

## PL 500 water detection sensor technical specifications

### Sensor description and working principals



PL500 addressable water detection smart sensor.

SENSET (sensitivity setting): Sensor can be pre-configured based on customer needs with regards to address, detection sensitivity and alert timing. Parameters can be always re-configured  
The sensor can be connected to a YM PL200 console (new and old)

The bridge mounted sensor endures very aggressive working conditions, contaminated liquids including oil and foam.

Range of 4pH-14pH. Can be used in highly corrosive areas.

Warning: The sensor is not to be used in detection of flammable or explosive liquids.

### Electrical Specifications

Detection type: resistance

Operation voltage 4V to 12V DC

Operation current max at 5V 5ma

Output signal type RS485

Communication protocols YM bus (YM propriety)

Input sensitivity 100K $\Omega$

Input probs maximum voltage 5V

Input probs maximum shortcut current 5 $\mu$ A

Input resistance detection 0ohm to 100K $\Omega$

Detect indication red static LED

Power on and communication blinking green LED indication

Inputs and outputs ESD protection IEC 61000-4-2; level 4 (ESD)

### Ambient

Operation ambient temperature .-20 $^{\circ}$ C to +100 $^{\circ}$ C

### Sensor mechanical parts

Polycarbonate (Makrolon 2405)

UL94 tested for flammability, HFFR

Electrodes stainless steel 301, gold plated 1 $\mu$

### PLS cable

1.5m long. Coated. 4-wire 26 gauge, HFFR

## PL500 mechanical installation

### The kit contains:

1 PL500 water sensor including 1.5 meters PLS cable, bridge mounting device (attached), water detection sign (triangle)

The kit does not contain Sensor PLFL cable adaptor



PL500 with mounting bridge

### Installation instructions

- Alert! The sensor should be installed and powered by skilled electrician only
- Locate the water source or potential problem source
- Find a low point nearest the water source
- It is recommended that the sensor's electrodes should be installed 1-2 mm above surface for the quickest alert. Height is adjustable
- Prior to installation, clean a space with a minimum of 30 mm in diameter beneath the installed sensor
- Bridge can be attached vertically/horizontally to ground or wall panel using screws or adhesive material
- Electrical connection (change over open collector)

Red wiring (+)

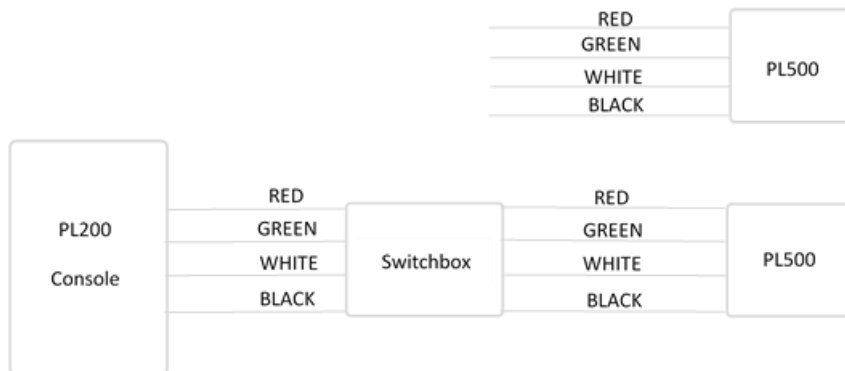
Black wiring (-)

Green wiring (Comm+)

White wiring (Comm-)

Connecting Scheme

PL500 connection



Recommended power supply type: Meanwell GS15A-3P1J, 12V, 15W

Maintenance (recommended): electrodes wiping with alcohol 95%, twice a year

Standards (2020)

**Safety**

Europe EN61010-1-1 Testing, report and compliance letter  
 Europe EN61010-1-1 CB report and certificate  
 USA UL 61010-1 Testing and report  
 USA UL 61010-1 TUV certificate  
 USA UL 61010-1 Factory inspection (FFI)

**EMC**

Europe EN55035, EN55032 Testing  
 Europe EN55035, EN55032 Report  
 USA FCC Part 15B Testing and report

**Impermeability**

IP68, submerged for 72 hours in depth of 1 meter