Innovation

in Gas Analysis

JCL-304 / JCL-319 Gas Conditioning Systems





JCT

Analysentechnik GmbH

Gas Sampling Probes

Heated Sample Lines

Sample Gas Coolers

Condensate Treatment

Accessories

Gas Conditioning
Systems

Sample Gas
Converters

APPLICATION

- · For extractive gas analysis
- · For 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

- · For wall or 19"-rack mounting
- · Individual configuration due to modular design
- Basic device with high-performance compressor sample gas cooler
- 1 to 4 independant sample gas paths
- · Integrated condensate pumps
- · Speed controlled fan
- 11 status-LED's with event memory
- 2 status contacts
- · Additional options:
 - High performance corrosion resistant sample gas pump
 - · Easy to maintain robust fine dust filter
 - Corrosion resistant flowmeter with precise needle valve
 - Reliable condensate monitoring
 - Acid dosing pump
 - · RS 485 interface



TECHNICAL DATA

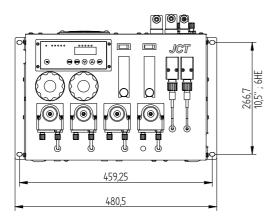
Model	JCL-304	JCL-319	
Description	Sample gas con	ditioning system	
Cooling principle	compressor cooling with hot gas bypass		
Number of gas paths	1 - 4		
	Operation		
Flow rate*	max. 12	20 NI/hr	
Gas temperature inlet*	max. +140°C		
Dew point inlet*	max.	+80°C	
Dew point outlet	+3	°C	
Dew point stability (for constant inlet conditions)	±0,	1K	
Ambient temperature	+5+	-45°C	
Operating pressure	0,22	,2 bara	
Ready for operation	< 10	min	
Pressure drop at max. flow rate	2 m	bar	
	Construction		
Dimensions over all (B x H x T)	440 x 300 x 408 mm	483 x 310 x 408 mm	
Installation	stand alone or wall mounting	19"-rack mounting	
Mounting position	horiz	ontal	
Weight	2531 kg (dependa	int on configuration)	
Housing, colour	sheet steel 1,5 mm, powder coated, RAL 1016 S, front alu nature		
Material heat exchanger	PVDF		
Dead volume per gas path	48 ml		
Connection sample gas / condensate outlet	PVDF hose fitti	ing DN 4/6 mm	
Approvals / signs	С	E	
	Electrics		
Power supply	220240 VA 100115 V		
Power consumption (depending on load, ambient temperature and configuration)	2003	345 VA	
Connection power / status signal /sample gas pump	3 x connector EN175301-803 form A / B with PG 9 - panduit, 3/4pole		
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	volt free changeover contact		
Gas sample pump relay	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		

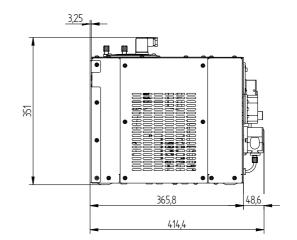
Results from the effective cooling capacity at 25°C ambient temperature and 3°C outlet dew point and can be influenced by further operational parameters

** With internal sample gas pump use pump relay for release of this internal pump

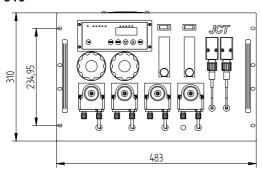
DIMENSIONS

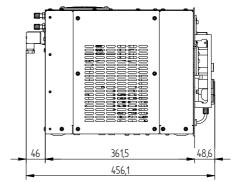
JCL-304





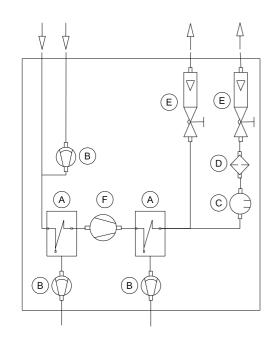
JCL-319





Dimensions in mm

APPLICATION EXAMPLES / GAS FLOW DIAGRAMS



Part No. JCL-304.22611210 Part No. JCL-319.22611210

(F)	7	E V		Δ
		4	(E)	
A				
B	B ()	B ()	B ()	J

Part No. JCL-304.24422200 Part No. JCL-319.24422200

Α	Gas heat exchanger
В	Condensate pump / dosing pump
С	Condensate sensor

D	Fine dust filter
Е	Flow meter with needle valve
F	Sample gas pump (external not included, suitable sample gas pumps are to be found in chapter 5)

ORDER CODES

JCL-304 and JCL-319

Stand alone / wall mounting 304 304 309		
19"-Rack mounting 319.		
Power supply		
1 1 2 2 3 3 4 2 2 3 3 3 4 3 3 4 4 4 4		
2 Gas heat exchangers 2 Gas heat exchangers 3 3 3 3 3 3 3 3 3		
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Order code JCL-	.	

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

JCT Analysentechnik GmbH

Werner Heisenberg-Straße 4 A-2700 Wiener Neustadt Tel. +43 (0) 2622 / 87201 Fax +43 (0) 2622 / 872011

E-Mail: sales@jct.at Web: www.jct.at

