



**SP2600-H/C/I/BB/F/1K190**

## Gas Sample Probe Series SP®

Version SP2600-H/C/I/BB/F/1K190 and  
SP2600-H/C/I/BB/F/0,1GF190

2.5 03.03/02.08

### Special Features

Filter element with particularly large filter surface
Optimum operational reliability
Universal applicability
Adaption to nearly all process conditions due to its compact and modular design
Easy mounting and maintenance
Small volume, fast response time
Patented construction
Integrated possibility for back-flushing and shut off the sample outlet
Easy operation and maintenance

### M&C Application

The probes M&C type SP2600-H/C/I/BB/F..., based on type SP2000-H (see data sheet 2.2.2), are used for continuous gas sampling in processes with gases of high dust content, high temperatures and/or high humidity.

Due to the particularly large filter surface and the possibility to back purge the filter element, this type of probes achieve a very long service life especially in those cases where no pre-filters can be used. For this purpose, a back purge valve and a pneumatic isolation valve for the measuring gas outlet are integrated inside the probe.

Version SP2600-H/C/I/BB/F/0,1GF is suitable for dusts with extremely fine particles of up to 0,1 µm grain size. Version SP2600-H/C/I/BB/F/1K200 can be back purged very efficiently due to its double-ply constructed filter element with an external filter membrane of 1 µm filter porosity.

### M&C Description

The sample probes are designed for easy installation, reliable operation, trouble free maintenance and a versatile application. Depending on the application, different sample tubes (see data sheet 2-1.1.0.6), not included in the scope of delivery of the probe, are screwed into the thread (G3/4"i) of the filter housing.

The large surface filter element of ceramic or glass fiber is placed in a housing with low stagnant space outside the process.

The probes are constructed in such a way that changing the filter element does not require the sample line to be dismantled and, therefore, the contamination of the clean gas is avoided.

The special design of the heating element of the SP2600... (with protective hood) permits controlled heating of the complete filter housing including the mounting flange up to 180 °C (Version /H320 up to 320 °C).

This ensures reliable operation external to the process preventing the temperature falling below the dew-point.

The temperature of the standard probe is controlled by an integrated compact design capillary sensor thermostat with an excess temperature limit switch and an alarm function for temperature failure in compact arrangement directly to the probe.

Feeding the test gas is possible via an integrated check valve.

Additional functions of the probe SP2600-H/C/I/BB/F...:

- Calibration gas will be injected into the probe through a check valve /C directly to the sample outlet. No calibration gas is lost into the stack.
- An isolation valve /I shuts off the sample outlet from the internal filter area.
- Through a high flow rate check valve /BB/F, which is fixed to the filter housing wall, blow back of the incorporated ceramic filter element will be done incl. the filter area and the insitu probe tube or the pre-filter.

Gas Sample Probe Version	SP2600-H/C//BB/F/0,1GF190	SP2600-H/C//BB/F/1K190
Part No.	20S3550	20S3540
Integrated backflush	via filter element	
Protective cover	yes	
Terminal box	IP54 EN60529	
Filter housing material	Stainless steel 316 / 316Ti*	
Sealing materials	FPM*	
Probe flange sealing material	Novapress	
Insitu probe tube/prefilter	Optional	
Sample pressure max.	0,4-6 bar* abs.	
Ambient temperature	-20 °C to +60 °C*** /PT100, /Fe-CuNi, /Ni-CrNi** = -20°C to +80°C	
Filter chamber volume	280 cm <sup>3</sup>	
Filter element, porosity	0,1 µm	1µm
Thermostat, Temperature adjustment	0-180°C* /PT100** /Fe-CuNi** /Ni-CrNi**	
Ready for operation	after 40min	
Low temperature alarm contact	Change-over contact Contact rating: 250V, 3A~, 0,25A= Alarm point: ΔT 30°C	
Sample gas outlet connection	1x 1/4" NPTi* tube connectors ø 6, 8 or 10 mm**	
Backflush/Test gas connection	backflush: tube ø 8mm, span: tube ø 6mm	
Shut off valve connection /I	1/8" NPT i	
Pressure range control air /I	3 - 10 bar	
Power supply	230V 50/60 Hz, 800W /115V** = 115V 60Hz, 800W (fuse protection 10A)	
Electrical connections	Terminals max. 4mm <sup>2</sup> , 2x PG 13,5 cable gland	
Electrical equipment standard	EN 61010, EN 60519-1	
Mounting flange	DN65 PN6-B, SS316Ti* >DN or ANSI possible**	
Weight	19kg*	

