Online ORP Indicating Controller Transmitter
MS OP 91 (Panel Mounted)



FEATURE

- Advanced Embedded Microcontroller Based Design
- Panel Mounting
- Easy Front Key Calibration
- LED indication for relay status
- Set Point – 4 Nos (Special Logic)
- 4 digit, 14mm High Intensity Red LED Display
- 4 to 20 mA DC Isolated Output
- RS 485 Isolated Output (Optional)

DESCRIPTION

MicroSet ORP Indicating Controller Transmitter Model MS OP 91 is used for various industrial applications. MS OP 91 is a convenient and cost effective solution for monitoring and maintaining ORP value. It can accept input from any ORP sensor. MS OP 91 output is in the form of Analogue 4-20 mA DC and Optionally MODBUS RS 485 RTU. Online ORP indication provided through LED is easily readable. 2 Nos Relay Outputs are provided to operate Alarm, Solenoid Valve, Pump etc. 4 Nos Setpoints for Relays can be programmed using Frontal Keypad.

PRINCIPLE

What is ORP?

Oxidation Reduction Potential (ORP or Redox Potential) measures an aqueous system's capacity to either release or accept electrons from chemical reactions. When a system tends to accept electrons, it is an oxidizing system. When it tends to release electrons, it is a reducing system. A system's reduction potential may change upon introduction of a new species or when the concentration of an existing species changes.

ORP values are used much like pH values to determine water quality. Just as pH values indicate a system's relative state for receiving or donating hydrogen ions, ORP values characterize a system's relative state for gaining or losing electrons. ORP values are affected by all oxidizing and reducing agents, not just acids and bases that influence pH measurement.

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How is it used?

From a water treatment perspective, ORP measurements are often used to control disinfection with chlorine or chlorine dioxide in cooling towers, swimming pools, potable water supplies, and other water treatment applications. For example, studies have shown that the life span of bacteria in water is strongly dependent on the ORP value. In wastewater, ORP measurement is used frequently to control treatment processes that employ biological treatment solutions for removing contaminants.

The raw mV signal generated from ORP Sensor are fed to MS OP 91 where it is processed by amplifier & reading is displayed on meter.

TECHNICAL SPECIFICATION

ORP Range	: ± 1999 mV
ORP Resolution	: 1 mV
ORP Accuracy	: ± 0.25 % of Range
ORP Repeatability	: ± 1mV
Display	: 4 Digit, 14 mm Red LED
Set Point	: 4 Nos (Special Logic)
Calibration	: 1 Point
Output	: 2 Isolated Relays (230 V AC / 5 A)
Retransmission Output	: Isolated 4-20 mA DC for ORP (Isolated RS 485 Optional)
Power Supply	: 230 V AC ±10%, 50 Hz
Enclosure MOC	: ABS
Mounting	: Panel Mounted
Dimensions	: 96 x 96 x 65 mm
Weight	: 0.48 kg

APPLICATION

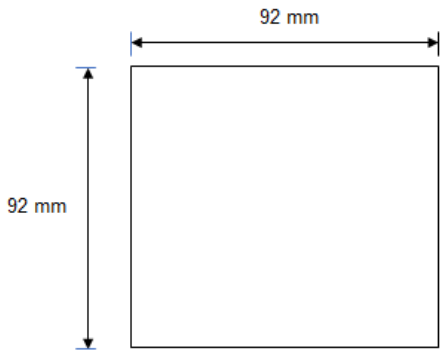
Water Treatment Plant (WTP)	Wastewater Treatment Plant (WWTP)
Effluent Treatment Plant (ETP)	Sewage Treatment Plant (STP)
RO Water Plant	Power Plant

Hydroponics	Chemical Industry
Textile Industry	Paper & Pulp
Beverages / Food Industry	Pharma Industry
Scrubber Application	Pigment Industry
Steel Industry	Aqua Culture

DIMENSION

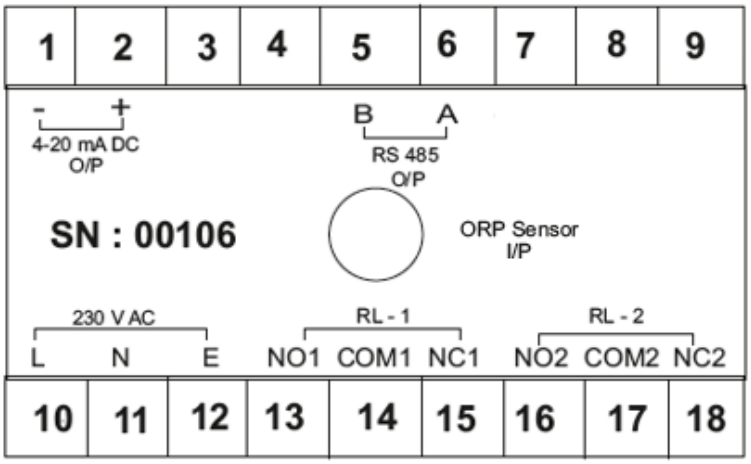


PANEL CUTOUT DIMENSIONS



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TERMINAL DETAILS



Note : Due to continuous improvement in product, specifications & looks may vary

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