

Innovation in Gas Analysis

JCE-2 Ex Midi Sample Gas Compressor Cooler



APPLICATION

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

BENEFITS

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

FEATURES

- Proven and reliable technology with ATEX approval
- Performance optimised construction
- High performance heat exchanger with flow rates up to 350 NI/hr
- Heat exchanger material PVDF or stainless steel
- One or two independant gas paths
- Proportional temperature controller
- Digital temperature display
- Integrated condensate pumps
- Status contact
- Compact design



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Heated Sample Lines

Sample Gas Coolers

Condensate
Treatment

Accessories

Gas Conditioning
Systems

Sample Gas
Converters

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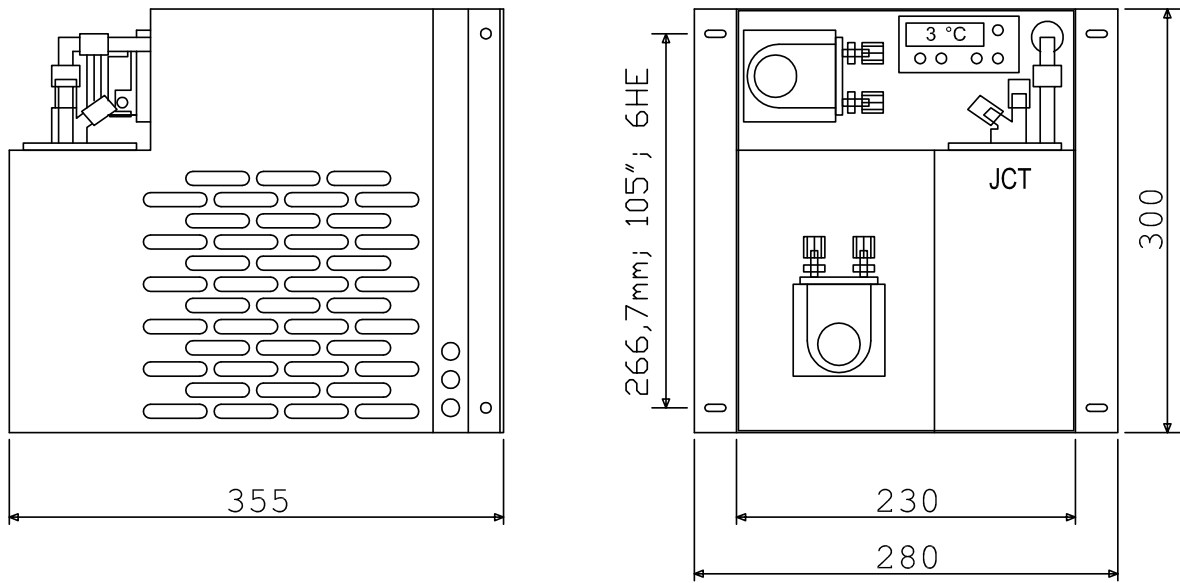
TECHNICAL DATA

| Model | | JCE-2 Ex Midi | | | |
|--|--|----------------------|------------|---------|--|
| Description | explosion proof sample gas compressor cooler for Ex-zone 2 | | | | |
| Cooling principle | compressor cooling | | | | |
| Number of heat exchangers / gas paths | 1 / 1 (Mono) | | 1/2 (Dual) | | |
| Material heat exchangers | PVDF | SS316 | PVDF | SS316 | |
| Operation | | | | | |
| Max. gas flow rate* [NI/hr] | 250 | 350 | 2 x 125 | 2 x 180 | |
| Max. Gas inlet temperature* [°C] | 140 | 180 | 140 | 180 | |
| Max. Gas inlet dew point* [°C] | 70 | 80 | 70 | 80 | |
| Gas outlet dew point | +3°C | | | | |
| Dew point stability (for constant inlet conditions) | ±0,3K | | | | |
| Ambient temperature | +5....+40°C | | | | |
| Cooling capacity | 90 W | 160 W | 90 W | 160 W | |
| Temperature alarm limits | <0 / >+10°C | | | | |
| Operating pressure with condensate pump | 0,2...2,2 bara | | | | |
| Max. operating pressure without condensate pump [bara] | 2,2 | 100 | 2,2 | 100 | |
| Ready for operation | < 20 min | | | | |
| Pressure drop at 100 NI/hr | ca. 6 mbar | | | | |
| Construction | | | | | |
| Dimensions over all (W x H x D) | rear panel mounting: 230 x 300 x 355 mm side panel mounting: 355 x 300 x 230 mm | | | | |
| Installation | stand alone or wall mounting (rear or side panel) | | | | |
| Mounting position | horizontal | | | | |
| Weight | 18,5 kg | | | | |
| Housing, colour | sheet steel 1,5 mm, powder coated, RAL 7035 | | | | |
| Dead volume per gas path | 67 ml | | | | |
| Connection sample gas inlet | 6 mm tube | | | | |
| Connection sample gas outlet and condensate outlet on top (standard) | PVDF: PVDF hose fitting DN 4/6; 1.4401: 6 mm tube | | | | |
| Connection condensate outlet at the bottom (on request) | 12 mm tube | | | | |
| Protection class | IP 20 (EN 60529 / EN 61010) | | | | |
| Type of protection | ☸ II 3G Ex ma IIA T3; ☸ II 3D Ex ma IIIB T180°C (EN60079) | | | | |
| Approvals / signs | CE | | | | |
| Electrics | | | | | |
| Power supply | 220....240 VAC 50/60 Hz or 100....115 VAC 50/60 Hz | | | | |
| Power consumption (depending on load and ambient temperature) | 190 W | | | | |
| Connection power / status signal | 2,3 m cable, open ends | | | | |
| Fusing | external on installation site, fuse characteristic C: 230 VAC 6 A; 115 VAC 10 A | | | | |
| On-time | 100 % | | | | |
| Temperature indication | digital | | | | |
| Status contact | volt free changeover contact max. 230 VAC / 2 A min. 5 VADC / 5 mA | | | | |

