



Portable Gas Conditioning Unit

Series PSS®

Version PSS5 for 150 NI/h gas flow rate

Version PSS5/3 für 350 NI/h gas flow rate

Special Features

- Low maintenance and self-monitoring
- 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 operation in approx. 10 minutes
- Compact construction
- Light weight
- Trolley system
- Optimum reliability
- Jet Stream heat exchangers in various materials available
- Universal equipment possible

Application

The portable M&C gas conditioning units PSS5 and PSS5/3 are designed for all those who need to perform accurate gas analysis at different locations. The entire gas conditioning system is housed in a compact and robust aluminium framed case, for carrying out your gas analysis quickly, with low maintenance requirements and with maximum operational reliability.

The PSS5 and PSS5/3 gas conditioning units are suitable for variable, discontinuous use as well as for continuous operation. The components built into the gas conditioning units are intended for "standard use".

For special measuring tasks, additional or different components from our extensive product range can also be used.

Description

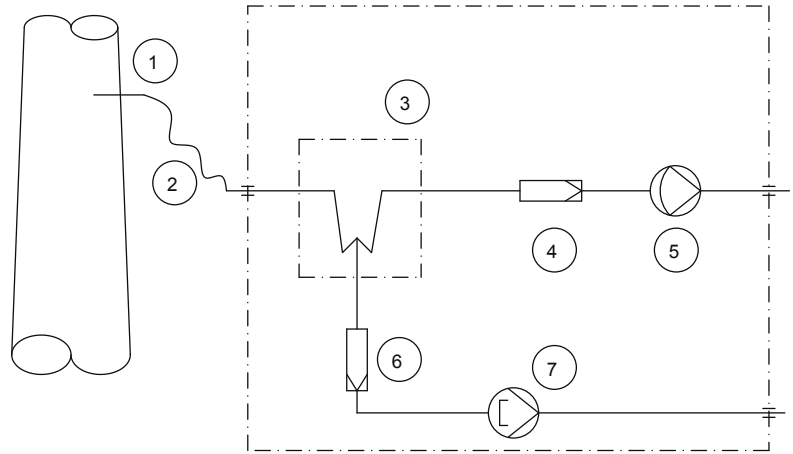
The PSS5 and PSS5/3 gas conditioning units are equipped with a gas cooler from the ECP® series with a Jet-Stream heat exchanger which cools down the sample gas to constant +5 °C [41 °F] independent of the ambient temperature. As soon as the operating temperature of < +8 °C [46.4 °F] is reached after the start-up, the sample gas pump N3 KPE or N9 KPE is switched on automatically via the status contact of the gas cooler. The SR25.2-W peristaltic pump ensures a constant condensate removal which makes a long-term measurement possible without any problems. The corresponding particle filtration is carried out by a 2 µm filter type FP-2T.

This makes the portable gas conditioning system a complete conditioning system for most gas analysis equipment.

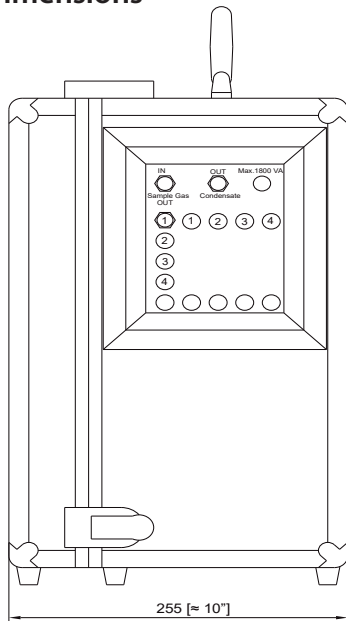
PSS5 and PSS5/3 Design



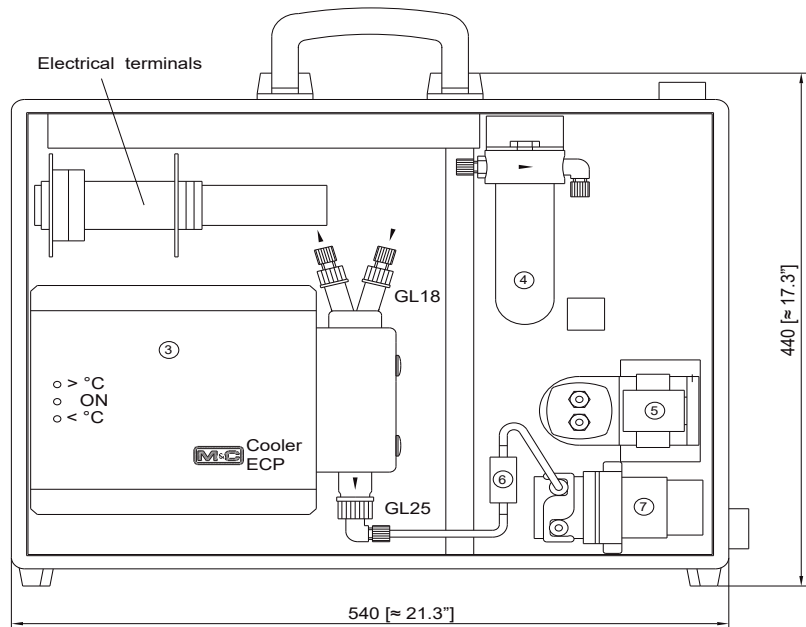
- 1 Gas sample probe
- 2 Sample line, 3 m [≈ 9.8 ft] PVC tubing
- 3 Gas cooler ECP 1000 or ECP 3000
- 4 Fine filter FP-2T, filter porosity 2 μm
- 5 Gas diaphragm pump N3 KPE or N9 KPE
- 6 Pre-filter PF2
- 7 Peristaltic pump SR25.2-W



