SYSTRONIK
Messtechnologie

BlueLine®

MULTILYZER STx

Flue gas analyzer

MULTIλYZER® STx

Favourites

Fluegas

CO Ambient measurement

Temperature Measurement

Pressure loss measurement

Bluetooth®

QUALITY MADE BY SYSTRONIK

MULTILYZER STx - the flue gas analyser for measuring small and medium-sized oil, gas and solid fuels fired heating systems according to the German Federal Immission Act and for CO concentration safety checks at gas fired systems. Ideal for servicing solid fuel systems (for example, wood fired systems with temporary CO peaks up to 40,000 ppm) or bivalent, modulating combined heating and power plants.

The MULTILYZER STx is a portable flue gas analyser with robust protective sleeve, integrated holding magnet and a large TFT color display, which allows to show up to 8 measured values. In addition, the MULTILYZER STx has an automatic instrument check during program start and a limit value monitoring to protect the sensors. The compact design allows the device to be equipped with any combination of up to six measuring cells (O_2, CO/H_2, CO_{HIGH}, NO, NO_2, SO_2). The oxygen ECO sensor has an extended lifetime and is resistant against biogenic fuels.

Calculated parameters are CO undiluted (air-free), lambda, CO_2, Eta efficiency, flue gas loss, dew point and temperature difference. The CO measuring cell is H_2-compensated for official measurements. Via the Datalogger function long-term measurements with freely definable intervals can be made. An easy and fast communication with PCs, smartphones, tablets and printers is achieved via QR codes or interfaces such as Bluetooth®, infrared and USB.

Funktionality

Measurement of:
- O_2 (oxygen)
- CO_{HIGH} (carbon monoxide)
- CO/H_2 (H_2-compensated)
- NO (nitrogen oxide)
- NO_2 (nitrogen dioxide)
- SO_2 (sulfur dioxide)
- Differential/Draft pressure
- T_{air} (ambient temperature)
- T_{gas} (flue gas temperature)
- T_{gas} (differential temperature measurement)
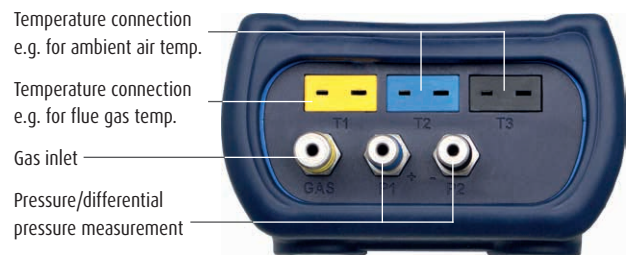- Barometric pressure

Calculation of:
- CO_2 (carbon dioxide)
- CO undiluted
- Difference in temperature
- Combustion efficiency
- Lambda (excess air)
- Ratio (for UK and AU only)
- Flue-gas losses
- CO_{ref} (with O_{2ref} to configure)
- T_{au} (dewpoint)
- NO_X ($NO+NO_2$)
- NO_{ref}
- SO_{2ref}

The clearly structured drop-down menu with colored icons appears immediately after activating the MULTILYZER STx. Via the intuitive navigation keys the following programs can be selected: flue gas analysis, temperature measurement, CO ambient measurement, pressure measurement, pitot measurement (option), instrument settings and memory management. When using the flue gas analysis function, the fuel type is initially selected from a list. The MULTILYZER STx allows simultaneous measurement, navigation, charging and evaluation of measurement results at the same time.

Allrounder for all measurements

Protective holster with magnets

TFT color display

Enter key
Escape key
Navigation key

Print key
Pause key
Favorite key
On/off key

Connection plug for flue gas
Differential/pressure measurement (draft)

235 mm

90 mm

microSD card slot
USB port
Loudspeaker
Infrared port for EUROprinter

53 mm

Top view

Temperature connection e.g. for ambient air temp.
Temperature connection e.g. for flue gas temp.
Gas inlet
Pressure/differential pressure measurement

Bottom view

Clearly structured and field-proven display
The MULTILYZER STx has a 3.5" (8.9 cm) TFT color display with a resolution of 240 x 320 pixels. The various measurement menus are each displayed in their own unique color, which simplifies navigation. The display's large viewing angle, clarity and backlight ensure that the data and measurement values displayed are clearly visible under all circumstances.

