

# PSG Plus Flex Plane

## Application

The controlled heated sample lines series **Flex Plane** are used for continuous extractive gas analysis and are suitable especially for movable resp. mobile applications. They serve primarily for the transport of the humid sample gas stream from the sample point to the analysis system. The holding temperature of the line thereby has to be above water vapour resp. acid dew point of the sample gas. In this way uncontrolled condensation of water vapour on the way to the analyzer and therefore washing out of gas components in condensate is prevented. Also, failure of the measurement by a freezing line at ambient temperatures below 0°C is avoided.

## Technology

The extremely flexible lines **Flex Plane** are equipped with outer silicone jacket. For heating a fixed resistor heating cable is used. Insulation is done with glass fiber fleece and silicone foam hose. Internal lines made of PTFE or PFA are possible. Pressure resistance is achieved by a metal braid jacket of the internal tube.

## Functions

The lines are delivered completely assembled and ready for operation ex works. The control of the lines **Flex Plane** is done with an external temperature controller (e.g. **Controller ST49** or **DC-10**) via integrated PT100 to max. 200°C. With optional quick connectors and looped through power supply the heated line can be connected quick and simple with e.g. the mobile gas sampling probe **PSG Plus Probe Mobile** and the mobile gas conditioning system **PSG Plus Cooler MAK Mobile**. This way all three components are supplied with only the electrical connection of the gas conditioning **MAK Mobile**.



- ✓ Design with very flexible silicone outer jacket
- ✓ Pressure resistant internal tube with metal braid jacket
- ✓ Ideal for mobile applications
- ✓ Perfectly combinable with PSG Mobile and MAK Mobile
- ✓ Operation with external temperature controller
- ✓ Fixed resistor heating cable
- ✓ Max. 200°C control temperature
- ✓ Ready for operation assembled ex works
- ✓ Internal lines made of PTFE or PFA

## Technical data and order numbers

Technical Data		
Max. operating temperature	°C	200
Heat insulation / weight	kg/m	glass fiber fleece and silicone foam hose / 1
Insulation thickness	mm	14
Heating cable type		fixed resistor heating cable
Outer jacket		silicone
Outer diameter	mm	44
Min. bending radius	mm	5 x outer diameter
Ambient temperature	°C	-20 to +65
Max. operating pressure abs. PTFE line	bar	20
Protection class		IP64 (EN60529)
Max. heating circuit length	m	60
Elektrical data		
Power	W/m	90
Electrical connection		3m silicone connection cable, open ends or 0,3m with 7-pole plug
Power supply		230V 50/60Hz or optional 120V 50/60Hz
Order numbers for 1m line with silicone jacket, 230V 50/60Hz		
1 x PTFE internal line 6mm	1m	54004157
1 x PTFE internal line 8mm	1m	54004158
1 x PTFE internal line 6mm*	1m	54004088
Order numbers for assembly ex works		
Silicone cap with stainless steel tube socket ending (probe side)		50085049
Silicone cap with stainless steel tube socket electr. connection		50085057
Silicone cap with quick connector (probe side)		50085096
Silicone cap with quick connector and electr. connection		50085097
Silicone cap with quick connector (probe side)**		50085093
Silicone cap with quick connector (analyzer side)**		50085094
Loop-through power supply with 7-pin connector at both ends		50085098
PT100 placed 350mm from ending, 3m cable		50061200

\*Including 230VAC power cable for self-regulating mobile probe heating

\*\*Including supply connection and temp.sensor connection

## Assembly



Silicone cap with stainless steel tube socket



Silicone cap with quick connector

### Temperature controllers



PSG ST49 with 25A SSR 230V 50/60Hz  
Part No. 50078850



PSG DC10  
Part No. 50078820

### Options

- Silicone foam ring with Velcro fastener for thermal insulation of the measuring gas connection on the PSG Mobile
- Internal lines made of PTFE or PFA with dimensions DN4/6 or DN6/8
- Power supply 115V 50/60Hz
- Cable gland M63 x 1,5 (clamping range 36-48mm), PA, for cabinet wall mounting, IP68, mounted or separately