JCL-301
Compact Gas Conditioning System

APPLICATION

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

BENEFITS

- Complete solution for a great number of applications
- Longterm reliable reproducable measuring results
- Optimum operational safety due to self-monitoring
- Extremlely precise long term stable dew point even under varying loads
- Fast response time due to low dead volume
- Very low dissolution rates
- Continuous condensate removal
- Low maintenance operation
- Easy to maintain design

FEATURES

- Individual configuration due to various expansion options
- Basic device with high-performance compressor sample gas cooler
- 1 or 2 independant sample gas paths
- Integrated condensate pumps
- Speed controlled fan
- Connections for external sample gas pump
- 11 status LEDs with event memory
- 2 status contacts
- Additional options:
  - Easy to maintain robust fine dust filter
  - Corrosion resistant flowmeter with precise needle valve
  - Reliable condensate monitoring
  - Acid dosing pump
  - RS485 interface

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Gas Sampling Probes
Heated Sample Lines
Sample Gas Coolers
Condensate Treatment
Accessories
Gas Conditioning Systems
Sample Gas Converters

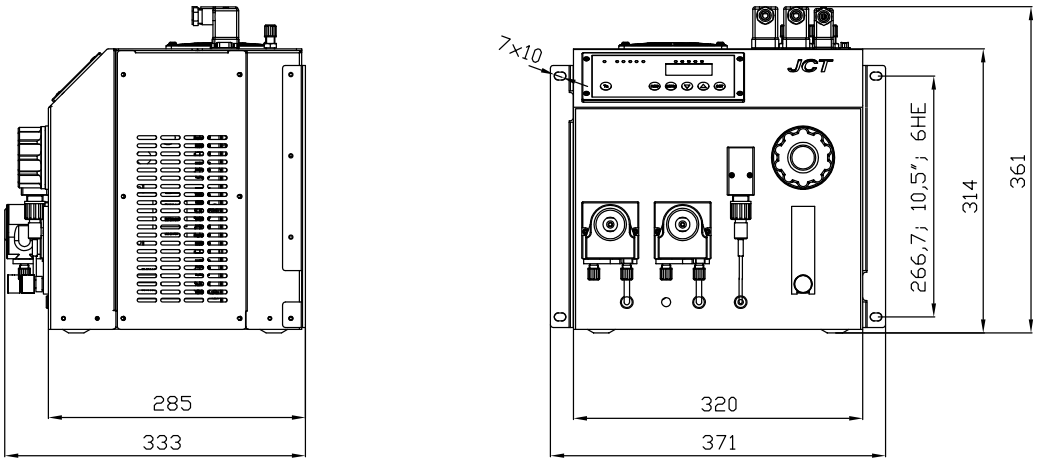
TECHNICAL DATA

Model	JCL-301
Description	compact gas conditioning system
Cooling principle	compressor cooling with hot bypass technology
Number of gas paths	1 to 2
Operation	
Flow rate*	max. 120 l/hr
Gas temperature inlet*	max. +140°C
Dew point inlet*	max. +80°C
Dew point outlet	+3°C
Dew point stability (for constant inlet conditions)	±0,1K
Ambient temperature	+5° to +45 °C
Operating pressure	0,2 to 2,2 bara
Ready for operation	< 10 min
Pressure drop at max. flow rate	2 mbar
Construction	
Dimensions over all (W x H x D)	320 x 310 x 328 mm
Installation	stand alone or wall mounting
Operating position	horizontal
Weight	approx. 22 kg
Housing, colour	sheet steel 1,5 mm, powder coated, RAL 1016 S
Material heat exchanger	PVDF
Dead volume per gas path	48 ml
Connection sample gas / condensate outlet	PVDF hose fitting DN 4/6 mm
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, ambient temperature and configuration)	200 to 345 VA
Connection power / status signal	3 x connector EN175301-803 form A/B with PG 9 panduit, 3/4 pole
Fusing	external on installation site, fuse characteristic C: 230 VAC 6 A; 115 VAC 10 A
Protection class	IP 20 (EN 60529)
On time	100 %
Alarm set points	< 0 / > +10°C
Status relay	1 volt free changeover contact
Pump relay	1 volt free contact NC
Switching capacity relays	max. 250 VAC / 8 A(1,5 A at 250 VDC); min. 5 VADC 5 mA
Data interface (option)	DB 9 female
Interface protocol (option)	RS 485 / ST Bus
Bus cable length max.	1000 m

