

Explosion protection

Marking	ATEX: II 2G Ex h IIC T4 Gb X IECEX: Ex IIC T4 Gb NEC 500: Class I, Division 2, Group B,C and D NEC 505: Class I, Zone 1, AEx d e ib px IIB resp. IIB+H2 T3 resp. T4 CEC Sec. 18: Ex d e ib px IIC T3 resp. T4 TR CU: II Gb T4 X
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Technical data

Technology	continuous measurement using catalytic combustion
Method	correlates with: ASTM D56, ASTM D93, DIN EN ISO 2719, DIN EN ISO 13736, IP 34, IP 170, DIN 51755
Measuring range	25 to 180 °C (77 to 356 °F)
Repeatability	≤ DIN EN/ASTM e.g. kerosene typ. 0.1 °C (approx. 0.2 °F)
Reproducibility	≤ DIN EN/ASTM
Measuring cycle	continuous
Product streams	2 x sample, 1 x validation (additional hardware required)
– Electrical data	
Nominal voltage	230 V AC ± 10 %, 1 phase; 50 Hz; other ratings on request
Maximum power consumption	approx. 650 W
– Protection class	
IP 54 (comparable with NEMA 13)	
– Ambient conditions	
Ambient temperature	operation 5 to 40 °C (41 to 104 °F) storage 0 to 60 °C (32 to 140 °F)
Ambient humidity	operation 5 to 80 % relative humidity, non-corrosive storage 5 to 85 % relative humidity, non-corrosive
Sample	
Quality	filtered 50 µm, free of suspended water, bubble-free, sulfur < 2000 ppm, free of heavy metals, free of phosphate (≤ 37 cSt at inlet temperature)
Consumption	approx. 2 to 3 l/h (at sample inlet)
Pressure at inlet	2 to 5 bar (29 to 72.5 psi)
Temperature at inlet	max. 80 °C, min. 15 °C below expected FP temperature, temperature change: max. 1°C/min, for cooling with product: max. 40 °C
Utilities	
– Instrument air	
Consumption	
Purge	8 Nm ³ /h while purging (~12 min)
Operation	approx. 1 Nm ³ /h
Pressure at inlet	2 to 7 bar (29 to 101.5 psi)
Quality	humidity class 2 or better acc. to ISO 8573.

– Coolant	depends on flash point temperature
Consumption	sample as coolant: 30 to 60 l/h or plant cooling water: 10 to 40 l/h
Temperature	5 to 40 °C (41 to 104 °F)
Pressure at inlet	2 to 5 bar (14.5 to 72.5 psi)
Quality	filtered 50 µm
Signal outputs and inputs	
Analog outputs	flash point temperature (others on request)
Digital outputs	Alarm, Ready/Valid
Digital inputs	Stream Selection, Validation Request, Reset
Electrical data of signal outputs and inputs	
Analog outputs	max. 8 (4 to 20 mA; 1000 Ω) active isolated on request
Analog inputs	4 to 20 mA; 160 Ω
Digital outputs	24 V DC; max. 0.5 A
Digital inputs	high: 15 to 28 V DC/low: 0 to 4 V DC
Auxiliary power supply output	24 V DC; max. 0.8 A
Control unit	
Central control unit	Industrial PC
Operating system	Windows 10 Enterprise LTSB
Control software	PACS
User interfaces	
Display	TFT display with touch function 1366 x 768 pixel
Keyboard	virtual keyboard, controlled via TFT display with touch function
Connections	
Tube fittings	Swagelok® 6 mm/12 mm/18 mm other fittings on request
Vent/Drain	open to atmosphere
Weight and dimensions	
Weight	approx. 200 kg
Dimensions (W x H x D)	approx. 1140 x 2000 x 710 mm
Space requirements	right: 150 mm/left: 100 mm
Optional interfaces	
Analog outputs	on request
MODBUS interface	MODBUS/RTU via RS485 or RS422 or FOC is, MODBUS/TCP via FOC is
Remote access	via Ethernet (VDSL or FOC is)