

**UMS Oxy Scan
Transmitter**

Operating Manual

Thank you for purchasing an UMS device!
Please read the following instructions carefully for best results and to avoid damages.

Maintenance of the sensor

The sensor tip is fragile, please handle with care. To clean the thin membrane at the tip, use only a soft, liquid soaked cotton ball.

Avoid any hard impact on the sensor, it could damage the membrane.

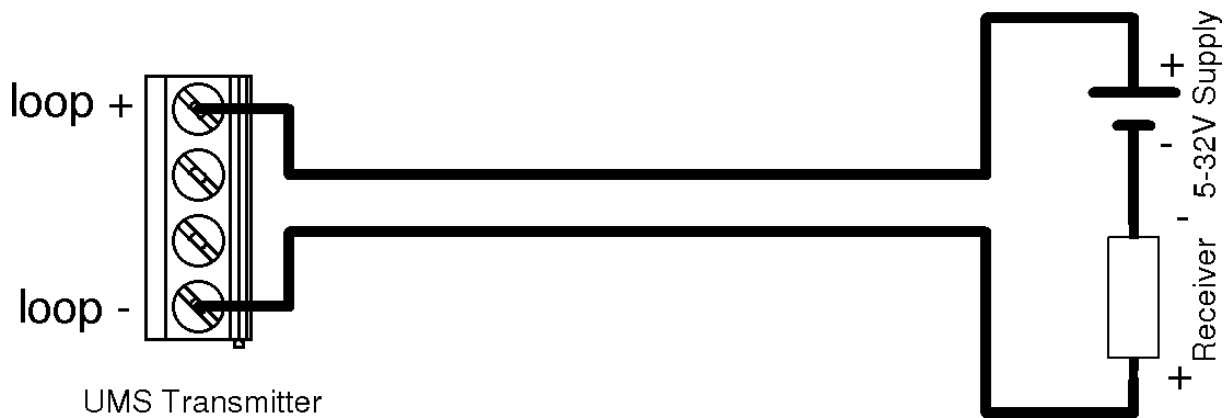
Constantly increasing readings are the result of a broken membrane – the sensor must be regenerated or replaced.

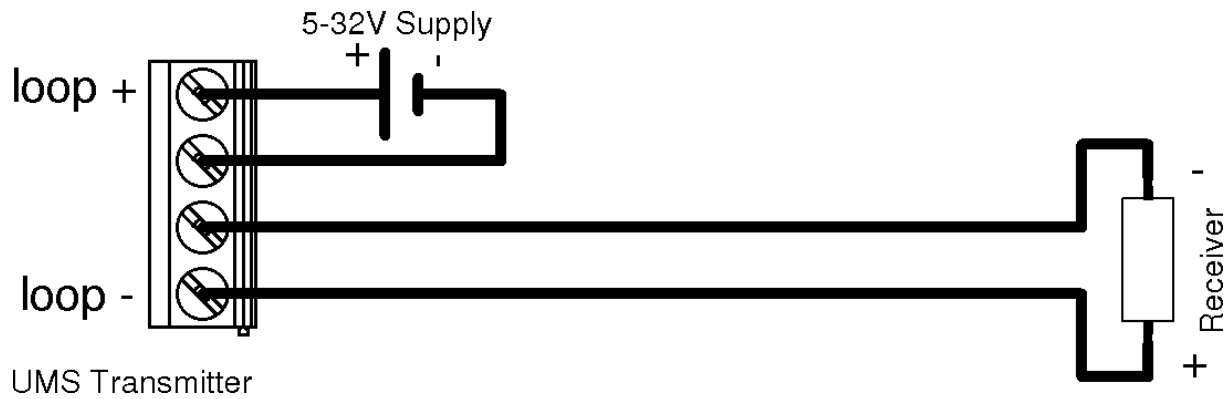
Commissioning

In the Transmitter housing you find two green colored connecting terminals.

Connect the UMS oxygen sensor to 5 pole terminal.

The 4 pole terminal is for the transmitter's power supply – by loop power as shown below.





In normal operation the LED is dim blue. If the oxygen sensor is damaged or not correctly connected to the transmitter, the led lights red. In that case, you have 24 mA fault signal on the current loop.

Switching between absolute (mg/l) and relative (% sat) oxygen value:

Press the pushbutton shortly (about 1 second), LED will blink once. The LED color indicates the new state:

Green : relative (% sat) value

Blue : absolute (mg/l) value

Calibration of the sensor

The sensor should be powered at least 5 minutes before calibrating.
(if new, 10 minutes are recommended)

While calibrating, the sensor must be stored in the calibration chamber.

To start calibration, press the push button for about 5 seconds, until the LED stops lighting red.

The LED will indicate then the calibration result:

Calibration OK:	LED will flash 3 times green/blue
Value too low:	LED will flash 3 times red/blue
Value too high:	LED will flash 3 times red/green

Output can be switched to absolute value to verify a successful calibration – current should be about 12,3 mA.

There is a little sponge in the calibration chamber, it should be always kept wet.

Therefore put some drops of regular potable water in the chamber – about every second month.

Sensor storage

Please store the sensor always in the – wetted – calibration chamber.

Storage and working temperature: 0 – 70° C (32° F – 158° F)

Technical data

Input: UMS dissolved oxygen sensor (5 pole terminal)

Output: Dissolved oxygen value, mg/l
or % saturation (4-pole terminal)
normal 4..20 mA, alarm signal at 24 mA

power supply: 5 – 32 VDC, 4-24 mA
via sensor signal (“loop-powered”)
or separated on transmitter

Measuring range:

Absolute value: Range: .0 .. 19.99 mg/l
Resolution: 0.02 mg/l
Accuracy: +/- 0.1 mg/l (after calibration)

Relative value: Range: 0.0 .. 199.9 %sat
Resolution: 0.2 %sat
Accuracy: +/- 1%sat (after calibration)

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