

Monitor for continuous measurement of dissolved oxygen in potable water and effluents.

## Monitor AMI Oxysafe

Complete system mounted on panel:

- **Transmitter AMI Oxysafe** in a rugged aluminum enclosure (IP 66).
- **Flow cell M-Flow M40.**
- Factory tested, ready for installation and operation.

For use with:

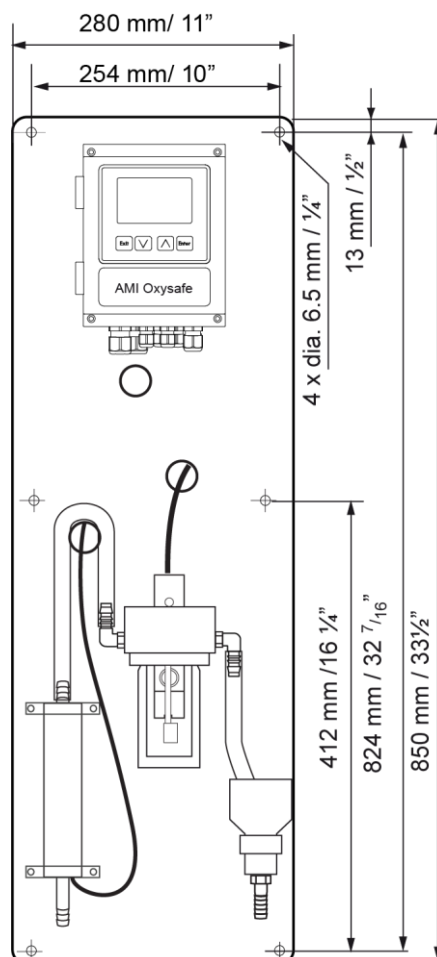
- **Swansensor Oxysafe 1000** with integrated Pt1000 temperature sensor.

Optional:

- **Swansensor deltaT** for flow detection

### Specifications:

- Measuring range: 0 - 20 ppm O<sub>2</sub> (at 25°C) or 0 - 200% saturation
- Automatic air pressure compensation
- Automatic temperature compensation
- Simultaneous measurement of dissolved oxygen, sample temperature and sample flow.
- Big backlit LC display for the reading of measuring value, sample temperature, sample flow and operating status.
- Easy user menus in English, German, French and Spanish. Simple programming of all parameters by keypad.
- Two current outputs (0/4 - 20 mA) for measured signals (3<sup>rd</sup> output optional).
- Electronic record of major process events and calibration data



Order Nr.	Monitor AMI Oxysafe	A-22.601.040
Option:	[ ] 3 <sup>rd</sup> current signal output (0/4 - 20mA)	A-81.410.020
	[ ] Profibus DP interface	A-81.420.020
	[ ] HyperTerminal interface (RS-232)	A-81.420.010
	[ ] Modbus interface	A-81.420.022
	[ ] USB interface	A-81.420.040
Option:	[ ] Swansensor deltaT Flow	A-87.933.010
Option:	[ ] Swansensor Oxysafe1000	A-87.232.011

## Dissolved Oxygen Measurement

**Swansensor Oxysafe 1000** with integrated Pt1000 temperature sensor.

**Measuring range**      **Resolution**  
0.01 to 20 ppm      0.01 ppm  
0-200% saturation      0.1% saturation

Automatic temperature and air pressure compensation.  
Correction of salinity.

**Accuracy**  
Accuracy:      0.3% if calibration temp. = measuring temp.  
respectively: 1.5% at  $\pm 10^\circ\text{C}$  deviation to calibration temperature

**Response time**  
 $t_{90} < 180$  sec. (rising concentration)

**Temperature measurement Pt1000**  
Measuring range:      -30 to  $+130^\circ\text{C}$   
Resolution:      0.1  $^\circ\text{C}$

**Sample flow measurement (option)**  
With digital SWAN sample flow sensor

## Transmitter Specifications and Functionality

Electronics case:      Cast aluminum  
Protection degree:      IP 66 / NEMA 4X  
Display:      backlit LCD, 75 x 45 mm  
Electrical connectors:      screw clamps  
Dimensions:      180 x 140 x 70 mm  
Weight:      1.5 kg  
Ambient temperature:      -10 to  $+50^\circ\text{C}$   
Humidity:      10 - 90% rel., non condensing

**Power supply**  
Voltage:      100 - 240 VAC ( $\pm 10\%$ ),  
50/60 Hz ( $\pm 5\%$ )  
or 24 VDC ( $\pm 10\%$ )  
Power consumption:      max. 30 VA

**Operation**  
Easy operation based on separate menus for "Messages", "Diagnostics", "Maintenance", "Operation" and "Installation".

