



Heated Gas Sampling Probe

PSG ATEX 180



Application

The heated gas sampling probes series **PSG ATEX 180** are used for continuous extractive gas analysis. They enable trouble-free representative sampling of hot predominantly dust and water vapour loaded gases. Typical applications are measurements and monitoring in explosive plant components.

Technology

The intelligent design with optimum gas guidance enables the filtration of sample gas at the outer filtration surface of 212cm², allowing service periods of up to 2 years (depending on the dust concentration). If it is necessary to change the filter, the arrowed corkscrew mechanism allows this to be done quickly and conveniently in just a few steps without tools and without disassembling the connected heated sample gas line.

The full-surface tight-fitting aluminium heating element with the two self-regulating heating cartridges ensures homogeneous heating of the entire **PSG ATEX 180** to 180°C even at the lowest ambient temperatures.

Functions

Due to the largest filtration surface dust will always be separated reliably in the **PSG ATEX 180**. The heating concept prevents water vapour condensation in order to reliably prevent blocking of the filter. For elevated dust concentrations of up to 40g/m³ resp. 280g/m³ the **PSG ATEX 180** can be equipped with an ultimate effective single or dual stage back purging with tubing of 12mm outer diameter. In this way filter chamber (single stage) as well as filter element are back purged thoroughly and low-maintenance operation is ensured.

- ✓ For operation in Ex zone 1 and 2
- ✓ Temperature class: T3
- ✓ Self-limiting heating to 180° C in an environment down to -40° C (optionally also down to -60° C possible)
- ✓ No temperature limiter necessary
- ✓ IP65 protection class
- ✓ Largest active filter surface on the market
- ✓ No cold spots
- ✓ Comfortable filter change without tools
- ✓ Single or dual stage back purging as option
- ✓ 120VAC version (option)



