

Continuous silica analyzer for pure water

Model SLF-103

This instrument is designed for measuring concentration of ionic silica in pure water. The concentration is measured by means of molybdeum blue absorptiometry method in continuous flow analysis. All facilities are packed in a compact plastic case designed for indoor use and surface mounting.

Features

- Measuring method complies with JIS B 8224.
- Simple continuous flow system
- Low reagents consumption
- Less consumables
- Available for 1 or 6 sample streams.

Measuring Principle

Analysis method is based on Molybdeum Blue Absorptiometry. The following chemical reactions progress stepwise in the course of sample flowing continuously through the system, and finally the ionic silica in the sample turns into molybdeum blue. Absorbance of this complex is measured by 830nm of wavelength and compared with the gauge line to determine the concentration of ionic silica in pure water.

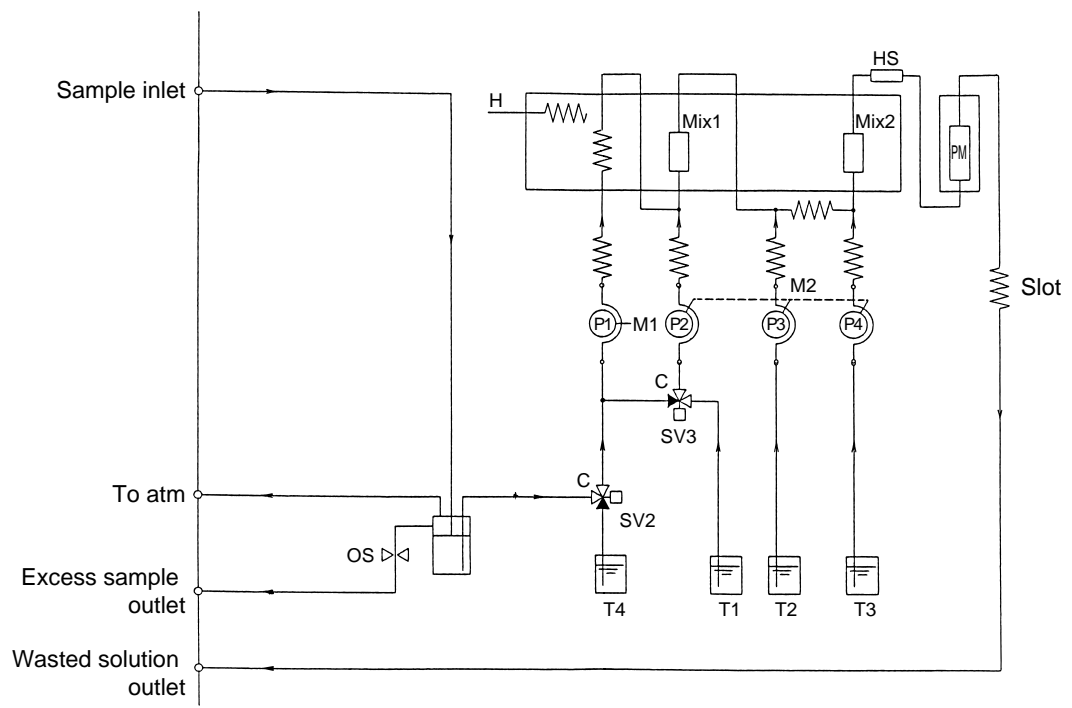
1. Ammonium molybdate mixed with sulfuric acid is added to the sample and reacts with ionic silica in the sample to form silicomolybdate.
2. Oxalic acid is added to this for preventing phosphoric acid, coexistence, from interfering with measuring.
3. Then, ascorbic acid is added to reduce the silicomolybdate and turns it into molybdeum blue.



