AQUALABO
CONTRÔLE

OPTOD:
OPTICAL
DISSOLVED OXYGEN

RANGE DIGISENS / DATASHEET

NEW : exist in Titanium version

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.

ADVANTAGES

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

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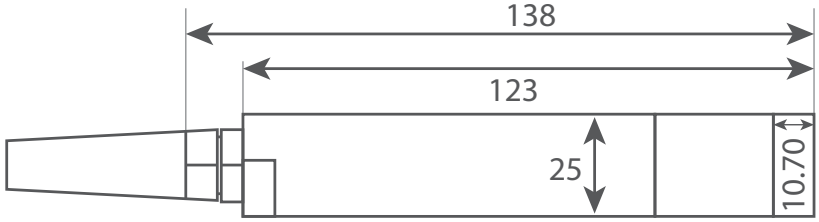
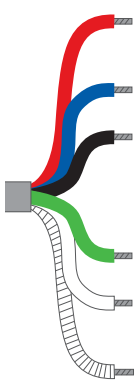
TECHNICAL CHARACTERISTICS

Measures	
Measure principle	Optical measure by luminescence
Measure ranges	0,00 to 20,00 mg/L 0,00 to 20,00 ppm 0-200%
Resolution	0,01
Accuracy	+/- 0,1mg/L +/- 0,1 ppm +/- 1 %
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	5 to 12 volts
Consumption	Standby 25 µA Average RS485 (1 measure/ seconde) : 4,4 mA Average SDI12 (1 measure/ seconde) : 7,3 mA Current pulse : 100 mA
Sensor	
Dimensions	Diameter : 25 mm ; length : 146 mm
Weight	Stainless steel version 450g (sensor + cable 3 m) Titanium version 300 g (sensor + cable 3 m)
Material	Stainless steel 316L, **New : body in Titanium**
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, barewires or waterproof Fisher connector
Protection	IP68

DIMENSIONS



WIRING DIAGRAM



Cable length ***up to 15m***

1. RED : POWER SUPPLY V+
2. BLUE : SDI-12
3. BLACK : POWER SUPPLY V-
4. GREEN : B " RS-485 "
5. WHITE : A " RS-485 "
6. GREEN / YELLOW : CABLE SHIELD

Cable lenght ***15 to 100 meters***

1. RED, PURPLE, YELLOW, ORANGE, PINK : POWER SUPPLY V+
2. BLUE : SDI-12
3. BLACK : POWER SUPPLY V-
4. GREEN : B " RS-485 "
5. WHITE : A " RS-485 "
6. GREEN / YELLOW : CABLE SHIELD

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