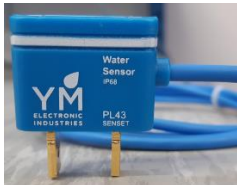


PL43 water detection sensor technical specifications

Sensor description and working principals



PL43 Smart sensor/SENSET (sensitivity setting): Sensor can be pre-configured based on customer needs with regards to detection sensitivity and alert timing. Parameters can be always re-configured (a configuration device is needed)

The sensor can be connected to any type of controller PLC, fire detection system or any other system that can depict events.

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

Range liquids 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 8V to 24VDC 20mA, 960mW max / 8V to 24VAC 5mA, 130mW max

Operation current max at 12V 20ma

Output signal type isolated dry contact two wires

Output ON resistance 10Ω

Output max current 50mA

Input sensitivity 100KΩ

Input probs maximum voltage 3.3V

Input probs maximum shortcut current 3.3μA

Input resistance detection 0ohm to 100KΩ

Detect indication static red LED

Power on and communication stat indication blinking green LED

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

Ambient

Operation ambient temperature .-20°C to +100°C

Sensor mechanical parts

Polycarbonate (Makrolon 2405)

UL94 tested for flammability HFFR

Electrodes stainless steel 301, gold plated 1μ

Dimensions

sensor: width: 30mm, height: 35mm (including electrodes), depth: 11.5mm

Sensor bridge: height 53mm, width: 72mm

PLS cable: 1.5m long. Coated. 5-wire 26 gauge, HFFR

PL 43 mechanical installation

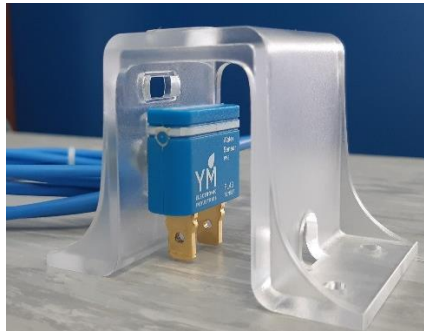
The kit contains:

1 PL43 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



PL43 with PLFL continuous detection cable



PL43 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
- Locate 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 (+)

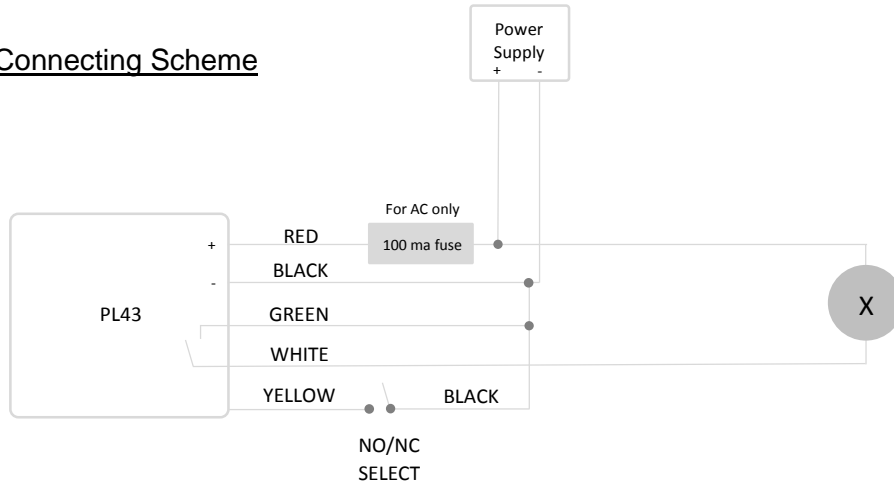
Black wiring (-)

Yellow wiring (NO/NC) (If connected NC)

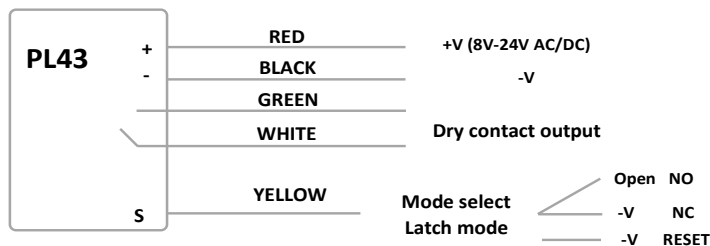
Green wiring (Output dry contact)

White wiring (Output dry contact)

Connecting Scheme



Manual Resetting Mode connecting Scheme ("Latch")



The yellow terminal is multi function input

1. Use to setup detector working parameters (Connecting to programmer)
2. Determine the dry contact output type Normally open or normally close (When not connected the mode is normally open when connected to -V the mode is normally close)
3. In latch mode (alarm on till reset) enable reset detector (clear last alarm).
when connecting to -V the alarm is cleared

Important notice

The PL43 sensor was designed with advanced digital components to minimize electrical consumption



The digital components are more advanced and reliable than the older, electro-mechanical and less efficient components.

The sensor has an optocoupler that replaces the outdated relay.

This component was not designed for direct high loaded operation of large capacity contactors buzzers etc (max 60mA)

In this case, the sensor should be connected using a tunnel relay (coil consumption of up to 5mA) or an electrical transistor circuit amplifier

Recommended power supply type: DC: Meanwell GS15A3-P1J, 12V, 15W
AC: Tyco Electronics 4000-05E07K,
100mA fuse, Bel fuse inc, 5ST 100-R
(recommended with AC only)

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

RoHS Compliant

Impermeability

IP68, submerged for 72 hours in depth of 1 meter