

Explosion protection

Marking	ATEX: II 2 G Ex h IIC T3 resp. T4 Gb IECEX: Ex IIC T4 Gb NEC 500: Class I, Div. 2, Groups B, C, D T3 resp. T4 NEC 505: Class I, Zone 1, AEx db eb ib mb pxb [*] * IIB+H2 T3 resp. T4 CEC Sec. 18: Ex db eb ib * pxb [*] * IIB+H2 T3 resp. T4 TR CU: on request
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Technical data

Technology	distillation
Method	correlates with: ASTM D86, DIN EN ISO 3405, IP 123
Measuring range	+20 °C to +420 °C (+68 °F to +788 °F)
Repeatability	≤ DIN EN/ASTM D86
Reproducibility	≤ DIN EN/ASTM D86
Measuring cycle	discontinuous, cycle time approx. 10 min for diesel cycle time approx. 15 min for gasoline
Product streams	2 x sample, 1 x validation
– Electrical data	
Nominal voltage	230 VAC ± 10 %, 1 phase; 50 Hz/60 Hz or 110 VAC +/- 10 %, 1 phase; 50 Hz/60 Hz with FKS 1,4-KWS 400 VAC +/- 10 %; 3 phase; 50 Hz/60 Hz other ratings on request
Maximum power consumption	approx. 700 W (analyzer only) incl. chiller for liquids: approx. 1600 W
– Protection class	IP 54 (comparable with NEMA 13)
– Ambient conditions	
Ambient temperature	operation +5 °C to +40 °C (+41 °F to +104 °F) storage -20 °C to +60 °C (-4 °F to +140 °F)
Ambient humidity	operation: 5 to 80 % , relative humidity at +25 °C, non- corrosive storage: 5 to 80 % , relative humidity at +25 °C, non- corrosive
Sample	
Quality	filtered 50 µm, no suspended water, bubble-free
Consumption	20 to 40 l/h
Pressure at inlet	1 to 3 bar (14.5 to 43 psi)
Temperature at inlet	max. +50 °C (+122 °F)
Temperature change	max. 1K/min.
Viscosity	max. 37 cSt at inlet temperature
Utilities	
– Instrument air Consumption	During operation: approx. 1 Nm ³ /h while purging: 8 Nm ³ /h (~12 min)
Pressure at inlet	5 to 7 bar (72 to 101.5 psi)
Quality	humidity class 2 or better acc. to ISO 8573.1

– Nitrogen Consumption	During operation: max. 0.5 Nm ³ /h
Pressure at inlet	4 to 7 bar (58 to 101.5 psi)
Quality	Purity >= 98%, class 2 or better acc. to ISO 8573-1
– Coolant	20 to 40 l/h
Temperature	-10 to 55 °C (14 to 131 °F)
Pressure at inlet	1 to 3 bar (14.5 to 43.5 psi)
Quality	filtered 50 µm, pH 6 to 8
Electrical data of signal outputs and inputs	
Analog outputs	max. 8 outputs 4 to 20 mA, (max. resistance 1000 Ω), active isolated on request
Analog inputs	4 to 20 mA, 160 Ω
Digital outputs	DC 24 V; max. 0.5 A; sum alarm Ready/Come-Read, Power identification Validation identification, Analysis Cycle Active
Digital inputs (max. 3 configurable inputs)	high: DC 15 to 28 V; low: DC 0 to 4 V Reset, Inhibit, Stream request, Validation request, Decoking request, Automatic stream switching, Electrical data of signal outputs and inputs
Control unit	
Central control unit	Industrial PC
Operating system	Windows 10 Enterprise LTSC
Control software	PACS
HMI	TFT display (multi-touch)
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	
Dimensions (W x H x D)	approx. 1150 x 1900 x 710 mm
Weight	approx. 300 kg approx. 450 kg (incl. FKS 1.4-KWS)
Space requirements	right: 500 mm/left: 500 mm
Optional interfaces	
MODBUS interface	MODBUS RTU/TCP (RS485, RS422, VDSL/FO (IS) MODBUS/TCP via FOC is
Remote access	remote software with modem, ISDN, Ethernet via VDSL modem FO (FS)