPP	15 Nm
1/2" BSPT	20 Nm
M14x1.5	10 Nm
M18x1.5	15 Nm



*The sensor alarms when the liquid reaches this point (midpoint of the probe). The sensor can be mounted horizontally or vertically.

THE TEST LIQUID MUST BE COMMONLY GROUNDED WITH THE POWER SUPPLY

TECHNICAL FEATURES

ELECTRICAL DATA

Detectable Liquids	Water and Water based liquids, such as coolant or washer fluid
Supply Voltage	9-36VDC
Supply Current	<9mA
Max. Load current	1A (sink), 20mA (source)
Alarm delay time	Standard: 10 sn Optional: Can be selected by the customer at the ordering stage between 0...40 sn
Connection	4 way Delphi Packard Metri-Pack 150 series connector
Power up delay	0...10sn (factory set)
Control time (test time)	10sn (ask for other options)
Short circuit protection	Yes
Reverse polarity	Yes
Overload protection	Yes
Output type	Sink (NPN) or source (PNP)
Output pin	Pin D (sink) or Pin A (source)
Output state	Sink (NPN): normally open / normally closed (in liquid) (factory set) Source (PNP): normally open / normally closed (in liquid) (factory set)

MECHANICAL DATA

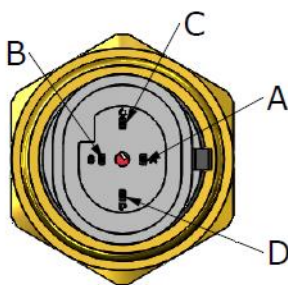
Body	Brass
Probe	PTFE
Terminals	Brass, tin plated
Seals	FVMQ
Connector	PA66 %30 glass filled nylon
Mechanical Connection	1/4" NPTF, 3/8" NPTF, 1/2" NPTF, 1/2" BSPP, 1/2" BSPT, M14x1.5, M18x1.5, G1/4

ENVIRONMENTAL DATA

Protection	IP67 (with mating connector fitted)
Max. Pressure	40 Bar
Vibration	15.3 Grms
Temperature Range	Fluid: -40°C ... +130°C Storage: -40°C ... +140°C

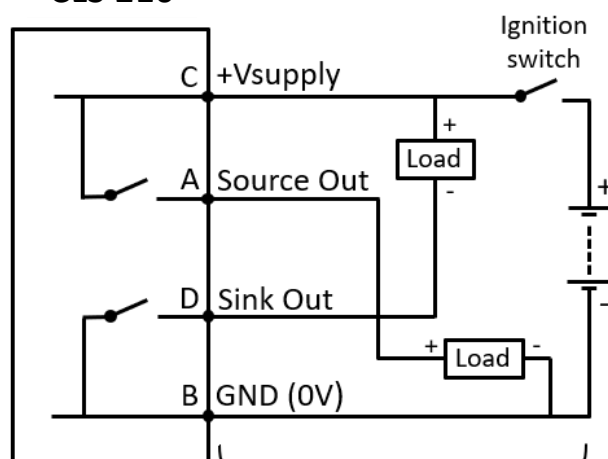
ELECTRICAL CONNECTION

4 way Delphi Packard Metri-Pack 150 Connector



	SOURCE (PNP) OUTPUT	SINK (NPN) OUTPUT
PIN	SIGNAL	SIGNAL
A	SOURCE (PNP) OUTPUT	N/C
B	GND (0V)	GND (0V)
C	+VSUPPLY	+VSUPPLY
D	N/C	SINK (NPN) OUTPUT

CLS 210



TYPICAL APPLICATION

		NO (Normally Open)		NC (Normally Closed)	
Liquid Detection		Presence Nothing		Presence Nothing	
Load Current		Presence Nothing		Presence Nothing	
Output Voltage	NPN Output	H L		H L	
	PNP Output	H L		H L	

WARNINGS

- Care should be taken not to damage the measurement probe. If the measuring probe is damaged, accurate measurement cannot be made.
- It should be checked whether the connector/cable pins are straight and clean.
- Connector/cable connection must be made as specified in the technical data.
- To avoid damaging the sensor, attention should be paid to the supply directions and voltage specified in the technical data.
- Test liquid must be grounded in common with power supply

ORDER CODE

Process Connection

G1/4
1/4"NPTF
3/8"NPTF
1/2"NPTF
1/2"BSPP
1/2"BSPT
M14x1.5
M18x1.5
*Ask for other options

Output State

NO : Normally open
NC : Normally closed

Model

CLS 210 - XXX - XX - XX - XXXX - XXXX

Output Type

SNK : Sink (NPN)
SRC : Source (PNP)

Alarm Delay Time

10sn (standard)
*Optionally, a different time can be selected between 0...40 sn

Connector Type

S155 : 4 way Delphi Packard Metri-Pack 150
*Ask for other options