

OVERVIEW OF TECHNICAL DATA

ecom-ST		Resolution	Accuracy	Standard	Option
Gas Sensors				✓	•
Available sensors					6
O ₂	O ₂ (0 - 21 %) - electrochemical	0,01 vol. %	± 0,3 vol. %	✓	
CO	CO (H ₂ -komp. 0 - 10.000 ppm) - electrochemical	1 ppm	± 20 ppm / 5 % of measured value*	✓	
	CO % (0 - 63.000 ppm) - electrochemical	5 ppm	± 100 ppm or 10 % of measured value*	•	
CO ₂	CO ₂ (0 - 20 %) - NDIR** sensor	0,1 vol. %	± 0,5 vol. % / 5 % of measured value*	•	
	CO ₂ (0 - 100 %) - NDIR** sensor	0,1 vol. %	± 5 vol. % measurement range end value	•	
NO _x	NO (0 - 5000 ppm) - electrochemical	1 ppm	± 5 ppm / 5 % of measured value*	•	
	NO _{ExtraLow} (0 - 300 ppm) - electrochemical	0,1 ppm	± 2 ppm / 5 % of measured value*	•	
	NO ₂ (0 - 1000 ppm) - electrochemical	1 ppm	± 5 ppm / 5 % of measured value*	•	
	NO _{2Low} (0 - 100 ppm) - electrochemical	0,1 ppm	± 5 ppm / 5 % of measured value*	•	
SO ₂	SO ₂ (0 - 5000 ppm) - electrochemical	1 ppm	± 5 ppm / 5 % of measured value*	•	
	SO _{2Low} (0 - 100 ppm) - electrochemical	0,1 ppm	± 5 ppm / 5 % of measured value*	•	
H ₂	H ₂ (0 - 20.000 ppm) - electrochemical	1 ppm	± 100 ppm or 5 % of measured value*	•	
H ₂ S	H ₂ S (0 - 1000 ppm) - electrochemical	1 ppm	± 10 ppm / 5 % of measured value*	•	
C _x H _y	CH ₄ (0 - 5 %) - NDIR**-Sensor	0,01 vol. %	± 0,2 vol. % / 5 % of measured value*	•	
	C _x H _y (0 - 4 %) - catalytic	0,01 vol. %		•	
Other Sensors Indication possibilities		Resolution	Accuracy		
T-Gas	0 - 500 °C	0,1 °C	± 2° C (0-125 °C) / ± 3° C (125-250 °C) / ± 4° C (250-500 °C)	•	
T-Air	0 - 99 °C	0,1 °C	± 1° C	✓	
Pressure ΔP	± 100 hPa	0,01 hPa	± 2 %	✓	
Calculated Values					
CO ₂ - 0...CO _{2 max}				✓	
Combustion efficiency (ETA) - 0...120 %				✓	
Excess air (Lambda) - > 1				✓	
Losses - 0...100%				✓	
CO _(U) undiluted - x ppm				✓	
Dew point - x °C				✓	
mg/m ³ - x mg/m ³				✓	
mg/KWh - x mg/KWh				✓	
O ₂ - reference - x % O ₂				✓	
Gas Preparation					
Electronic condensation monitoring, automatic condensation evacuation, electric gas cooler				✓	
Safety					
Temperature trend indication for stream core search				✓	
Automatic self-test during calibration phase				✓	
Integrated flow meter for control of pump performance				✓	
Sampling System (probe)					
Unheated sampling probe, type SU				•	
Heated sampling system incl. PTFE filter and thermocouple (for heated sampling system)				•	
Gas Transport (tubing)					
NO _x special tubing with PTFE inner sleeve				•	
Heated tubing (in connection with heated sampling system)				•	
Data Indication / Transfer					
Slot for MM card; data logging function				✓	
Data transfer with free ecom PC based software				✓	
MODBUS RTU via RS485 or Modbus TCP via Ethernet				✓	
Programmable measurement cycles per day ranging from 22 measurements (every 65 minutes) up to 144 measurements (every 10 minutes)				✓	
User Friendliness					
Remote access to sensors and operating hours				✓	
Easy on-site maintenance for consumables				✓	
Allows for on-site calibration				✓	
Auto-zero feature for sensors via magnetic fresh air purge valve				✓	
Interfaces					
Network connection COM module, Modbus TCP				✓	
RS485 for COM module protocol, Modbus RTU				✓	
USB interface for data transfer to ecom DAS software via USB cable with length 2 m				✓	
Analog output 8 x 4... 20 mA				•	
Data Indication / Input					
TFT colour display 78 x 58 cm, 320 x 240 pixels, backlit, graphic-/zoom-capable				✓	
Keypad with alphanumeric input function				✓	

* Higher value prevails
** NDIR = nondispersive infrared technology