

	MULTILYZER STx
Systronik Article No.	M047 ...
Oxygen (O₂) measurement	
Range	0 ... 21 Vol.-% (UK, IN, AU: 0 ... 20.9 Vol.-%)
Accuracy	±0.2 Vol.-% RDG
Resolution	0.1 Vol.-% (CN: 0.01 Vol.-%)
T90	<30 seconds
Sensor Type	Electrochemical cell (4Ox_LL)
Carbon Monoxide (CO) measurement with H₂ compensation	
Range	0 ... 10,000 ppm
Accuracy	±5 ppm (<50 ppm) ±5 %RDG (>50 ppm)
Resolution	1 ppm
T90	<60 seconds
Sensor Type	Electrochemical cell (A5F+)
Carbon Monoxide (CO_{high}) measurement	
Range	0 ... 4.0 Vol.-% (= 40,000 ppm)
Accuracy	±10 ppm ±5 % RDG
Resolution	0.001 Vol.-% (CN: 1 ppm)
T90	<60 seconds
Sensor Type	Electrochemical cell (4MF)
Nitrogen Oxide (NO) measurement	
Range	0 ... 5,000 ppm
Accuracy	±5 ppm (<50 ppm) ±5 % RDG (>50 ppm)
Resolution	1 ppm
T90	<60 seconds
Sensor Type	Electrochemical cell (5NF)
Nitrogen Oxide (NO_{low}) measurement	
Range	0 ... 300 ppm
Accuracy	±2 ppm (<40 ppm) ±10 % RDG (>40 ppm)
Resolution	0.1 ppm
T90	<60 seconds
Sensor Type	Electrochemical cell (5NFL)

Nitrogen Dioxide (NO ₂) measurement	
Range	0 ... 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
T90	<60 seconds / <180 seconds ¹⁾
Sensor Type	Electrochemical cell (5ND)
Sulfur Dioxide (SO ₂) measurement	
Range	0 ... 5,000 ppm
Accuracy	±10 ppm (<200 ppm) / ±5 ppm ¹⁾ (<200 ppm) ±5 % RDG (>200 ppm)
Resolution	1 ppm
T90	<60 seconds / <180 seconds ¹⁾
Sensor Type	Electrochemical cell (5SF); approx. 3% CO cross sensitivity, compensated by software
Sulfur Dioxide (SO ₂ X) measurement	
Range	0 ... 2,000 ppm
Accuracy	±5 ppm (<200 ppm) ±10 % RDG (>200 ppm)
Resolution	0.1 ppm
T90	<60 seconds
Sensor Type	Electrochemical cell (5SC); approx. 0.3% CO cross sensitivity, compensated by software
Carbon Dioxide (CO ₂) measurement	
Range	0 ... 20 Vol.-%
Accuracy	±1 Vol.-%
Resolution	0.1 Vol.-%
T90	<60 seconds
Sensor Type	NDIR cell (COZIR)
Carbon Dioxide (CO ₂) measurement (calculated)	
Range	0 ... CO ₂ max
Accuracy	±0.2 Vol.-%
Resolution	0.1 Vol.-%
T90	<30 seconds
Sensor Type	Calculation from O ₂ sensor

Draft / Differential pressure measurement	
Range	±70 hPa (Draft) / ±150 hPa (diff. pressure)
Accuracy	±0.02 hPa (<2.00 hPa) ±1 % RDG (>2.00 hPa)
Resolution	0.01 hPa (<20 hPa) 0.1 hPa (>20 hPa)
Max. overload	1350 hPa
T90	<10 seconds
Sensor Type	Piezoresistive sensor
Pitot measurement	
Range	0.5 ... 70 m/s
Accuracy	±0.8 m/s
Resolution	0.1 m/s
T90	<20 seconds
Sensor Type	Piezoresistive sensor
Barometric pressure measurement	
Range	500 hPa ... 1150 hPa
Accuracy	±10 hPa
Resolution	1 hPa
T90	<60 seconds
Sensor Type	Absolute pressure sensor
Flue Gas Temperature measurement	
Range	0 °C ... +1,150 °C
Accuracy	±1 °C + 1 digit (<300 °C) ±1 % RDG (>300 °C)
Resolution	0.1 °C
T90	<30 seconds
Sensor Type	Thermocouple Type-K (NiCr-Ni)
Ambient Temperature measurement	
Range	-20 °C ... +200 °C
Accuracy	±3 °C + 1 digit (-20 < 0 °C) ±1 °C + 1 digit (0 < +200 °C)
Resolution	0.1 °C
T90	<30 seconds
Sensor Type	Thermocouple Type-K (NiCr-Ni)

Abbreviations: RDG = deviation of reading value, ppm = particle per million, Vol.-% = percent of volume
1) with extended flue gas treatment (e.g. MAXISYSTEM ST)

Subject to technical changes!



General Data	
Display	3.5" TFT (240 x 320 Pixel)
Connections	
Gas:	1 x Ø 8 mm
Pressure:	2 x Ø 7 mm (Benelux: Ø 8 mm)
Temperature:	3 x Thermocouple socket
Memory Media	microSD memory card (<16 GB)
Data Interface	Bluetooth Smart (2.4 GHz; max 2.5 mW / 4 dBm) IR (EUROprinter) QR-Code
Measurement Units	
Gas:	Vol.-%, ppm, mg/m ³ , mg/kWh, mgMJ
Pressure:	Pa, hPa, kPa, mbar, bar, mmWs, mmHg, inHg, psi
Temperature:	°C, °F
Battery / Power Supply	Rechargeable Lithium-Ion battery (3.6 V / 2,900 mAh) / External Power Adapter
Power Supply / Charger Mode	Via USB socket and AC-Adapter (no data transfer via USB port possible)
Expected Operating Time (Measuring Mode)	12 hours ('Eco' Mode) 8 hours ('Normal' Mode)
Operating Temperature	+0 °C ... +40 °C
Storage/Transport Temperature	-20 °C ... +50 °C
Air pressure range	750 hPa ... 1100 hPa
Humidity range	20 % to 80 % rH
Housing Material	Plastic (PA)
Housing Color	RAL 5015 (sky blue)
Dimensions (HxWxD)	220 x 90 x 53 mm (incl. Protection Case)
Protection Rating	IP42 (DIN EN 60529)
Weight	625 g – 685 g (depending on sensors)
Protection Case Material	Soft Plastic (TPE)
Protection Case Color	RAL 5011 (steel blue)
Keypad	Foil Keypad (7 buttons)
Keypad Color	RAL 7021/5015/4008/9016
Directives & Standards	2014/30/EU (CE), DIN EN 50379, VDI 4206, WEEE/RoHS, 2014/53/EU (RED)
EMC	DIN EN 50270:2015-10
Interference:	DIN EN 55022
Noise immunity:	DIN EN 61000-4-3
ESD:	DIN EN 61000-4-2
Approvals, tests and conformities	1. & 44. BImSchV, TÜV Süd tested (VDI 4206)

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