

Complete monitoring system for the automatic, continuous measurement of the specific conductivity in surface water, potable water and cooling water.

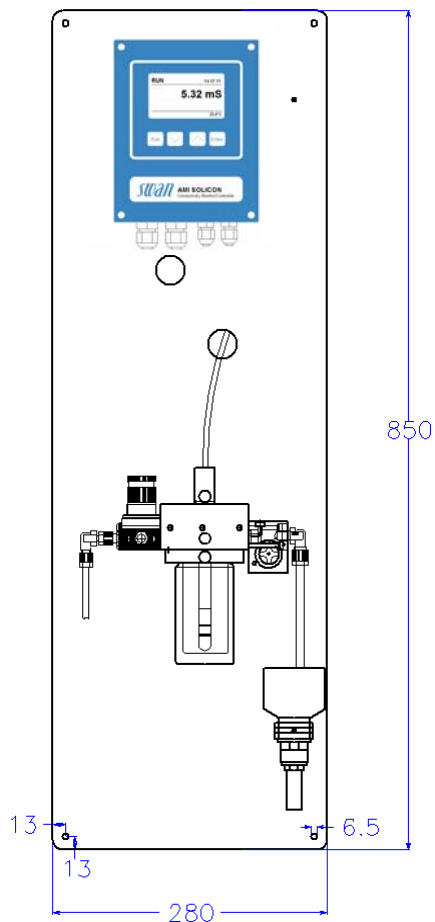
**Monitor AMI Solicon4**

Complete system mounted on stainless steel mounting panel:

- **Transmitter AMI Solicon4** in a rugged aluminum enclosure (IP 66).
- 4-electrode conductivity sensor **Swansensor Shurecon P** with integrated Pt1000 temperature sensor.
- **Flow cell M-Flow PG** with manual flow adjustment valve and digital sample flow meter.
- Factory tested, ready for installation and operation.

**Specifications:**

- Simultaneous measurement and display of conductivity, sample temperature and sample flow.
- Conductivity measurement range from 0.1  $\mu$ S/cm to 100 mS/cm.
- Conductivity sensor unaffected by fouling. No measuring errors due to polarization effects.
- Straightforward sensor calibration without sensor removal directly in flow cell with quick release vessel and user guided dialogue.
- Large backlit LCD display for the reading of 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.
- Two current signal outputs (0/4 – 20mA) for measured signals.
- Data logger for 1'500 data records stored at a selectable interval. (Data download to PC requires optional HyperTerminal interface)



**Monitor AMI Solicon4**  
with optional pressure controller for sample inlet on flow cell.

| Order scheme                     | Monitor AMI Solicon4                                     | A | 2 | 3 | 4 | X | X | X | 0 |
|----------------------------------|--|---|---|---|---|---|---|---|---|
| <b>Power supply</b>              | 85 - 265 VAC / 47 - 63 Hz .....                          |   |   |   |   | 1 |   |   |   |
|                                  | 24 VDC, direct current .....                             |   |   |   |   | 2 |   |   |   |
| <b>Electrical output options</b> | None .....   |   |   |   |   |   |   | 0 |   |
|                                  | Third current signal output 0/4 - 20 mA .....            |   |   |   |   |   |   | 1 |   |
|                                  | Profibus DP interface .....                              |   |   |   |   |   |   | 2 |   |
|                                  | HyperTerminal interface (for data logger download) ..... |   |   |   |   |   |   | 3 |   |
|                                  | Modbus interface (for Webserver connection) .....        |   |   |   |   |   |   | 4 |   |
| <b>Flow cell option</b>          | None .....   |   |   |   |   |   |   |   | 0 |
|                                  | Manual pressure controller for sample inlet .....        |   |   |   |   |   |   |   | 1 |

