



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 replaceable heat exchangers
- Continuous condensate removal
- Low maintenance operation
- Integrated condensate pump
- Wall mount, optional free stand or stand alone
- Light weight

FEATURES

- Proven and reliable technology
- Various heat exchanger materials
- One or two independent gas paths
- Digital temperature display
- Status contact
- Analog temperature output
- Hot gas bypass compressor technology
- Temperature sensor monitoring
- Long life fan with ball bearing
- Fully encapsulated temperature sensor
- Small footprint
- Stainless steel housing



TECHNICAL DATA

MODEL

JCS-100

Description	sample gas compressor cooler
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OPERATION

Number of heat exchangers / Sample gas paths	1 or 2
Material heat exchanger	coated aluminum, PVDF, Duran® glass, SS316
Integrated condensate pump	0...2
Temperature indication	digital temperature display
Sample gas flow rate*	max. 250 NI/h per gas path
Sample gas inlet temperature*	max. 140 °C (284 °F); SS heat exchanger: max. 180 °C (356 °F)
Sample gas inlet dew point*	max. 80 °C (176 °F)
Sample gas outlet dew point	3° or 5 °C (37.4° to 41 °F) (factory default, others on request)
Dew point stability (for constant inlet conditions)	±0.2 K
Ambient temperature	5° to 45 °C (41° to 113 °F)
Cooling capacity total	max. 160 W
Operating pressure with condensate pump	0.2 to 2.2 bara
Max. operating pressure without condensate pump	5 bara SS heat exchanger: 19 bara
Ready for operation	< 20 min
Pressure drop at 100 NI/hr	approx. 2 mbara
Pressure drop at max. flow rate	2 mbar

* Refers to reference data: flow rate: 100 l/h, inlet dew point: 60 °C (140 °F), gas temperature: 140 °C (284 °F), ambient temperature: 25 °C (77 °F), outlet dew point: 3 °C (37.4 °F)

CONSTRUCTION

Dimensions (W x H x D)	308 x 312 x 375 mm (12.13 x 12.28 x 14.76 inch)
Installation	stand alone or wall mounting
Mounting	horizontal
Weight	17 kg (37.48 lbs)
Housing / Colour	stainless steel
Sample gas wetted materials heat exchanger	glass: Duran® glass, PVDF, O-rings: Viton® or Aflas® SS: SS316Ti aluminum coated: PFA/PVDF coated aluminum, PVDF, O-rings: Viton® or Aflas® PVDF: PVDF, O-rings: Viton® or Aflas®
Dead volume per sample gas path	67 ml
Connection sample gas inlet and outlet	4/6 mm PVDF hose fitting or 1/4" OD hose fitting for SS heat exchanger: pipe stubs 6 mm / 1/4" OD
Connection condensate outlet	including condensate pump: 4/6 mm hose fitting or 1/4" OD hose fitting without condensate pump: 1/4" NPTf or 3/8" NPTf
Approvals / Signs	CE

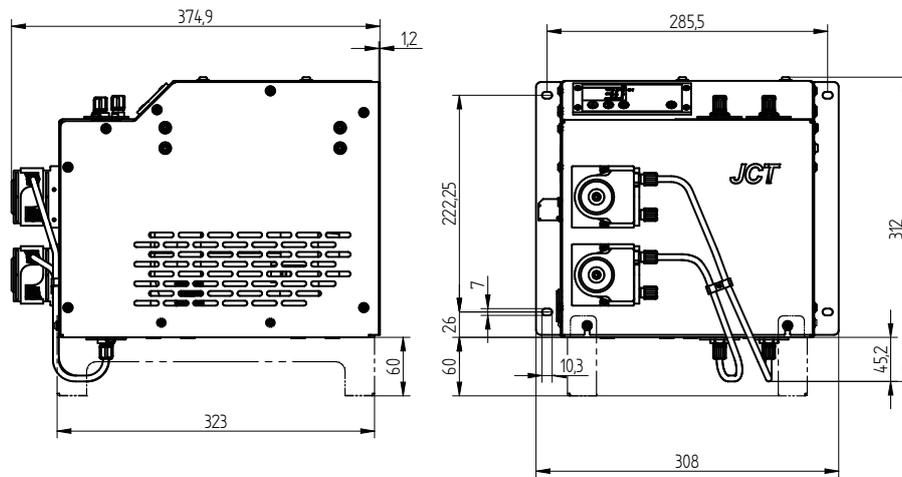
TECHNICAL DATA

ELECTRICS

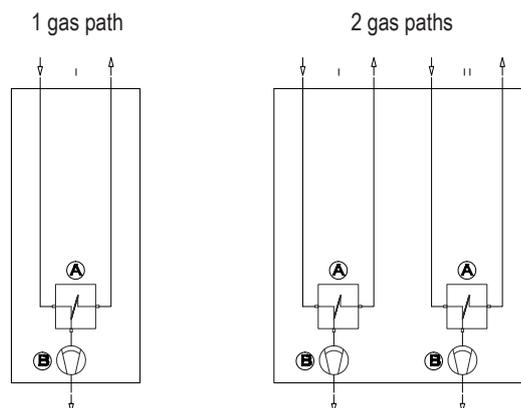
Power supply	220....240 VAC 50/60 Hz or 100....115 VAC 50/60 Hz
Power consumption (depending on load and ambient temperature)	190 VA
Connection power	IEC 60320 C14 plug
Protection class (in default mounting position)	IP20 (EN 60529)
Fusing	6.3 AT in IEC plug
On time	100 %
Diagnostic / Operation indicator	multicolor display
Status contact	volt free contact, max. 230 VAC / 2 A, min. 5 VADC / 5 mA
Status threshold	< 0 °C (32°F) / > +10 °C (50 °F)
Analogue output	operating temperature via 0/4....20 mA (sink)
Connection terminals / Clamping range	spring type terminals 0.5....2.5 mm ² (20....14 AWG)

DIMENSIONS

dimensions in mm



GAS FLOW



- A** Actively cooled heat exchanger
- B** Condensate pump (option)

