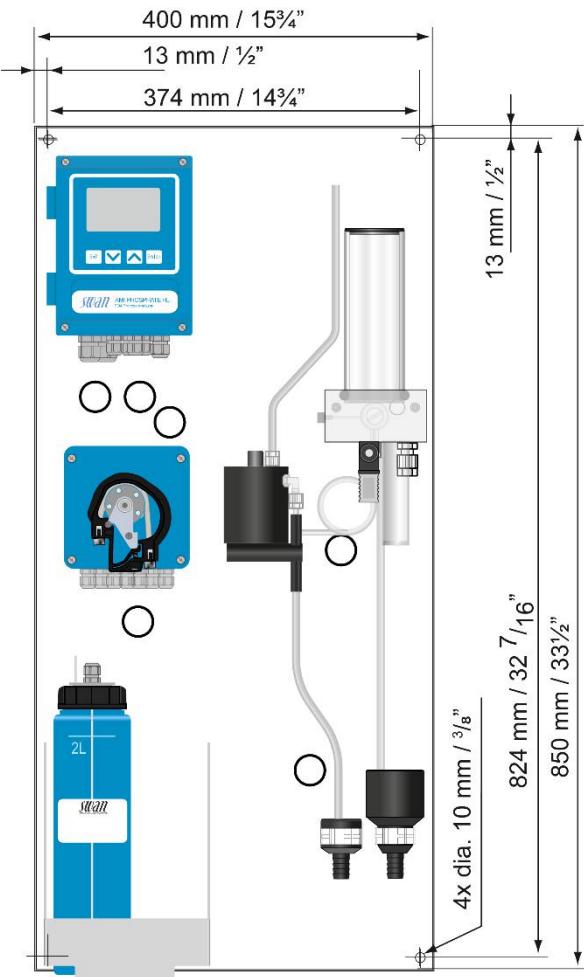


Complete monitoring system for the automatic, continuous measurement of ortho-phosphate in boiler water, district heating, cooling water and waste water.

Monitor AMI Phosphate HL

- Measuring range:
0.1 to 50 ppm (mg/l) as PO_4 or
0.1 to 16 ppm (mg/l) as P- PO_4
- Based on vanadomolybdochosphoric acid colorimetric method according to APHA 4500-P C.
- No interferences with silica.
- Complete system including measurement and control electronics, photometer, flow indicator, reaction chamber, reagent dosing system and reagent container.
- Measurement values are available as analog output signals.
- Alarm display and activation of alarm relay when user defined, critical limits are reached.
- Continuous, automatic monitoring of main instrument functions (sample flow, reagent supply).
- Large back-lit LC display showing all measured values and status information simultaneously.
- Easy user menus in English, German, French and Spanish. Simple programming of all parameters by keypad.
- Data logger for 1'500 data records stored at a selectable interval. (Data download requires optional USB-Stick).
- Factory tested, ready for installation and operation.



Monitor AMI Phosphate HL

Instrument Options

- Communication interface (Profibus, Modbus, 3rd Signal Output, USB, HART)
- 2nd sample stream
- Cleaning-module-II
- AMI Sample Sequencer

| | | |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Order scheme | Monitor AMI Phosphate HL AC | A-25.421.300.0 |
| | Monitor AMI Phosphate HL DC | A-25.422.300.0 |
| Option: | <input type="checkbox"/> 3 rd current signal output (0/4 – 20mA) <input type="checkbox"/> Profibus DP & Modbus RTU interface (RS-485) <input type="checkbox"/> USB interface <input type="checkbox"/> HART interface | A-81.420.050 A-81.420.020 A-81.420.042 A-81.420.060 |
| Option: | <input type="checkbox"/> 2 nd sample stream | A-83.590.043 |

Analytical System

Phosphate (PO₄) measurement

Measuring range: 0.1 to 50.0 ppm as PO₄ Resolution: 0.1 ppm
0.1 to 16.0 ppm as P-PO₄ Resolution: 0.1 ppm

Reproducibility:

0.1 to 10 ppm ± 0.1 ppm or ± 2.5%, whichever is the greater
10 to 50 ppm ± 0.3 ppm or ± 5%, whichever is the greater

Measurement cycle: min. 5 minutes

Flow cell

Made of acrylic glass with water inlet filter and flow adjustment valve.

