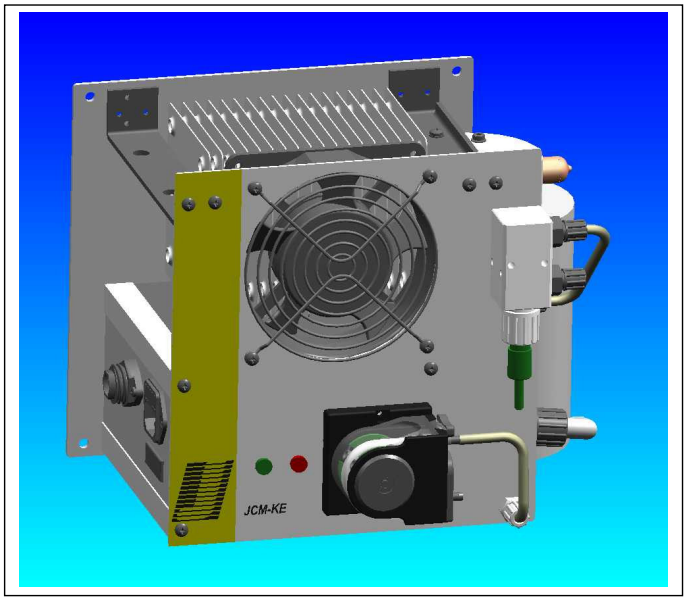
● Sampling Conditioning Systems ● Process Analytics
● System Integration ● Gas Generators ● FTIR-Analysers

conditioning systems

CONDITIONING SYSTEMS
Peltier Cooler JCM



FEATURES

- ◆ High performance Peltier Element
- ◆ Compact and robust
- ◆ Proven and reliable technology
- ◆ Internal tubing pump
- ◆ Condensate Monitoring
- ◆ Corrosion resistant gas paths
- ◆ Stable Dew Point

GENERAL

Where space is limited but sample gas conditioning requirements are high, the JCM cooler module provides the ideal solution. JCM Sample Gas Coolers are designed to separate water vapour from sample gas. Because water vapours are suppressed, analyzers can be used in continuous operation at low maintenance. The main use of this cooler is to guarantee suitable conditioned sample gas prior to analysis by moisture equipment. This allows full utilization of your gas analyser with a minimum amount of maintenance or down-time.

TECHNOLOGY

A cylindrical thin walled heat exchanger of PVDF construction is configured to provide a high degree of precipitation through the effects of cooling and droplet impaction.

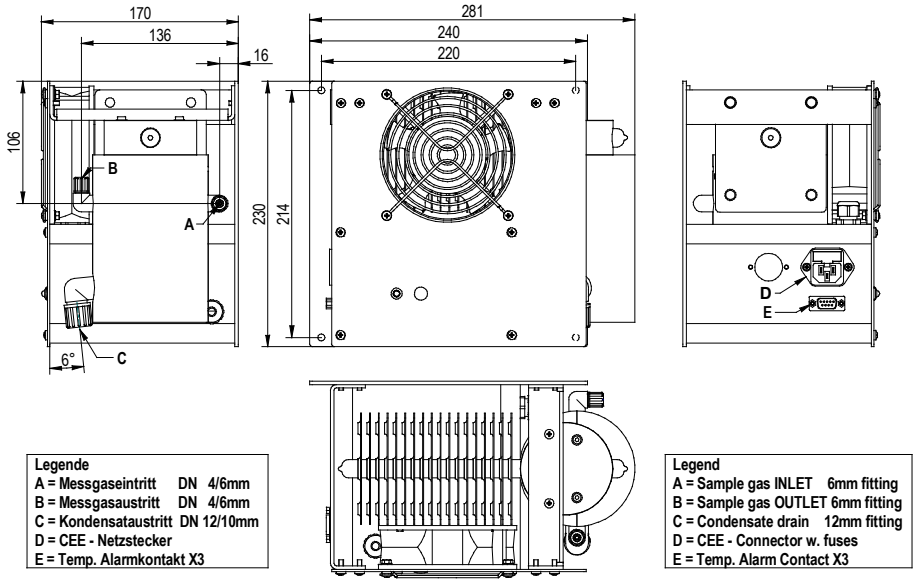
The materials of use permit application even in corrosive gas streams. The upper section of the heat exchanger unit houses a high performance Peltier element. Passing a direct current through the Peltier element causes heat transfer along its length from the „cold“ to the „hot“ junction. The „cold“ section is mounted on top of the heat exchanger. At this point a temperature sensor is positioned to govern the set temperature of the unit.

