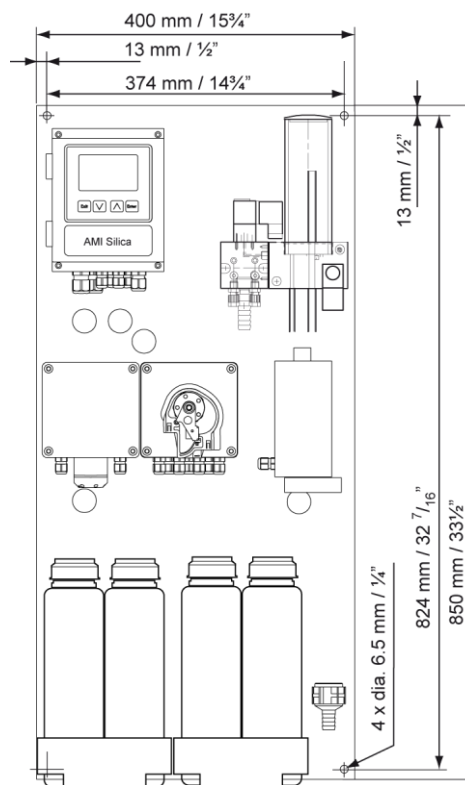


Complete monitoring system for the automatic, continuous measurement of silica in water steam cycles.

Monitor AMI Silica

- Measuring range: 1 to 5'000 ppb
- Based on colorimetric measurement principle.
- Complete system including measurement and control electronics, photometer with integrated reaction chamber, flow indicator, reagent dosing system and reagent containers.
- 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 LCD 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.
- Factory tested, ready for installation and operation.



Monitor AMI Silica

Instrument Options

- Communication interface (RS-232, Profibus, Modbus, 3rd Signal Output).
- 2nd sample stream.

Accessories

- AMI Sample Sequencer, switching up to 6 sample streams.

Order Nr.	Monitor AMI Silica	A-25.431.000
Option 1:	<input type="checkbox"/> 3 rd current signal output (0/4 – 20mA) <input type="checkbox"/> Profibus DP interface <input type="checkbox"/> HyperTerminal interface (RS-232) <input type="checkbox"/> Modbus interface	A-81.410.020 A-81.420.020 A-81.420.010 A-81.420.022
Option 2:	<input type="checkbox"/> 2 nd sample stream	A-83.590.043

Analytical System

Colorimetric, Molybdosilicat method.

Silica measurement

Measuring range: 1 to 5'000 ppb
Reproducibility: ± 1 ppb or $\pm 5\%$,
whichever is greater
Cycle time: 10'
Measurement interval: 10', 15', 20' or 30'

Flow cell

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

Transmitter Specifications and Functionality

Electronics case: Aluminum
Protection degree: IP 66 / NEMA 4X
Display: backlit LCD, 75 mm 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: 100 - 240 VAC ($\pm 10\%$)
50/60 Hz ($\pm 5\%$)
or 24 VDC ($\pm 10\%$)
Power consumption: max. 30 VA

Operation

Easy operation based on separate
menus for "Messages", "Diagnostics",
"Maintenance", "Operation" and "Instal-
lation".

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 time interval.

Safety features

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

Transmitter temperature monitoring

With programmable high/low alarm lim-
its.

Real-time clock with calendar

For action time stamp and pre-
programmed actions.

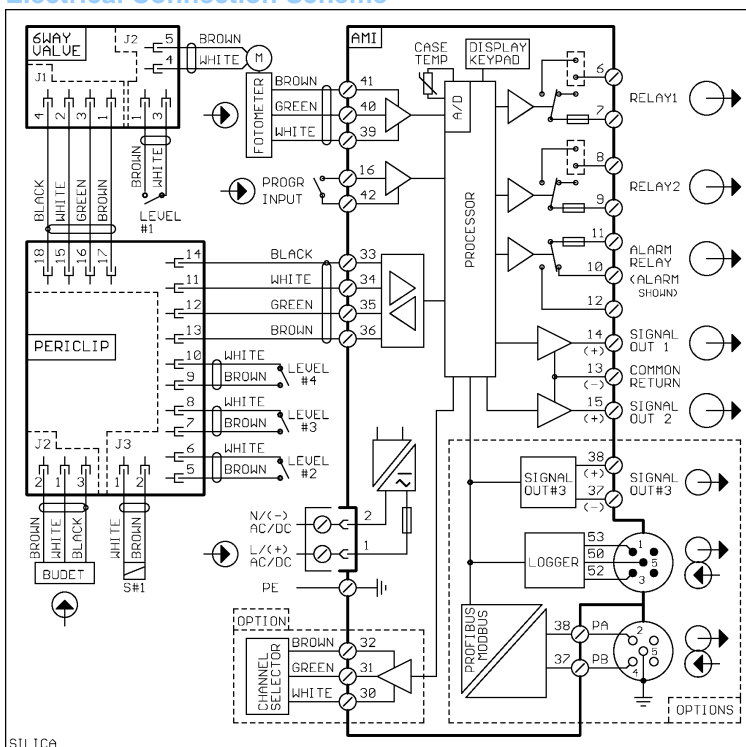
Monitoring of reagent consumption

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

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-
mable as limit switches for measuring
values, controllers or timer with auto-
matic hold function.

Max. load: 1A / 250 VAC

2 Signal outputs

Two programmable signal outputs for
measured values (freely scaleable, lin-
ear or bilinear) or as continuous control
output (control parameters programma-
ble).

Current loop: 0/4 - 20 mA
Maximum burden: 510 Ω

Control function

Relays or current outputs programma-
ble 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)

- RS232 interface for logger download
to PC with SWANterminal
- RS485 interface (galvanically sepa-
rated) with Fieldbus protocol Modbus
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
Phosphate (as PO₄) < 10 ppm

Sample connections

Inlet: Serto PVDF 6 mm (1/8"),
for tubing 4x6 mm
Drain: Ø 16 mm, tubing 15x20 mm

Panel

Dimensions: 400 x 850 x 150 mm
Material: stainless steel
Weight: 16.0 kg