

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

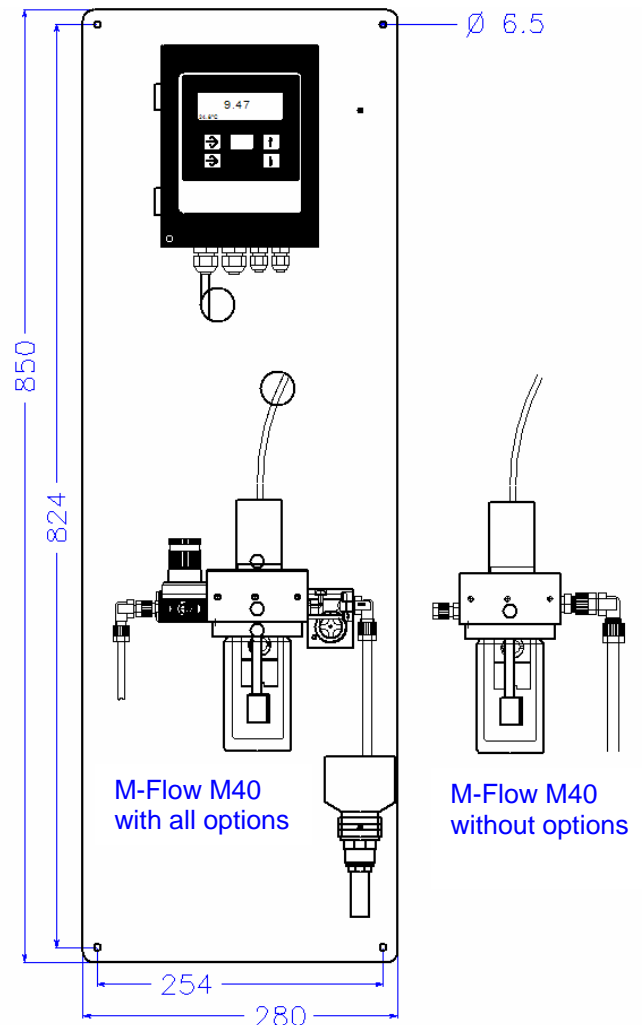
Monitor FAM Oxysafe PVC

Complete system mounted on panel:

- **Transmitter FAM Oxysafe** in a tough aluminum enclosure (IP66).
- **Swansensor Oxysafe** with indication of membrane break and electrolyte exhaustion.
- **Flow cell M-Flow M40** with needle valve and optional digital flow meter and sample pressure controller.
- Factory tested, ready for installation and operation.

Specifications:

- Measuring range:
0 to 20 ppm resp. 0 to 200% saturation.
- Simultaneous measurement of dissolved oxygen, sample temperature and sample flow (option).
- Automatic air pressure compensation.
- Automatic calibration procedure.
- Large backlit LCD-display for the indication of measuring values and operating status.
- 2 Signal outputs 0/4 - 20 mA, for process value, temperature and flow, galvanically separated from sensor input.
- Potential-free alarm contact as summary indication for programmable alarm values and for instrument faults.
- 2 Potential-free contacts, programmable as limit switches or PID-controllers.
- 2 Inputs for potential-free switches with programmable functions.
- High-voltage protection for signal outputs and RS485 interface.



Order scheme	Monitor FAM Oxysafe PVC	A	2	2	3	X	X.	X	0	0
Flow cell	M-Flow M40					2	↑	↑		
	M-Flow M40 with digital sample flow meter and manual sample pressure controller					3				
Power supply	230 VAC, 50/60 Hz							1		
	115 VAC, 50/60 Hz							2		
	24 VAC, 50/60 Hz							3		
	24 VDC, direct current							4		
	200 VAC, 50/60 Hz								5	
	100 VAC, 50/60 Hz									6
Transmitter interface	None									0
	Interface RS485 (Profibus DP, Modbus ASCII/RTU, Swanbus)									2

Oxygen Measurement

Measuring range: 0 to 20 ppm O₂,
resp. 0 to 200% saturation
Resolution: 0.01 ppm
Automatic temperature compensation.
Automatic air pressure compensation.
Correction of salinity.
Monitoring of diaphragm integrity and electrolyte exhaust.
Galvanic separation of measuring inputs and signal outputs.

Temperature measurement

Integrated temperature sensor in Swansensor Oxysafe.
Measuring range: -30 to 130°C
Resolution: 0.1°C

Sample conditions

Flow rate: 4 to 15 l/h
Temperature: up to 50°C
Inlet pressure: up to 1 bar for standard M-Flow M40 or 0.5 to 10 bar with sample pressure controller option
Outlet pressure: pressure free

Flow cell and connections

Flow cell made of PVC and acrylic glass
Process connections: Serto PA Ø 6 mm
Sample outlet: flexible tube Ø 25 mm
Flow cell M-Flow M40 with flow adjustment valve, sensor incident flow tube and optional digital flow meter and sample pressure controller.

Transmitter Data

Electronics case: Aluminum
Protection degree: IP 66 / NEMA 4X
Data display: backlit LCD, height 15 mm
Connections: Strippable terminal blocks
Ambient temperature: -15 to +50°C
Limit range of operation: -25 to +65°C
Storage and transport: -30 to +85°C
Humidity: 10 to 90% relative non condensing

Power supply

Voltage: 24, 115, 230, 200, 100 VAC (±15%) / 50/60 Hz or direct current 24 VDC
Power consumption: max. 7 VA
Parameter storage without battery.

1 Alarm relay

One potential-free contact for summary alarm indication of programmable alarm values and for instrument faults.
Max. load: 1A / 250 VAC

Monitoring of case temperature

Alarm if temperature is higher than +65°C or lower than -25°C.

2 Signal outputs

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

2 Relay outputs

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

Control function

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

Input 1

For potential-free contact, programmable as hold or remote-off.

Input 2

For potential-free contact, programmable as hold or remote-off, or for digital flow sensor (option).

1 Communication interface (option)

RS485 with Fieldbus protocol Profibus DP or Modbus or RS485 with Swanbus.

Monitor Data

Panel dimensions: 850 x 280 x 150 mm
Panel material: white PVC
Total panel weight: 9.0 kg

Electrical Connection Scheme