Standard Specifications

Product name	: Continuous silica analyzer
Model	: SLF-103
Measuring method	: Molybdeum blue absorptiometry.
Applications	: Ultrapure water, pure water, boiler water.
Measuring range	: 0 to 50 µg/L or 0 to 500 µg/L
Sample flow rate	: 50 to 150mL/min
Sample temp.	: 10 to 45
Response time	: Within 15 minutes to 90%
Calibration	: Automatic zero & span cal.
Repeatability	: ±2% on FS
Linearity	: ±3% on FS
Ambient cond.	: Temp. ; 5 to 45 Humidity ; 85%RH max. & no dewing
Outputs	: Isolated 4 to 40mADC (loadresistance ; less 500 , non-isolation between C&H) Output range is adjustable.
Alarm outputs	: Power failure, concentration abnormal, sample failure & system failure. Unpowered relay contacts (AC 250V 1A/DC 30V 2A, resistance load)
Contact outputs	: Calibration, maintenance, range signal (available for 1 stream case only)
Power source	: AC 100V or 110V ± 10%, 50/60Hz
Power required	: 200VA
Construction	: Indoor use, Flat surface mounting.
Outline size	: 400 (W) × 200 (D) × 500 (H)
Weight	: Approx. 8Kg

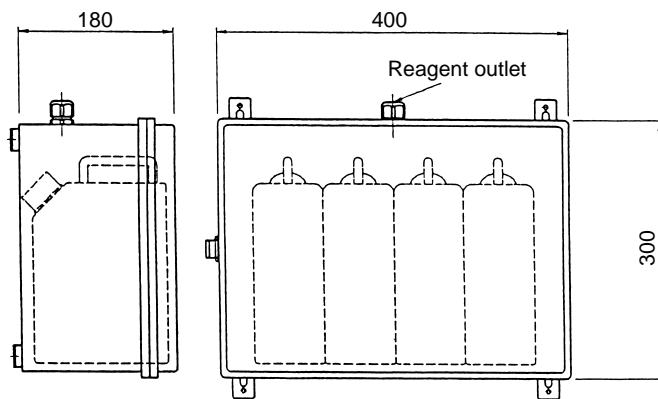
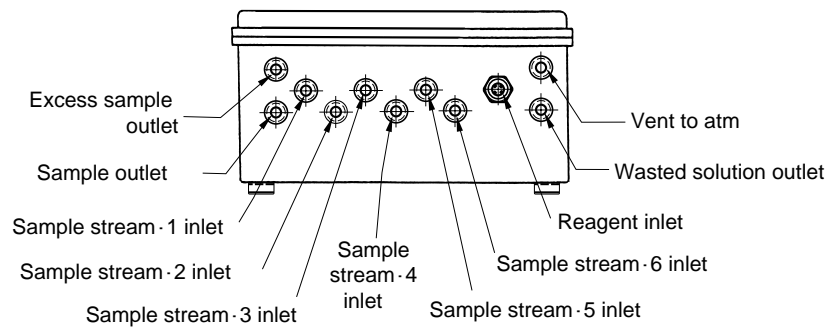
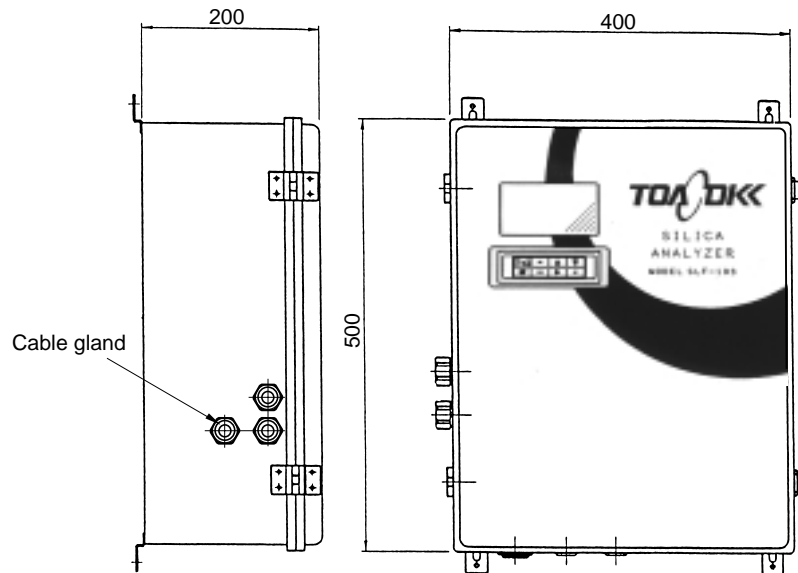
FLOW SHEET