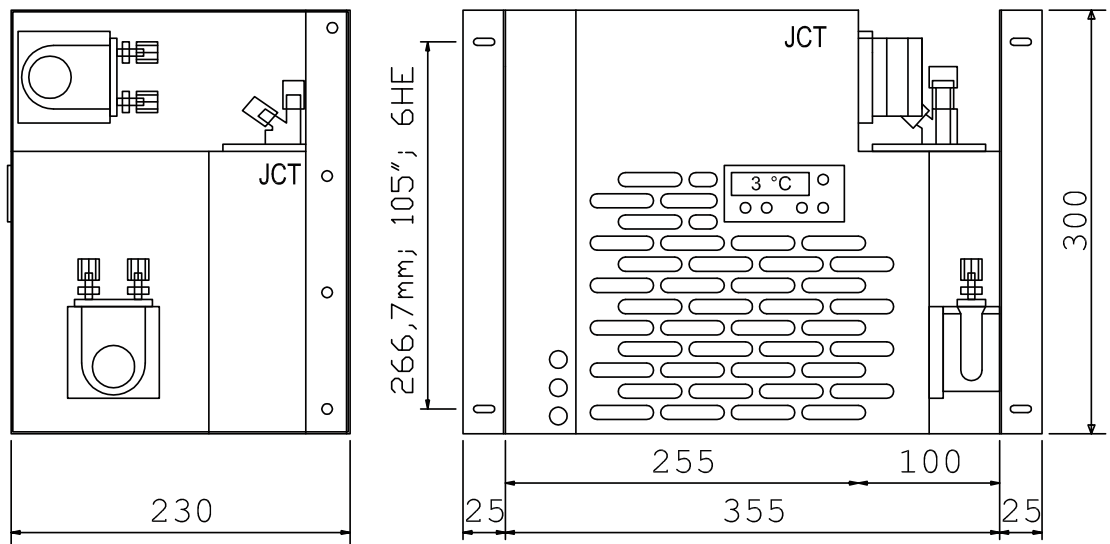
* Results from the effective cooling capacity at 25°C ambient temperature and 3°C outlet dew point and can be influenced by further operational parameters

DIMENSIONS

JCE-2 Ex Midi for rear panel mounting



JCE-2 Ex Midi for side panel mounting



Dimensions in mm

ORDER CODES

JCE-2 Ex Midi

| | | | | | | | | | |
|--|---------------------------------|---|--|--|--|--|--|---|---|
| Housing | For rear panel mounting | S | | | | | | | |
| | For side panel mounting | Q | | | | | | | |
| Gas heat exchanger with condensate outlet on top | 1 Mono PVDF-gas heat exchanger | | | | | | | 1 | |
| | 1 Mono SS316-gas heat exchanger | | | | | | | 2 | |
| | 1 Dual PVDF-gas heat exchanger | | | | | | | 4 | |
| | 1 Dual SS316-gas heat exchanger | | | | | | | 5 | |
| Gas heat exchanger with condensate outlet at bottom (only without condensate pump) | 1 Mono PVDF-gas heat exchanger | | | | | | | A | |
| | 1 Mono SS316-gas heat exchanger | | | | | | | B | |
| | 1 Dual PVDF-gas heat exchanger | | | | | | | D | |
| | 1 Dual SS316-gas heat exchanger | | | | | | | E | |
| Condensate pump | Without condensate pump JSR-25 | | | | | | | 0 | |
| | 1 Condensate pump JSR-25 | | | | | | | 1 | |
| | 2 Condensate pumps JSR-25 | | | | | | | 2 | |
| Power supply | 230 VAC 50/60 Hz | | | | | | | | 1 |
| | 115 VAC 50/60 Hz | | | | | | | | 3 |
| Options | Standard version | | | | | | | | X |
| | Special version (on request) | | | | | | | | 1 |

Order code JCE-2.

Accessories

| Part number | Description |
|-------------|---|
| K9521500 | Automatic liquid drainer 11-LD, completely out 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 |

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