



PSS-20

Portable Gas Conditioning Unit Series PSS®

PSS-20

Special Features

- Gas outlet dew point adjustable from +2 to +15 °C [35.6 to 59 °F]
- Dew point stability < ±0.1 °C [±0.18 °F]
- Ready for use in less than 5 minutes
- Compact construction, light weight
- Jet-Stream heat exchangers in various materials available
- Acid dosing package available as an option
- Low maintenance

Application

The gas conditioning system PSS-20 is suitable for variable discontinuous use as well as for continuous operation.

M&C gas conditioning system PSS-20 has been redesigned and includes standard-compliant gas temperature monitoring and a temperature display visible from the outside.

The entire gas conditioning system is housed in a compact and impact-resistant metal case equipped with an integrated handle. This allows fast, low-maintenance and reliable gas analyses to be carried out at various locations with little effort.

Description

The PSS-20 gas conditioning system is equipped with a high-performance Peltier gas cooler of the new series as standard.

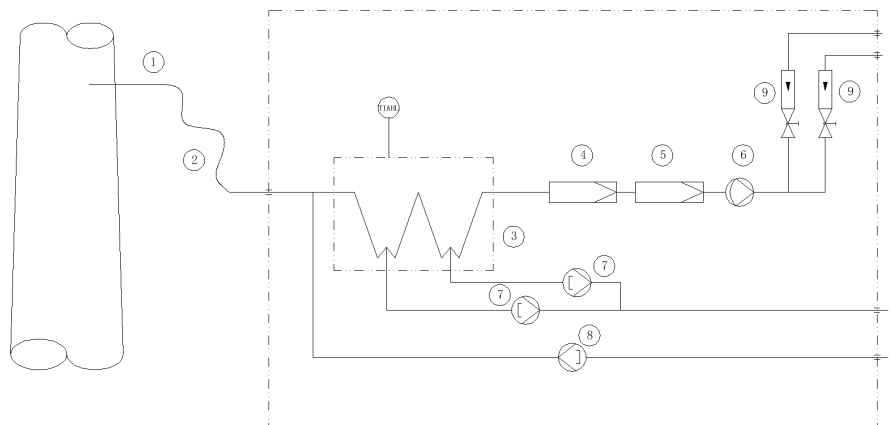
The cooler is equipped with a Jet-Stream heat exchanger, which cools the sample gas constantly to +5 °C [41 °F], independent of the ambient temperature. As soon as the operating temperature < +8 °C [46 °F] is reached after commissioning, the sample gas pump N5 KPE is automatically switched on by the gas cooler status contact. The two peristaltic pumps SR 25.2 ensure continuous condensate removal. This also allows to easily accomplish long-term measurements with the gas conditioning system. The corresponding particle filtration is carried out by an FPF+ ultra fine filter and an FPF filter.

A peristaltic pump type SR25.3 is optionally available for adding acid.

The portable PSS-20 gas conditioning system is a complete conditioning system for most gas analysis devices.

Gas flow diagram PSS-20

- ① Gas sample probe
- ② Sample line
- ③ Peltier gas cooler with temperature alarm
- ④ Primary fine filter FPF+ (2 µm) with LA3 humidity sensor
- ⑤ Secondary fine filter FPF (0.1 µm)
- ⑥ Sample gas pump N5 KPE
- ⑦ Peristaltic pumps SR25.2 for condensate removal
- ⑧ Peristaltic pump SR25.3 for acid dosing (optional)
- ⑨ Flow meters FM40 (15 - 150 & 25 - 250 Nl/h)





Dimensions in mm

Technical Data

Gas Conditioning Unit Series PSS®	Version PSS-20
Part No.	760-280200000
Sample outlet dew point	Range of adjustment: +2 to +15 °C [35 to 59 °F], factory setting: +5 °C [41 °F]
Dew point stability sample outlet	At constant conditions < ±0.1 °C [±0.18 °F]
Sample inlet temperature	*Max. 180 °C [356 °F] with stainless steel bulkhead union
Sample inlet water vapour saturation	*Max. 80 °C [176 °F]
Gas flow rate heat exchanger	*Max. 2 x 150 NL/h
Ambient temperature	+5 to +40 °C [41 to 104 °F]
Storage temperature	-25 to +65 °C [-13 to 149 °F]
Pressure	0.7 bar up to 1.4 bar abs.
Total cooling capacity	*Max. 90 kJ/h
Number of gas inlets	1
Number of gas outlets	2
Medium connections	Tube connections 4/6 mm
Material of sample contacting parts	Glass, SS316Ti, PVDF, PTFE, Novoprene, FKM
Ready for operation	Approx. 5 min.
Power supply	230 V AC ±10 %, 50/60 Hz
Power consumption	Max. 400 VA; with option temperature controller and heated sample line 230 V: max. 1380 VA
Liquid detection	Yes
Fuse protection	4 A, time-delay, 5 x 20 mm [with option temperature controller: 10 A, time-delay]
Electrical connection	2 m [≈ 6.6 ft] long universal power cord with three-hole national standard plug
Housing	Impact-resistant case with handle
Case protection	IP20
Housing color	Black/white
Housing dimensions (W x H x D)	Approx. 245 x 341.5 x 411 mm [≈ 9.6" x 13.4" x 16.2"] without anti-collision angles
Weight w/o options	Approx. 12.5 kg [≈ 27.6 lbs]

Options

Options	Type	Part No.
Acid dosing package	Includes acid peristaltic pump SR25.3, PVDF tees, PVDF through-plate connectors and installation and wiring services	760-280200001
Electronic temperature controller for max. (8 m [≈ 39.4 ft] (230 V) heated sample line 100 W/m	702 control range: 0 to 200 °C [32 to 392 °F], input PT100, power: 230 V AC 50/60 Hz, contact capacity: 250 V AC, max. 6 A, completely mounted and wiring services incl. 7-pin plug 10 A	760-280200002

* Maximum values in technical data must be rated in consideration of total cooling capacity at 25 °C [77 °F] ambient temperature and 5 °C [41 °F] outlet dew point.

PTFE = Polytetrafluoroethylene (Teflon®), PVDF = Polyvinylidene fluoride, PP = Polypropylene
Teflon® is a registered trademark used by DuPont Performance Elastomers, USA.

Please note: NL/h and NL/min refer to the German standard DIN 1343 and are based on these standard conditions: 0 °C [32 °F], 1013 mbar.