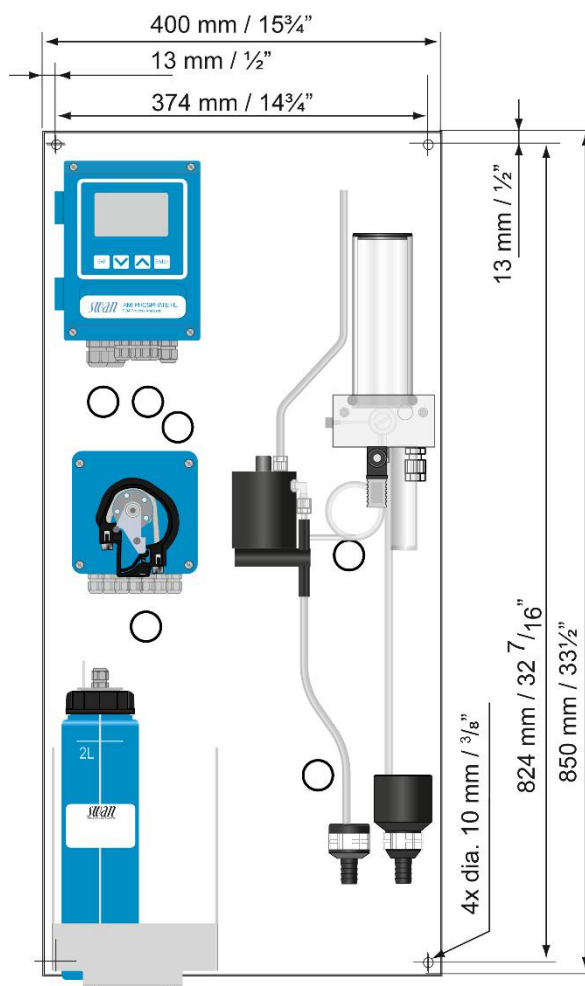


Complete monitoring system for the automatic, continuous measurement of ortho-phosphate in boiler water, district heating, cooling water and waste water.

Monitor AMI Phosphate HL

- Measuring range:
0.1 to 50 ppm (mg/l) as PO₄ or
0.1 to 16 ppm (mg/l) as P-PO₄
- Based on vanadomolybdophosphoric 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)
- 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:	[] 3 rd current signal output (0/4 – 20mA)	A-81.420.050
	[] Profibus DP & Modbus RTU interface (RS-485)	A-81.420.020
	[] USB interface	A-81.420.042
Option:	[] 2 nd sample stream	A-83.590.043

Analytical System

Phosphate (PO₄) measurement

Measuring range: Resolution
0.1 to 50.0 ppm as PO₄ 0.1 ppm
0.1 to 16.0 ppm as P-PO₄ 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 pro-
tection possible.

Display of process value, sample flow,
alarm status and time during operation.

Storage of event log, alarm log and cal-
ibration history.

Storage of the last 1'500 data records in
logger with selectable interval.

Real-time clock with calendar

For action time stamp and prepro-
grammed actions.

Safety features

Data storage in non-volatile memory.
Over voltage protection of in- and out-
puts.
Galvanic separation of measuring in-
puts and signal outputs.

Reagents monitoring

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

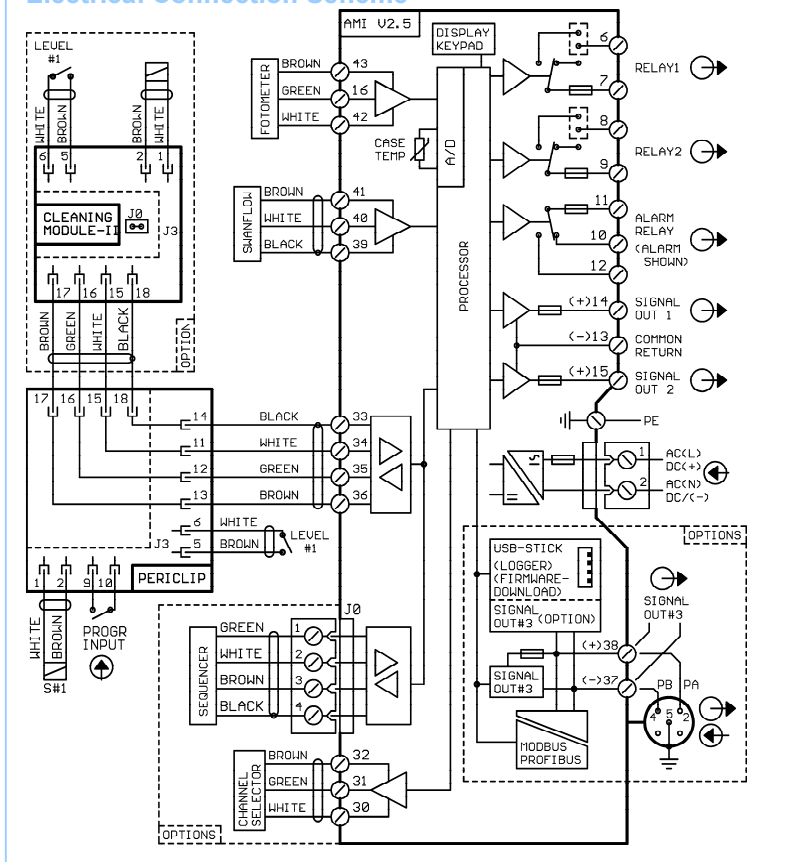
Temperature monitoring

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 func-
tion

2 Relay outputs

Two potential-free contacts program-
able as limit switches for measuring
values, controllers or timer with auto-
matic 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 program-
mable) 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 program-
mable for 1 or 2 pulse dosing pumps, so-
lenoid valves or for one motor valve.
Programmable P, PI, PID or PD control
parameters.

1 Communication interface (option)

- RS485 interface (galvanically sepa-
rated) with Fieldbus protocol Modbus
RTU or Profibus DP
- 3rd Signal output
- USB 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