JCS-100 Sample Gas Compressor Cooler



APPLICATION

- · Extractive gas analysis
- · Emission and process monitoring
- Continuous drying of sample gas to a precise low and constant outlet dew point
- Minimises water vapour cross sensitivities and volumetric errors

BENEFITS

- High flow rates and high water vapour dew points possible
- · Easy to change heat exchangers
- · Continuous condensate removal
- · Low maintenance operation

FEATURES

- Proven and reliable technology
- · Various heat exchanger materials
- · One or two independent gas paths
- · Digital temperature indication
- · Integrated condensate pump
- Status contact with acoustic feedback
- · Hot gas bypass compressor technology
- · Temperature sensor monitoring
- High current volt free status relay outputs (direct pump switching)
- · Long life fan with ball bearing
- · Wall mount, optional free stand
- Fully encapsulated temperature sensor
- Small footprint
- · Stainless steel housing
- · Light weight



JCT Analysentechnik

Gas Sampling Probes

Heated Sample Lines

Sample Gas Coolers

Condensate Treatment

Accessories

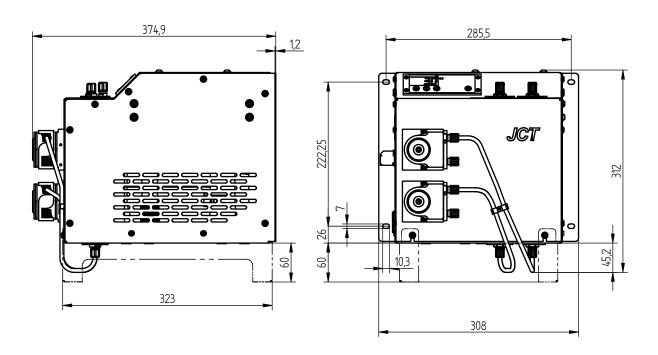
Gas Conditioning System

Sample Gas
Converters

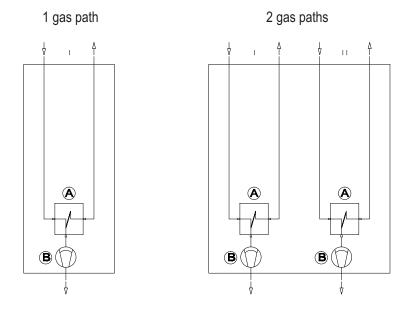
TECHNICAL DATA

Description	sample gas compressor coolers						
Cooling principle	compressor cooling						
Number of heat exchangers / Gas paths	1 or 2						
Material heat exchangers	coated aluminum, PVDF, Duran glass, SS316						
Operation							
Max. gas flow rate* [NI/hr]	250						
Max. gas inlet temperature* [°C]	140						
Max. gas inlet dew point* [°C]	80						
Gas outlet dew point	3° or 5°C						
Dew point stability (for constant inlet conditions)	±0,2 K						
Ambient temperature	5° to 45 °C						
Cooling capacity	160 W						
Temperature alarm limits	< 0 / > +10 °C						
Operating pressure with condensate pump	0,2 to 2,2 bara						
Max. operating pressure without condensate pump [bara]	2,5						
Ready for operation	< 20 min.						
Pressure drop at 100 NI/hr	2 mbar						
Dimensions ever all (M v Ll v D)	Construction						
Dimensions over all (W x H x D)	308 x 312 x 375 mm						
Installation	stand alone or wall mounting						
Mounting position	horizontal						
Weight	17 kg						
Housing / Colour	stainless steel						
Dead volume per gas path	67 ml						
Connection sample gas and condensate outlet with condensate pump	PVDF-hose fitting DN 4/6 for SS316 sample gas in/out 4/6mm pipe stubs						
Condensate outlet without condensate pump	1/4" NPTi or 3/8" NPTi						
Protection class	IP 20 (EN 60529)						
Approvals / Signs	CE						
	Electrics						
Power supply	220 to 240 VAC 50/60 Hz or 100 to 115 VAC 50/60 Hz						
Power consumption (depending on load and ambient temperature)	190 VA						
Connection power / Status signal	IEC plug						
Fusing	6,3 AT in IEC plug						
On time	100 %						
Temperature indication	digital display						
Status threshold	< 0 / > +10 °C						
Status delay	0,5 s						
Status relay	volt free contact max. 230 VAC / 6 A min. 5 VADC / 5 mA						
Connection terminals / Clamping range	spring type terminals 0,5 mm ² to ,5 mm ²						

^{*} Results from the effective cooling capacity at 25 °C ambient temperature and 3 °C outlet dew point and can be influenced by further operational parameters



GAS FLOW



Α	Actively cooled heat exchanger
В	Condensate pump (option)

ORDER CODE

JCS-100 series

Order code	J	CS-10							
			•	•	+	+	V	•	\downarrow
Mounting	with cooler stand								S
Mounting	without cooler stand								0
Dew point	dew point set up 5°							5	
Dow point	dew point set up 3°							3	
Power supply	115 VAC 50/60 Hz						В		
Dower aupply	230 VAC 50/60 Hz						Α		
	without condensate pump JSR-25, 3/8" NPTf outlet					4			
Condensate pump	without condensate pump JSR-25, 1/4" NPTf outlet					3			
Condensate pump	2 condensate pumps JSR-25					2			
	1 condensate pump JSR-25					1			
	2nd heat exchanger: JHEX-4 SS				4				
	2nd heat exchanger: JHEX-4 Duran glass				3				
Heat exchanger 2	2nd heat exchanger: JHEX-4 PVDF				2				
	2nd heat exchanger: JHEX-4 aluminum coated				1				
	no heat exchanger		П		0				
	1st heat exchanger: JHEX-4 SS			4					
Heat exchanger 1	1st heat exchanger: JHEX-4 Duran glass			3					
	1st heat exchanger: JHEX-4 PVDF			2					
	1st heat exchanger: JHEX-4 aluminum coated			1					
Basic unit	2 heat exchangers / gas paths		2.						
	1 heat exchanger / gas path		1.						

Gas Sampling **Probes** Heated Sample Lines Sample Gas Coolers









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