

FORMALDEHYDE COLORIMETRIC ANALYZER

Compact online analyzer for measurement of formaldehyde in water

APPLICATION FIELDS

- Paper and wood industry
- Textile
- Productions of resins and adhesives
- Chemical industry



ADVANTAGES / FEATURES

• Different compartments

To ensure complete separation between the electronics (upper case) and the wet part (lower case).

• Automatic calibration / validation / cleaning

Validation, cleaning and calibration are standard features which significantly reduce downtime and operator intervention ensuring the most accurate results are obtained. Free selectable validation, cleaning and calibration intervals.

• Large color touchscreen

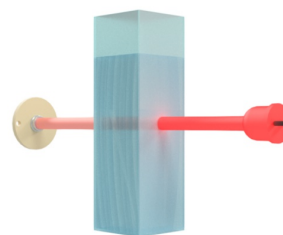
The colorimeter is equipped with a graphic touchscreen interface showing measured values and status information. Easy access to menus and functions. Integrated datalogger with USB download.

• Factory tested, ready for installation and operation

Just connect the power, sample, and reagent lines and the analyzer is fully operational.

• Measurement principle

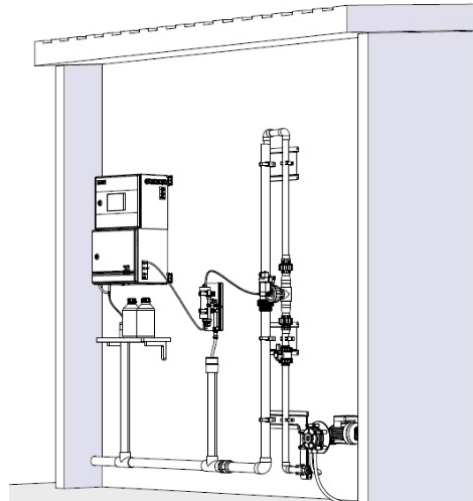
An excess of MTBH (3-methyl-2-benzothiazoline hydrazone) is added to the sample. The reaction between the compound and formaldehyde leads to the formation of an azine. The subsequent addition of the developing solution oxidizes the excess MTBH, the resulting compound reacts with the azine to form a conjugate system which absorb in the red region of the spectrum. The absorbance is proportional to the formaldehyde concentration and it is measured at 660 nm.



TECHNICAL SPECIFICATIONS

Measured parameter	Formaldehyde, CH ₂ O (ppb, ppm, mg/l)
Measuring principle	Differential colorimetric absorbance, MBTH method.
Measuring range	0 to 2 ppm for the 16 mm cell
Reproducibility	± 5%, with standard test solutions (16 mm cell)
Analysis Frequency	Freely programmable, batch near-continuous analysis.
Cycle time	15 minutes, including conditioning before analysis cycle and rinsing after measuring.
Reaction cell	Temperature heated
Sample	Pressure-free vessel Temperature: 5 - 50 °C (41 - 122 °F) Flow Rate: 80 to 500 mL/min Connection: 6 mm (¼-in.)
Drain	Pressure-free, atmospheric drain Connection: 12 mm (½-in.)
N° of streams	1, 2 with integrated switching valve 3, 4 with external sequencer
Dimensions (H x W x D)	604 x 380 x 242 mm (23.6 x 14.8 x 9.4 in)
Weight	Approx. 20 Kg (44 lbs)
Power Supply	Voltage: 100 - 240 VAC 50/60 Hz standard or 24 VDC (option) Power consumption: max. 80 VA
Outputs	2 x 4-20 mA outputs for measured data Modbus RTU RS485
Alarms	2 SPDT programmable potential free relays
Digital Input	Remote start/stop, start extra cycle, skip idle time, emergency stop
Working Temperature	5 - 45 °C (41 - 113 °F)
Humidity	10 to 90% RH (indoor use only)
Installation	Wall mount (standard), bench top support or panel mount (options).
Protection Grade	IP54

INSTALLATION EXAMPLE



The analyzer is easily installed in a minimum amount of wall space.