EN50379 part 1 and 2
The EN50379 is the European standard in which the permissible measurement techniques, for measurements of combustion appliances, are specified. The MULTILYZER STx has EN50379 part 1 and 2 certification for measuring O_2, CO/H_2, CO_{HIGH}, NO, temperature and pressure.

Technical specifications

O_2 (oxygen)

Measuring range	0 to 21.0 vol.-%
Accuracy	±0.2 vol.-% RDG
Resolution	0.1 vol.-%
Response delay (t90)	< 30 seconds

CO (carbon monoxide) with H_2-compensation

Measuring range	0 to 10,000 ppm
Accuracy	±5 ppm (< 50 ppm)
	±5 % RDG (> 50 ppm)
Resolution	1 ppm
Response delay (t90)	< 60 seconds

CO_2 (carbon dioxide) calculated

Measuring range	0 to CO_2 max. (depending on fuel)
Accuracy	±0.2 vol.-%
Resolution	0.1 vol.-%
Response delay (t90)	< 30 seconds

Flue gas temperature

Measuring range	0 to +1,150 °C
Accuracy	±1 °C + 1 digit (< 300 °C)
	±1 % RDG (> 300 °C)
Resolution	0.1 °C
Response delay (t90)	< 30 seconds

Ambient air temperature

Measuring range	-20 to 200 °C
Accuracy	±3 °C + 1 digit (-20 to 0 °C)
	±1 °C + 1 digit (0 to 200 °C)
Resolution	0.1 °C
Response delay (t90)	< 30 seconds

Draft/differential pressure

Measuring range	±70 hPa (draft) / ±150 hPa (diff. pressure)
Accuracy	±0.02 hPa (< 2 hPa)
	±1 % RDG (> 2 hPa)
Resolution	0.01 hPa (< 20 hPa)
	0.1 hPa (> 20 hPa)
Max. overload	1,350 hPa
Response delay (t90)	< 10 seconds

Pitot

Measuring range	0.5 to 70 m/s
Accuracy	±0.8 m/s
Resolution	0.1 m/s
Response delay (t90)	< 20 seconds

Barometric pressure

Measuring range	500 to 1,150 hPa
Accuracy	±10 hPa
Resolution	1 hPa
Response delay (t90)	< 60 seconds

Options

NO (nitrogen oxide)

Measuring range	0 to 5,000 ppm
Accuracy	±5 ppm (< 50 ppm)
	±5 % RDG (> 50 ppm)
Resolution	1 ppm
Response delay (t90)	< 60 seconds

NO_{low} (nitrogen oxide)

Measuring range	0 to 300 ppm
Accuracy	±2 ppm (< 40 ppm)
	±10 % RDG (> 40 ppm)
Resolution	0.1 ppm
Response delay (t90)	< 60 seconds

NO_2 (nitrogen dioxide)

Measuring range	0 to 500 ppm
Accuracy	±10 ppm (< 50 ppm) / ±5 ppm[1] (< 100 ppm)
	±10 % RDG (> 50 ppm) / ±5 % RDG[1] (> 100 ppm)
Resolution	0.1 ppm
Response delay (t90)	< 60 seconds / < 180 seconds[1]

SO_2 (sulfur dioxide)

Measuring range	0 to 5,000 ppm
Accuracy	±10 ppm (< 200 ppm) / ±5 ppm[1] (< 200 ppm)
	±5 % RDG (> 200 ppm)
Resolution	1 ppm
Response delay (t90)	< 60 seconds / < 180 seconds[1]

SO_2x (sulfur dioxide)

Measuring range	0 to 2,000 ppm
Accuracy	±5 ppm (< 200 ppm)
	±10 % RDG (> 200 ppm)
Resolution	0.1 ppm
Response delay (t90)	< 60 seconds

CO_2 (carbon dioxide)

