Monitor AMI-II Powercon Specific

Data sheet no. DenA23541X00

Complete monitoring system for the automatic, continuous measurement of specific conductivity in ultrapure water.

Application examples

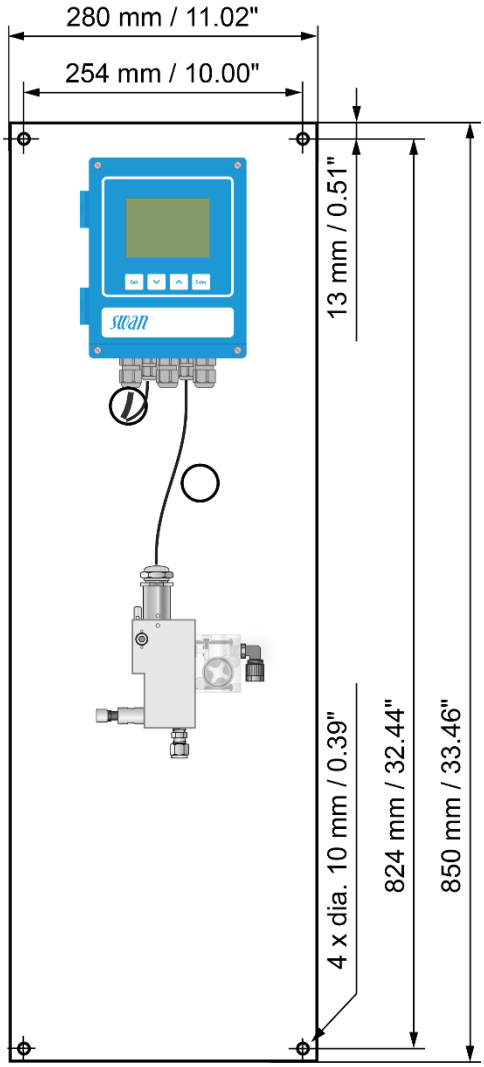
- Monitoring water quality in water cycles of power and industrial plants, as well as in demineralization plants.

Measuring range

- From 0.055 µS/cm to 30 mS/cm.
- Temperature compensations: non-linear for high purity water, neutral salts, strong acids, strong bases, ammonia, ethanolamine, morpholine, cyclohexylamine, 2-amino-2-methylpropanol, 2-diethylaminoethanol, hydrofluoric acid or linear with coefficient.
- Measured value is compensated to 25 °C.

Instrument features

- **Transmitter AMI-II Powercon**
  in a rugged aluminum enclosure (IP66).
- **Flow cell QV-Flow UP-CON SL**
  with patented slot-lock design for quick sensor release, integrated flowmeter for measurement validation and needle valve.
- **Swansensor UP-CON1000 SL**
  Two-electrode conductivity sensor with slot-lock design, integrated Pt1000 temperature probe and a cell constant of 0.04 cm^{-1}.
- Factory tested, ready for installation and operation.



Order numbers:	Monitor AMI-II Powercon Specific	A–23.541._00
Power supply	100 – 240 VAC, 50/60 Hz	1
	10 – 36 VDC	2
Option	RS485 interface with Modbus RTU or Profibus protocol	A–81.470.0X0
	HART interface	A–81.470.030
	Two additional 0/4 – 20 mA signal outputs	A–81.470.040

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Conductivity Measurement

Conductivity sensor type
2-electrode conductivity sensor.

Measuring range	Resolution
0.055 to 0.999 µS/cm	0.001 µS/cm
1.00 to 9.99 µS/cm	0.01 µS/cm
10.0 to 99.9 µS/cm	0.1 µS/cm
100 to 999 µS/cm	1 µS/cm
1.00 to 2.99 mS/cm	0.01 mS/cm
3.0 to 9.9 mS/cm	0.1 mS/cm
10 to 30 mS/cm	1 mS/cm

Automatic range switching.

Accuracy (at 25 °C) ±1% of measured value or ±1 digit (whichever is greater)
Precision (at 25 °C) <1% ±1 digit

Temperature compensation
Non-linear function (NLF) for high purity water, neutral salts, strong acids, strong bases, ammonia, ethanolamine, morpholine, cyclohexylamine, 2-amino-2-methylpropanol, 2-diethylaminoethanol, hydrofluoric acid, linear coefficient 0.00 – 10.00 %/°C, absolute (none).

Auxiliary sensors
- Temperature measurement with Pt1000 type sensor (DIN class A).
  Measuring range: −30 to +250 °C
  Accuracy (0-50 °C) ±0.25 °C
  Resolution: 0.1 °C
- Sample flow measurement with digital SWAN sample flow sensor.

Transmitter Specifications and Functionality

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

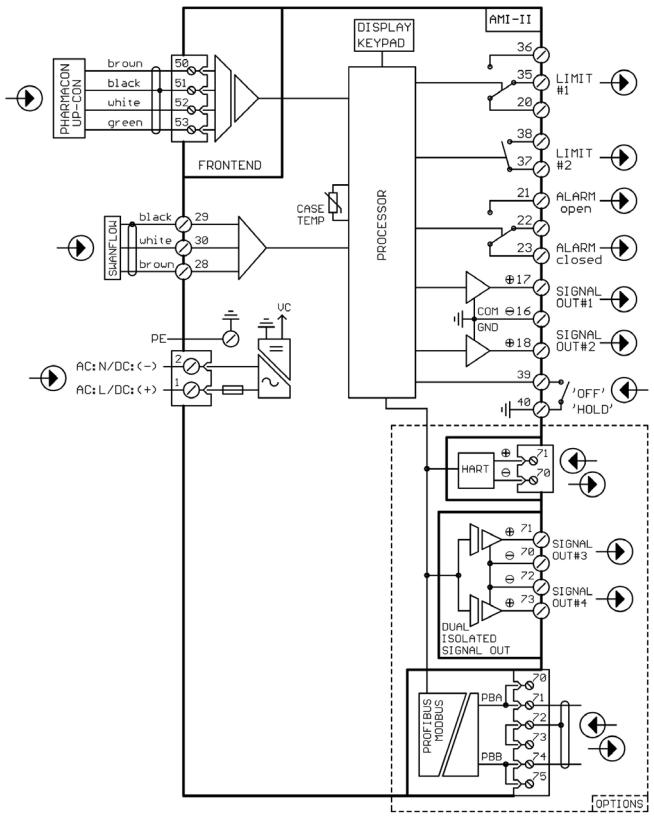
Power supply
AC version: 100 – 240 VAC (±10 %), 50/60 Hz (±5 %)
DC version: 10 – 36 VDC
Power consumption: max. 35 VA

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.

Transmitter temperature monitoring
With programmable high/low alarm limits.

Electrical Connection Scheme



Real-time clock with calendar
For action time stamp and preprogrammed actions

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

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 Ω
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: 3 to 20 L/h
Temperature: 0 to 50 °C
Inlet pressure: max. 2 bar
Outlet pressure: pressure free
No sand, no oil

Sample connections
Sample inlet: Swagelok fitting with R ⅛" (ISO 7-1) thread for ¼" tube OD
Sample outlet: 8 mm Serto tube adapter (PA)

Panel
Dimensions 280 × 850 × 200 mm
Material stainless steel
Total weight 7 kg