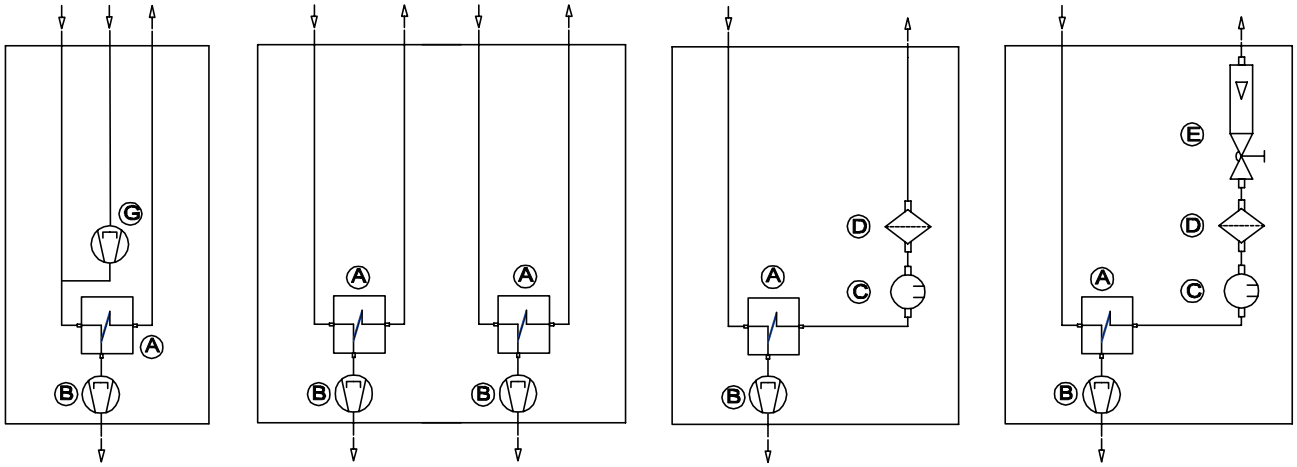
* Results from the effective cooling capacity at 25°C ambient temperature and 3°C outlet dew point and can be influenced by further operational parameters

DIMENSIONS

Dimensions in mm



APPLICATION EXAMPLES / GAS FLOW DIAGRAMS

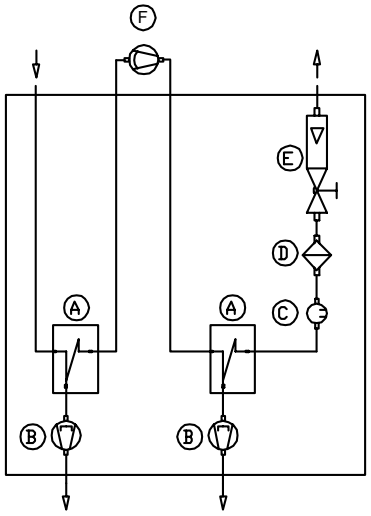


Part No.: JCL-301.2130000

Part No.: JCL-301.2220000

Part No.: JCL-301.2111100

Part No.: JCL-301.2111110



JCL-301 fully equipped Part No: **JCL**-301.2221110

A	Gas heat exchanger
B	Condensate pump
C	Condensate sensor

D	Fine dust filter
E	Flow meter with needle valve
F	External sample gas pump (not included, suitable sample pumps are to be found in chapter 5)
G	Dosing pump

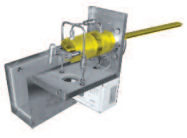
ORDER CODE

JCL-301

Power supply		115 VAC 50/60 Hz	1
		230 VAC 50/60 Hz	2
Gas heat exchangers	A	1 Gas heat exchanger	1
		2 Gas heat exchangers	2
Condensate pumps	B	1 Condensate pump JSR-25	1
		2 Condensate pumps JSR-25	2
		1 Dosing pump JSR-25 + 1 condensate pump	3
Fine dust filter	D	Without fine dust filter	0
		1 Fine dust filter JF-1 incl. PTFE-filter element	1
Condensate detectors	C	Without condensate detectors	0
		1 Condensate detector KW-2	1
Flow meter with needle valve	E	Without flow meter	0
		1 Flow meter 10 to 100 Nl/hr	1
Option		Without additional option	0
		JCT VISU-system software, remote control, RS485 interface	1
Order code		**JCL-301.**	

Some possible combinations of options are technically futile and therefore not available.
Please ask the **JCT** sales team for advice.

Gas Sampling **Probes**



Heated Sample **Lines**

Sample Gas **Coolers**

JCT Analysentechnik

Gas Conditioning **Systems**

NOx **Converter**

and **solutions** for

IECEx — fixed installation — portable

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