OVERVIEW OF TECHNICAL DATA

ecom-ST			√ Standard • Option
Gas Sensors	**Resolution**	**Accuracy**	
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*	•
	$NO_{2\ Low}$ (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*	•
	$SO_{2\ Low}$ (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_2S	H_2S (0 - 1000 ppm) - electrochemical	1 ppm	± 10 ppm / 5 % of measured value*	•
C_xH_y	CH_4 (0 - 5 %) - NDIR**-Sensor	0,01 vol. %	± 0,2 vol. % / 5 % of measured value*	•
	C_xH_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/m³ - x mg/m³				√
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)				
Silicone multi-chamber 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 0… 20 mA				•
Data Indication / Input				
TFT colour display 78 x 58 cm, 320 x 240 pixels, backlit, graphic-/zoom-capable				√
Keypad with alphanumerical input function				√

* Higher value prevails
** NDIR = nondispersive infrared technology