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:

AC version: 100 - 240 VAC (± 10 %), 50/60 Hz (± 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".

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 interval.

Real-time clock with calendar

For action time stamp and preprogrammed actions.

Safety features

Data storage in non-volatile memory. Over voltage protection of in- and outputs.

Galvanic separation of measuring inputs and signal outputs.

Reagents monitoring

Warning if low level is reached and alarm for lack of reagents.

Temperature monitoring

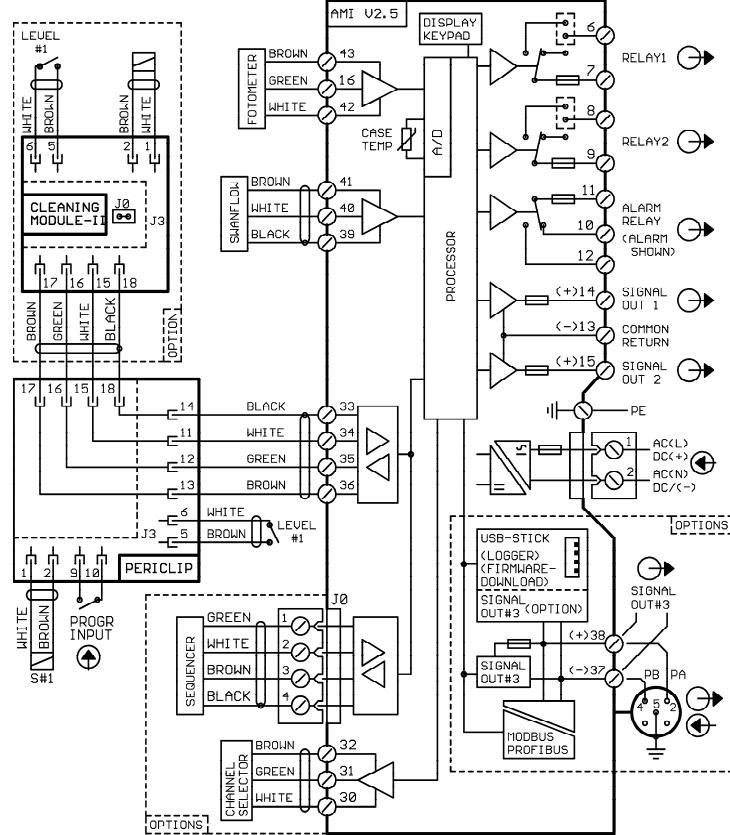
Alarm if the transmitter temperature is higher than +65 °C or lower than 0 °C.

1 Alarm relay

One potential free contact for summary alarm indication for programmable alarm values and instrument faults.

Maximum load: 1A / 250 VAC

Electrical Connection Scheme



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.

Max. load: 1A / 250 VAC

2 Signal outputs (3rd as option)

Two programmable signal outputs for measured values (freely scalable, linear or bilinear) or as continuous control output (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 function

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

Sample and Monitor Data

Sample conditions

Flow rate: min. approx. 10 l/h

Temperature: up to 50 °C

Inlet pressure: 0.15 to 2 bar

Outlet pressure: pressure free, atmospheric drain

Sample connections

Inlet: Serto PVDF 6mm (1/4" thread), for tubing 6x4 mm

Inlet with 2nd sample stream option: 2x Serto PA 6mm (1/8" thread), for tubing 6x4 mm

Drain: Ø 16 mm, tubing 15x20 mm

Panel

Dimensions: 400 x 850 x 200 mm

Material: stainless steel

Weight: 14.5 kg