

OXY2109 DISSOLVED OXYGEN - TEMPERATURE METERS

OXY2109 is portable instrument with a large LCD display. Measure the concentration (in mg/l) of dissolved Oxygen in liquids, the saturation index (in %) and the temperature using combined probes of polarographic type with two or three electrodes and integrated temperature sensor. Temperature only is measured by Pt100 with electronic module or direct 4 wire-immersion, penetration or contact probes. Thanks to an internal pressure sensor, the instruments automatically compensate for barometric pressure. The instrument anticipates automatic compensation of the Oxygen probe membrane permeability and of the salinity of the liquid being examined. The dissolved Oxygen probe's quick calibration function guarantees timely correctness of the performed measurements. The dissolved Oxygen and the temperature probes are equipped with an automatic recognition module and factory calibration data are stored inside. Datalogger stores up to 18,000 dissolved Oxygen concentration, saturation index measurements, barometric pressure and temperature samples which can be transferred from the instrument connected to a PC via the multi-standard RS232C serial port and USB 2.0. The storing interval, printing, and baud rate can be configured using the menu. OXY2109 fitted with an RS232C serial port and can transfer to a PC the acquired measurements or to a portable printer in real time. The Max, Min and Avg function calculates the maximum, minimum or average values. Other functions include: the relative measurement REL, the Auto-HOLD function, and the automatic turning off which can also be excluded.



INSTRUMENT TECHNICAL CHARACTERISTICS

Dimensions LxWxH:	185x90x40 mm
Weight:	470g complete with batteries
Materials:	ABS, rubber
Display:	2x4 1/2 digit plus symbols, visible area 52x42 mm
Operating conditions °C/%UR:	T working -5...+50°C, Tstorage -25...+65°C, 0...90% U.R. without condens.
Power:	4x1,5V type AA batteries, 200h with 1800 mAh alkaline batteries
Power absorbed:	with instrument off 20 microA, with O2 probe 40 microA
Mains (SWD10):	Output mains adapter 12Vdc /1A
Security of memorized data:	Unlimited, independent of battery charge
Time:	Schedule in real time (date and time). Accuracy 1 min/month max error
Measured values storage:	type 2000 pages containing 9 samples each. 18,000 samples composed of 4 parameters O2-%O2-mbar-°C or °F selectable storage interval 1s, 5s, 10s, 15s, 30s, 60s (1min), 120s (2min), 300s (5min), 600s (10min), 900s (15min), 1200s (20min), 1800s (30min) and 3600s (1hour)
Serial interface RS232C:	RS232C electrically isolated, baud rate can be set from 1200 to 38400 baud data bit 8, parity none, stop bit 1, flow control Xon/Xoff, serial cable L 15 m max selectable storage interval 1s, 5s, 10s, 15s, 30s, 60s (1min), 120s (2min), 300s (5min), 600s (10min), 900s (15min), 1200s (20min), 1800s (30min) and 3600s (1hour)
USB interface:	type 1.1 - 2.0 electrically isolated
Connections:	Input O2 and temperature probe 8-pole male DIN 45326 connector Serie and USB interface 8-pole MiniDin connector Mains adapter 2-pole connector (positive at centre)



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INSTRUMENT - TECHNICAL SPECIFICATIONS

Measurement of the concentration of dissolved Oxygen	Range 0.00...90.00 mg/l Resolution 0.01 mg/l Accuracy ± 0.03 mg/l (60÷110%, 1013 mbar, 20÷25°C)	
Measurement of the saturation of dissolved Oxygen	Range 0.0÷600.0% Resolution 0,1% range Accuracy: $\pm 0,3\%$ +/- 1 digit (in the range 0.0...199.99) +/- 1digit (in the range 200.0...600.00)	+/-1%
Temperature measurement with the sensor inside the dissolved Oxygen probe	Range 0.0÷45°C Resolution 0.1°C Accuracy +/- 0,1°C, drift after 1 year 0.1 °C/year	
Measurement of barometric pressure	Range 0.0÷1100.0 mbar Resolution 0.1 mbar Accuracy ± 2 mbar +/- 1digit between 18÷25°C ± 2 mbar +0,1 mbar/°C in the remaining range	
Setting the salinity	Setting range 0.0÷70.0 mg/l Resolution: 0.1 mg/l	
Temperature measurement by instrument with Pt100 probe	Range -200...+650°C Resolution: 0.1°C	

Accuracy +/- 0.21°C, drift after 1 year 0.1°C/year. Automatic T compensation 0...50°C

PROBES - TECHNICAL SPECIFICATIONS

Temperature probes Pt100 sensor with electronic module

Model	Type	Range °C	Accuracy
	Immersion	-50...+200	+/-0.25°C (-50...+200°C)
	Immersion	-196...+500	+/-0.25°C (-196...+350°C) - +/- 0.4°C (+350...+500°C)
	Immersion	-50...+400	+/-0.25°C (-50...+350°C) - +/- 0.4°C (+350...+400°C)
	Penetration	-50...+400	+/-0.25°C (-50...+350°C) - +/- 0.4°C (+350...+400°C)
	Contact	-50...+400	+/-0.3°C (-50...+350°C) - +/- 0.4°C (+350...+400°C)
	Immersion	-50...+400	+/-0.3°C (-50...+350°C) - +/- 0.4°C (+350...+400°C)
	Immersion	-50...+400	+/-0.3°C (-50...+350°C) - +/- 0.4°C (+350...+400°C)

Temperature drift @20°C 0.003%/°C

Pt100 Temperature probes direct 4 wire

Model	Type	Range °C	Accuracy
TP47100	4 wire Pt100	-50...+400	Class A

Temperature drift @20°C 0.003%/°C

Oxygen probe

Model	OXY20709SS	OXY20709SS5
Type	Polarographic probe, Silver anode, Platinum cathode	
Application range		
Oxygen concentration	0.00...60.00 mg/l	
Functioning temperature	0...45°C	
Accuracy instrument with probe	1% f.s.	
Membrane	Replaceable	
Cable length	2 m	5 m



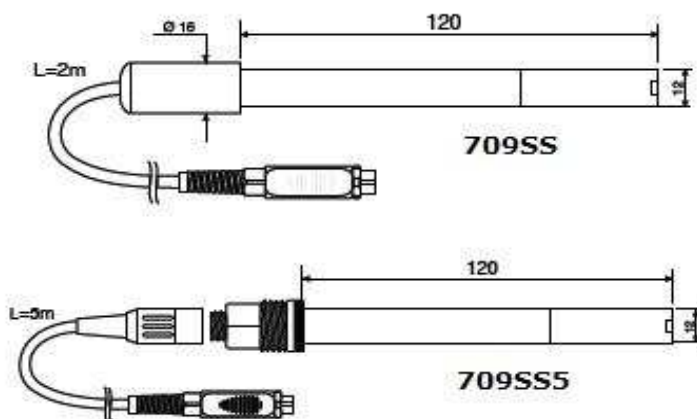
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DISSOLVED OXYGEN PROBES DIMENSIONS



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