



## OPTOD

### OPTICAL DISSOLVED OXYGEN

RANGE DIGISENS / DATASHEET

NEW : exist  
in Titanium  
version

#### ADVANTAGES



- Optical Technology without calibration
- Digital Technology (Modbus RS-485)
- No drift, Reduced maintenance
- Body in Stainless steel (316 L) or Titanium

#### APPLICATIONS

Urban wastewater treatment  
Industrial effluent treatment  
Surface water monitoring,  
Sea water monitoring, fish farming,  
aquarium  
Drinking water

#### OPTICAL TECHNOLOGY

The OPTOD (Optical Dissolved Oxygen technology) is based on luminescent optical technology. The OPTOD sensor is approved by the ASTM International Method D888-05.

Without calibration requirements and thanks to an ultra low power technology, the OPTOD sensor meets the demands of field works and short or long term campaigns.

Without oxygen consumption, this technology allows you an accurate measure in all situation and especially in very low oxygen concentrations

#### DIGITAL TECHNOLOGY

The "smart" OPTOD sensor stores calibration and history data within the sensor. This allows you a "plug and play" system without re-calibration.

Thanks to the Universal Modbus RS485 protocol, the PONSEL OPTOD can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System...).

#### MECANIC

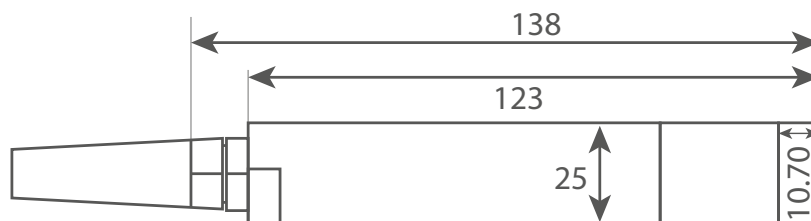
Compact, strong and light, the sensor allows a portable or in fixed/permanent use.

Body in Stainless steel 316 L (passivation treatment) or in Titanium for applications in corrosive environment.

## TECHNICAL CHARACTERISTICS

| Measures                         |                                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Measure principle                | Optical measure by luminescence                                                                                   |
| Measure ranges                   | 0,00 to 20,00 mg/L<br>0,00 to 20,00 ppm<br>0-200%                                                                 |
| Resolution                       | 0,01                                                                                                              |
| Accuracy                         | +/- 0,1mg/L Range 0-100 %<br>+/- 0,1 ppm Range 0-100 %<br>+/- 1 % Range 0-100 %                                   |
| Response time                    | 90% of the value in less than 60 seconds                                                                          |
| Frequency of recommended measure | >5 s                                                                                                              |
| Water move                       | No necessary move                                                                                                 |
| Temperature compensation         | Via NTC                                                                                                           |
| Stocking temperature             | -10°C to + 60°C                                                                                                   |
| Signal interface                 | Modbus RS-485 (standard) and SDI-12 (option)                                                                      |
| Sensor power-supply              | 4.8 - 24 V                                                                                                        |
| Consumption                      | Standby < 50 µA<br>Average RS485 (1 measure/ seconde) : 7.8 mA<br>Current pulse : 100 mA<br>Warm-up time < 100 mS |
| Sensor                           |                                                                                                                   |
| Dimensions                       | Diameter : 25 mm ; length : 146 mm                                                                                |
| Weight                           | Stainless steel version 450g (sensor + cable 3 m)<br>Titanium version 300 g (sensor + cable 3 m)                  |
| Material                         | Stainless steel 316L, <b>New : body in Titanium</b>                                                               |
| Maximum pressure                 | 5 bars                                                                                                            |
| Connection                       | 9 armoured connectors, polyurethane jacket, barewires<br>or waterproof Fisher connector                           |
| Protection                       | IP68                                                                                                              |

## DIMENSIONS



## WIRING DIAGRAM

