

## WS11X Series

### Water Sensor for hazardous environments

The Pall WS11X Water Sensor is designed for use in hazardous environments. It measures and displays the relative water saturation and fluid temperature.

#### Avoid the costs of water contamination

Water in fluids can cause numerous problems such as additive depletion, oil oxidation, corrosion, reduced lubricating properties, accelerated component wear rates and microbial growth. Such problems can be averted with periodic monitoring so that corrective actions can be implemented immediately.

The Pall WS11X Water Sensor measures and displays the water content of a fluid, expressed as percentage saturation, and provides meaningful information on which to base service and maintenance procedures.

#### Water content measurement in oil

The common industry practice has been to report water content in terms of parts per million (PPM). At what level is it considered excessive? What is considered an acceptable PPM in some fluids may contribute to catastrophic failure in others.

#### % Saturation

An alternative way to report water content is as a percentage of the water saturation level of the fluid for a given temperature. This provides a measure of how close the water content is to the water saturation level of the fluid and hence, the formation of free water in the fluid.

% saturation can be converted to water concentration in PPM by programming the unit with fluid specific constants ; contact Pall sales offices for details.



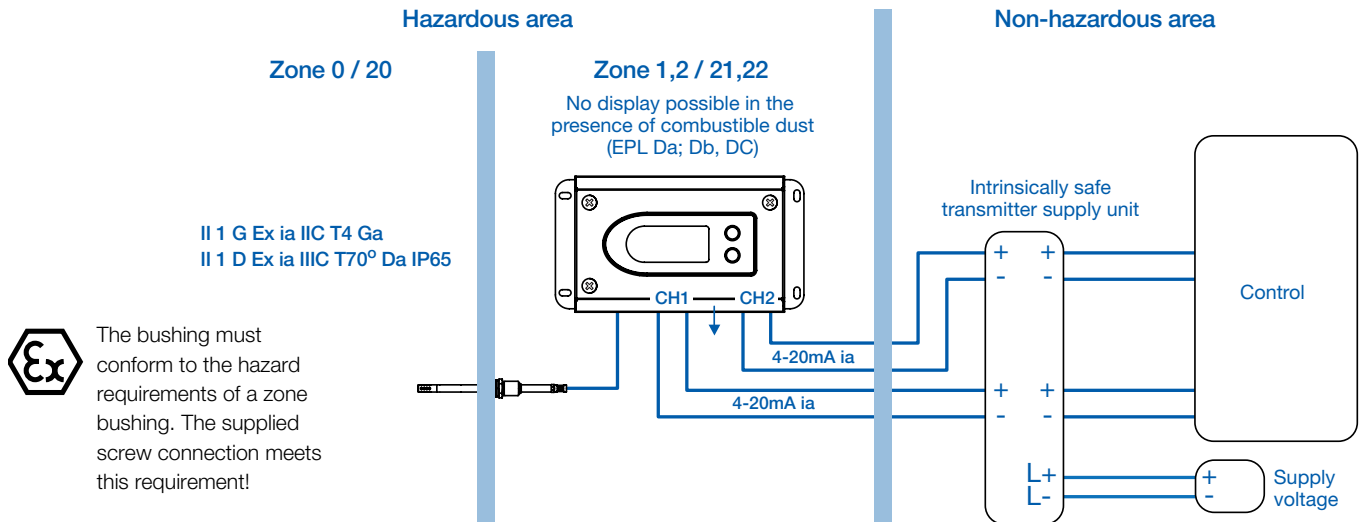
Pall WS11X Water Sensor

#### ATEX Compliant Design

The Pall WS11X Water Sensor meets ATEX requirements and complies to the health and safety standards of intrinsically safe machinery corresponding with EN50014, EN 50020 and EN50284

The sensing probe and transmitter without display are suitable for use in Zone 0/20 areas (equipment Group II) and T6 temperature class.

