

Nephelometer according to ISO 7027 for the automatic and continuous measurement of turbidity at high pressure.

## Application examples

- For applications in potable water, surface water treatment and effluent.

## Measuring range

- 0.000 – 100 FNU/NTU.

## Instrument features

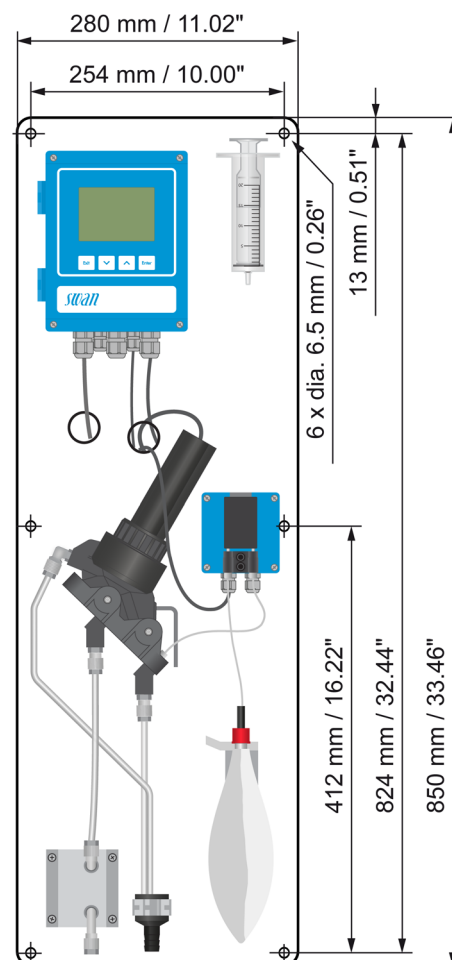
- Pressure-resistant design: measurement at up to 10 bar avoids outgassing of sample.
- Fast response time:  $t_{90} < 30$  s at 10 l/h.
- Quick and tool-free removal of flow cell and sensor for easy cleaning.
- Factory calibrated with formazine.
- Manual purge valve for removal of sediments.

## Optional

- Ultrasonic sample flow meter or flow regulator with flow measurement.
- Automatic chemical cleaning with 1 solution (Cleaning Module-III P, mounted directly on AMI-II Turbisafe) or 2 solutions (Cleaning Module-III, separate panel).
- Kit for safe and convenient verification/calibration with high-precision primary formazine standards.

## Dual-Channel Capability

- Connect a Swan Sensor Panel Turbisafe for a second independent measurement.



Monitor AMI-II Turbisafe with Swansensor U-Flow, Cleaning Module-III P and verification/calibration kit.

| Order numbers: | Monitor AMI-II Turbisafe                                                                                                              | A-25.513._00                                 |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Power supply   | 100 – 240 VAC, 50/60 Hz.....<br>10 – 36 VDC.....                                                                                      | 1<br>2                                       |
| Option 1       | RS485 interface with Modbus RTU or Profibus protocol .....<br>HART interface .....<br>Two additional 0/4 – 20 mA signal outputs ..... | A-81.470.0X0<br>A-81.470.030<br>A-81.470.040 |
| Option 2       | Swansensor U-Flow .....<br>Flow regulator with measurement.....                                                                       | A-87.934.001<br>A-82.521.201                 |
| Option 3       | Cleaning Module-III P .....<br>Check valve (required if A-82.521.201 is installed) .....                                              | A-82.311.010<br>A-82.531.010                 |
| Accessories    | For all accessories and details, please visit our website at <a href="http://www.swan.ch">www.swan.ch</a> .                           |                                              |



## Turbidity Measurement

### Nephelometer type

Measurement according to ISO 7027.

### Measuring range

0.000 – 0.999 FNU  
1.00 – 9.99 FNU  
10.0 – 99.9 FNU

### Resolution

0.001 FNU  
0.01 FNU  
0.1 FNU

Precision:  $\pm 0.02$  FNU (limit of detection)

Accuracy (based on formazine):

Range 0 – 1 FNU  $\pm 0.01$  FNU  $\pm 2$  %  
Range 1 – 10 FNU  $\pm 0.1$  FNU  $\pm 3$  %  
Range 10 – 100 FNU  $\pm 0.5$  FNU  $\pm 5$  %

Factory calibrated with formazine.

