

# Data sheet

## AquapHOx-S-02

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### Analytical performance

Optical sensor	Exchangeable screw cap	
Measuring range	% air saturation (a.s.)	mg/L (ppm)
Optimum	0 - 250% a.s.	0-22 mg/L
Maximum	0 - 500% a.s.	0-44 mg/L
Accuracy at 95% a.s./8.8 mg/L after 2-point calibration after factory calibration*	±1% a.s. ±4% a.s.	±0.1 mg/L ±0.4 mg/L
Resolution at 95% a.s./8.8 mg/L	0.25% a.s.	0.025 mg/L
Detection limit after 2-point calibration after factory calibration*	0.1% a.s. 2% a.s.	0.01 mg/L 0.2 mg/L
Response time‡	< 15s	
Drift	<1% rel. / 3 months	
Max. sample rate	1 s	
Temperature sensor	NTC-thermistor for automatic temperature compensation	
Resolution	0.01°C	
Accuracy	0.1°C	
Typical response time	20 s	

\*The analytical performance of the factory calibrated sensor is only valid for 6 months after the purchase of the sensor.

‡ Typical response times for 90% signal change. For liquids: measured for the transition from air into a stirred solution of 1% Na<sub>2</sub>SO<sub>3</sub>

### Environment

Temperature range during operation	-5°C - 40°C
Temperature range during storage	-10°C - 60°C
Maximum hydrostatic pressure	5 bar (50m)

## Interface

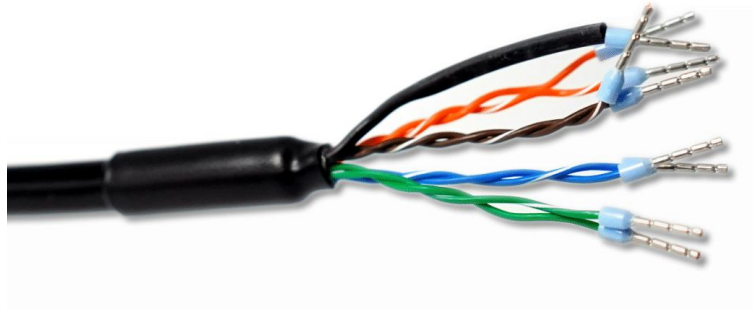
Power	12V DC, 20mA (+ power consumption of analog current outputs, if used)
Software	Pyro Developer Tool ('transparent mode')
Digital Interface	RS485 / Modbus-RTU PSUP protocol ('transparent mode')
Analog outputs	2x 0–5V and 2x 4-20mA, 16bit, freely configurable

## Mechanical

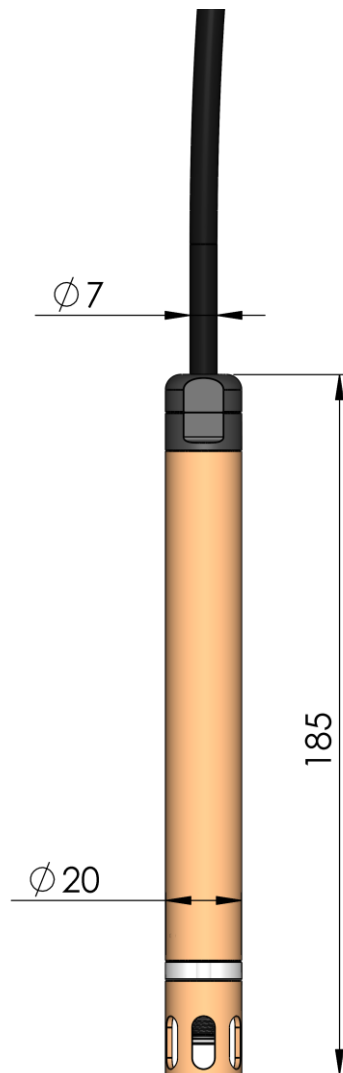
Dimension	20 x 226 mm
Weight-in-air	135 g
Housing Material	Corrosion and biofouling resistant copper alloy (CuNi10), polycarbonate, POM
Cable type and length	Shielded Cat5e, Ø7mm, seawater resistant PUR sheath Standard length: 8m, Custom lengths available
Max. cable length	55m

The wire assignment is as follows:

Name	Wire-color	Function
Shield	black	Cable shield
GND	blue	Ground
RS485A	orange	RS485 Data A
RS485B	orange/white	RS485 Data B
Vcc	Blue/white	Supply voltage
U1	brown	Analog voltage out 1 (0-5V)
U2	Brown/white	Analog voltage out 2 (0-5V)
I1	green	Analog current out 1 (4-20mA)
I2	Green/white	Analog current out 2 (4-20mA)



*Wires at the end of the APHOX-S-02 connection cable.*



## Contact

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