



# JCT-5 Ex Sample Gas Compressor Cooler



**JCT**  
Analysentechnik

Gas Sampling  
Probes

Heated Sample  
Lines

**Sample Gas Coolers**

Condensate  
Treatment

Accessories

Gas Conditioning  
System

Sample Gas  
Converters

## APPLICATION

- Continuous drying of sample gas to a precise low and constant outlet dew point
- For operation in Ex zone 1 or 2
- For extractive gas analysis
- For emission and process monitoring
- Minimises water vapour cross sensitivities and volumetric errors


## BENEFITS

- Extremely precise long-term stable dew point even under varying loads
- High flow rates and high water vapour dew points possible
- Easy to change heat exchangers
- Low maintenance operation
- Easy to maintain design

## FEATURES

- Proven and reliable technology with ATEX-approval
- Performance optimised construction
- High performance heat exchanger with up to 500 NI/hr per gas path
- Heat exchanger material PVDF, Duran glass or stainless steel
- One to four independent gas paths
- Pressure and temperature controlled power control
- Analog temperature gauge
- Status contact as option

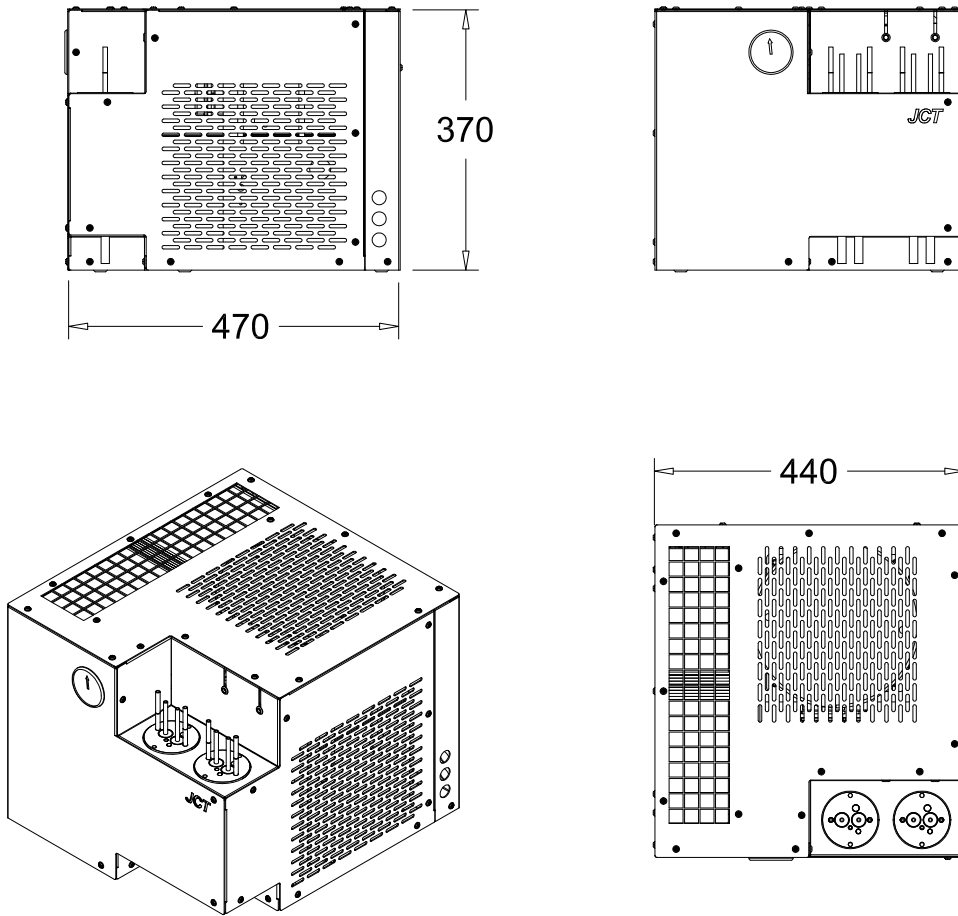
## TECHNICAL DATA

Description	explosion proof sample gas cooler for zone 1							
Cooling principle	compressor cooling							
Number of heat exchangers / gas paths	1 / 1 (Mono)			2 / 2 (Mono)			2 / 4 (Dual)	
Material heat exchangers	PVDF	Duran glass	SS316	PVDF	Duran glass	SS316	PVDF	SS316
<b>Operation</b>								
Max. gas flow rate* [NI/hr]	250	300	500	2 x 250	2 x 300	2 x 500	4 x 125	4 x 250
Max. Gas inlet temperature* [°C] limited by temperature class T4	140	160	180	140	160	180	140	180
Max. Gas inlet dew point* [°C]	70	65	80	70	65	80	70	80
Gas outlet dew point	3°C							
Dew point stability (for constant inlet conditions)	±1K							
Ambient temperature	+5°C to +40°C							
Cooling capacity	300 W							
Temperature alarm limits	< 0 / > +10°C							
Operating pressure max. [bara]	1,5	2,0	100	1,5	2	100	1,5	100
Ready for operation	< 60 min							
Pressure drop at 100 NI/hr	approx. 6 mbar							
<b>Construction</b>								
Dimensions over all (W x H x D)	435 x 370 x 470 mm							
Installation	stand alone or wall mounting							
Mounting position	horizontal							
Weight	41 kg							
Housing / Colour	sheet steel, 1,5 mm / RAL 7035							
Dead volume per gas path [ml]	67 ml						2 x 50 ml	
Connection sample gas inlet	gas heat exchanger PVDF and SS316: 6 mm tube; gas heat exchanger glass: GL14 with PVDF-hose fitting DN 4/6							
Connection sample gas outlet	gas heat exchanger PVDF and glass: PVDF-hose fitting DN 4/6, gas heat exchanger SS316: 6 mm tube							
Connection condensate outlet	gas heat exchanger PVDF and SS316: 12 mm tube; gas heat exchanger glass (only Mono available): GL18 with PVDF-tube fitting DN 10/12							
Protection class	IP 20 (EN 60529)							
Temperature indication	analog (0°C to 40°C)							
Ignition protection category	 II 2G Ex pxb db eb [ia] IIC T4 Gb							
Approvals / signs	BVS 08 ATEX E 096 / CE							
<b>Electrics</b>								
Power supply	200 to 240 VAC 50/60 Hz or 100 to 115 VAC 50/60 Hz							
Power consumption (depending on load and ambient temperature)	250 to 300 VA depending on configuration							
Connection power / status signal	2,3 m cable, open wire ends							
Fusing	external on installation site, fuse characteristic C: 230 VAC 10 A; 115 VAC 10 A							
On time	100 %							
Status contact	volt free changeover contact max. 250 VAC / 2 A, min. 24 V / 10 mA							

