TECHNICAL DATA

S99 capacitance oil level switch

FOZMULA
INNOVATION IN SENSORS

The **Model S99** is an active device which is designed to give an alarm signal if fluid falls below a preset level. It will only signal an alarm after a few seconds of low level to eliminate false alarms due to turbulence.

The **S99** will output one of two distinct voltage levels (customer specified) dependent upon whether the probe detects a safe or alarm condition. For example, the output can be set to give 1V out in the safe condition and 4V out in the alarm condition of low oil. In this way, any voltage level other than 1V or 4V can be assigned an error code.

SPECIFICATION

Electrical Rating

Supply Voltage: 5 VDC or 7 - 35 VDC
Supply Current: 1.5mA + source output
Max. Load Current: 10mA (source) 0-5v
Alarm Delay Time: 0 - 25 secs rising or falling (factory set)
Connection: 4 way Delphi Packard connector
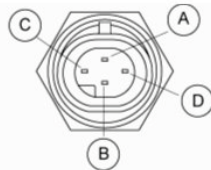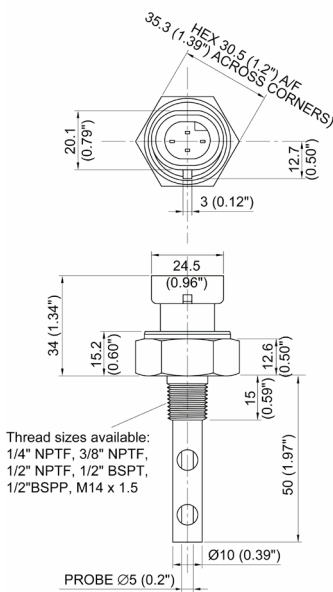**Start up Delay:**   1 - 5 secs

Fluid Types

Mineral oils, typically used in engines or hydraulic actuators, compatible with Brass, PTFE and NBR rubber
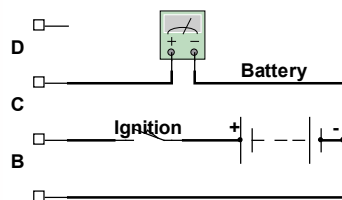.

Environmental Ratings

Sealing: IP67
Max. pressure: 5.0 Bar (72 psi)
Temp. ranges: Fluid: -40°C to +130°C (-40°F to + 266°F)
                          Storage: -40°C to +140°C (-40°F to + 266°F)
Weight: 53g (2 oz)

Construction

Body: Brass
Probe: PTFE
Terminals: SAE CA210Brass, Tin Plated
Seals: NBR rubber
Connector: 30% Glass Filled Nylon 6

Connections

See diagram below
Note: Output is factory programmable between 0-5V ±0.1V

Vibration (15.3 grms)

3 orthoganol planes for 3 hours per plane

Frequency (Hz)	G2/Hz
24	0.4
60	0.5
100	0.5
240	0.1
2000	0.1

Testing performed in accordance with BSEN 60068-2-64:1993

Note: Torque setting on installation should not exceed 22Nm.
Unit should be tightened with a 31mm ring spanner or 31mm socket.

HEX 30.5 (1.2") A/F
35.3 (1.39") ACROSS CORNERS)
20.1 (0.79")
12.7 (0.50")
3 (0.12")

24.5 (0.96")
34 (1.34")
15.2 (0.60")
12.6 (0.50")
15 (0.59")
50 (1.97")

Thread sizes available:
1/4" NPTF, 3/8" NPTF,
1/2" NPTF, 1/2" BSPT,
1/2"BSPP, M14 x 1.5

PROBE Ø5 (0.2")
Ø10 (0.39")

A   NOT TO BE CONNECTED
B   GND Negative power supply or GND
C   V+   Positive power supply
D   Output voltage signal
     Body not connected

D
C
B
Battery
Ignition   +

Optional accessories:

Mating connector kit to suit harness wire cross sectional area of 0.8 to 1.0mm² and sleeve ⌀1.60 to 2.15mm:

Our Part no	Description
C/K1	Connector kit comprising of:
	Crimp Terminals (x4)
	Cable seals (x4)
	Cavity plug (x1)
	Connector assembly 4 way (x1)
	TPA lock (x1)

From the Packard Metri-Pack 150 series of connectors.