OPTICAL OXYGEN AND TEMPERATURE PROBE

General features

S423/C/OPT is an oxygen measuring sensor with integrated temperature probe. The measuring technique is based on the following optical principle: a diode emits a blue light towards a support on which a fluorescent substrate is applied. The substrate reacts by emitting initially a red light (luminescence), then returns to its initial state. The intensity of the produced red light and the return rate to the initial state are related to the present oxygen concentration. This innovative method allows reliable, accurate measurements with no drift over time, so that the system calibration is no longer necessary. No maintenance is required except for the replacement of the luminescent support about every two years. The system does not consume oxygen, therefore it is suitable for the most varied fields of application, including those in which the measuring liquid is almost stationary.

Applications

Surface waters, fish farms, drinking water, waste water, sea water

Available versions with PVC body, with 4÷20mA outputs

Technical specifications

Measuring range	0.00 to 20.00 mg/L 0-200%
Measuring method	Optical measure by luminescence
Precision	±0.1mg/L or ±1 %
Response	90% of the value in less than 60 second
Refresh time	< 1 second
Temp. compensation	with internal NTC probe
Operating temperature	-10 ÷ 60°C (optional -10÷ 80°C)
Maximum pressure	5 bar
Body material	AISI 316 (PVC body optional)
Electrode material	Special optical glasses
O-Rings	NBR and Silicon
Mechanical protection	IP68 Sensor + cable
Power supply	12 ÷ 24Vdc
Power consumption	max. 2W
Cable	10m integral with the sensor (other on request)
Signal interface	RS 485 Modbus RTU Protocol