



MULTIPLE PARAMETERS

OptoDOSys: MPA48



Multi channel fixed site transmitter & fluorescent DO, SS, pH & ORP sensors

Features:

- Accommodates up to 8 sensors in any combination
- Advanced microprocessor design
- Automatic optional Air cleaning
- No replacement parts required for DO or SS
- 5 yr Warranty on DO sensors
- Backlit LCD display with UV protection
- `Analogue, RS232 serial and RS485 Modbus outputs + optional external profibus
- Set pt, alarm and cleaning relays
- pH & ORP quick release cartridges

Benefits:

- Low cost of ownership
- No frequent calibrations needed
- Minimal maintenance
- Accurate in low DO environments
- Automatic error detection
- No regular sensor refurbishment needed

Applications:

- Activated sludge monitoring & control
- Final effluent monitoring
- Process monitoring
- River monitoring stations

OptoDOSys –MPA48 is a multi-channel analyzer utilising a unique system that combines advanced electronics with solid- state optical sensors. The analyzer will accept any combination of 4 to 8 sensors, (DO, SS, pH, and ORP) and automatically configure for the correct operation. The system allows for flexible and economical process monitoring and control. The DO sensor does not need membranes, fill solutions, nor routine calibrations and maintenance. The SS sensor is based on near infrared technology, which eliminates inaccuracies caused by changes in the process colour or changes in particle size. The pH and ORP electrodes are both flat glass, with double reference junctions, and temperature compensated. Both probes feature quick disconnect cartridge design for easy maintenance and fast changes.



*Diffused air Activated Sludge Plant monitoring and control
Sensing area is kept clean by air jet*



System Specification

| | | |
|-----------------------------|-----------------------------------|--|
| Range: | DO | 0-25 mg/l D.O., 0-60 °C |
| | SS | 0-30,000mg/l |
| | pH | 0-14 pH |
| | ORP | +/- 2000mV |
| Resolution: | DO/T | 0.01 mg/l (for 0-3.99 mg/l), 0.1mg/l (for 4-20 mg/l), & 0.1 °C for 0-50 °C |
| | SS | 1mg/l (<1000mg/l), 10mg/l (1000 – 9999mg/l) 100mg/l (>10,000mg/l) |
| Repeatability: | DO | 0.01 mg/l |
| | SS | +/- 1% |
| Accuracy: | DO | 1% of reading or 0.05 mg/l DO whichever is greater |
| | SS | 3% of reading |
| Sensor Drift: | DO/SS | <1% per year |
| Response Time: | | 95% in < 60 secs |
| Temperature range: | DO/SS | 0-60 °C |
| | pH/ORP | 10 – 100 °C |
| Wetted materials: | Epoxy, polyurethane, glass, & PVC | |
| Max op pressure: | 100psi | |
| Sensor cable length: | 11.5m standard (up to 600m) | |

Transmitter/Controller Specification

| | | |
|---------------------------------|-----------------------------|---|
| Mechanical Construction: | Dimensions l x h x d | 312x225x150 mm (approx) |
| | Weight: | 4.6 kg (approx) |
| | Materials: | Fibreglass |
| | Ambient conditions: | -20 to 70 °C, 0-100% Humidity |
| | Weather Protection: | NEMA 4X |
| | CE: | Compliant |
| Outputs: | Display: | Back lit graphical LCD with UV protection Continuously displays all channels Contrast adjustment via keypad |
| | Analogue: | up to 8 opto isolated 0/4–20 mA, user configurable. |
| | Relays: | up to 8 10Amp relay setpoints 1 alarm relay 1 clean relay |
| Power requirements: | Data interface: | RS 232serial and Opto isolated RS-485 Modbus |
| | Supply voltage: | 115 VAC -60Hz, 230VAC -50 Hz |
| | Load: | 45Watts With air clean: 800 Watts surge 470Watts running |

Ordering Information

When placing an order it is important to indicate the following requirements to our sales staff:

1. How many channels do you require?
2. What parameters are required?
3. What outputs are required?
4. What cable length is required? This must take account of the length of the support pole (if in use), the distance between transmitter and sensor position and the excess free length required in order to lift the sensor pole out of the channel.
5. Do you require pole mounting? If so what pole length is required? The standard length is 3m.
6. What is the rail diameter to which the pole support bracket is to attach?
7. Do you wish to wall mount or rail mount the transmitter. If rail mount, what is the rail diameter.
8. Do you require air cleaning? If so is site air available or will you provide your own compressor. Please state if you wish us to supply an integral compressor.

Supplied by: Envitech Ltd. Unit 20, Lambourne Crescent, Cardiff Business Park, Llanishen, Cardiff CF14 5GF
Tel: 02920 337134, Fax 02920 337137, e-mail: sales@envitech.co.uk

Note To End Users : These specifications are subject to change at any time without notice. Envitech Ltd takes no responsibility for the use of these figures. Please consult Envitech Ltd for the latest specifications before using them in tender submissions or third party quotes... Envitech Ltd reserves the right to change specifications without prior warning. All quoted figures are based on test conditions and are subject to variation due to site conditions.
www.envitech.co.uk