



NEW: Pall WS08 Series Water Sensor

For measurement of water content in oil

Features

- A sensing probe fully immersed in the fluid to directly monitor water content and temperature
- Water content expressed as % saturation or PPM and temperature in °C or °F
- 'Plug and play' connectivity
- High temperature sensing
- Simple to operate and calibrate
- Robust modular housing and sensing probe designs
- Optional local display with alarm capability
- Included PC Software compatible with most common PLC systems
- High speed data acquisition via RS232 serial output
- Two freely scaleable and selectable analogue outputs
- Simple and flexible installation

The Pall WS08 Series water sensor provides precise and reliable measurement of water content in industrial process fluids. It is ideal for in-line monitoring of moisture in hydraulic, lubrication & 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, 'plug-and-play' connectivity, simple on-site adjustment and calibration, and interchangeable sensor options.

Simple Installation

The sensor enclosure is designed in modular form for safe and convenient installation. The base section allows location and electrical wiring or 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 functions primarily as a condition monitor. For this reason, dissolved water content in the fluid, expressed as % saturation, is its default data output. This allows the user to monitor changes and trends in water content over time. Users who require water content to be displayed in ppm can have the unit matched to their specific fluid (contact Pall for details and pricing).

The sensing probe can be placed directly in the oil flow or via a ball valve configuration which provides mounting and removal of the probe at anytime without interrupting the process.



Sensor probe shown fitted into ball valve

With simple adaptation, the probe can also be used to measure humidity in air.

Specifications

Supply Voltage	SELV 8-48V DC SELV 12-35V AC
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)
Fluid Compatibility	Petroleum based and synthetic fluids
Pressure	16 bar (232 psi) maximum
Probe Connector	½" NPT (male) or ½" BSPP (male)
Probe Cable Length	2m (6.6 ft)
Accuracy	± 2% based on ASTM E104-85
Enclosure	IP 65: NEMA 4
Weight	0.5kg (1.1lb)
Signal Output	RS232 Serial (RS485 optional) 0-5VDC or 4-20mA
Alarms	Settable water and temperature alarms via sensor display or PC
Outputs	Freely selectable and scaleable 0 – 5V -1mA<IL<1mA 0 – 10V -1mA<IL<1mA 4 – 20mA RL<500 Ohm 0 – 200mA RL<500 Ohm
PC Software	Included
Systems requirement	Windows 98 or later, serial interface

Ordering Information

Water Sensor P/N:	WS08	 S   
Replacement Water Sensor Probe:	WSPFE10	
Replacement Temperature Sensor:	WSPTE10	 Table 3
Water Sensor Probe Extension Cable:	WSX	
Replacement Display and Housing Cover:	WS08D05-KIT	
Ball Valve Set: (for use with 200 mm probe)	WSPV-KIT	
Stainless Steel Filter: (to allow probe to be used in air)	HA010108	
Communications Cable to PC:	WS08CA	

Table 1: Display Options

Code	Display Options
None	Without display
D	With display

Table 2: Relay Options

Code	Relay Options
None	Without relay
R	With relay
B	With RS485

Table 3: Probe Options

Code	Probe Options
BOB	½" NPT connector
COB	BSPP connector
OMIT	No probe assembly required

Table 4: Probe Length

Code	Probe Length
None	100 mm probe length
L	200 mm probe length



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