



# Controlled Heated Shortenable Sample Lines

## PSG Extruded Plus Flex

### Application

The controlled heated sample lines series **PSG Extruded Plus Flex** are used for continuous extractive gas analysis. They serve primarily for the transport of the humid sample gas stream from the sample point to the analyser house. 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 analyser 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 robust lines with plastic spring wire and thick-walled extruded flame resistant and extremely weather resistant TPU, PE or PVC outer jacket are equipped with high quality PSG-Plus parallel heating cable. Insulation is done with a thermal or glass fibre fleece. Up to 12 PTFE, PFA, stainless steel or special alloy tubes as internal line and also interchangeable internal tubes are available.

### Functions

The lines are available up to 300m at a stretch e.g. on cable drum and then can be adapted on-site and shortened every 0,6m. Furthermore they are available ready for operation ex works. Control of the lines to max. 200°C is done by an external temperature controller (e.g. PSG ST49 or PSG DC10) via the integrated PT100.

- ✓ Very small bending radius ( $\approx 200\text{mm}$ )
- ✓ Operation with external temperature controller
- ✓ PSG-Plus parallel heating cable
- ✓ Max. 200°C control temperature
- ✓ Up to 300m at a stretch
- ✓ Every 0,6m shortenable for assembly on-site (video tutorial on YouTube) or ready-made ex works
- ✓ Robust design with thick-walled extruded, flame resistant, extremely weather resistant PVC, PE or TPU outer jacket
- ✓ Internal tube made of PTFE, PFA, stainless steel or special alloy
- ✓ Up to 12 internal lines as option
- ✓ Interchangeable internal lines as option





## Technical data and order numbers

Construction data		
Max. operating temperature	°C	200
Heat insulation / weight	kg/m	thermal or glass fibre fleece / 1
Insulation thickness	mm	10
Heating cable type		parallel heating cable PSG-Plus
Outer jacket		2mm PVC, PE or TPU extruded
Outer diameter	mm	42 with one internal line, 43 with 2x6mm, 45 with 2x8mm
Min. bending radius	mm	5 x outer diameter
Ambient temperature	°C	-20 to +65
Max. operating pressure abs. PTFE line	bar	DN4/6: 5,6 / DN6/8: 4,5
Max. operating pressure abs. SS316L line	bar	400
Protection class		IP64 (EN60529)
Max. length heating circuit	m	60
Electrical data		
Power	W/m	60
Electrical connection		3m silicone connection cable*, open ends (included in assembly)
Power supply		230V 50/60Hz or optional 120V 50/60Hz
Order numbers for 1m line 230V 50/60Hz		
1 x PTFE internal tube 6mm	1m	50010700
1 x PTFE internal tube 8mm	1m	50010710
1 x PTFE internal tube 6mm interchangeable	1m	50010720
2 x PTFE internal tube 6mm	1m	50010730
2 x PTFE internal tube 8mm	1m	50010740
1 x Stainless steel internal tube 6mm	1m	50010750
1 x Stainless steel internal tube 8mm	1m	50010760
Order numbers for assembly ex works		
Silicone cap ending		50084005
Silicone cap with electr. connection		50085004
PTFE cap ending		50085003
PTFE cap with electr. connection		50085002
Order numbers for assembly on-site		
Silicone cap ending		50084007
Silicone cap with electr. connection		50050470
PTFE cap ending		50084003
PTFE cap with electr. connection		50084002

\* to lead frontal or backwards through the cap

### Assembly



PTFE cap



Silicone cap

### Temperature controller



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



PSG DC10  
Part. No. 50078820

### Options

- Up to 12 internal lines made of PTFE and/or PFA and/or stainless steel 316L and/or special alloys with dimensions DN4/6, DN6/8, DN8/10, DN10/12 or inch
- Interchangeable internal line
- Power supply 115V 50/60Hz
- Cable gland M63 x 1,5 (clamping range 36-48mm), PA, for cabinet wall mounting, IP68, mounted or separately