

9210 Silkostat



data sheet

Applications

Monitoring of dissolved silica in :

- Demineralisation plants,
- Power plant boiler water, feedwater and steam

Features

- Multi-channel operation (1 to 6)
- Very low cost of ownership
- Minimal maintenance requirements
- User-friendly menu-operated programming
- Built-in datalogger
- Automatic 2-point calibration (chemical zero and slope)

The 9210 Silkostat, user-friendly multi-channel silica analyzer

■ Chemistry

All reagents used for the Silkostat 9210 are available from the major chemical suppliers worldwide. Their unique composition means that their chemical stability is excellent, an essential factor for reliable and reproducible silica measurement.

The use of high purity silica-free water for reagent preparation is not necessary thanks to the new zero calibration method used by the 9210.

The analytical section of the analyzer has been designed to ensure minimal reagent consumption. The reagent canisters weighing a total of only 6 kg (13 lbs) when full, need replenishment every 45 days.

The integrated design of the Silkostat (analyzer and sequencer controlled by the same electronics) offers real operational advantages and, in addition, the sampling sequence is fully programmable. Analyzer status (such as lack of sample on one of the channels or the unit being in its calibration cycle) is fully monitored by the 9210 microprocessor.

■ Calibration

Calibration can be performed manually or automatically by programming regular calibration intervals. The 9210 uses a real two-point calibration method (zero+slope).

Polymetron has developed its own proprietary chemical zero method.

The zero is performed automatically by the analyzer itself without the need for calibration solutions or resin cartridge. Extensive laboratory tests have shown that, even if there are significant levels of silica present in the reagents or in the sample, the innovative method of zeroing the instrument leads to a negligible offset.

To perform the slope calibration, the analyzer takes a standard solution in place of the sample.

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■ Customer Interface

Comprehensive information is available at a glance from the large display (i.e. silica concentration of up to 6 channels, alarm status or concentration trend curves). Clear messages are displayed and the user is guided through menus and sub-menus with ease.

A built-in datalogger allows measurement values, calibration results and alarm information to be recorded (capacity = 3200 data).

The seven sets of isolated analog outputs can be configured in 0/4-20 mA with capabilities of calibration and simulation of the current. Six outputs can be assigned to sample concentration on any channel. An extra output will report events like calibration occurrence, warning messages or system alarms.

Additional digital communication is available with JBUS/MODBUS or Profibus DP.

■ Alarms and Diagnostics

As the silica analyzer works continuously without manual intervention, receiving a warning in the case of an incident or change in status is critical. The 9210 is equipped as standard with six programmable alarm relays assigned on any channel and reporting one of the following:

- Silica high/low concentration limits
- Minimum flow detection for a channel
- Occurrence of the measurement cycle for a channel

The 9210 also comes with two extra programmable relays allocated to:

- Warning messages (reagent level low, minimum sample flow, small calibration deviation)
- System alarms (no reagent, no sample, no power)

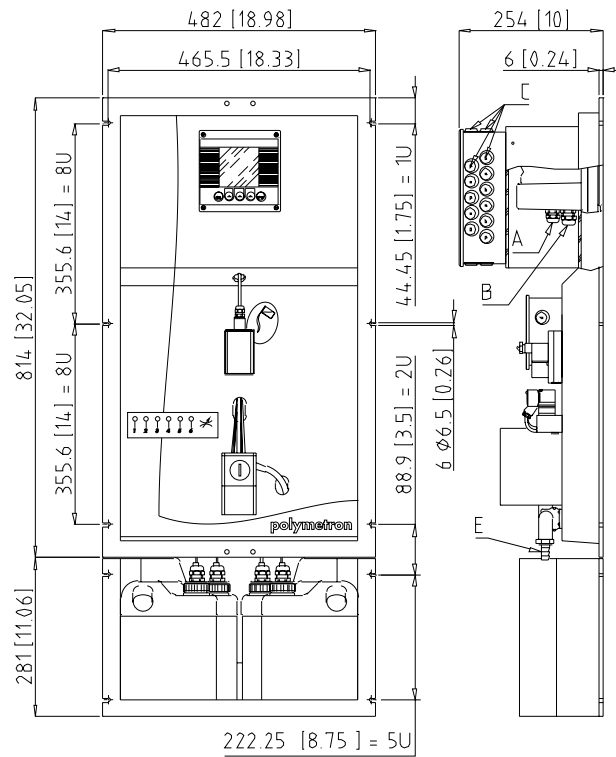
■ Maintenance

- Every 45 days: replenish reagents
- Change reagent tube annually
- Replenish calibration solution as required

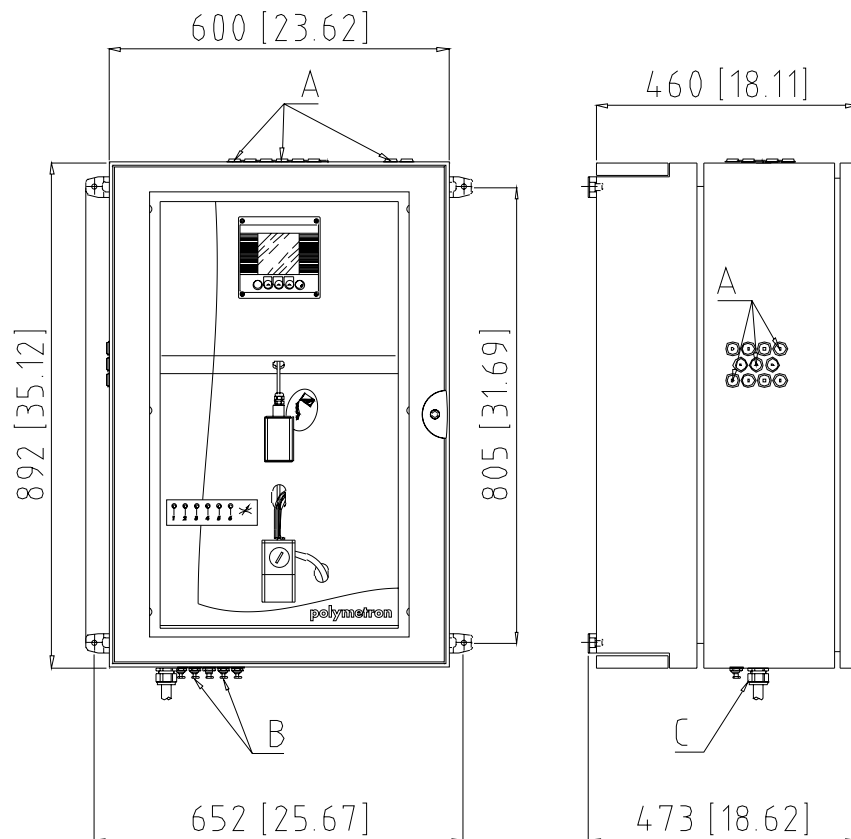
Clear step by step instructions are given by the analyser to simplify maintenance operations such as instrument start-up, long term stand-by, and reagent replenishment.

The analyzer comes in 19" rack format as standard. A wall mounted cabinet is available as an option. Both include a start-up kit and instruction manual in English (other languages available on request).

Panel dimensions



Cabinet dimensions



All dimensions are in mm (inches)

