



CSS-M

## 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.

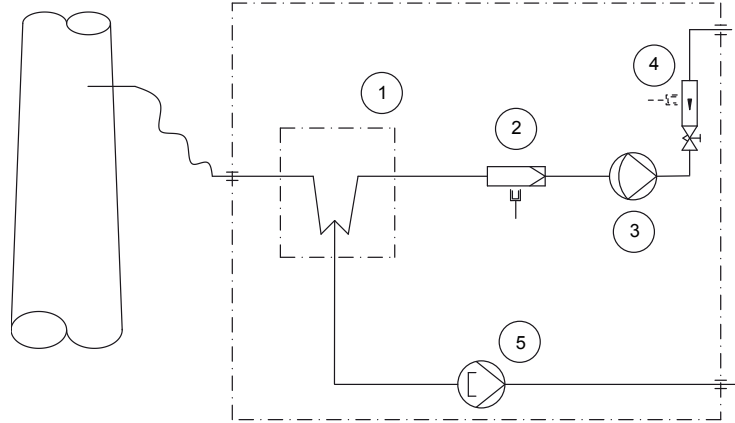
### M&C® Description

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  $2\mu\text{m}$  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.

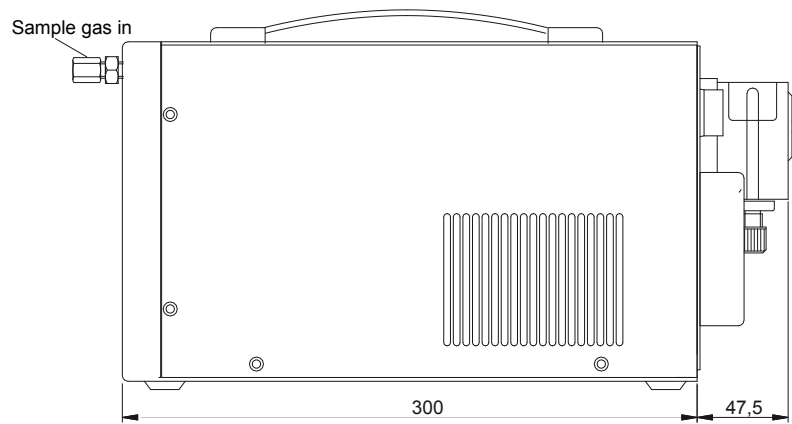
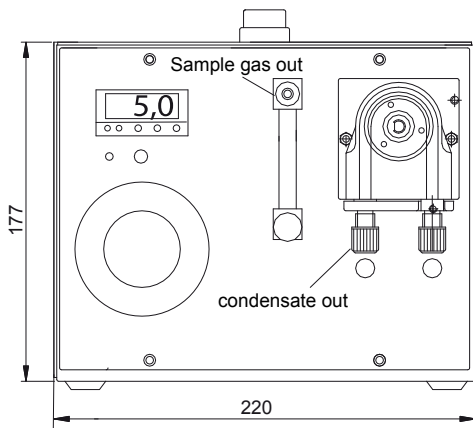
This makes both versions complete gas conditioning systems suitable for most of the analysers.

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

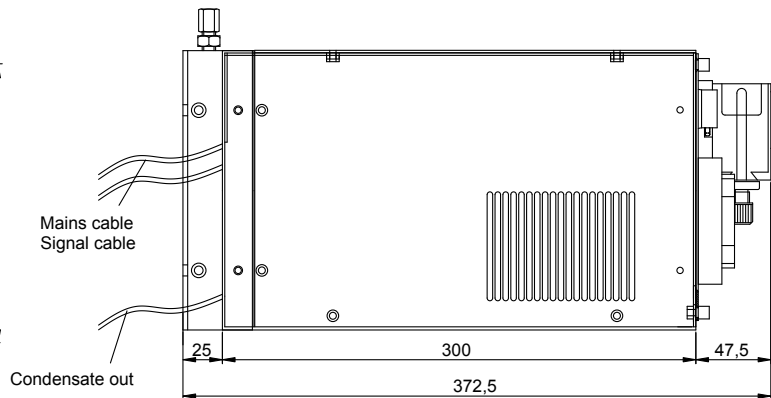
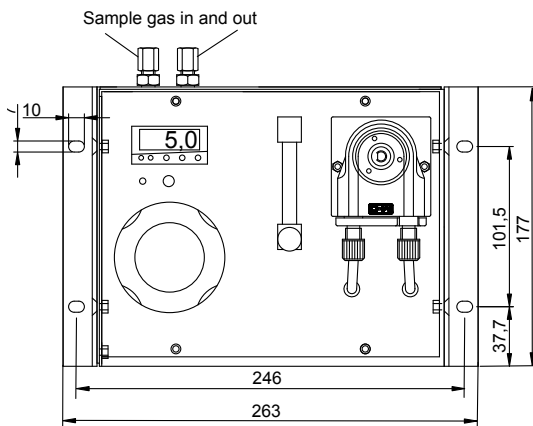
- 1 Gas cooler series ECP
- 2 Fine filter FPF-2-0,3GF, filter porosity 0,3µm with liquid alarm
- 3 Gas diaphragm pump N3KPE
- 4 Flow meter FM40 (CSS-M/W optional with flow alarm)
- 5 Peristaltic pump SR25.2



**M&C** | Dimensions CSS-M



**M&C** | Dimensions CSS-M/W



Dimensions in mm

Gas Conditioning Unit series CSS <sup>®</sup>	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	
Number of gas outlets	1	
Condensate outlet	1	
Medium connections	tube connection 4/6 mm	
Material of sample contacting parts	glass, PVDF, Novoprene <sup>®</sup> , 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 <sup>2</sup> , signal cable 3x0,5mm <sup>2</sup> , 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<sup>®</sup>

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.



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