

## JCM Peltier Sample Gas Cooler



### APPLICATION

- For extractive measurements
- Reduces dew point of wet sample gas
- Small footprint
- Emission monitoring
- Process monitoring
- Biogas monitoring

### BENEFITS

- Light weight and compact gas cooler
- Modular design makes it suitable for many applications
- Proven and reliable technology
- Corrosion resistant gas paths of PVDF

### FEATURES

- Peltier sample gas cooler
- Digital temperature control
- Integrated condensate pump
- Condensate monitoring
- Ready for operation in max.15 minutes
- Maximal operating safety
- Self monitoring
- Status alarm contact



# JCT

Analysentechnik  
GmbH

Gas Sampling  
Probes

Heated Sample  
Lines

Sample Gas Coolers

Gas  
Converters

Accessories



## TECHNICAL DATA

Model	JCM	JCM-E	JCM-KE
Cooling principle	Peltier		
Number of gas paths	1		
<b>Operation</b>			
Flow rate*	max. 180 l/h		
Gas temperature inlet*	max. +140°C		
Dew point inlet*	max. +70°C		
Dew point outlet*	factory setting: +5°C; adjustable range +0,5°C - +7,5°C		
Dew point stability (for constant inlet conditions)	±0,2 K		
Ambient temperature*	+5...+40 °C		
Operating pressure without condensate pump	max. 4,4 bar abs.		
Operating pressure with condensate pump	0,4...2,2 bar abs.		
Ready for operation	< 15 min		
Pressure drop at max. flow rate	5 mbar		
<b>Construction</b>			
Dimensions over all ( W x H x D )	283 x 230 x 175 mm	300 x 230 x 213 mm	
Mounting position	Stand alone or wall mount		
Alignment	horizontal		
Weight	approx. 4,8 kg	approx. 5,2 kg	
Housing, colour	Aluminium, nature anodised		
Heat exchanger material	PVDF		
Dead volume per gas path	50 ml		
Connection sample gas/ condensate outlet with condensate pump	PVDF ID/OD 4/6 mm hose fitting		
Connection condensate outlet without condensate pump	PVDF ID/OD 10/12 mm hose fitting		
Approval / Sign	CE		
<b>Electrical</b>			
Supply voltage	230 VAC 50 Hz		
Option	115 VAC 60 Hz		
Power consumption (depending on load and ambient temperature)	30...160 VA		
Supply connection	Schuko to IEC Plug, l = 2 m		
Cooling element	Peltier		
Fusing ( built in IEC plug)	Lead fuse T2A		
Protection class	IP 20 (EN 60529)		
On-time	100 %		
Diagnostic- / operation indicator	1x bicolour LED	2x bicolour LED	
Alarm set points	<0 / >+10°C		
Alarm delay	0,5 sec		
Status / Alarmrelay	Volt free change over contact		
Connection terminal / clamping range	Tension clamps 0,5 mm <sup>2</sup> – 4 mm <sup>2</sup>		
Switching capacity relays	Typ. 230 VAC/2A/min.5 VADC/5mA		
Response threshold condensate detector			factory setting 12 kΩ; adjustable 2... 30 kΩ

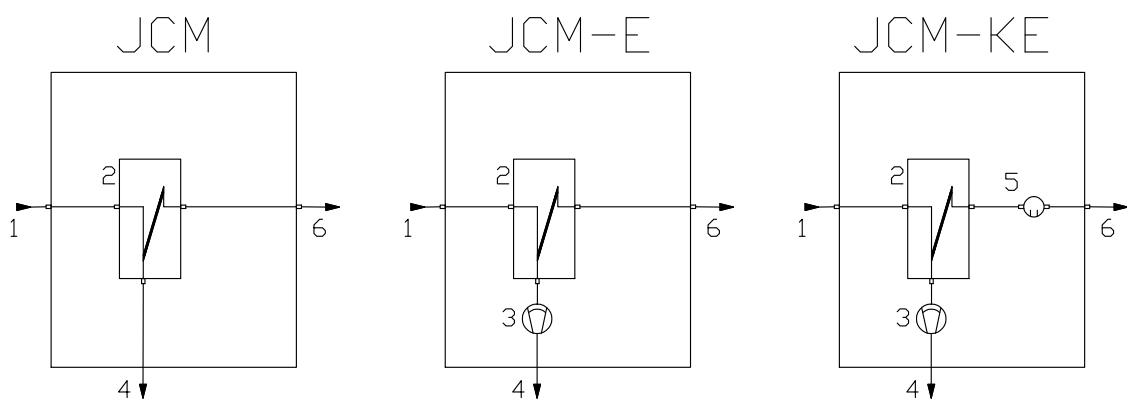
\*...may be affected by other values

## ORDER CODE

Part No.	Model	Options			Power supply	
		Status contact temperature	Condensate pump JSR-25	Condensate sensor KW-1	230 VAC 50/60 Hz	115 VAC 50/60 Hz
12.01000	JCM	X			X	
12.01001	JCM/S	X				X
12.01200	JCM-E	X	X		X	
12.01201	JCM-E/S	X	X			X
12.01300	JCM-KE	X	X	X	X	
12.01301	JCM-KE/S	X	X	X		X