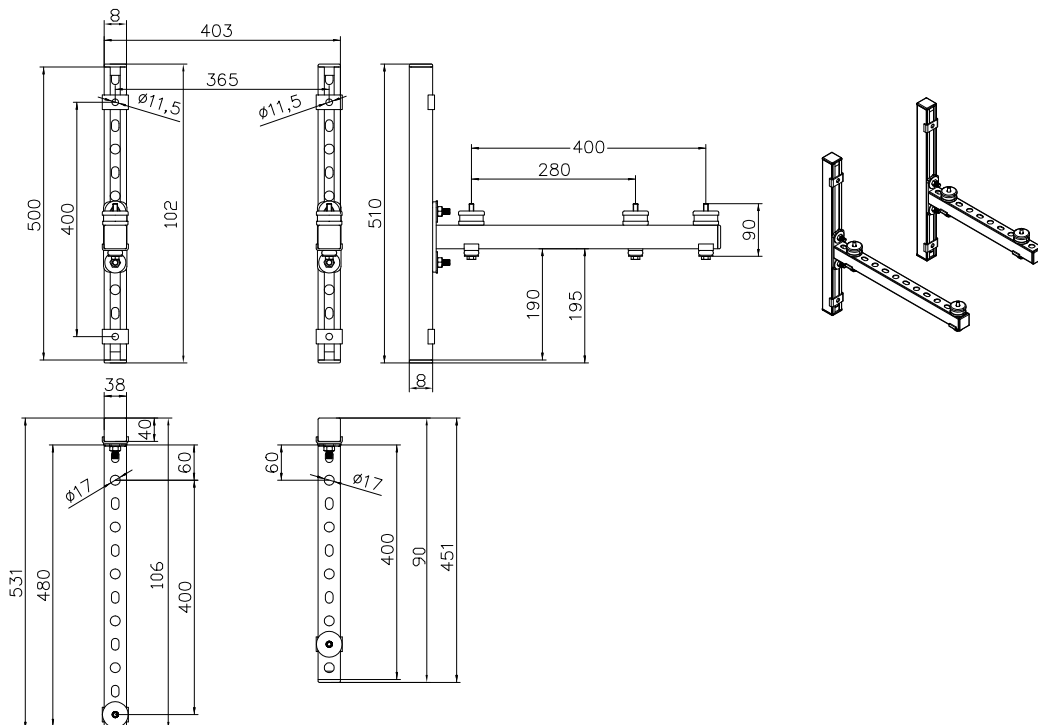
\* Results from the effective cooling capacity at 25°C ambient temperature and 3°C outlet dew point and can be influenced by further operational parameters

# DIMENSIONS

Dimensions in mm



## Mounting brackets for JCT-5 Ex



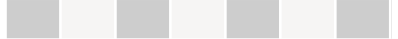
## ORDER CODE

### JCT-5 Ex

Housing	with 1 gas heat exchanger (mono or dual)	1																		
	with 2 gas heat exchangers (mono or dual)	2																		
Gas heat exchanger 1	1 Mono PVDF gas heat exchanger		1																	
	1 Mono SS316 gas heat exchanger		2																	
	1 Mono Duran glass heat exchanger		3																	
	1 Dual PVDF gas heat exchanger		4																	
	1 Dual SS316 gas heat exchanger		5																	
Gas heat exchanger 2	without gas heat exchanger			0																
	1 Mono PVDF gas heat exchanger			1																
	1 Mono SS316 gas heat exchanger			2																
	1 Mono Duran glass heat exchanger			3																
	1 Dual PVDF gas heat exchanger			4																
	1 Dual SS316 gas heat exchanger			5																
Power supply	230 VAC 50/60 Hz							1												
	115 VAC 50/60 Hz							3												
Mounting	without mounting brackets for stand alone operation																		X	
	with mounting brackets for wall mounting																		1	
Status contact	without status contact																			X
	with insulated status contact for excess and low temperature																			A
Options	standard version																			X
	special version (on request)																			1

### Order code

**JCT-5.**

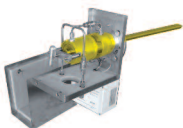


For automatic condensate removal an automatic liquid drainer type 11-LD can be used in case of excess pressure operation (sample gas pressure in the heat exchanger constantly above atmospheric pressure).

### Accessories

Part number	Description
K9521500	Automatic liquid drainer 11-LD, completely made of stainless steel, connections 1/2" NPT female (further information see data sheet in chapter 4).
K1738066	Male connector 1/2" NPT, 12 mm tube for connection of the 11-LD at the heat exchanger

Gas Sampling **Probes**



Heated Sample **Lines**



Sample Gas **Coolers**



Gas Conditioning **Systems**



NOx **Converter**



and solutions for