**Note:** The WS11X transmitter with visual display is not suitable for use in presence of combustible dust.



## Ordering Information

Water Sensor P/N: **WS11XS** 1 2 3 4 5

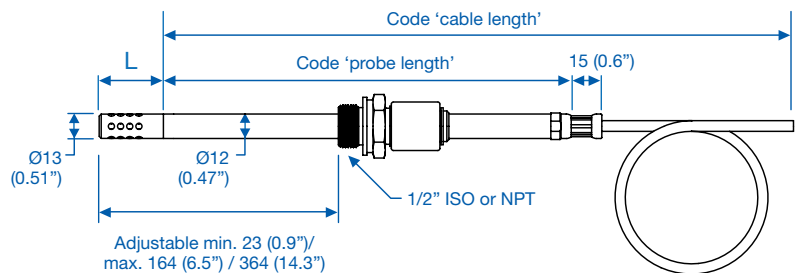
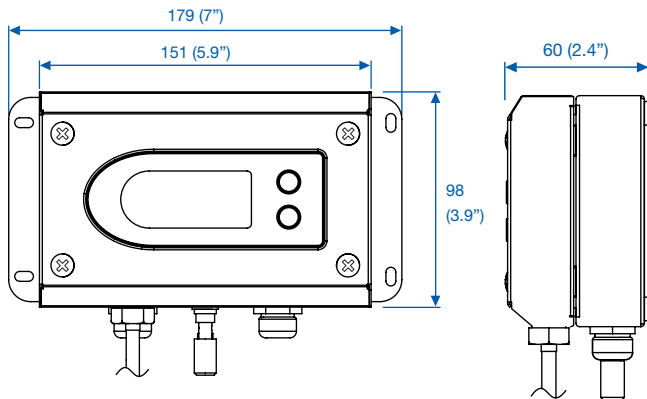
Code	Display options
Omit	No display
D	With display

Code	Probe Fitting
Omit	No fitting
B08	½" NPT thread
C08	½" ISO thread

Code	Probe length
Omit	200 mm (7.9 in)
L	400 mm (15.7 in)

Code	Probe Pressure
Omit	20 bar (290 psi)
H	300 bar (4350 psi)

Code	Cable length
Omit	1M (3.28 ft)
02	2M (6.56 ft)
05	5M (16.4 ft)
10	10M (32.81 ft)



## Specifications WS11X

### Measurement:

*Water content:*  
0-90% RH ± 1.5%  
>90% RH ± 2.3%

*Temperature:*  
-40°C to 180°C ± 0.1°C  
(-40°F to 350°F)

### Power Supply:

24V (AC/DC) 150mA

### Analogue output:

Two freely selectable and scaleable outputs 4 - 20mA

### Interface circuit:

RS232

### Temp. range:

-20°C to +60°C (-4°F to + 140°F)  
ambient air temperature  
-20°C to +100°C (-4°F to + 212°F)  
process fluid temperature

### Approved standard:

ATEX directive 94/9/EC

### Ex approval:

Cert TPS 13 ATEX 38892 003 X

### Pressure rating:

20 or 300 bar (290 or 4350 psi)

### Material:

Stainless Steel hardware

### Protection Rating:

IP65, Non hazardous areas only

### Data cable:

Screened 6 core cable

### Software compatibility:

Windows XP or later

### Cable length (supplied):

1 metre (3.28 ft)

### Max. cable length:

10 metres (32.81 ft)

### Pipe fitting:

½" BSP (Parallel) pipe fitting for system pressures up to 20 bar (290 psi)  
½" NPT (Tapered) pipe fitting for system pressures up to 300 bar (4350 psi)



### Pall Machinery and Equipment

25 Harbor Park Drive  
Port Washington, NY 11050  
+1 516 484 3600 telephone  
+1 800 289 7255 toll free US

Portsmouth - UK  
+44 (0)23 9233 8000 telephone  
+44 (0)23 9233 8811 fax  
industrialeu@pall.com

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