

JC-14 and JC-24 19"-Gas Conditioning Systems



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 in 19"-housing for a great number of applications
- No expensive individual part mounting
- Guaranteed sustainable reproducible measuring results
- Optimum operational safety due to self-monitoring
- Extremely precise long term stable dew point even under varying loads
- Fast response time due to low dead volume
- Continuous condensate removal
- Low maintenance operation
- Easy to maintain design

FEATURES

- Individual configuration due to extension options
- Basic device with Peltier-sample gas cooler
- 1 or 2 independent sample gas paths
- Digital temperature indication, status-LED's
- Integrated condensate pump
- Easy to maintain robust fine dust filter
- Corrosion resistant flowmeter with precise needle valve
- Status contact
- Extension options:
 - High performance corrosion resistant sample gas pump
 - Reliable condensate monitoring
 - 2/3-way solenoid valve to shut off in case of failure or after switching off the sample gas pump
 - Ball valve for calibration gas feeding



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Gas Sampling Probes

Heated Sample Lines

Sample Gas Coolers

Condensate
Treatment

Accessories

Gas Conditioning
Systems

Sample Gas
Converters



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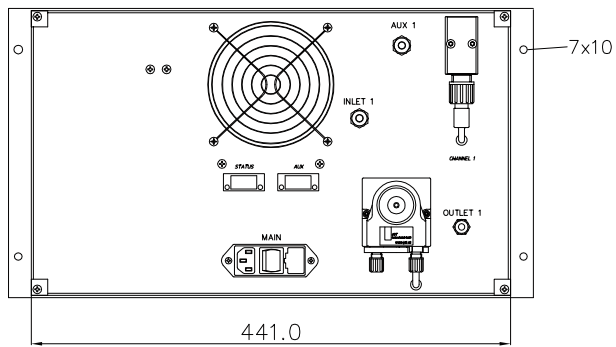
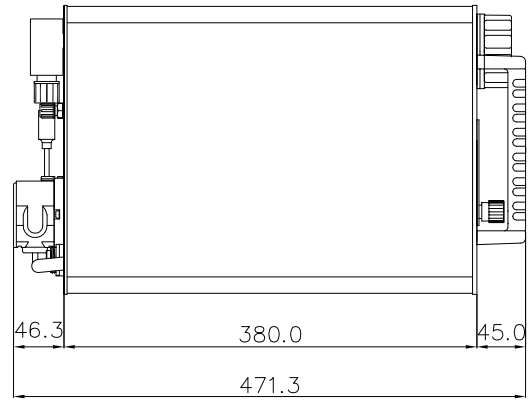
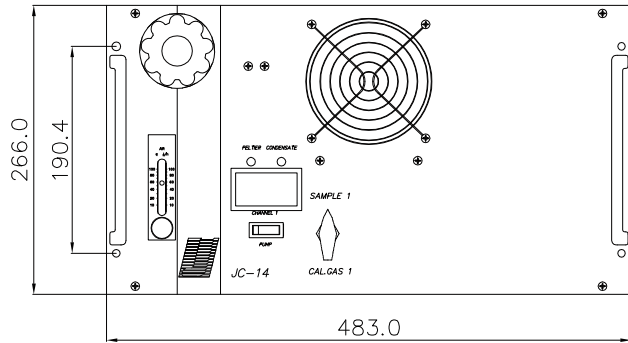
TECHNICAL DATA

Model	JC-14	JC-24
Description	19" sample gas conditioning systems	
Cooling principle	Peltier cooling	
Number of gas paths	1	2
Operation		
Gas flow*	max. 240 NI/hr	max. 2 x 240 NI/hr
Gas temperature inlet*	max. +150°C	
Dew point inlet*	max. +70°C	
Dew point outlet	+5°C	
Dew point stability (for constant inlet conditions)	±0,2K	
Ambient temperature	+5....+40 °C	
Cooling capacity per gas path	>15 W	
Operating pressure	0,2...2,2 bara	
Ready for operation	< 15 min.	
Pressure drop at max. flow rate	5 mbar	
Construction		
Dimensions over all (W x H x D)	483 x 266 x 425 mm	
Installation	19"-rack or stand alone	
Mounting position	horizontal	
Weight (dependent on configuration)	ca. 9 - 11 kg	ca. 14 - 16 kg
Housing, colour	aluminium, natural anodised	
Material heat exchanger	PVDF	
Dead volume per gas path	50 ml	
Connection sample gas / condensate outlet	PVDF hose fitting DN 4/6 mm (stainless steel fitting 6mm optional)	
Approvals / signs	CE	
Electrics		
Power supply	230 VAC 50/60 Hz or 115 VAC 50/60 Hz ±10 %	
Power consumption (depending on load, ambient temperature and configuration)	30....160 VA	60....320 VA
Connection power / status signal	IEC device socket / CEE 7/7 to IEC plug, 2m cable	
Fusing (in IEC device socket)	lead fuse T2A	lead fuse T5A
Protection class	IP 20 (EN 60529)	
On - time	100 %	
Alarm set points	<0 / >+10°C	
Alarm delay	0,5 sec.	
Status relay	volt free change over contact	
Switching capacity relay	max. 250 VAC / 2 A; min. 5 VADC 5 mA	
Connection status relay	spring clips 0,08 mm² - 2,5 mm²	