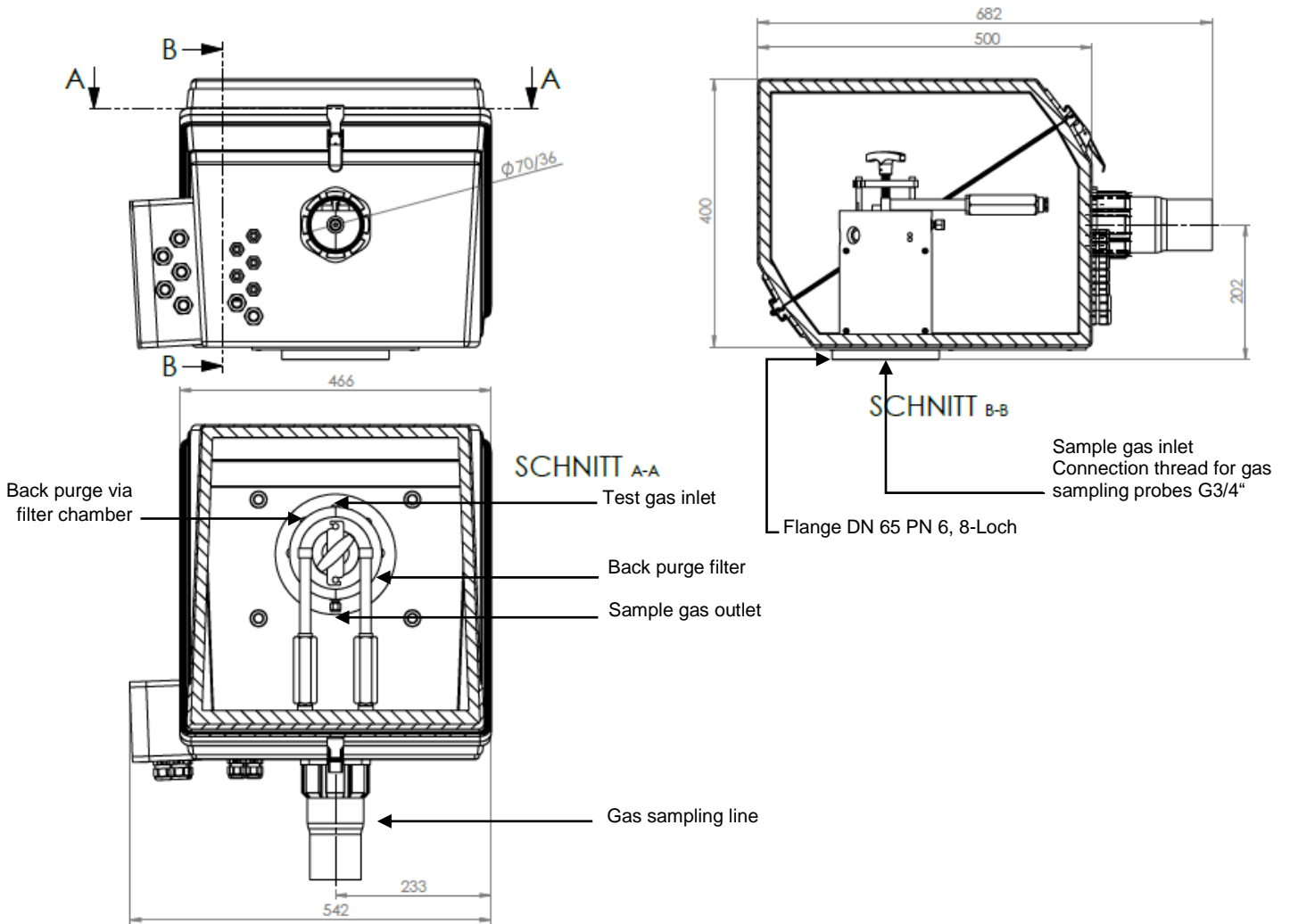


Technical Data

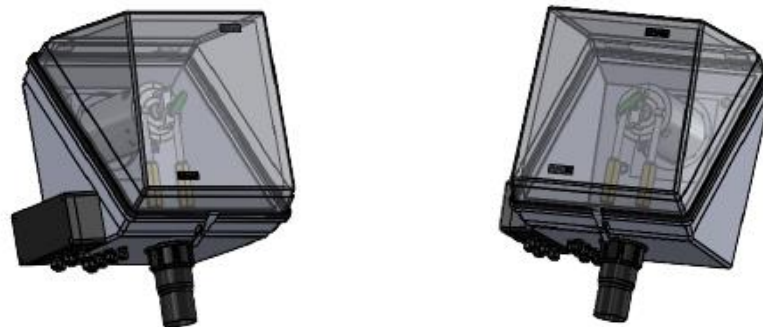
			ArtikelNr.
Process gas sampling conditions PSG ATEX 180	Pressure	p _{abs} = 50...600 kPa	
	Temperature	max. +200 °C at probe inlet	
	Flow	30...1500 l/h, referred to 100 kPa and 0 °C	
	Pressure drop	approx. 0,6 hPa at 100 l/hr	
	Max. dust content without and with back purging	3 g/m ³ w/o / 40g/m ³ single stage / 280 g/m ³ dual stage	
Connections	Sample gas	G1/4" f (DIN ISO 228/1)	
	Test gas (blanking valve as standard) / Tubing (option)	G1/4" f (DIN ISO 228/1) / 6mm tube	
	Back purge (blanking valve as standard)	Tubing (option)	2 x G3/8" f (DIN ISO 228/1)
			Single stage (Filter chamber) 12mm tube
			Dual stage 12mm tube
Heating	Type	Cartridge heaters Self-limiting	240VAC 50 Hz / 2 x 265W II 2G Ex d IIC T3 IEcEX 120V option on request
	Isolation	PU as housing insulation	30061093
	Temperature	Pyrogel insulation sleeve for heating element around filter unit (without back purte)	55500364
	Temperature control	180 °C at -40°C Ambient temperature (-60°C version with support heating option) Not necessary because it is self-limiting	
Filter Properties PSG Plus	Filter	Surface filter, ceramic coated	
	Porosity	0,3 µm	
	Tightness	10 ⁻⁴ hPa l/s	
	Dead volume	ca. 280 ml	
	Dimensions	50/20 x 135 mm	
Protective Housing	Dimensions	682 x 542 x 400 mm (L x B x T)	
	Material	GRP with reduced surface resistance according to DIN EN IEC 60079-0, less than 10 ⁹ Ohm	
	Ambient temperature	-40°C ... +50°C (-60°C with support heating possible)	
	Weight	approx.30 kg (Probe incl. protective housing)	
	Protection class terminal box and protective housing	IP65 EN 60529	
Mounting	Flange	DN 65, PN 6, 8-hole, Form B acc. to DIN 2527	
	Installation angle	+ 10°bis +35° inclination to horizontal position	
Materials in contact with sample gas	Flange, gas connections	Stainless steel SS 316Ti	
		FPM	
	Dichtungen	FFKM instead of FPM for process temperatures of up to 315°C or corrosion resistant version (with back purging)	
		FFKM instead of FPM for process temperatures of up to 315°C or corrosion resistant version (without back purging)	
Low to medium dust loading	Extremely long maintenance	Dust load:	Maintenance
		< 100 mg/m ³	Every 2 years
		< 1 g/m ³	Twice a year
		< 3 g/m ³	Every 3 months



Dimensions



State 05 / 2021 | Subject to change



Dimensions in mm

