SWAN Analytical Instruments
CH-8616 Riedikon/Uster
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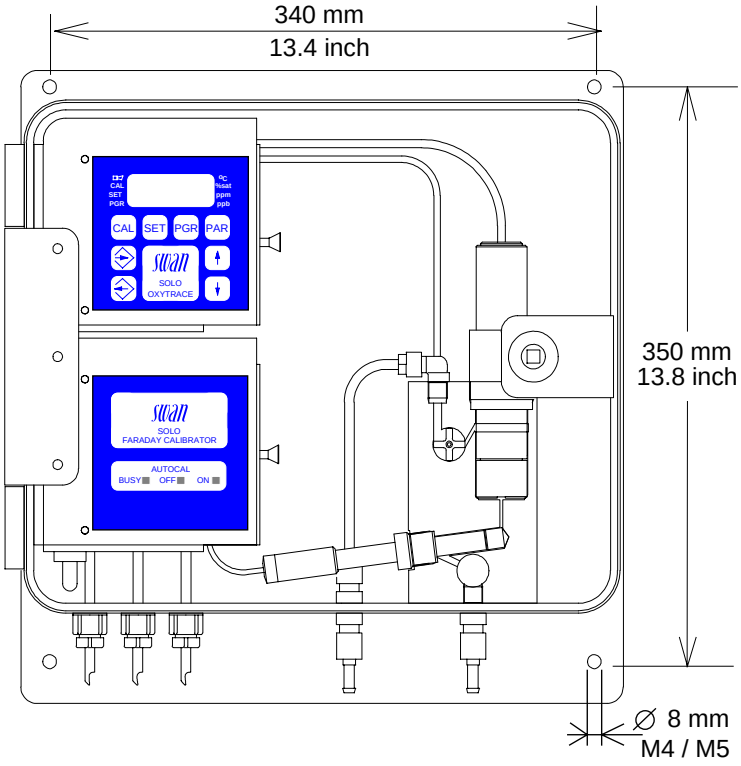
SOLO Oxytrace FC

Data sheet No. DenA225X11X0

Analyser for the continuous measuring of dissolved oxygen in the ppb-range

SOLO Oxytrace FC

- Compact analyser in aluminium case for wall installation.
- Measuring range: 0 - 200 ppb, 0 - 2000 ppb, 0 - 20 ppm, 0% - 200% saturation. Automatic range switching.
- 4-digit LED display and 8 LEDs indicating the operating status.
- Galvanically separated connection for oxygen electrode.
- Automatic temperature compensation.
- Galvanically separated signal outputs 0/4 - 20 mA for oxygen or temperature.
- Voltage supply 100, 115, 200, 230 VAC.
- Power consumption: 10 VA.
- Potential-free relay contact as system alarm for instrument fault, insufficient or high sample flow and low or high temperature.
- Alarm values for too low / too high flow, and for too low / too high temperature can be chosen.
- Automatic self-diagnosis.
- Automatic verification with Faraday calibrator.
- Voltage monitor and parameter storage without batteries.



Order scheme	SOLO Oxytrace FC	A-22.5		1	1		0
			↑			↑	
Current supply:	230 VAC, 50/60 Hz		1			|	
	115 VAC, 50/60 Hz		2			|	
	200 VAC, 50/60 Hz		5			|	
	100 VAC, 50/60 Hz		6			|	
Version:	signal output 0/4 - 20 mA for oxygen/temperature (galv. sep.)					1	
	interface RS485: PROFIBUS DP, MODBUS ASCII/RTU, SWANBUS					3	

Options:

- Interface RS485: Various protocols PROFIBUS DP, MODBUS ASCII, MODBUS RTU, SWANBUS instead of second signal output 0/4 - 20 mA.
- Bypass filter and tap, stainless steel.

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Measuring transmitter:

Technical data:

Dimensions:

Dimensions:	380 x 390 x 180 mm
Weight:	8 kg
Case:	aluminium
Protection:	splash-proof

Ambient conditions:

Ambient temperature:	5 to 50 °C
Storage and transport:	-25 to +85 °C
Relative humidity:	10 to 90% non-condensing

Display:
4-digit LED, green, for measuring value dissolved oxygen, temperature, and error codes

Height:	15 mm
Status indication:	8 LEDs

Electronics:
Fail-safe measuring transmitter for dissolved oxygen
In- and outputs galvanically separated
Supply voltage: 100 VAC (±10%) or 115, 200, 230 VAC (±15%) / 50 60 Hz
Power consumption: 10 VA
Voltage monitor and parameter storage without batteries
Connections: Strippable terminal blocks

Alarm output:
Potential-free relay contact as summary alarm indicator for instrument fault, insufficient or high sample flow and low or high temperature
Contact in case of alarm and absence of current closed

Max. load:	1A / 250 VAC
Alarm delay:	0 to 6000 s

Signal outputs:
Galvanically separated

Current loop:	0/4 .... 20 mA
Max. burden:	600 Ω

Span freely scaleable

Potential-free limit switch:
2 potential-free change-over contacts

Max. load:	1A / 250 VAC

Programmable limits for measuring value

Delay:	0 to 6000 s

Interface (optional):
RS485, various protocols:
- PROFIBUS DP
- MODBUS ASCII
- MODBUS RTU
- SWANBUS

Selectable baud rate.

Connection of sample tube:

Pressure:	0.3 to 3 bar (4 ... 42 psi)
Sample inlet:	ISO G1/8 (Swagelok fitting for tube OD 1/4" No. SS-400-1-2RT).
Drain:	Swagelok fitting for steel or FEP tube OD 1/4" Waste line must be free of back-pressure (atmospheric)
Flow rate:	6 to 14 l/h
Temp.:	0 to 45 °C max. (32 to 113 °F)

Alarm for too low / too high temperature
Alarm for too low / too high flow

Measuring:
Temperature measuring:
Temperature sensor Swan NT5K, integrated in oxygen sensor

Measuring range:	-10 to +100 °C
Resolution:	0.1 °C
Accuracy:	± 0.2 °C (0 - 50 °C)

Oxygen measuring:
Galvanically separated signal input for oxygen electrode
Measuring of dissolved oxygen with automatic temperature compensation
Automatic range switching

Measuring range:	Resolution:
0.0 to 200 ppb	0.1 ppb
0 to 2000 ppb	1 ppb
0 to 20 ppm	0.01 ppm
0 to 200% saturation	0.1% saturation

Accuracy: ±2% of reading or ±0.2 ppb
Repeatability: ± 1% of reading or ±0.15 ppb
Response time: 15 s (90%) for the addition of 20 ppb by Faraday calibrator (automatic verification)

Calibration:
In air

Verification:
Manual or automatic with Faraday calibrator

Faraday Calibrator:

For the automatic or manual verification of the SOLO Oxytrace FC by electrochemically generated 20 ppb oxygen concentration additions.
Automatic adjustment of oxygen additions to different flow rates.
Interval of verification: Automatic every 3 h or manually

Duration of verification:	approx. 2 min

Display:
3 LEDs indicating the operating status

Faraday electrode output:
Galvanically separated

Output:	max. 350 VDC

Sample requirement:
Sample temperature must be higher than 10 °C for high purity water

Complete connection scheme measuring transmitter:

Signal output 2 alternative to interface RS485