



Portable Gas Conditioning Unit series CSS®

Portable version CSS-M for 70 NI/h gas flow rate
Wall mounting version CSS-M/W for 70 NI/h gas flow rate

14.4 04.04/06.06

Special Features

- Low maintenance and self-monitoring
- Outlet dew point adjustable from +2 °C to +15 °C
- Dew point stability $\pm 0,1$ °C
- Operational in 10 minutes
- Compact construction
- Light weight
- Optimum reliability

M&C® Application

The M&C portable gas conditioning unit CSS-M is designed to carry out precise gas analyses at different locations. The version CSS-M/W is a complete pre-installed compact continuous working gas conditioning system for wall mounting.

Both gas conditioning units are housed in a robust aluminium-frame case to enable the user to carry out respectively install a rapid gas analysis, which is safe with little maintenance work.

The CSS-M gas conditioning unit is suitable for variable, discontinuous use as well as for continuous operation.

The components built into the CSS-M and CSS-M/W gas conditioning units can be used for standard applications.

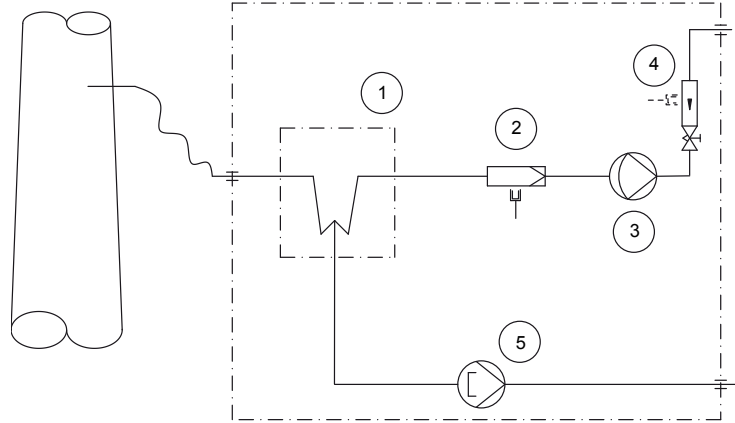
M&C® Description

The CSS-M and CSS-M/W gas conditioning units are equipped with a peltier gas cooler series ECP with Jet-Stream heat exchanger which cools the sample gas to constant +5 °C independent of the ambient temperature. As soon as the operating temperature of $< +8$ °C is reached after start-up, the gas pump N3KPE is switched on automatically via the status contact of the gas-cooler. The SR 25.2 peristaltic pump ensures a constant condensate removal which makes a long-term measurement possible without problems. The corresponding particle filtration is carried out by a 2µm filter type FPF-2-0,3GF with an integrated liquid alarm. In case of alarm the gas pump is switched off. In the sample gas outlet a flow meter FM40 is integrated. For the version CSS-M/W a flow alarm is available as an option.

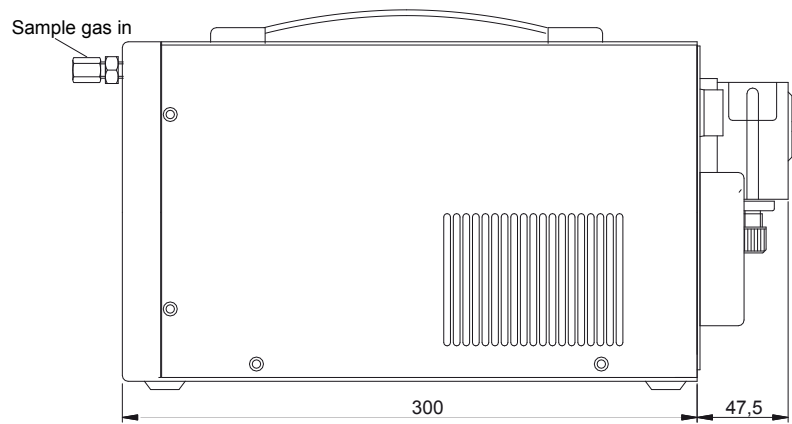
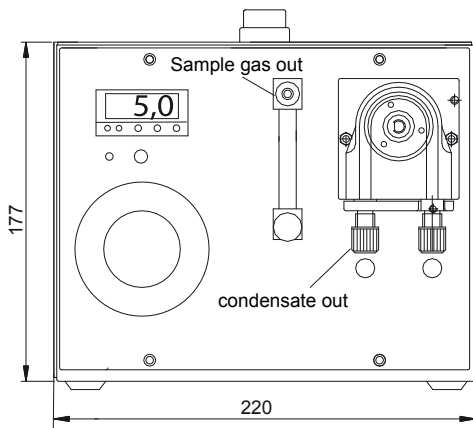
This makes both versions complete gas conditioning systems suitable for most of the analysers.

