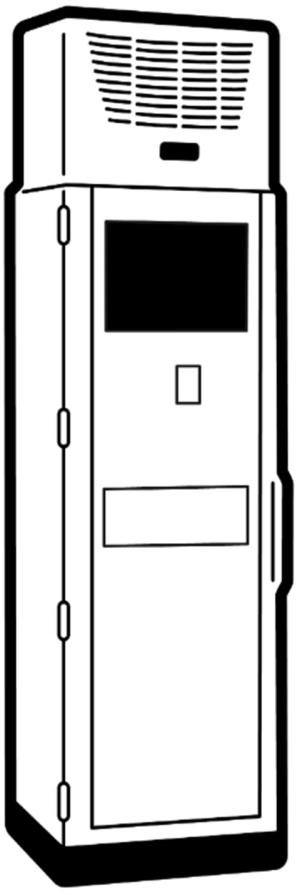
v2.04



Continuous Emissions Monitoring System CEMS II e

Gasmet CEMS II e is an extractive emission monitoring system, suitable for measuring pollutants continuously from hot, wet and corrosive gas streams in various industrial processes. It consists of an FTIR gas analyzer, industrial computer, and sampling system. As an option, the system can be equipped with Gasmet oxygen analyzer and/or total hydrocarbon analyzer (GFID).The system has a low need for maintenance and provides an excellent solution for even demanding industrial measurement conditions.

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System specifications

General Parameters	Measuring principle:	FTIR (Fourier Transform Infrared) spectroscopy
	Performance:	Simultaneous analysis of up to 50 gas components
	Operating temperature:	0…40 °C (0…45 °C with B-cabinet) non-condensing / certified for +5…40 °C
	Storage temperature:	-20 - +60 °C
	Response time, T_{90}:	< 120 s with 20-meter heated line
	Sample-wetted parts	
	regulated temperature:	180 °C
	Sample gas:	Non-condensing, particle free
	Flow rate:	~ 4 l/min
	Sample gas pressure:	Ambient
	Installation place:	Dust free and clean ambient air, without external vibrations
	Product compliance:	CE, UKCA
Analyzer Cabinet	Material:	Bake painted steel
	Dimensions without the door handles (mm):	**Cabinet A** (H x W x D): 2120 x 600 x 600 (A/C unit on the cabinet roof) **Cabinet B** (H x W x D): 2100 x 600 x 800 (A/C unit at the back of the cabinet) Depth with backdoor A/C unit: +260 mm
	Weight:	~290 kg (A), ~330 kg (B)
	Protection:	IP 54
Air conditioning	Cooling capacity	
	(A cabinet):	A35 °C / A35°C 1500 W
		A50 °C / A35°C 1100 W
	Cooling capacity	
	(B cabinet):	A35 °C / A35°C 1500 W
		A50 °C / A35°C 1230 W
	Power consumption	
	(A cabinet):	1050 W
	Power consumption (B cabinet):	1125 W
	Internal circulation:	500 m^3/h
	Protection:	Ext. circuit IP 34 / Int. circuit IP 54
Instrument air	**Instrument air inlet:**	6 mm tube
	Instrument air quality:	Dry, oil and particle free
	Consumption:	1 l/min with continuous instrument purge, 15 l/min with safety flushing (error mode), 50 l/min with waste gas dilution(optional)

Electrical connections	**Main power supply:**	The main power supply system model is TN-S (3 x L, N + PE).
	Power consumption:	Depends on the length of the heated sample line. The full Gasmet CEMS II e including sample probe and heated line (21 m) it is max. 7.5 kW while heating up
Signal interface	**Hardwired signals**	
	Analog output:	
	Output range:	4 - 20 mA, isolated, active
	Channels:	16 freely programmable
	Analog input:	
	Input range:	4 - 20 mA, isolated, passive
	Channels:	8 freely programmable
	Digital output:	
	Output range:	24 VDC
	Channels:	15 freely programmable
	Digital input:	
	Control:	By potential free contacts
	Channels:	16 freely programmable
	Alarm output:	
	Output range:	Potentially free relay contact
	Channels:	4 fixed: System alarm, Service Request, Maintenance, Results Valid
	More digital and analog signals available upon request.	
	Bus Output	
	Output format:	Modbus RTU, Modbus TCP, ASCII (RS 232), DDE link
	Modbus RTU can be converted into Profibus or RS422/485. Other fieldbus formats are available on request	
Optional input / output expansion modules	Built in weather proof casing or on DIN rail.	
	Enclosure:	IP66
	Beckhoff:	
	- Digital output	8 x 0.5 A / module
	- Digital input	8 / module
	- Analogue output	4 x 4-20 mA/ module
	- Analogue input	4 x 4-20 mA / module,
		4 x 0-10 V / module
		(max. 255 modules)
Industrial computer	*See Gasmet Industrial Computer Technical Datasheet*	
Gasmet CX4000 FTIR Analyzer	*See Gasmet CX4000 Technical Datasheet*	
Oxygen Analyzer (Optional)	*See Gasmet Oxygen Analyzer Technical Datasheet*	

GFID Analyzer (Optional / Only in CEMS II ef version)	The Gasmet Flame Ionization Detector (GFID) is designed for continuous total hydrocarbon (THC) measurements. Gasmet Continuous Emission Monitoring System CEMS II ef is equipped with GFID analyzer, offering a TÜV certified solution (QAL1) for measuring pollutants from hot, wet and corrosive gas streams. *For more information please see Gasmet GFID Analyzer Technical Datasheet*

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