SYMBOL	DESCRIPTION
HS	Heat sink
H	Heater
MIX1, 2	Mixer
M1, 2	Motor
OS	Light sensor
P1	Sample feed pump
P2 ~ P4	Reagent feed pump
PM	Color meter
SV1 ~ 3	Magnetic valve
T1 ~ 3	Reagent tank
T4	Reference solution tank

OUTLINE DIMENSIONS

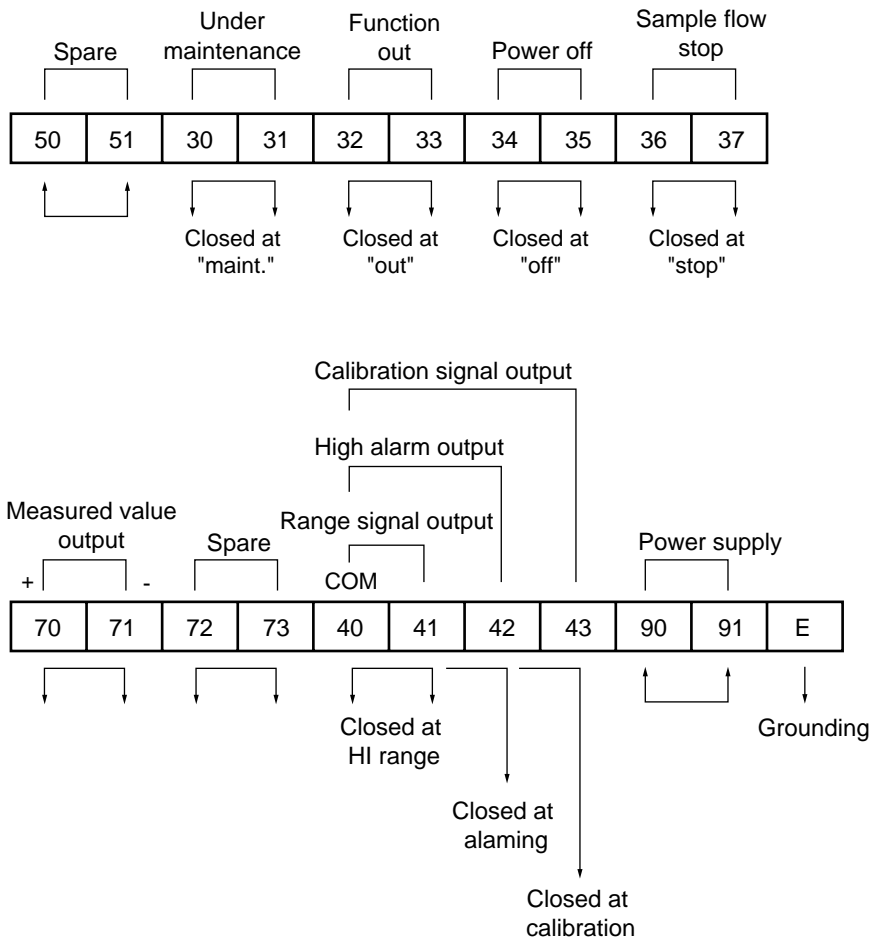
in : mm



Reagent tank enclosure

Optional

TERMINAL CONNECTION



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CAUTION

Do not operate products before consulting instruction manual.

For continuous product improvement, DKK-TOA reserves the right to change specifications without notice.