Measuring range	0 to 20 vol.-%
Accuracy	±1 vol.-%
Resolution	0.1 vol.-%
Response delay (t90)	< 60 seconds

CO_{high} (carbon monoxide)

Measuring range	0 to 4.0 vol.-% (= 40,000 ppm)
Accuracy	±10 ppm
	±5 % RDG
Resolution	0.001 vol.-%
Response delay (t90)	< 60 seconds / < 180 seconds[1]

1) with extended flue gas treatment (e.g. MAXISYSTEM ST)

Savety

Safety and security are important aspects in all BlueLine®
measuring instruments. For safety of the occupants/users of
the building where the central heating system is located, the
MULTILYZER STx offers a special function for measuring the
concentration of carbon monoxide in the surrounding air. This
will enable you to recognize a malfunction in the central
heating system and make repairs in time.

When starting up, the MULTILYZER STx performs a check, to
ensure proper functioning of your instrument. All sensors are
checked, the condition of the battery is displayed and, if the
calibration date has been exceeded, a message to this effect
will be displayed.

The MULTILYZER STx is fitted with a condensate cartridge. This
part has been placed in the sampling line, so that the user can
properly see when the cartridgen needs to be emptied. A dust
filter and a PTFE-filter have also been fitted in the condensate
cartridge. The PTFE-filter prevents the condensate water from
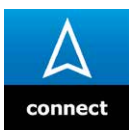reaching the sensors.

General specifications	
Dimensions H x W x D	220 x 90 x 53 mm
Weight	between 625 and 685 g
Material housing	Plastic (PA)
Display type	3.5" TFT (240 x 320 pixels)
Air pressure range	750 to 1,100 hPa
Humidity range	20 to 80 % rh
Operating temperature	0 to 40 °C
Storage temperature	-20 to 50 °C
Data interface	Bluetooth® QR code generator microSD card Wireless IR connection with optional EUROprinter
Connection	Gas: 1x Ø 8 mm Pressure: 2x Ø 7 mm Temperature: 3x Thermocouple socket
Power supply	Mini USB mains unit (5 V)
Battery type	rechargeable li-ion battery 3.6 V / 2,900 mAh
Memory type	optional microSD card up to 16 GB
Ingress protection rating	IP42 (EN 60529)

Maximum flexibility in data documentation

The free EuroSoft® connect App allows to transmit measured
values to smartphones, tablets or PCs via QR code or Bluetooth®.

All BlueLine® measuring instruments can be used together with
this app for documentation and visualisation of "live" measurement
results, logs and long-term measurements. Ideal for adjustment
and documentation with the optional data logger function.
Measurements can be shared in multible ways (e.g.: cloud services,
email, etc.). The evaluation software can be used on iOS, Android
or Windows operating systems.

Modular probe system with interchangeable probes

Base handle for interchangeable probes

Base handle with hose and condensate filter cartridge

Interchangeable probe, 180 mm

Interchangeable probe, 300 mm

Flexible probe, 400 mm

PTFE-filter

The MULTILYZER STx's condensate cartrigde contains a PTFE-filter, which functions as an additional safeguard against condensation.

Dust filter

The condensate cartridge also contains a dust filter that protects the flue gas analyzers against dust and soot particles.

ℹ️ Dust and other particles can impair the instruments if they reach the sensors. The dust filter should be replaced periodically to guarantee proper operation.

Thermal printer EUROprinter

Compact printer with four magnets at the back for hands-free operation. Infrared interface for easy connection of all BlueLine® series measuring instruments. Documents all measured results on paper for official purposes - anywhere.

Accessories included: batteries, 1 roll printer paper and user's manual

Printer paper for EUROprinter

5 rolls thermo printer paper

Quality since 1987

SYSTRONIK GmbH is specialized in development and production high quality measuring instruments for flue gas analysis, testing and maintaining HVAC installations, climate and environmental technology. All SYSTRONIK products satisfy the highest standards for quality, reliability and safety.

Our facilities are certified to full operational requirements of the ISO 9001 quality standard. We are constantly striving to improve our quality assurance position with input from periodic audits by independent experts required for continued certification.

Distributor:

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