Dimensions



Dimensions in mm [Inches]



PSS5 with Trolley System



Technical Data



| Gas Conditioning Unit Series PSS® | Version PSS5 | Version PSS5/3 |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------|
| Part No. for 230 V/50 Hz version | 01G1100 | 01G1500 |
| Part No. for 115 V/60 Hz version | 01G1100a | 01G1500a |
| Gas outlet dew point | Range of adjustment: +2 to +15 °C [35.6 to 59 °F], factory setting: +5 °C [41 °F] | |
| Gas outlet dew point stability | At constant conditions < ±0.1 °C [±0.18 °F] | |
| Gas inlet temperature | Max. 80 °C* [176 °F*], optional: max. 180 °C* [356 °F*] with stainless steel bulkhead union | |
| Gas inlet water vapor saturation | Max. 80 °C* [176 °F*] | |
| Gas flow rate | Max. 150 NI/h* | Max. 350 NI/h* |
| Ambient temperature | +5 to +40 °C* [41 to 104 °F*] | |
| Storage temperature | -25 to +65 °C [-4 to 149 °F] | |
| Pressure | 0.7 to 1.4 bar abs. | |
| Total cooling capacity | Max. 50 kJ/h* | Max. 90 kJ/h* |
| Number of gas inlets | 1 | |
| Number of gas outlets | 1, optional: max. 4 | |
| Medium connections | Tube connection DN 4/6 | |
| Material of sample contacting parts | Stainless steel, glass, PPH, PVC, PVDF, PTFE, Novoprene®, optional: Viton® for gas sample line (Part No. 01G9025) | |
| Ready for operation | Approx. 10 min | |
| Power supply | 230 V/50 Hz or 115 V/60 Hz | |
| Power consumption | Max. 240 VA; with option temperature controller and heated sample line 230 V: max. 1620 VA, 115 V: max. 920 VA | |
| Fuse protection | 4 A t, 5 x 20 mm, with option temperature controller: 10 A t | |
| Electrical connection | Cold appliance plug with 2 m [≈ 6.6 ft] cable | |
| Case protection | IP20 EN 60529 | |
| Case type | Portable aluminium framed protective case | |
| Case dimensions (H x W x D) | 440 x 540 x 255 mm [≈ 17.3" x 21.3" x 10"] | |
| Electrical equipment standard | EN 61010 | |
| Weight without options | Approx. 17 kg [≈ 37.5 lbs] | Approx. 17.7 kg [≈ 39 lbs] |

| Options | Type | Part No |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Further sample gas outlet | Parallel sample gas outlet, tubing via T-piece on lateral PVDF bulkhead fitting, DN 4/6, max. 4 pieces | 01G9065 |
| Flow meter, max. 4 pieces | FM40 7-70 NI/h air, mounted in sample gas outlet FM40 15-150 NI/h air, mounted in sample gas outlet FM40 25-250 NI/h air, mounted in sample gas outlet FM40 50-500 NI/h air, mounted in sample gas outlet | 01G9070 01G9075 01G9080 01G9085 |
| Fittings out of PVDF | Fittings out of PVDF instead of PP and 3 m Viton® sample tube DN 4/6 | 01G9025 |
| Sample tube | Sample tube out of Kanthal® ø 6 mm, length 1 m, sampling temperature max. 1300 °C [2372 °F] | 01G9030 |
| Liquid alarm | Liquid alarm LA 1/1.4, consisting of: liquid alarm sensor LA1, controller LA1.4, filter glass F120G-D with GL connection incl. mountage/wiring. In case of condensate inrush, the sample gas pump is automatically switched off. | 01G9035 |
| 3-way ball valve | 3L/PV-1 for switching over from test gas to sample gas, in the inlet of the sample gas conditioning unit, mounted with mounting brackets, fittings PVDF | 01G9046 |
| 5-way ball valve | 5L/PV-1 for switching over from test gas to sample gas, in the inlet of the sample gas conditioning unit, mounted with mounting brackets, fitting PVDF | 01G9045 |
| Electronic temperature controller for max. 12 m [≈ 39.4 ft] heated sample line 100 W/m | 701 control range 0 to 200 °C [32 to 392 °F], inlet PT100, power 230 V/50 Hz, Contact capacity 250 V AC max. 10 A, completely mounted incl. 7-pin plug 10 A | 01G9055 |
| Electronic temperature controller for max. 6 m [≈ 19.7 ft] heated sample line 100 W/m | 701 control range 0 to 200 °C [32 to 392 °F], inlet PT100, power 115 V/60 Hz, Contact capacity 250 V AC max. 10 A, completely mounted incl. 7-pin plug 10 A | 01G9055a |
| Connecting adapter DN 4/6 for heated sample line | PSS5 connecting adapter with anti-kink protection adapter for rigid mounting of heated sample gas lines with replaceable PTFE hose DN 4/6, consisting of: Swagelok fitting and union nut, incl. 4 mm support sleeve, material: SS 316 Ti | 01G9060 |
| Connecting adapter DN 6/8 for heated sample line | PSS5 connecting adapter with anti-kink protection adapter for rigid mounting of heated sample gas lines with replaceable PTFE hose DN 6/8, consisting of: Swagelok fitting and union nut, incl. 6 mm support sleeve, material: SS 1.4571 Ti | 01G9061 |
| Trolley system | Detachable trolley for M&C white case, as of 2014, three-stage pull-out handle with locking knob in the handle and large, ball-bearing mounted casters | 90G0160 |

PPH = Polypropylene
 PTFE = Polytetrafluoroethylene (Teflon®)
 PVC = Polyvinylchloride
 PVDF = Polyvinylidenfluoride
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* 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. Other versions on request.