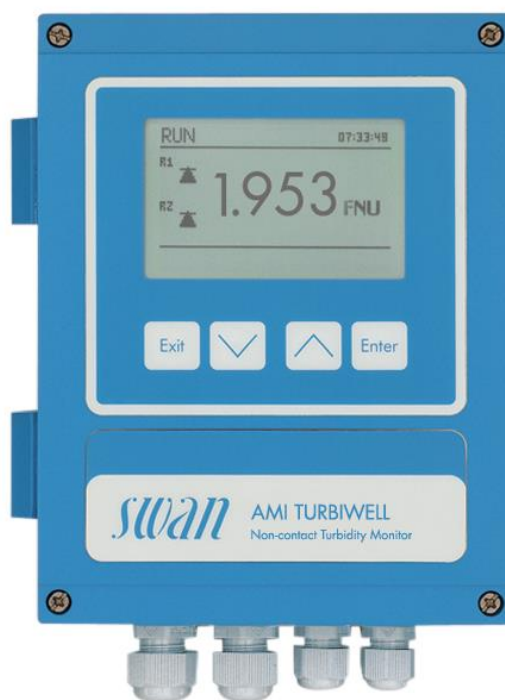


Electronic transmitter & controller for the measurement of turbidity in potable water, surface water treatment and effluent.

Transmitter AMI Turbiwell

- For the use with Swansensor Turbiwell
- Measuring and control transmitter in a rugged aluminum enclosure (IP 66).
- Measurement range:
 - Turbiwell 7027: 0.000 – 200.0 FNU
Automatic range switching
 - Turbiwell WLED: 0.000 – 100.0 NTU
Automatic range switching
- Precision: $\pm (0.003 \text{ FNU/NTU} + 1\% \text{ of reading})$.
- Big backlit LC display for the reading of measuring value and operating status.
- Easy user menus in English, German, French and Spanish. Simple programming of all parameters by keypad.
- Electronic record of major process events and calibration data.
- Real-time clock for time stamp in data logs and for automated functions.
- Data logger for 1'500 data records stored at a selectable interval.
- Galvanically separated sensor connection.
- Overvoltage protection for in- and outputs.
- Two current signal 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).



Order Nr.	Transmitter AMI Turbiwell AC	A-15.411.100
	Transmitter AMI Turbiwell DC	A-15.411.200
Option:	<input type="checkbox"/> 3 rd current signal output (0/4 – 20mA)	A-81.420.050
	<input type="checkbox"/> Profibus DP & Modbus RTU interface (RS-485)	A-81.420.020
	<input type="checkbox"/> USB interface	A-81.420.042
	<input type="checkbox"/> HART interface	A-81.420.060

See datasheet DenA87532XXX regarding Swansensor Turbiwell

Turbidimeter System

Nephelometer according to ISO 7027 or US EPA 180.1.

Measuring range with Swansensor Turbiwell 7027: 0.000 to 200.0 FNU

Measuring range with Swansensor Turbiwell WLED: 0.000 to 100.0 NTU

Precision:
 $\pm (0.003 \text{ FNU/NTU} + 1\% \text{ of reading})$

Accuracy (based on Formazine):
Range 0-40 FNU/NTU:
 $\pm (0.01 \text{ FNU/NTU} + 2\% \text{ of reading})$
Range >40 FNU/NTU: $\pm 5\% \text{ of reading}$

Two-part turbidimeter body made of PETP with drain valve.
Heated optics, windows and sample compartment to avoid condensation.

Easy cleaning of sample compartment.

Factory calibrated with Formazine.

Possibility to detect oil in pure water.
Restrictions do apply.

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 to 90 % rel., non cond.

Power supply

Voltage:
AC version: 100 - 240 VAC ($\pm 10\%$),
50/60 Hz ($\pm 5\%$)
DC version: 10-36 VDC
Power consumption: max. 35 VA

Operation

Easy operation based on separate menus for "Messages", "Diagnostics", "Maintenance", "Operation" and "Installation".

User menus in English, German, French and Spanish.

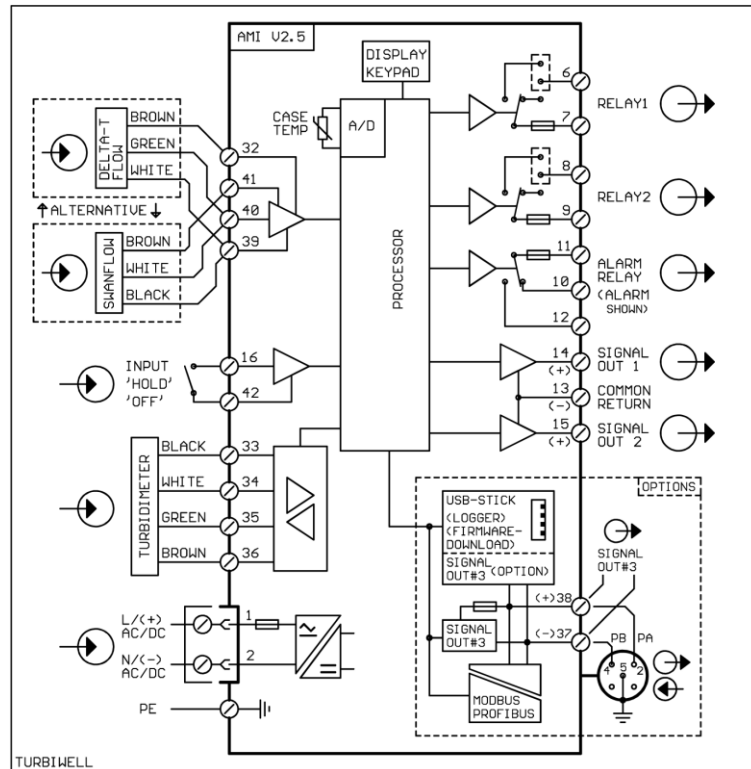
Separate menu specific password protection.

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.

Electrical Connection Scheme



Real-time clock with calendar

For action time stamp and preprogrammed actions.

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 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

Two programmable signal outputs for measured values (freely scalable, linear or bilinear) or as continuous control outputs (control parameters programmable) as current source. 3rd signal output selectable as current source or current sink.
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)

- RS485 interface (galvanically separated) with Fieldbus protocol Modbus RTU or Profibus DP
- 3rd Signal output
- USB interface
- HART interface