User menus in English, German, French and Spanish.

Separate menu specific password protection.

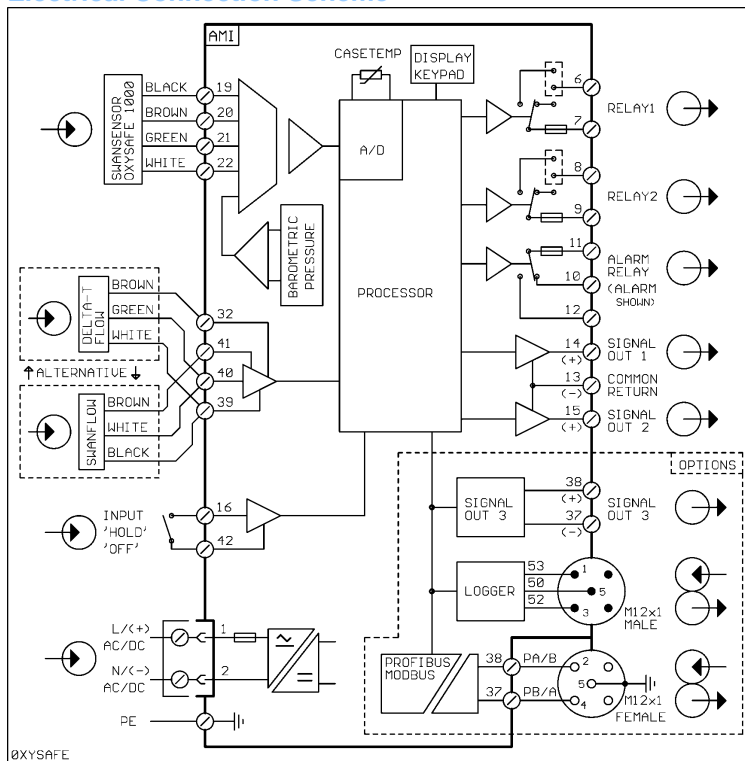
Display of process value, sample flow, alarm status and time during operation.  
Storage of event log, alarm log and calibration history.

Storage of the last 1'500 data records in logger with selectable time interval.

### Safety features

No data loss after power failure, all data is saved in non-volatile memory.  
Over-voltage protection of in- and outputs.  
Galvanic separation of measuring inputs and signal outputs.

## Electrical Connection Scheme



**Transmitter temperature monitoring**  
with programmable high/low alarm limits.

### 1 Alarm relay

One potential free contact for summary alarm indication for programmable alarm values and instrument errors.  
Maximum load:      1A / 250 VAC

### 1 Input

One input for potential-free contact.  
Programmable hold or remote off function.

### 2 Relay outputs

Two potential-free contacts programmable as limit switches for measuring values, controllers or timer for system cleaning with automatic hold function.  
Rated load:      1A / 250 VAC

### 2 Signal outputs (3<sup>rd</sup> as option)

Two programmable signal outputs for measured values (freely scalable, linear or bilinear) or as continuous control output (control parameters programmable).  
Current loop:      0/4 - 20 mA  
Maximum burden:      510  $\Omega$

### Control functions

Relays or current outputs programmable for 1 or 2 pulse dosing pumps, solenoid valves or for one motor valve.  
Programmable P, PI, PID or PD control parameters.

### 1 Communication interface (option)

- RS232 interface for logger download to PC with SWANterminal
- RS485 interface (galvanically separated) with Fieldbus protocol Modbus or Profibus DP
- 3<sup>rd</sup> Signal output
- USB interface

## Monitor Data

### Sample conditions

Flow rate:      4 to 15 l/h  
Temperature:      up to  $50^\circ\text{C}$   
Inlet pressure:      up to 1 bar  
Outlet pressure:      pressure free  
pH:      not lower than pH 4  
Suspended solids:      less than 10 ppm

### Flow cell and connections

Flow cell made of PVC and acrylic glass.  
Sample inlet: Hose nozzle 1/4" -10 elbow for 10mm tube  
Sample outlet:      G 1/2" adapter for flexible tube  $\varnothing 20 \times 15$  mm

### Panel

Dimensions:      280 x 850 x 200 mm  
Material:      PVC  
Total weight:      12.0 kg