



UV Fluorescent Sulphur Dioxide Analyzer **AF22M**



NEW: on board web server and es@cloud™ user interface with on-line help for the display, configuration, maintenance, diagnostics or software updating of the analyser, remotely, from any PC, tablet or iPhone.



TCP/IP remote control with dynamic, multilingual interface, featuring intuitive navigation by pictograms.



Example of fixed air quality monitoring station with rack version 2M series analyzers.

EXCLUSIVE FEATURES:

- Offers excellent performance for 0.4ppb to 10 ppm SO₂ measurements
- User programmable ranges and average times
- Auto-ranging and automatic response time
- Real time calibration graph
- Full remote emulation of the analyzer
- Graphic Liquid Crystal (LCD) display
- Real-time synoptic flow diagram display
- *Option:* Internal module for H₂S/TRS monitoring (max 1 ppm), configuration for TRS measurement in CO₂ matrix
- Built-in USB port and serial interface (RS 232 / RS 422), Ethernet connection for full remote control and display functions
- Extremely compact, easy to use
- Built-in storage of 12 months 1/4 h average data
- Includes embedded Communication Protocol for XR® Management Software
- Interactive menu-driven display allowing user-friendly and intuitive interface for the operator.
- Compliant with ISO 10498, EN 14212 and VDI 4202

Type approvals:

- > TÜV report n° 936/21206773/C (Germany),
- > US EPA n° EQSA-0802-149 (USA)

MAIN APPLICATIONS:

Continuous indoor and outdoor air quality monitoring • Stationary and mobile AQMS laboratories • Industrial fence-line monitoring • Measurement of impurities in industrial gases • Continuous emissions monitoring (CEM) by dilution • Measurement Campaigns and Monitoring Studies...



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SPECIFICATIONS:

- Ranges: 0-0.1/ 0.2 / 0.5 / 1 / 2 / 5 / 10 ppm or user selectable ranges
- Auto-ranging between two-user specified ranges
- Noise: 0.2 ppb
- Lower detectable limit: 0.4 ppb
- Response time: automatic and programmable (minimum 10 sec)
- Zero drift: < 0.5 ppb / 24 h and < 1 ppb / 7 days
- Span drift: < 0.5 % / 24 h and < 1 % / 7 days
- Linearity: ± 1 % of F.S.
- Pressure and temperature compensation
- Internal sample pump
- Sample flow rate: 0.3 lpm
- Averaging time: programmable from 1 min to 24h
- Data storage: 12 months (1/4h data)
- Chassis: 19" rack mountable, 3U
- Dimensions (L x W x H): 483 x 545 x 133 mm
- Weight: 10 kg (22 lbs)
- Power: 115 V, 60 Hz - 230 V, 50 Hz
- Power consumption: 60 VA
- Operating temperature: 5-40°C
- Digital output: 2 RS 232 or RS 422 ports

Options:

- ESTEL electronic board (1 or 2) with:
 - 4 independent analog inputs
 - 4 independent analog outputs
 - 4 remote control inputs
 - 6 dry contacts outputs
- SOREL electronic board with:
 - 4 dry contacts outputs
 - 4 dry contacts inputs
- Valves block for selection of external zero and span gas
- Built-in permeation bench with SO₂ tube
- 24V DC power supply for on-board applications
- Built-in converter for H₂S monitoring
 - Ranges: 0-0.05/0.1/0.2/0.5/1 ppm or user-selectable ranges
 - Cycle time: SO₂/H₂S: 7 min
 - SO₂ scrubber capacity: 500 ppm/h
 - 3 selectable operating modes: continuous H₂S, continuous SO₂ or cyclic SO₂/H₂S
- Total Reduced Sulphur (TRS) external converter for TRS monitoring (please read the special brochure)
- Tight box version
- 7" color touch screen upon request

Operating principle:

The AF22M sulphur dioxide analyzer, combines years of experience of a wide range of analyzers with an enhanced electronics package and a modular component parts design (measurement module, permeation module, 24V power supply module, analogue input-output module, etc.).

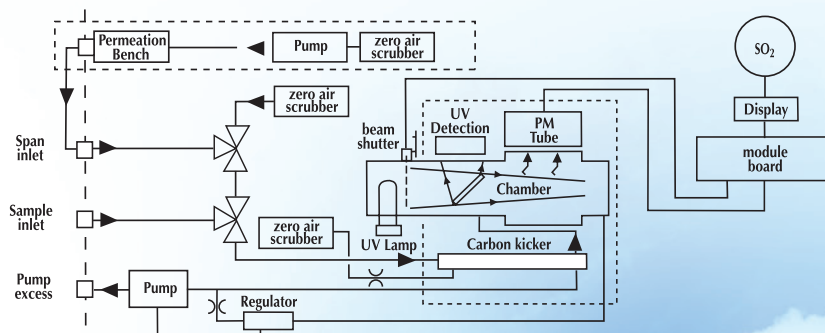
The outcome is an ultra compact and light- rack 3U, easy-to-use analyzer capable of measuring sulphur dioxide at ppb levels. Applied to SO₂ measurement, the universally known UV fluorescent principle consists in detecting the characteristic fluorescence radiation emitted by SO₂ molecules. In the presence of a specific wavelength of UV light (214 nm) the SO₂ molecules reach temporary excited electronic state. The subsequent relaxation produces a fluorescence radiation which is measured by a non-cooled photomultiplier tube (PM).

The analyzer was developed to meet customers' requirement for reduced and easier maintenance. Equipped with an enhanced aromatic hydrocarbon scrubbing system that guarantees complete removal of these interferences, the AF22M also achieves very high sensitivity and stability through the use of an optical shutter to compensate for PM drift.

The AF22M combines a powerful easy-to-use interface with quality components and design technology. Real-time calibration graphs can be displayed during span check operation. Real-time synoptic, auto-diagnostic and maintenance data screens can be displayed while the instrument is operating. As the entire 2M series, the AF22M analyzer integrates an embedded web server featuring intuitive navigation by pictograms and offering quick and easy access to the analyzer, without the use of a special software.

Secured, modern, simple, fast and accessible from any type of browser, the es@cloud™ interface allows the display, configuration, maintenance, diagnostics or software updating of Environnement SA measurement systems or analyzers, remotely, from any PC, tablet or SmartPhone.

From customising menus with shortcut key functions, "favourite" themes and animated diagrams, everything has been designed for a quick familiarisation and a comfortable use of the analyzers: just *plug and play*!



AF22M tight box

Distributed by:

Typical specifications subject to changes without prior notice.

AF22M UK, B01, B02, EN, ISO - R00s - 04/13



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