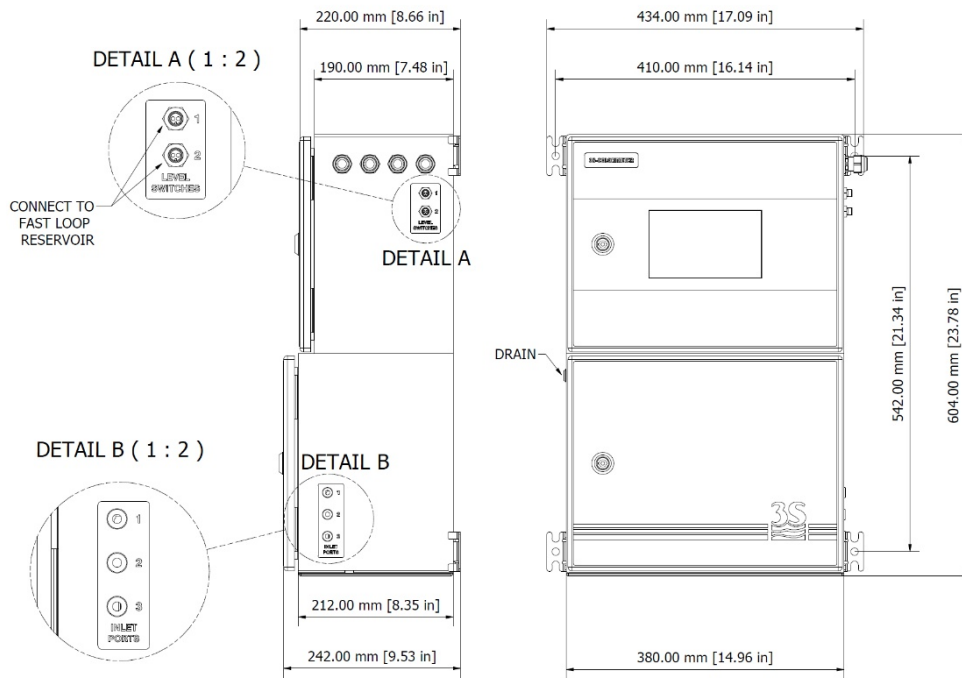
In the picture are included the optional accessories:

- a) A46ERLS000 - Fast Loop external reservoir with level switch
- b) A46SF10020 - Filtration unit 100 micron 230 VAC (other mesh size and input voltages available)
- c) A46SPP0000 - Sampling Pump

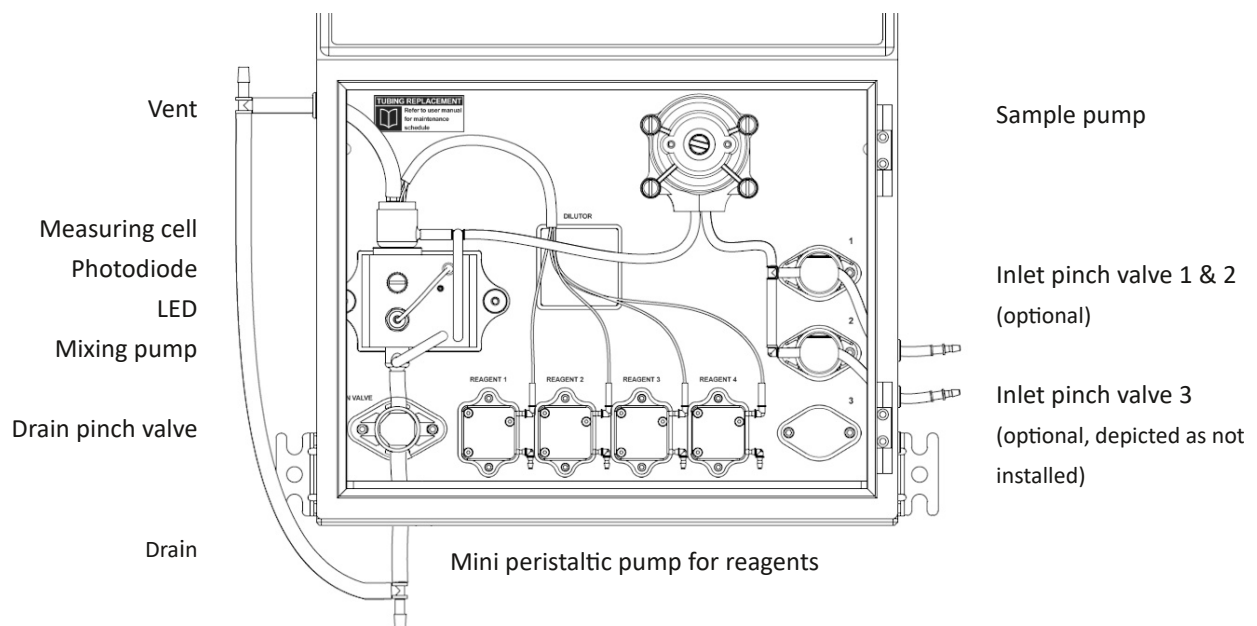
Other accessories, including external dilutors to increase the analyzer range and different kind of sample reservoirs are also available. See our website for more info.



TECHNICAL DRAWING



HYDRAULIC COMPARTMENT VIEW



PRODUCT CODES

CL-2-660-0-16-CH2O	Colorimeter Formaldehyde, one inlet port, 16 mm cell
CL-2-660-2-16-CH2O	Colorimeter Formaldehyde, two inlet ports, 16 mm cell
CL-2-660-3-16-CH2O	Colorimeter Formaldehyde, three inlet ports, 16 mm cell
CL-2-660-0-26-CH2O	Colorimeter Formaldehyde, one inlet port, 26 mm cell
CL-2-660-2-26-CH2O	Colorimeter Formaldehyde, two inlet ports, 26 mm cell
CL-2-660-3-26-CH2O	Colorimeter Formaldehyde, three inlet ports, 26 mm cell