

Device Specifications Pico-O₂

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

Weight	20 g
Dimensions (WxDxH)	Ø 17 mm, 59 mm in length
Oxygen sensor connector	Screw clamp for fibers with 3mm outer diameter
Optical sensor port	1 for optical oxygen sensors/fibers with PICO-connector
Compatible optical oxygen sensors	Contactless oxygen sensors with optical fiber with PICO-connector, robust oxygen probe OPROB ₃ , dipping probe OPDIP ₂₀
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 rate	20 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 (typ. 3-5mA)
Digital interface	UART (3.0V levels, 5V tolerant), 115200 baud, 8 data bit, 1 stop bit, no parity, no handshake
Power consumption: -while acquiring a new data point -during idle time -during deep sleep mode	typ. 5-10 mA (typ. duration <100 ms) typ. 2-3 mA typ. 10 µA
Connector plug	Phoenix Contact PTSMo,5/4-P-2,5
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 sensor* range resolution accuracy	-30°C-150°C 0.02°C ±0.5°C
Oxygen sensor	Refer to the separately available specifications for the connected oxygen sensor

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