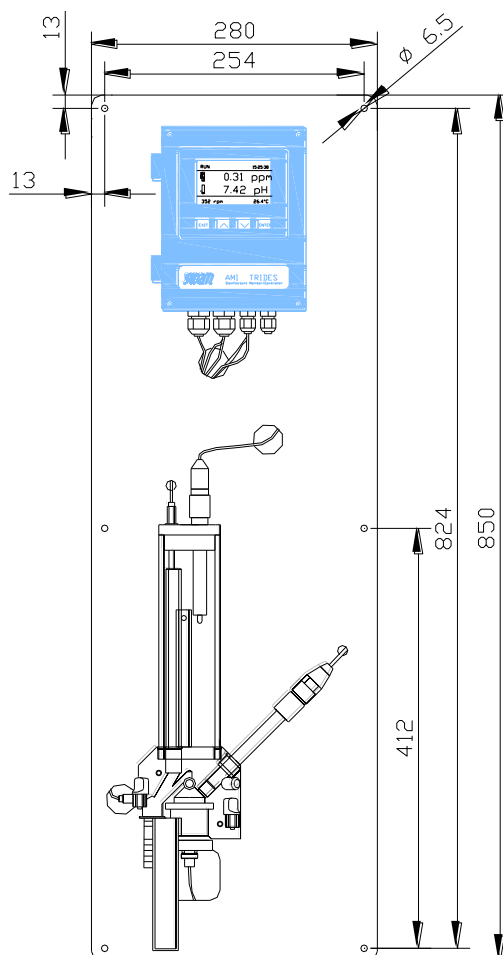


Microprocessor controlled system for the automatic and continuous measurement of disinfectants in potable water and swimming pools

Monitor AMI Trides

- Complete system for monitoring and controlling of disinfectant levels.
- Range 0.00 - 5.00 ppm free chlorine, 0.000 - 1.000 ppm ozone, 0.00 - 2.00 ppm chlorine dioxide, iodine, bromine.
- Transmitter, disinfectant sensor, temperature sensor, flow sensor and flow cell, mounted on PVC panel, factory tested and ready to operate.
- Real-time-pH-compensation of chlorine measurement with integrated pH-meter (optional pH sensor).
- Measuring transmitter in an aluminum case (IP 66) 180 x 140 x 70 mm.
- Large backlit graphic display for the reading of measuring value, flow and operating status. Full text menu driven user interface.
- Easy programming of all parameters by keypad.
- Sensor: Self-cleaning TRIDES three-electrode-system for measurement of disinfectants.
- Automatic temperature compensation.
- Monitoring of sample flow and sensor cleaning.
- Over voltage protection for in- and outputs.
- Two signal outputs, galvanically separated from sensor input 0/4 - 20 mA for disinfectant or temperature or as continuous control outputs.
- Signal outputs freely scaleable and with simulation mode.
- 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, function programmable.



Options:

- Communication interface for transmitter.
- pH electrode with cable or ORP (Redox) electrode with cable.
- O-Ring set for ozone measurement.

Order Nr.	Monitor AMI Trides	A-26.111.000
Option:	<input type="checkbox"/> 3 rd current signal output (0/4 – 20mA) <input type="checkbox"/> Profibus DP interface <input type="checkbox"/> HyperTerminal interface (RS-232) <input type="checkbox"/> Modbus interface <input type="checkbox"/> USB interface	A-81.410.020 A-81.420.020 A-81.420.010 A-81.420.022 A-81.420.040
Option:	<input type="checkbox"/> pH measurement <input type="checkbox"/> ORP measurement	A-87.127.010 A-87.427.010
Option:	<input type="checkbox"/> O-Ring set for ozone measurement	A-83.590.060

Disinfectant measurement

Signal input (galvanically separated) for TRIDES disinfectant sensor.

Accuracy: Measuring range:

Ozone

± 0.005 ppm 0.000 - 1.000 ppm

HOCl, free chlorine

± 0.01 ppm 0.00 - 1.00 ppm

± 0.06 ppm 1.00 - 3.00 ppm

± 0.2 ppm 3.00 - 5.00 ppm

Chlorine dioxide, iodine, bromine

± 0.01 ppm 0.00 - 1.00 ppm

± 0.06 ppm 1.00 - 3.00 ppm

Stability (HOCl): ± 1% from end of interval during 1 month at normal conditions.

Response time:

90 % of change of excessive Cl₂ in 60 seconds after sample entered flow cell.

Automatic temperature compensation.

pH measurement (option)

Measuring range: pH 2 to pH 12

Resolution: 0.01 pH

ORP (Redox) measurement (option)

Measuring range: - 400 to +1'200 mV

Resolution: 1 mV

Restrictions of use

Presence of following substances may perturb the measurement: cyanuric acid, 5,5-Di-methyltdantoin, phosphates, copper, sand.

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, Spanish and Italian.

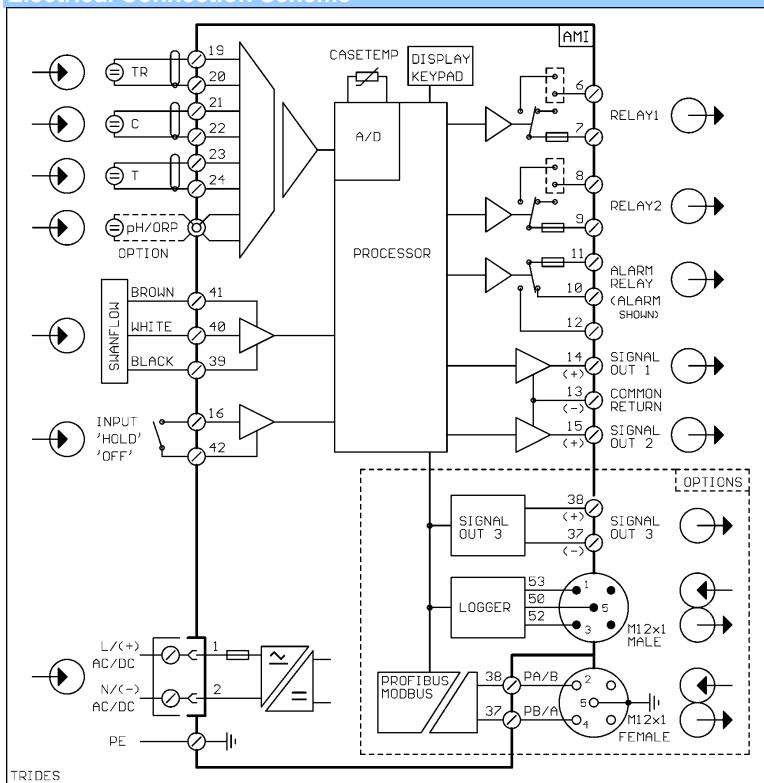
Separate menu specific password protection.

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.

Electrical Connection Scheme



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.

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 faults.
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

Water consumption: approx. 40 l/h
Temperature: 5 to 45 °C
Pressure water inlet: 0.15 to 2 bar
Min. sample conductivity: 5 µS/cm

Trides flow cell

Flow cell made of acrylic glass with insert for Trides sensor and flow sensor. Insert for temperature sensor and 3 additional inserts 12 mm for sensors.
Connection inlet: 6 x 9 mm
Water outlet: atmospheric drain
Connection outlet: 14 x 20 mm (1/2")

Panel

Dimensions: 280 x 850 x 200 mm
(compact :)300 x 530 x 200 mm
Mounting panel: PVC
Weight: 6.0 kg