M&C | Flow scheme CSS-M/(W)

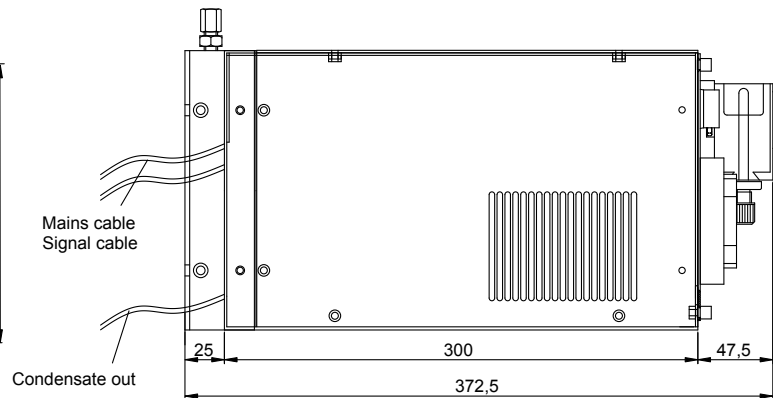
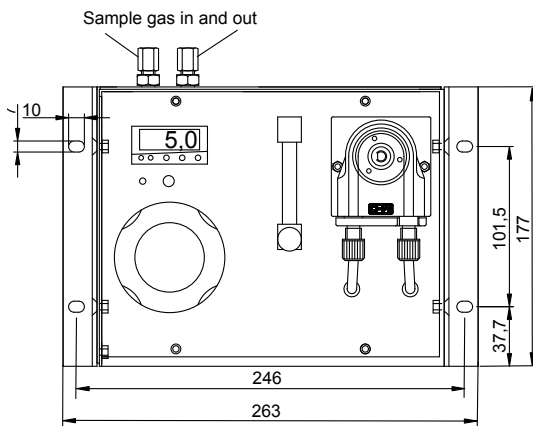
- 1 Gas cooler series ECP
- 2 Fine filter FPF-2-0,3GF, filter porosity 0,3µm with liquid alarm
- 3 Gas diaphragm pump N3KPE
- 4 Flow meter FM40 (CSS-M/W optional with flow alarm)
- 5 Peristaltic pump SR25.2



M&C | Dimensions CSS-M



M&C | Dimensions CSS-M/W



Dimensions in mm

| Gas Conditioning Unit series CSS [®] | version CSS-M | version CSS-M/W |
|-----------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Part No. for 230V 50Hz version | 01G2000 | 01G2500 |
| Part No. for 115V 60Hz version | 01G2000a | 01G2500a |
| Sample outlet dew point | range of adjustment: +2 °C +15 °C, factory setting: +5 °C | |
| Dew point stability | at constant conditions < ± 0,1 °C** | |
| Sample inlet temperature | **max. 80 °C | |
| Sample inlet dew point | **max.+50 °C | |
| Gas flow rate / flow alarm | **max. 70 NI/hr / no | **max. 70 NI/hr / optional part no. 01G9805 |
| Ambient temperature | **+5 °C up to +45 °C | |
| Storage temperature | -25 °C up to +65 °C | |
| Pressure | 0,7 bar up to 1,4 bar abs. | |
| Total cooling capacity ** | max. 40 kJ/hr | |
| Number of gas inlets | 1 | |
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| Condensate outlet | 1 | |
| Medium connections | tube connection 4/6 mm | |
| Material of sample contacting parts | glass, PVDF, Novoprene [®] , FPM | |
| Ready for operation | approx. 10 min. | |
| Power supply | 230V 50Hz or 115V 60Hz | |
| Power consumption | max. 240VA | |
| Fuse protection | 4A t, 5x 20 mm | |
| Electrical connection | Cold appliance plug with 2 m of cable | mains cable 3x1mm ² , signal cable 3x0,5mm ² , 3m length |
| Status alarm, 1 change over contact, potential free | no | contact rating 250VAC, 2A, summary alarm for gas flow, liquid and cooler temperature |
| Case protection | IP20 (DIN 40050. IEC 529) | |
| Sheet steel housing, execution | portable, colour grey, RAL 7035 | wall mounting, colour grey RAL 7035 |
| Equipment dimensions | 177 mm x 220 mm x 300 mm (H x W x D) | 177 mm x 263 mm x 372,5 mm (H x W x D) |
| Electrical equipment standard | EN61010 | |
| Weight | approx. 11 kg | |

FPM = Viton[®]

PVDF = Polyvinylidenfluoride

** Maximum values in technical datas must be rated in consideration of total cooling capacity at 25 °C ambient temperature and an outlet dew point of 5 °C.