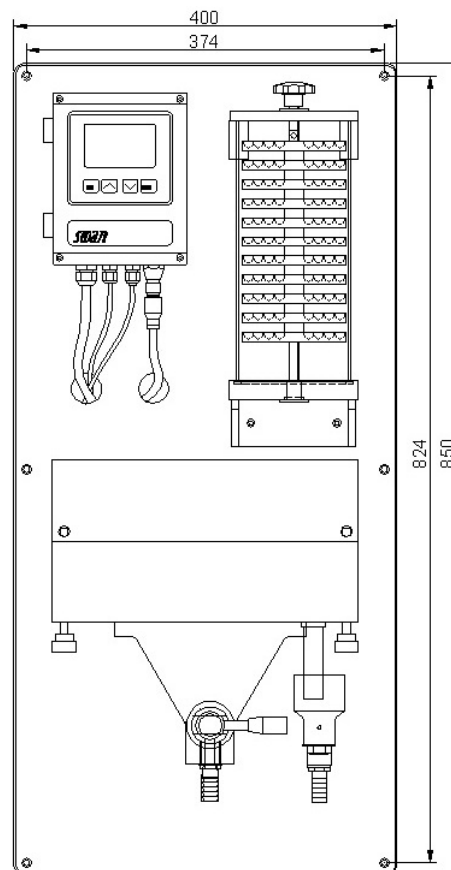


Nephelometric system based on ISO 7027 for the automatic and continuous measurement of turbidity in potable water, surface water and effluent.

**Monitor AMI Turbiwell**

- Non-contact turbidimeter: System optics is not in direct contact with sample, no fouling on optical surfaces.
- Measuring range: 0.000 - 200.0 FNU/NTU  
Automatic range switching.
- Precision: ± 0.003 FNU/NTU or 1% of reading.
- Complete system including measurement control electronics, sample chamber and turbidimeter
- Manual or automated draining of the sample chamber.
- 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 selectable intervals. (Data download to PC requires optional HyperTerminal interface).
- Big back-lit LCD display for the reading of all measured values and status information simultaneously.
- Measurement values are available as analog output signals.
- Potential-free alarm contact as summary alarm indication for programmable alarm values and for instrument faults.
- Input for potential-free contact to freeze the measuring value or to interrupt control in automated installations (hold function or remote-off).
- Factory tested, ready for installation and operation.
- Optional *sample degasser* to avoid the formation of interfering bubbles in the samples.



Monitor AMI Turbiwell with manual drain valve and optional sample degasser

**Further options:**

- Turbidity verification kits  
(Low or High FNU for dry verification)

Order scheme	Monitor AMI Turbiwell	A	2	5	4	1	X.	6	X	X.	X
<b>Power supply</b> .....	85-265 VAC, 47-63 Hz .....						↑				
	24 VDC, direct current .....						1				
							2				
<b>Signal output option</b> .....	None .....							0			
	Profibus DP interface .....							2			
	HyperTerminal interface (for logger download) .....							3			
	Modbus interface (for <i>Webserver</i> connection) .....							4			
<b>Sample degasser option</b> .....	None .....								0		
	Sample degasser .....								1		
<b>Drain valve</b> .....	Manual drain valve .....										1
	Automatic drain valve: "Auto-Drain" with electrical motor .....										2

**Turbidimeter System**

Nephelometer according to ISO 7027

Measuring range: 0.000 to 200.0 FNU/NTU  
Precision:  $\pm 0.003$  FNU/NTU or  $\pm 1\%$ ,  
whichever is greater

Two-part turbidimeter body made of PETP with drain valve.  
Heated optics to avoid condensation.

Easy cleaning of sample compartment.

Factory calibrated with Formazine.

**Transmitter Specifications and Functionality**

Electronics case: Aluminum  
Protection degree: IP 66 / NEMA 4X  
Display: backlit LCD, 75 x 45 mm  
Electrical connectors: screw clamps  
Ambient temperature: -10 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: 85 - 265 VAC, 47 - 63 Hz  
or 24 VDC,  $\pm 15\%$   
Power consumption: max. 20 VA

**Operation**

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

Separate, menu specific password protection.

Display of process value, 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.

**Real-time clock with calendar**

For action time stamp and preprogrammed actions.

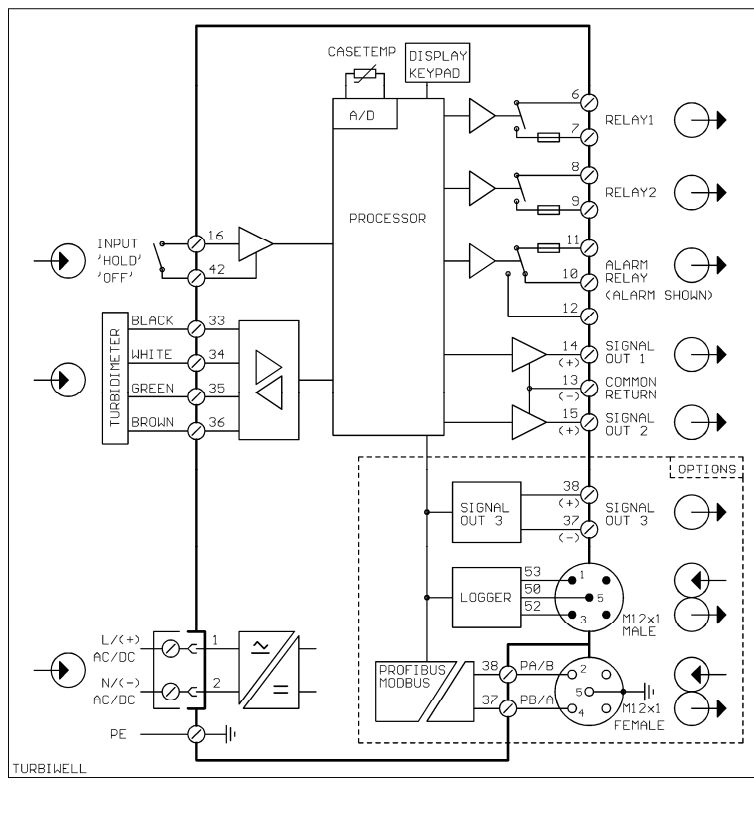
**Safety features**

No data loss after power failure, all data is saved in non-volatile memory. Over-voltage protection of in- and outputs. Galvanic separation of measuring inputs and signal outputs.

**Transmitter temperature monitoring**

With programmable high/low alarm limits.

**Electrical Connection Scheme**



**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 with automatic hold function.  
Rated load: 1A / 250 VAC

**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 Communication interface (option)**

RS232 interface for logger download to PC with Microsoft HyperTerminal or RS485 interface (galvanically separated) with Fieldbus protocol Modbus or Profibus DP.

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

**Sample and Monitor Data**

**Sample conditions**

Flow rate: approx. 20-60l/h  
Temperature: up to 40 °C  
Sample temperature max. 5°C over ambient temperature  
Outlet pressure: pressure free, atmospheric drain

**Sample connections**

Inlet: nozzle, Ø 10mm  
Drain: Ø 16 mm, tubing 15 x 20 mm

**Panel**

Dimensions: 850 x 400 x 200 mm  
Material: white PVC  
Weight: 10.0 kg