## Conductivity Measurement

**Swansensor Shurecon P or Shurecon S** with integrated Pt1000 temperature sensor.

| Measuring range               | Resolution            |
|-------------------------------|-----------------------|
| 0.10 to 9.99 $\mu\text{S/cm}$ | 0.01 $\mu\text{S/cm}$ |
| 10.0 to 99.9 $\mu\text{S/cm}$ | 0.1 $\mu\text{S/cm}$  |
| 100 to 999 $\mu\text{S/cm}$   | 1 $\mu\text{S/cm}$    |
| 1.00 to 9.99 $\text{mS/cm}$   | 0.01 $\text{mS/cm}$   |
| 10.0 to 29.9 $\text{mS/cm}$   | 0.1 $\text{mS/cm}$    |
| 30 to 100 $\text{mS/cm}$      | 1 $\text{mS/cm}$      |

Automatic range switching.

**Accuracy**  $\pm 0.5\%$  of measured value

### Temperature compensations

Absolute (none), linear coefficient in  $\%/\text{°C}$ , non linear function (NLF) for natural waters according to EN 27888 / DIN 38404

### Temperature measurement

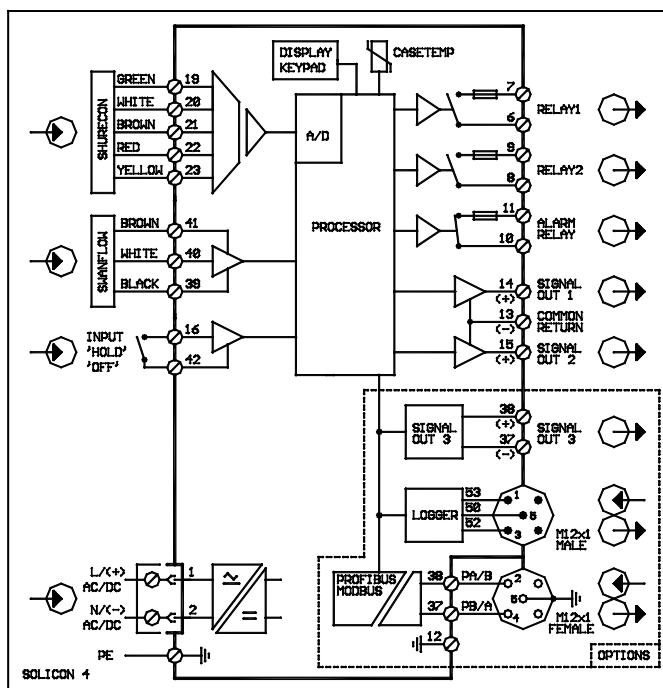
With Pt1000 type sensor.

Measuring range: -30 to +130 $^{\circ}\text{C}$   
Resolution: 0.1 $^{\circ}\text{C}$

### Sample flow measurement

With digital SWAN sample flow meter.

## Electrical Connection Scheme



## 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 $^{\circ}\text{C}$   
Limit range of operation: -25 to +65 $^{\circ}\text{C}$   
Storage and transport: -30 to +85 $^{\circ}\text{C}$   
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 possible.

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.

### Transmitter temperature monitoring

With programmable high/low alarm limits

### Real-time clock with calendar

For action time stamp and preprogrammed actions.

#### 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.

Max. load: 1A / 250 VAC

#### 2 Signal outputs (3<sup>rd</sup> as option)

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  $\Omega$

### 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 with Microsoft HyperTerminal or RS485 interface with Fieldbus protocol Modbus or Profibus DP.

## Monitor Data

### Sample conditions

Flow rate: 4 to 15 l/h  
Temperature: up to 50  $^{\circ}\text{C}$   
Inlet pressure (25  $^{\circ}\text{C}$ ): up to 1 bar with standard flow cell or 0.5 to 10 bar with pressure controller  
Outlet pressure: pressure free

### Sample connections

Inlet: Serto PA 6 mm  
Drain: G 1/2" adapter for flexible tube  $\varnothing$  20 x 15 mm

Panel dimensions: 850 x 280 x 180 mm  
Panel material: white PVC  
Weight: 9.0 kg