

PSG Plus

Extruded ATEX 180

Application

The controlled heated sample lines series **PSG 180 Ex Extruded** 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 thick-walled extruded flame resistant and extremely weather resistant TPU or PVC outer jacket are equipped with high quality Ex-heating cables. Insulation is done with a thermal or glass fiber fleece. Holding temperatures of up to 180°C at -20°C ambient temperature can be reached. Solutions down to -52°C are also possible. Up to 12 PTFE, PFA, stainless steel or special alloy tubes as internal line and also interchangeable internal tubes are available.

Functions

Delivery lengths of up to 300m at a stretch are possible on cable drum and then can be adapted on-site and shortened every 1m. Furthermore, they are available ready for operation ex works. Control of the lines to max. 180°C is done by an external temperature controller and limiter via the integrated PT100.



- ✓ For use in Ex-zone 1 and 2
- ✓ Temperature controller necessary
- ✓ Max. 180°C holding temp. at -20°C ambient temperature
- ✓ Up to 300m at a stretch
- ✓ Every 1m 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 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

Construction data		
Max. operating temp. (heating cable)	°C	250
Max. holding temperature	°C	180
Heat insulation / weight	kg/m	thermal- or glass fibre fleece / 1,1
Insulation thickness	mm	10
Heating cable type		60W/m
Outer jacket		2mm PVC or TPU extruded
Outer diameter	mm	40 with one internal 6mm tube, 43 with 2x6mm, 45 with 2x8mm
Min. bending radius	mm	8 - 10 x outer diameter
Ambient temperature	°C	-20 to +65
Max. operating pressure abs. PTFE line	bar	DN4/6: 5,8 / DN6/8: 4,6 at 150°C
Max. operating pressure abs. SS316L line	bar	400
Protection class		IP64 (EN60529)
Ex-protection/ Type examination certificate heating cable		 III 2G Ex 60079-30-1 IIC T6...T2 Gb II 2D EX 60079—30—1 IIIC Txxx°C Db
Temperature class*		T6...T2
Max. length heating circuit	m	50
Electrical data		
Max. Power (ta = +10°C)	W/m	60
Electrical connection		Heating cable overhang with M25 for ATEX terminal box
Power supply		230 Vac
Order numbers for line 230V 50/60Hz		
1 x PTFE internal tube 6mm	1m	54005060
2 x PTFE internal tube 6mm	1m	54005063
Temperature controller and limiter		
with SSR FRBL1 		50071110
NGC-20-CL-E 		80001102
Order number for assembly ex works		
PTFE-Ex-cap ending		50085550
PTFE-Ex-cap with electr. connection		50085565
Order number for assembly on-site		
PTFE-Ex- cap ending		50085650
PTFE-Ex- cap with electr. connection		50085665

* By design. Temperature classification (T-rating) has to be established by using the principles of stabilised design or the use of a temperature limiting device.

Assembly



PTFE-Ex-Cap

Options

-  Up to 12 internal PTFE and/or PFA and/or stainless steel and/or special alloy tubes with dimensions DN4/6, DN6/8, DN8/10, DN10/12 or inch
-  Interchangeable internal lines
-  Cable gland M63 x 1,5 (clamping range 36-48mm), PA, for cabinet wall mounting, IP68, mounted or separately