

## NEW: Pall WS08 Series Water Sensor

For measurement of dissolved water content in oils

### Features

- A sensing probe immersed in the fluid to directly monitor dissolved water content and temperature
- Water content expressed as % saturation or PPM and temperature in °C or °F
- High temperature sensing
- Simple to operate
- Robust modular housing and sensing probe designs
- Available with or without display
- Included PC configuration software with RS232 communication cable
- Two relay outputs standard (except if RS485 output is ordered)
- Optional RS485 output (not available with relay outputs)
- Two freely scaleable and selectable analogue outputs, 4-20 mA, 0-5 V or 0-10 V (factory default setting is 4-20 mA)
- Simple and flexible installation

**The Pall WS08 Series water sensor provides precise and reliable measurement of dissolved water content in industrial process fluids. It is ideal for in-line monitoring of moisture in hydraulic, lubrication and insulation oils, contributing to the predictive maintenance of plant and machinery.**

Specifically designed for harsh industrial environments the WS08 Water Sensor features a modular housing concept and simple on-site adjustment.

### Simple Installation

The Water Sensor enclosure is designed in modular form for safe and convenient installation. The base section allows location and electrical wiring of the sensor to be carried out before the microprocessor, sensor probe and display sections are fitted. Each section of the enclosure fits securely to achieve an IP65 NEMA 4 moisture protection rating.



*Pall WS08 Water Sensor.*

### Water content measurement in oil

Similar to the measurement of humidity in air, the water content in oil can be described either as the relative % saturation or as an absolute value of the total oil mass, expressed in ppm (parts per million).

### % Saturation or PPM Output

The sensor measures dissolved water concentration as a percentage of the water saturation level ( % saturation) of the fluid at the measurement temperature. This allows the user to monitor changes and trends in water concentration with time. The % saturation can be converted to water concentration in PPM by programming the unit with constants that are specific to the fluid; contact Pall Corporation for details and the protocol.

The sensing probe can be fitted directly into the fluid system or via a ball valve. Once permanently installed, the ball valve allows mounting and removal of the probe without having to drain the system.

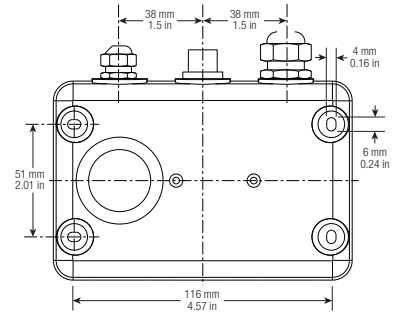


Sensor probe shown fitted into ball valve

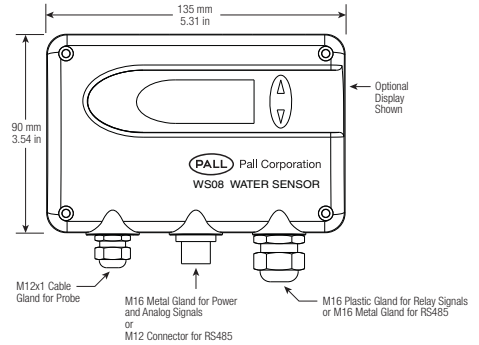
## Specifications

Supply Voltage	8-35 VDC 12-30 VAC
Temperature	
Sensing Probe	-40 °C to 180 °C (-40°F to 356 °F)
Housing with display	-20 °C to 50 °C (-4°F to 122 °F)
Housing without display	-40 °C to 60 °C (-40°F to 140 °F)
Fluid Compatibility	Petroleum based and synthetic fluids. The water sensor is not to be used in water based fluids or aerospace phosphate ester hydraulic fluids.
Pressure	20 bar (290 psi) maximum
Probe Connector	½" NPT (male) or ½" BSPP (male)
Probe Cable Length	2 m (6.6 ft) Longer cable lengths available
Accuracy Humidity Sensor	± 2 % 0 to 90 % RH and ± 3 % 90 to 100 % Traceable to international standards, administered by NIST, PTB, BEV
Accuracy Temperature Sensor	Pt 1000 (Tolerance Class A, DIN EN60751)
Enclosure	IP 65: NEMA 4
Weight	0.43 kg (0.95 lb)
Signal Output	RS232 Serial (RS485 optional), 0-5 V, 0-10 V or 4-20 mA
Alarms	Settable water and temperature alarms using configuration software (included) and customer's PC
Outputs	Freely selectable and scalable 0 – 5 V                                   Load Current <1 mA 0 – 10 V                                   Load Current <1 mA 4 – 20 mA                                Load <500 Ohm 0- 20 mA                                Load <500 Ohm
PC Configuration Software	Included
Systems requirement	Windows 98 or later, serial interface
Calibration Services	Available from Pall; contact your local representative

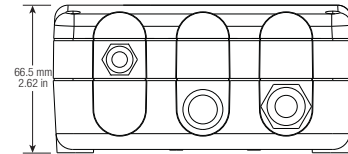
Rear View



Front View



Bottom View



## Ordering Information

Water Sensor P/N: WS08  S  Table 1  Table 2  Table 3  Table 4  Table 5

## Spare Parts and Accessories

Display and housing cover:	WS08D05-KIT
RS232 Interface cable, 3 meter:	WS08CA
Ball valve set (C08 option):	WSPV-KIT
Ball valve set (B08 option):	WSPV-KIT-NPT
Sealing Element 1 (o-ring):	HA050308

**Table 1: Display Options**

Code	Display Options
None	Without display
D	With display

**Table 2: Relay Options**

Code	Relay Options
None	Without relay (Non Stock Special Order)
R	With relay (Standard Stock item)
B	With RS485 (Note: No relays fitted)

**Table 3: Probe Options**

Code	Probe Options
B08	½" NPT connector ½"
C08	½" BSPP connector

**Table 4: Probe Length**

Code	Probe Length
None	100 mm probe length
L	200 mm probe length (includes ball valve)

**Table 5: Cable Length**

Code	Length
NONE	2 m (6.6 ft) Standard
05	5 m (16.4 ft)
10	10 m (32.8 ft)



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