FEATURES

The cooler module consists of a single heat exchanger packaged as a compact unit suitable for wall or bulkhead mounting. Proven modules are assembled into 4 instrument versions. Parts that require maintenance are easily accessible and generally exchangeable without tools.

TECHNICAL DATA

Massbild & Anschlüsse JCM-A
Dimensions & connections JCM-A



Legende
A = Messgaseintritt DN 4/6mm
B = Messgasaustritt DN 4/6mm
C = Kondensataustritt DN 12/10mm
D = CEE - Netzstecker
E = Temp. Alarmkontakt X3

Legend
A = Sample gas INLET 6mm fitting
B = Sample gas OUTLET 6mm fitting
C = Condensate drain 12mm fitting
D = CEE - Connector w. fuses
E = Temp. Alarm Contact X3

SPECIFICATIONS	
Gas Temperature input	max. 150°C
Operation Pressure	400 kPa (abs) without Peristaltic Pump (JCM; JCM-A) 40...220 kPa (abs) with Peristaltic Pump (JCM-E; JCM-KE)
Dew Point at outlet	factory setting: +5°C; adjustable range +1°C - +20°C
Stability of dew point at outlet	+/- 0,2°C measuring with: DPin=60°C; Q Gas=60l/h at 20°C
Dead volume of the heat exchanger	approx. 50ml
Ambient Temperature	35°C
Cooling power	> 15W (J/s)

ORDER CODE		
12.01000	JCM	Sample gas cooler, 230 V 50/60 Hz
12.01110	JCM-A	Sample gas cooler, 230 V 50/60 Hz With temperature alarm contact
12.01200	JCM-E	Sample gas cooler, 230 V 50/60 Hz With peristaltic pump
12.01300	JCM-KE	Sample gas cooler, 230 V 50/60 Hz With peristaltic pump, temperature and condensate alarm contact

SPECIFICATIONS	
Main voltage	230VAC 50Hz; 115VAC 50 or 60Hz optional
Power requirement	JCM & JCM-A 70VA; JCM-E & JCM-KE 82VA
Applied materials	PVDF, FPM, FEP
Gas flow	60-240 l/h
Gas connections	PVDF tubing fittings 4/6mm
Condensate drain	PVDF tubing fitting 10/12 (JCM; JCM-A) Peristaltic pump tube nipple 4/6 (JCM-E; JCM-KE)
Dimension	280x230x220mm (WxHxD)
Weight	approx. 5,5 kg - 8,5 kg depends on model

ORDER CODE		
12.01001	JCM/S	Sample gas cooler, 115 V 50/60 Hz
12.01111	JCM-A/S	Sample gas cooler, 115 V 50/60 Hz With temperature alarm contact
12.01201	JCM-E/S	Sample gas cooler, 115 V 50/60 Hz With peristaltic pump
12.01301	JCM-KE/S	Sample gas cooler, 115 V 50/60 Hz With peristaltic pump, temperature and condensate alarm contact
SPARE PARTS		
12.90392		Repl. hose set peristaltic pump with tube connector DN4/6 pkg 5 pcs.

Specification subject to change without notice.

PDS_E_JCM_06/06_Rev. 2

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