

## 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.

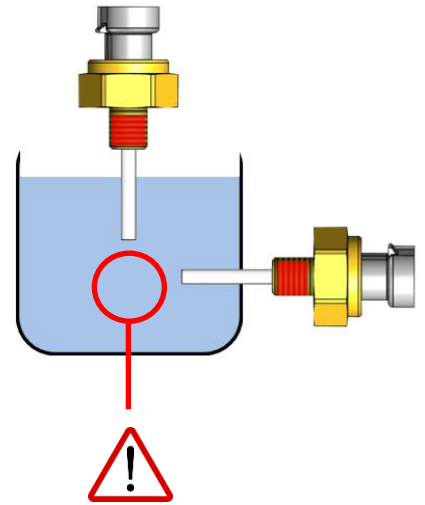
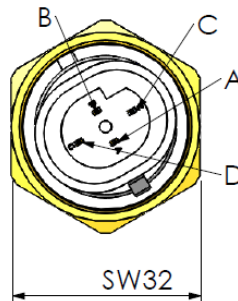
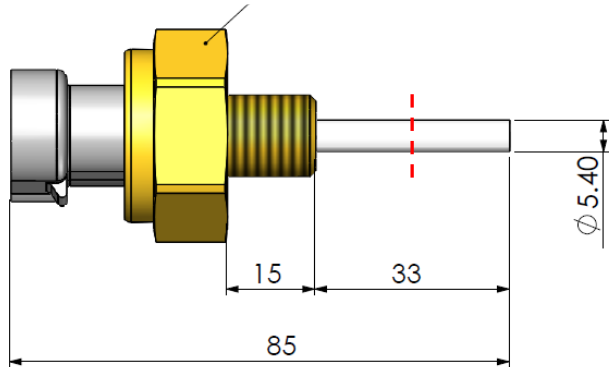
### APPLICATIONS

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	
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

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

#### MECHANICAL DATA

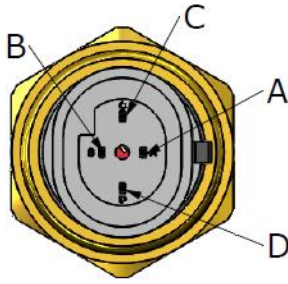
<b>Body</b>	Brass
<b>Probe</b>	PTFE
<b>Terminals</b>	Brass, tin plated
<b>Seals</b>	FVMQ
<b>Connector</b>	PA66 %30 glass filled nylon
<b>Mechanical Connection</b>	1/4" NPTF, 3/8" NPTF, 1/2" NPTF, 1/2" BSPP, 1/2" BSPT, M14x1.5, M18x1.5

#### ENVIRONMENTAL DATA

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

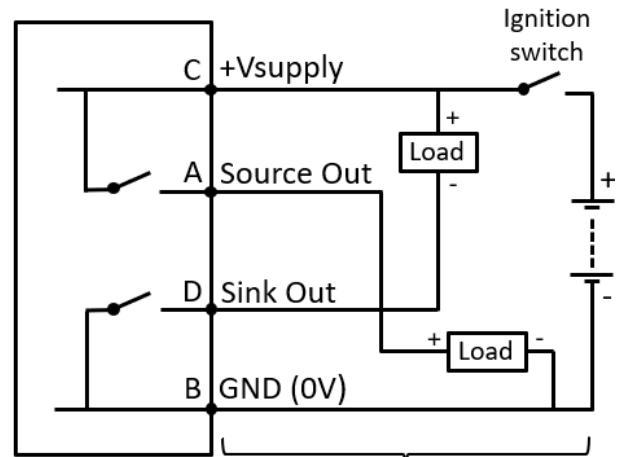
## ELECTRICAL CONNECTION

### 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)	
<b>Liquid Detection</b>		Presence		Presence	
		Nothing		Nothing	
<b>Load Current</b>		Presence		Presence	
		Nothing		Nothing	
<b>Output Voltage</b>	<b>NPN Output</b>	H		H	
		L		L	
	<b>PNP Output</b>	H		H	
		L		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

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

Model	Output State	Output Type	Alarm Delay Time	Connector Type
CLS 210 - XXX - XX - XX - XXXX - XXXX	NO : Normally open NC : Normally closed	SNK : Sink (NPN) SRC : Source (PNP)	10sn (standard) *Optionally, a different time can be selected between 0...40 sn	S155 : 4 way Delphi Packard Metri-Pack 150 *Ask for other options