SWAN
ANALYTICAL INSTRUMENTS

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Transmitter AMU Oxytrace

Data sheet No. DenA12435X0X

Electronic transmitter / controller for the measurement of dissolved oxygen in high purity water.

Transmitter AMU Oxytrace

- Measuring and control transmitter for panel installation in a Noryl® resin enclosure, 96 x 96 x 120 mm (DIN 43700).

- Measurement ranges:
  - Dissolved oxygen: 0.01ppb to 20 ppm
  - Saturation: 0 to 200%

- Sensor connections for Oxytrace G oxygen sensor with integrated NT5k temperature probe and for a digital sample flow meter.

- Automatic compensation of temperature and air pressure.

- Big backlit LC display for 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.

- Data logger for 1'500 data records stored at a selectable interval. Serial interface included for data download to PC with Microsoft HyperTerminal.

- Galvanically separated sensor connection.

- Overvoltage protection for in- and outputs.

- Two current outputs (0/4 - 20 mA) for measured signals.

- Potential-free alarm contact as summary alarm indication for programmable alarm values and for instrument faults.

- Two potential-free contacts programmable as limit switch or PID-control.

- Input for potential-free contact to freeze the measuring value or to interrupt control in automated installations (hold function or remote-off).
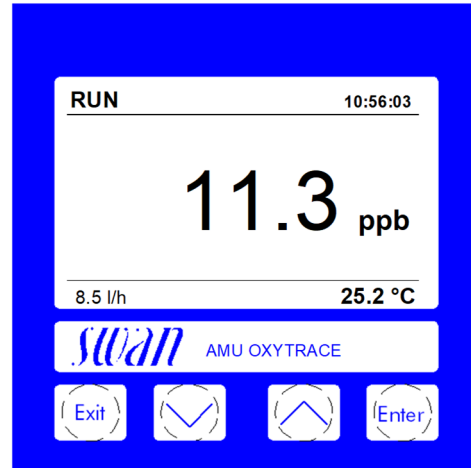
Front panel
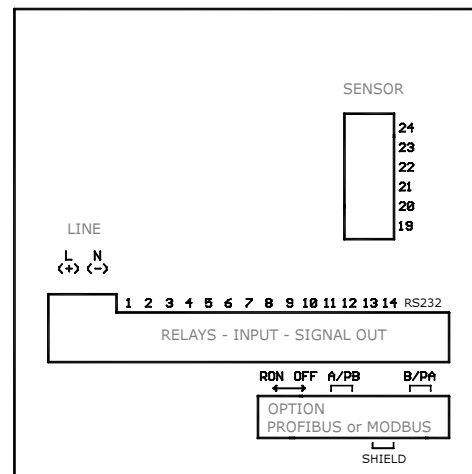
Rear panel with electrical connections

Order scheme	Transmitter AMU Oxytrace	A – 1 2 . 4 3 5 .	X	0	X
Power supply …………………	100 - 240 VAC / 50/60 Hz ……………………………………………............		1		
	24 VDC, direct current ………………………………………………………		2		
Communication option ………	None …………………………………………………………………............				0
	Profibus DP interface ………………………………………………..............				2
	Modbus interface (for *Webserver* connection)				4
Alarm Relay ……………………	Default: normally open; please contact dealer for configuration "normally closed".				

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Dissolved Oxygen Measurement

Oxygen sensor
Oxytrace G sensor with integrated NT5k temperature probe and guard electrode.

Measuring range	Resolution
0.01 to 9.99 ppb	0.01 ppb
10 to 199.9 ppb	0.1 ppb
200 to 1999 ppb	1 ppb
2 to 20 ppm	0.01 ppm
0-200% saturation	0.1% saturation

Automatic range switching.

Automatic temperature and air pressure compensation

Temperature measurement
with SWAN NT5k sensor
Measuring range: -30 to +130 °C
Resolution: 0.1 °C

Sample flow measurement
with digital SWAN sample flow sensor.

Transmitter Specifications and Functionality

Electronics case: Noryl® resin
Protection degree: IP54 (front)
Display: backlit LCD, 75 x 45 mm
Electrical connectors: clamping yoke
Dimensions: 96 x 96 x 120 mm
Weight: 0.45 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 (± 15 %)
Power consumption: max 8 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.
Overvoltage protection of in- and outputs.
Galvanic separation of measuring inputs and signal outputs.

Electrical Connection Scheme
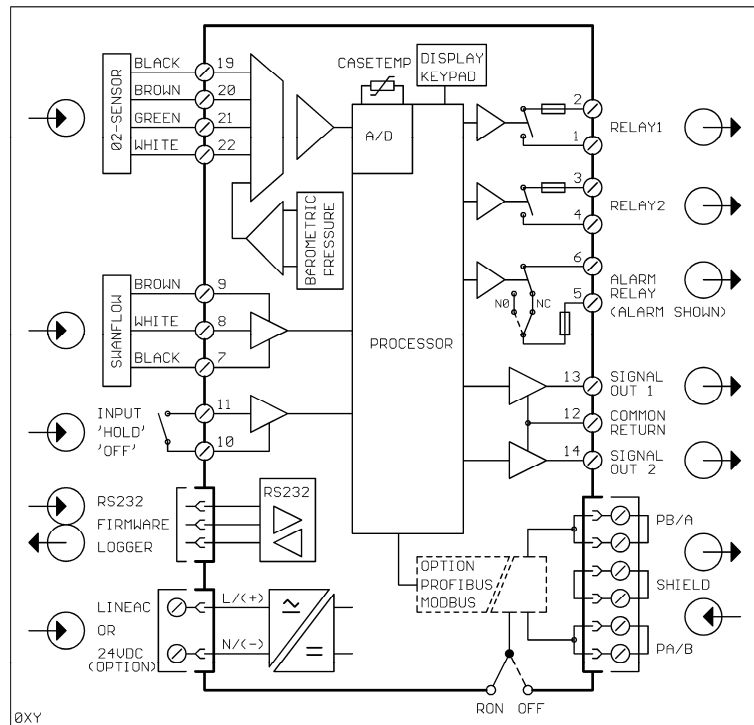
Transmitter temperature monitoring
with programmable high/low alarm limits.

Real-time clock with calendar
For action time stamp and pre programmed actions.

1 Alarm relay
One potential free contact for summary alarm indication for programmable alarm values and instrument errors.
Maximum load: 100 mA / 50 V
Default: NO (option: NC)

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.
Maximum load: 100 mA / 50 V

2 Signal outputs
Two programmable signal outputs for measured values (freely scaleable, linear or bilinear) or as continuous control outputs (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 serial interface RS232
For data logger download to PC using Microsoft HyperTerminal and for transmitter firmware updates.

1 serial interface RS485 (option)
With Fieldbus protocol Modbus or Profibus DP, galvanically separated.

Remote instrument access with PC requires Modbus interface and optional Webserver.