### Response time ( $t_{90}$ , 10 l/h)

< 30 s

### Auxiliary sensors

- Sample flow measurement with optional Swansensor U-Flow or flow regulator.

## Transmitter Specifications and Functionality

Electronics case: Cast aluminum  
Protection degree: IP66 / NEMA 4X  
Display: backlit LCD, 74 x 53 mm  
Electrical connectors: screw clamps  
Ambient temperature: -10 to +50 °C  
Humidity: 10 – 90% rel., non-condensing

### Power supply

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

### Operation

User menus in English, German, French and Spanish.  
Separate, menu-specific password protection.

### Safety features

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

### Alarm relay

One potential-free contact for summary alarm indication for programmable alarm values and instrument faults.  
Maximum load: 1 A / 250 VAC

### Input

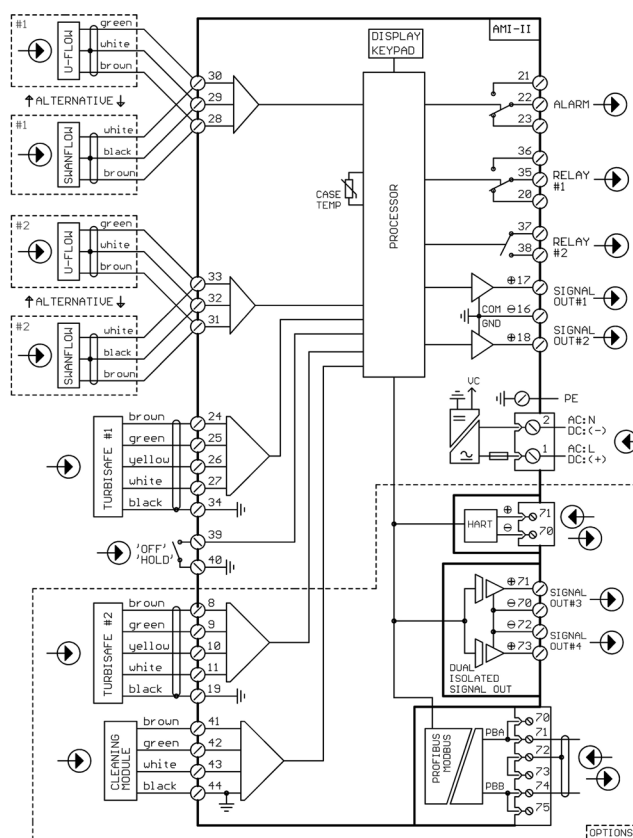
One input for potential-free contact.  
Programmable hold or remote off function.

### Relay outputs

Two potential-free contacts programmable as limit switches for measured values, controllers or timers with automatic hold function.

Rated load: 1 A / 250 VAC

## Electrical Connection Scheme



### Signal outputs

Two or four (with optional communication interface) programmable signal outputs for measured values (freely scalable, linear or bilinear) or as controller outputs.  
Current loop: 0/4 – 20 mA  
Maximum burden: 510  $\Omega$   
Type: current source

### SD card interface

Possibility to record measured values and diagnostic data to an SD card.  
SD card included.

### Communication interface options

- Two additional signal outputs, galvanically separated
- RS485 interface with Modbus RTU or Profibus DP protocol, galvanically separated
- HART interface

## Monitor Data

### Sample conditions

Flow rate: approx. 5 to 50 l/h  
Temperature: up to 40 °C  
Inlet pressure: up to 10 bar  
Outlet pressure: pressure free

### Sample connections

Inlet: 6 mm Serto fitting  
Drain:  $\varnothing$  16 mm, tubing 15 x 20 mm

### Panel

Dimensions: 280 x 850 x 200 mm  
Material: white PVC  
Total weight: 7.6 kg

