

Device Specifications

OEM UNDERWATER OXYGEN METER PICO-02-SUB

For sensor specifications and response times, please refer to the webpages of the different sensor types.

Specifications	
Max. hydrostatic pressure	400 bar
Material of fiber-optic feed-through	Titanium (3.7035)
Weight	ca. 72 g (with optical port) ca. 20 g (without optical port)
Dimensions	L=135 mm, Ø 24 mm (with optical port) L=59 mm, Ø 17 mm (without optical port)
Sensor Connector	Proprietary PyroScience underwater connector for 1 fiber-optic oxygen sensor
Compatible optical oxygen sensors	O2 sensors from PyroScience with SUB-connector
Temperature port	1 for Pt100 temperature sensor (solder points)
Measuring principle	Lifetime detection of REDFLASH luminescence via fiber-optics
Excitation wavelength	620 nm (orange-red)
Emission wavelength	760 nm (NIR)
Max. sampling rate¹	10 samples per seconds
Logging software (optional)	Pyro Workbench or Pyro Developer Tool with USB adapter cable
System requirements	USB, Windows 7 / 8 / 10
Power supply	Min. 3.3 V DC, max. 5.0 V DC
Power consumption - in operation	typ. 10 mA

- in deep sleep	<100 μ A (<10 μ A on request)
Start-up time	
- from power off	1-2 s
- from deep sleep	ca. 200 ms
Connector plug	Phoenix Contact PTSM0,5/4-P-2,5
Digital interface	UART (3.0V levels, max. 3.3 V), 19200 baud, 8 data bit, 1 stop bit, no parity, no handshake
Operating / storage temperature	0-50°C / -20-70°C
Max rel. humidity	Non-condensing conditions
Temperature sensing principle	2-wire or 4-wire Pt100 via 24 bit ADC, must be soldered on
Pt100 temperature sensor²	
range	-30°C- 50°C
resolution	0.02°C
accuracy	\pm 0.5°C
Internal temperature sensor	(located on internal PCB)
range	-40°C- 125°C
resolution	0.02°C
accuracy	\pm 0.3°C
Optical oxygen sensor	Refer to the separately available specifications for the connected optical oxygen sensor

¹Note: This max. sample rate refers only to the limits of the UART communication. It does not consider the actual response time of the connected optical oxygen sensor or of the temperature sensor.

²Please note, that the optical oxygen sensors have a different temperature range

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