

## PSG Plus

### Probe Mobile

#### Application

The portable heated gas sampling probes series **Probe Mobile** are used for continuous extractive gas analysis. They enable trouble-free representative sampling of hot predominantly dust and water vapour loaded gases at changing locations. Typical applications are emission measurement, process monitoring and process optimization as well as inspection of permanently installed measurements.

#### Technology

The intelligent design with optimum gas guidance enables the filtration of sample gas at the outer filtration surface of 141cm<sup>2</sup> (largest on the market for portable probes) as well as comfortable and quick filter change without tools and dismounting of the heated sample line. Extremely simple maintenance of the **Probe Mobile** is enabled due to unscrewing the complete filter unit at the external rotary knob. The well insulated self-regulating high performance heating elements always ensures a homogeneous heating of the complete **Probe Mobile** to 180°C.

#### Functions

Due to the largest filtration surface on the market in combination with the homogeneous heating, dust will always be separated reliably in the **Probe Mobile** without condensation of water vapour and therefore without blocking of the filter. Due to the large ceramic filter with 2µm porosity the **Probe Mobile** is applicable for dust concentrations of up to 1g/m<sup>3</sup>. For elevated dust concentrations of up to 10g/m<sup>3</sup> the **Probe Mobile** has a back-purge port as standard. A stainless-steel filter cartridge filled with glass wool is available for applications with soot and taar (e.g. diesel fuel exhaust gas). The standard calibration resp. test gas connection enables the use of the **Probe Mobile** within emission measuring systems according to 13. and 17. BImSchV (EU-regulations 2000/76/EG and 2001/80/EG).



- ✓ Largest active filter surface on the market
- ✓ Corrosion resistant made of stainless steel SS316
- ✓ Very compact and light weight design
- ✓ Self-regulated heating to 180°C
- ✓ No cold spots
- ✓ Very quick and simple filter change without any tools
- ✓ Test gas / back purge connection as standard
- ✓ Low temperature alarm contact
- ✓ Excess temperature safety switch-off
- ✓ Extremely robust transport case
- ✓ Different sampling tube materials and length adaptable

## Technical Data

Probe Mobile			
Model		<b>PSG Mobile</b>	<b>PSG MP</b>
Part number		53402201	53402202
With transport case and spare filter		no	yes
Operating temperature	°C	180	
Operating pressure	bar abs.	0,5 - 4	
Ready for operation	min	15 - 30	
Filter porosity / material / surface	µm / cm <sup>2</sup>	2 / 141 / ceramic (others on request)	
Dust concentration	g/m <sup>3</sup>	1 (10 with back purge)	
Calibration gas / back purge connection		¼" NPT f	
Sample gas connection		¼" NPT f	
Connection sample gas inlet		G 3/8" f	
Mounting		Mounting eye with 2m metal chain or G 3/4" m for flange mounting	
Max. gas temperature	°C	Depending on sampling tube resp. 200 at sample gas inlet	
Ambient temperature	°C	-20 to +80	
Material gas wetted parts		Stainless steel SS316, ceramic, FKM	
Design data			
Dimensions (W x H x D)	mm	330 x 125 x 220	
Weight	kg	ca. 2,5	
Housing / color		sheet steel painted / RAL 9003	
Protection class		IP40	
Electrical data			
Voltage	VAC	230 50 Hz (115 60Hz optional)	
Electrical connection		7-pin plug connection with 4m cable and device plug	
Power consumption	W	approx. 450	
Voltage indication		by red LED	
Betriebsbereitschaftsanzeige		by green LED	
Safety switch-off		at excess temperature	

## Additional Options

Option	Part number
Voltage 115V/60Hz instead of 230V 50Hz	53500100
Glass wool cartridge incl. filling instead of ceramic filter	53500101
Check valve in calibration gas / back purge connection, 0,7 bar cracking pressure	53500102
Mounting flange DN65 PN6 with bushing G 3/4"i for permanent probe mounting	53500103
Sampling tube SS316, G 3/8"m, length 1m, 10mm Øo., max. 600°C	53500104
Sampling tube SS316, G 3/8"m, length 1,5m, 10mm Øo., max. 550°C	53500105
Sampling tube SS316, G 3/8"m, length 2m, 10mm Øo., max. 500°C	53500106
Sampling tube Kanthal, G 3/8"a, length 1m, max. 1400°C	53500107
Sampling tube Kanthal, G 3/8"a, length 1,5m, max. 1400°C	53500108
Sampling tube Kanthal, G 3/8"a, length 2m, max. 1400°C	53500109
Heated stainless steel sampling tube PSG HTM, G 3/8"m and G 3/8"f, length 1m, heated to 180°C, max. process temperature 580°C, 230VAC 500W	53500110
Heated stainless steel sampling tube PSG HTM, G 3/8"m and G 3/8"f, length 2m, heated to 180°C, max. process temperature 580°C, 230VAC 500W	53500111

**Probe MP****PSG HTM****Sampling tube SS316 or Kanthal****Glass wool cartridge**