Scope of delivery: device, operating manual

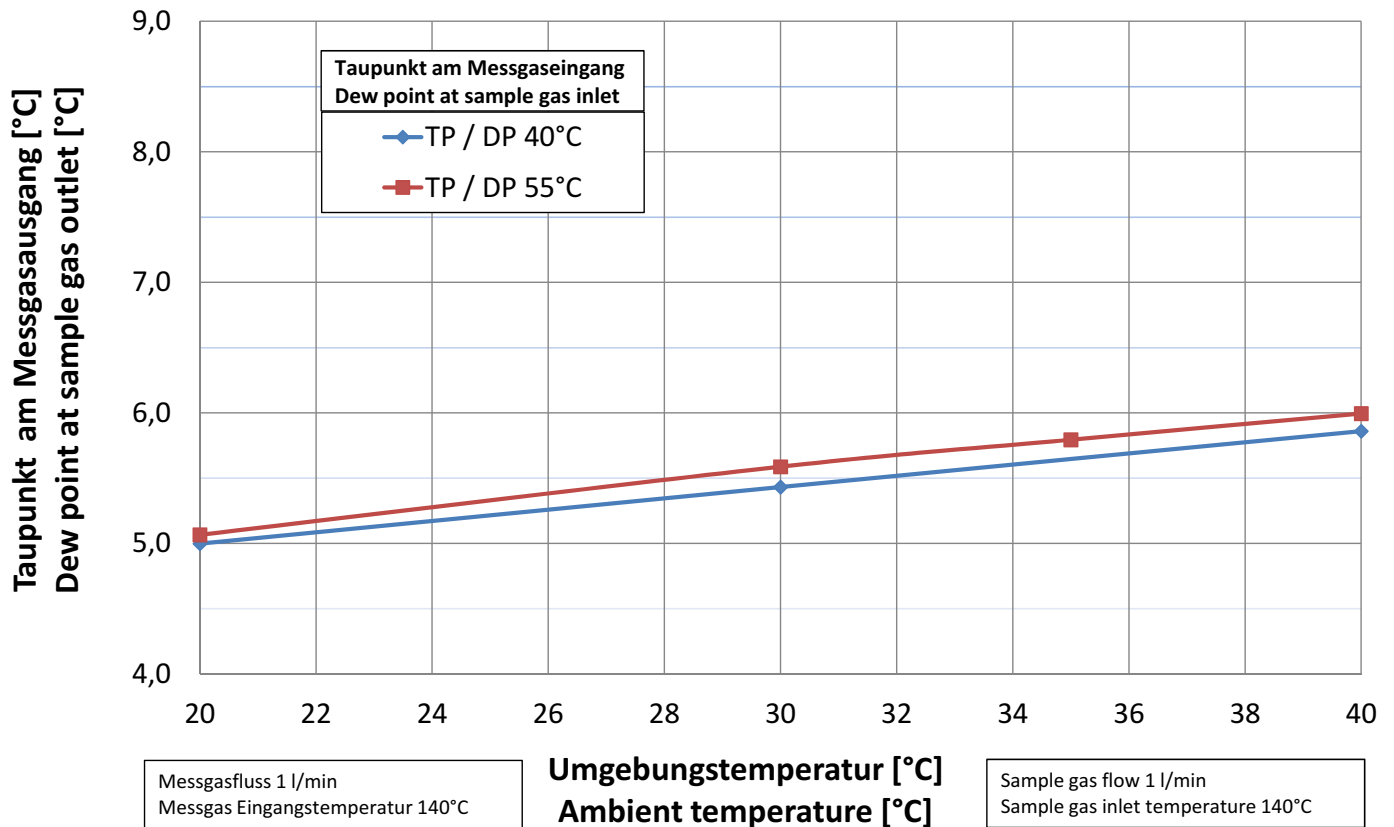
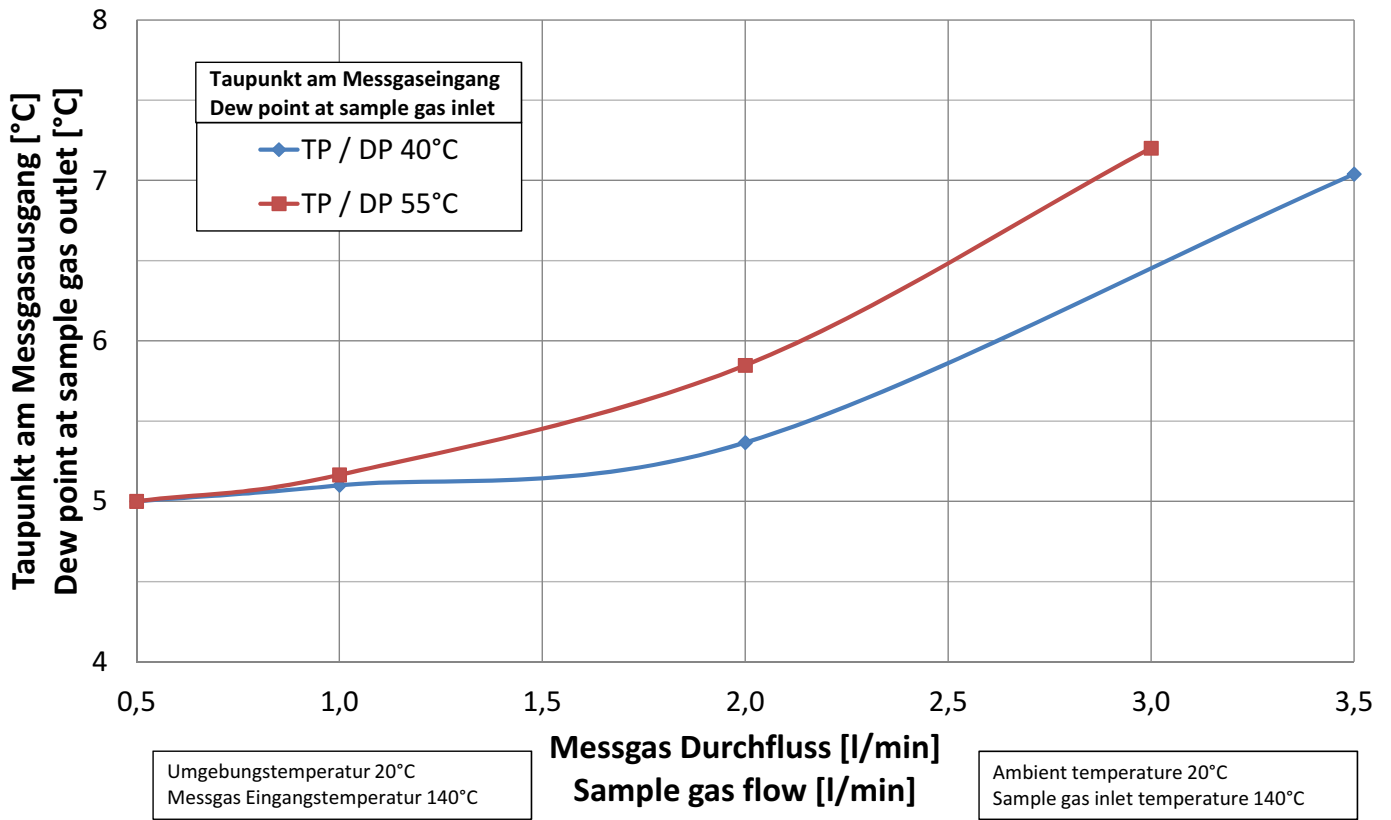
## GAS FLOW DIAGRAM



