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Monitor AMI Oxysafe

Data sheet No. DenA22601040

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_2 (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 (3rd output optional).
- Electronic record of major process events and calibration data
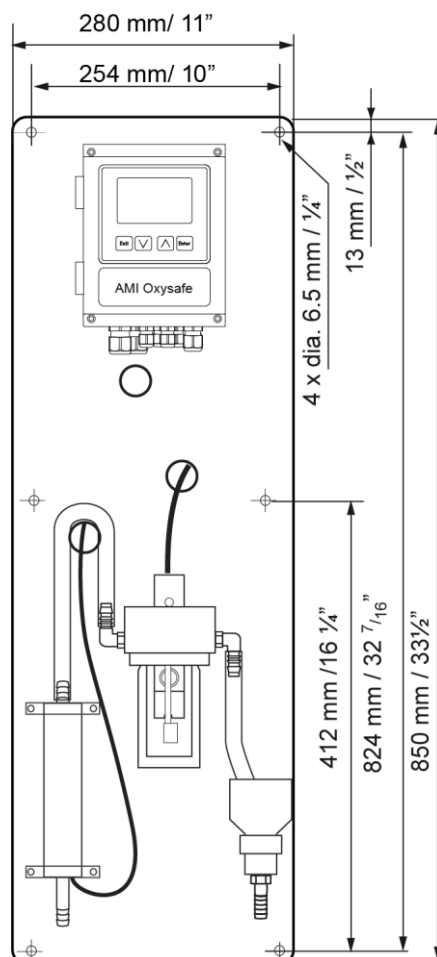
Order Nr.	Monitor AMI Oxysafe	A–22.601.040
Option:	[ ] 3rd current signal output (0/4 – 20mA)	A-81.410.020
	[ ] Profibus DP interface	A-81.420.020
	[ ] HyperTerminal interface (RS-232)	A-81.420.010
	[ ] Modbus interface	A-81.420.022
	[ ] USB interface	A-81.420.040
Option:	[ ] Swansensor deltaT Flow	A-87.933.010
Option:	[ ] Swansensor Oxysafe1000	A-87.232.011

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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 ± 10°C deviation to calibration temperature

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

Temperature measurement Pt1000
Measuring range: -30 to +130 °C
Resolution: 0.1 °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 °C
Humidity: 10 - 90% rel., non condensing

Power supply
Voltage: 100 - 240 VAC (± 10 %), 50/60 Hz (± 5 %) or 24 VDC (± 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
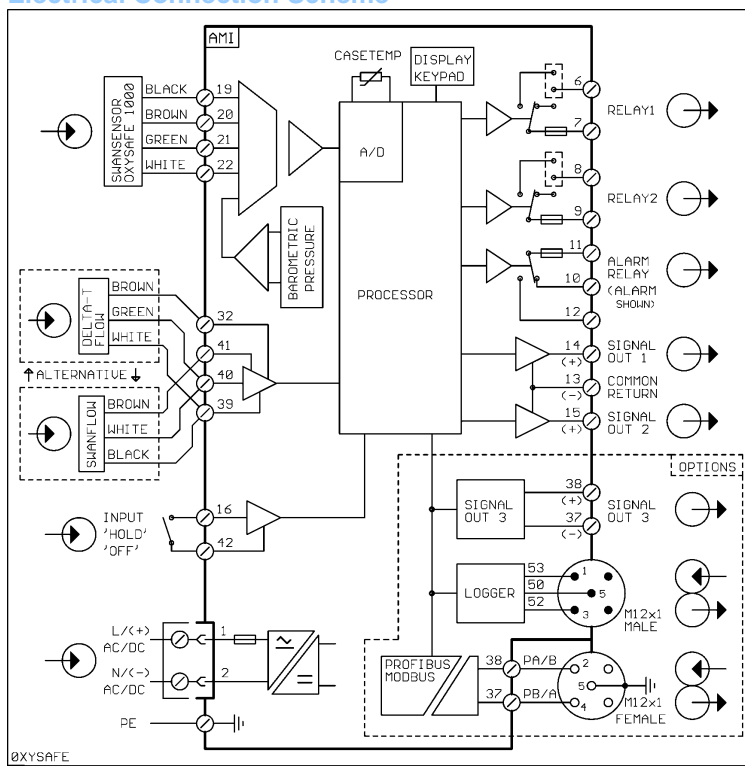
Transmitter temperature monitoring
with programmable high/low alarm limits.

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 (3rd 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 Ω

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
- 3rd Signal output
- USB interface

Monitor Data

Sample conditions
Flow rate: 4 to 15 l/h
Temperature: up to 50 °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 ¼" -10 elbow for 10mm tube
Sample outlet: G ½" adapter for flexible tube Ø 20 x 15 mm

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