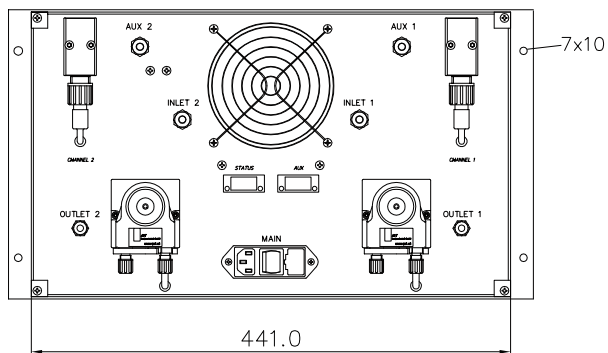
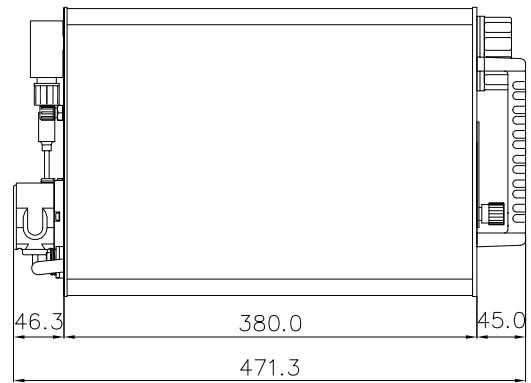
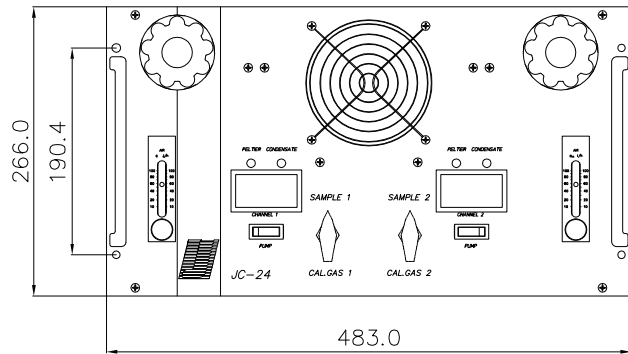
* Results from the effective cooling capacity at 25°C ambient temperature and 3°C outlet dew point and can be influenced by further operational parameters

DIMENSIONS

JC-14



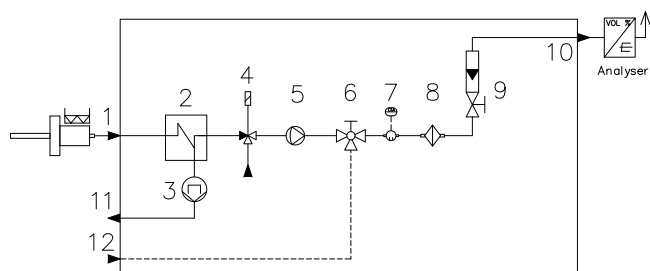
JC-24



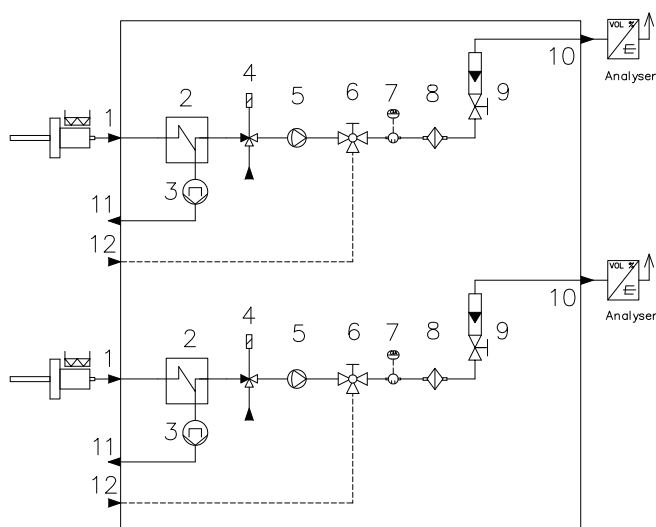
Dimensions in mm

GAS FLOW DIAGRAMS

JC-14



JC-24



1	Sample gas inlet
2	Gas heat exchanger
3	Condensate pump
4	Solenoid valve (option)
5	Sample gas pump (option)
6	2/3-way ball valve (option)

7	Condensate sensor KW-1 (option)
8	Sample gas filter
9	Flow meter with needle valve
10	Sample gas outlet
11	Condensate outlet
12	Calibration gas inlet (option)

ORDER CODES

Part number	Description
12.20010	JC-14, 230 VAC 50/60Hz
12.20011	JC-14, 115 VAC 50/60Hz
12.21010	JC-24, 230 VAC 50/60Hz
12.21011	JC-24, 115 VAC 50/60Hz

Options

12.00003	Gas inlet with stainless steel fitting 6 mm, SS316
12.00066	Condensate sensor KW-1
12.00021	2/3-way solenoid valves 230 VAC 50/60 Hz
12.00021S	2/3-way solenoid valves 115 VAC 50/60 Hz
12.00015	Sample gas pumps 230 VAC 50/60 Hz
12.00015S	Sample gas pumps 115 VAC 50/60 Hz
On request	Calibration gas connection with 2/3-way ball valve

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