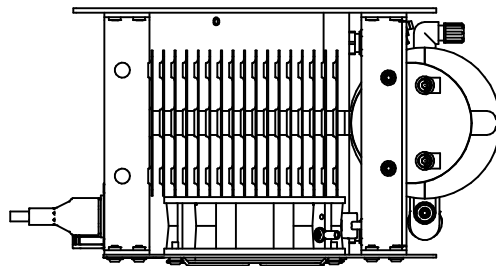
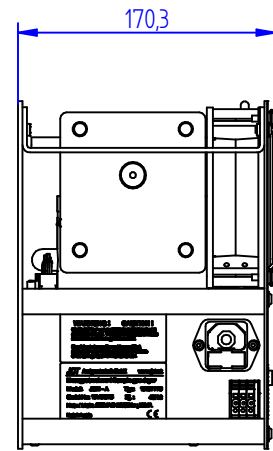
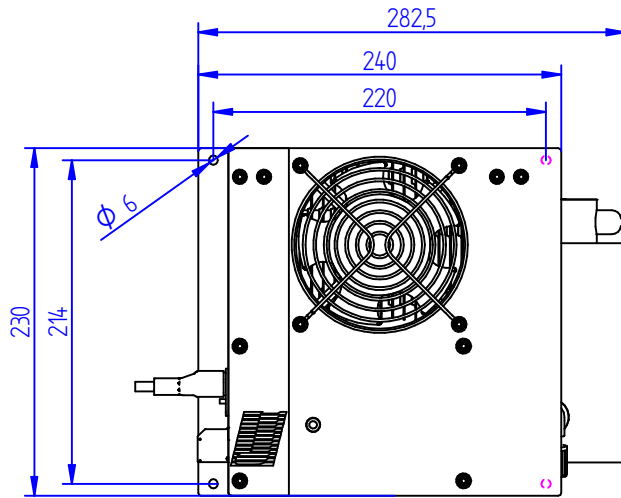
1	Sample gas inlet
2	Gas heat exchanger
3	Condensate pump

4	Condensate sensor KW-1
5	Sample gas outlet
6	Condensate outlet

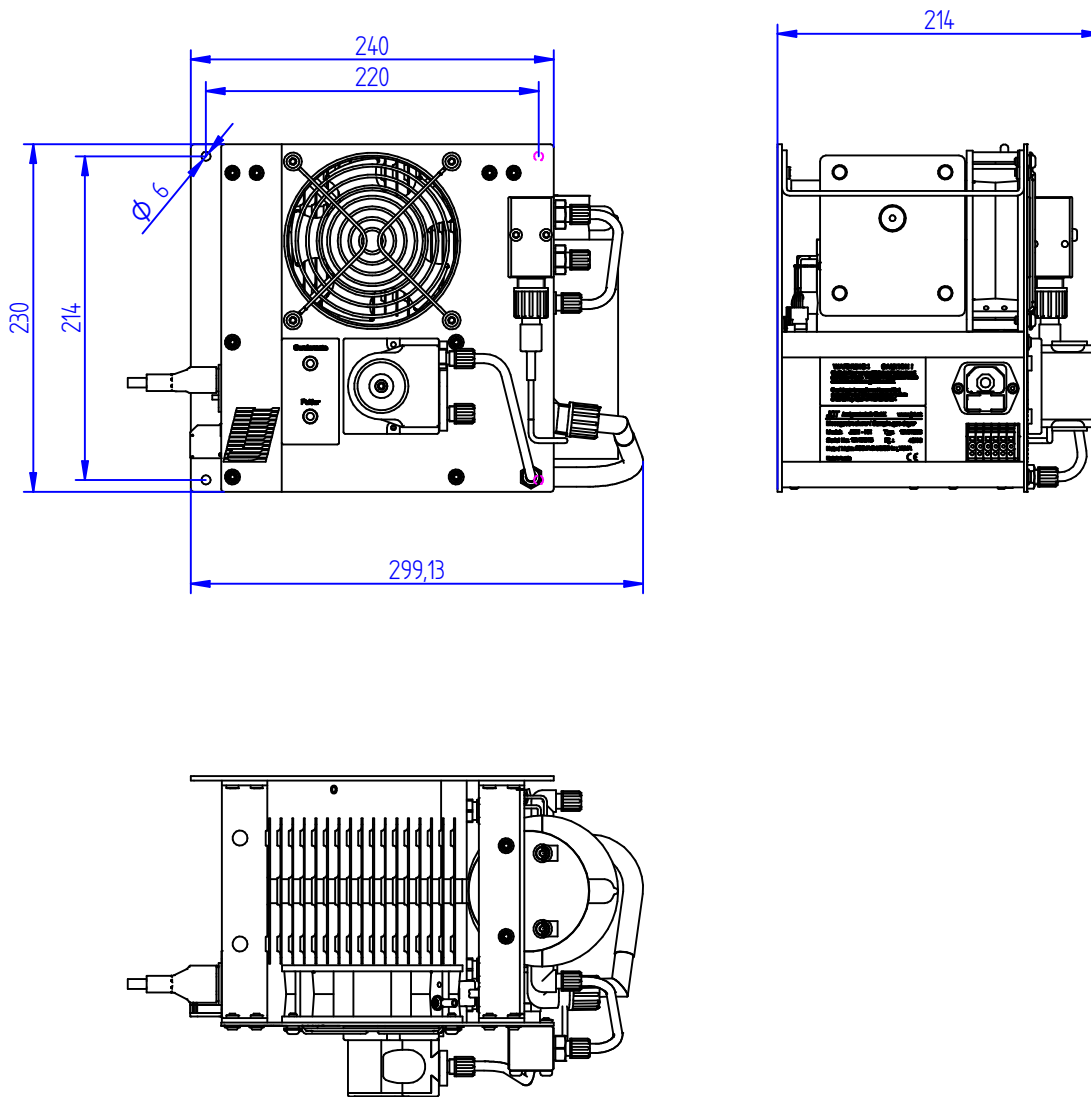
## PERFORMANCE DIAGRAMS



# DIMENSIONS JCM



## DIMENSIONS JCM-E AND JCM-KE



Specifications are subject to change without notice.

PDS\_E\_JCM\_v2.0

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