\* Standard

\*\* Options

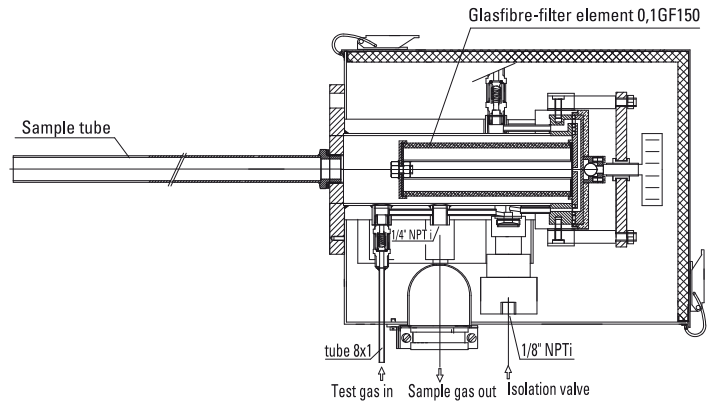
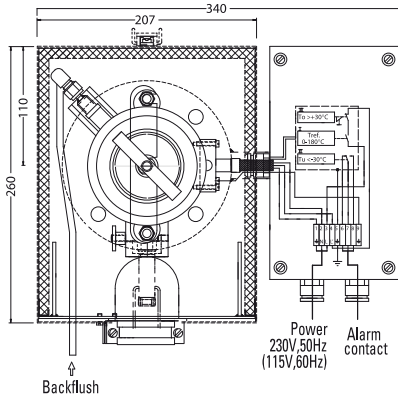
\*\*\* In case of higher ambient temperatures use option PT100 (Part No. 20S9025) or thermocouple Fe-CuNi respectively Ni-CrNi (Part No. 20S9027 resp. 20S9028) instead of the thermostat controller. Then, an additional electronic temperature controller (see data sheet 2-5.1) is necessary.

### M&C | Differential pressure and T<sub>90</sub>-time

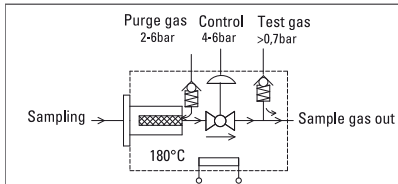
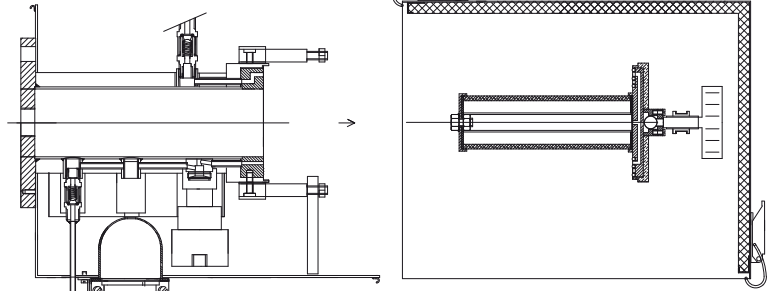
ΔP and T <sub>90</sub> at flow of:	100	200	500	1000	1500	NI/hr
ΔP with new filter element S-1K190/0,1GF190	0,007	0,011	0,02	0,035	0,040	bar
T <sub>90</sub> -time for SP2600-H.. without tube	8	5,5	3	1	<0,5	s

### M&C | Versions and options (extract)

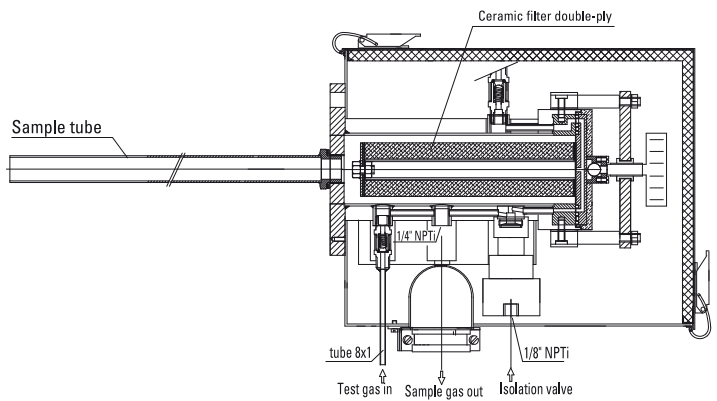
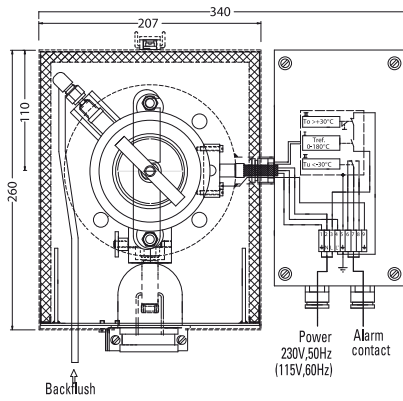
Options (Extract)	Data sheet	Version	Part No.
Execution with power supply 115V/60Hz		/115V	20 S 9030
Execution with second outlet for sample gas 1/4" NPTi*		/2x*	20 S 9015
Execution with with PT00 sensor instead of the thermostat, without temp. controller		/PT100	20 S 9025
Execution with thermoelement FE-CuNi ( type J) instead of thermostat, without temp. controller		/Fe-CuN	20 S 9027
Execution with thermoelement Ni-CrNi (type K) instead of thermostat, without temp. controller		/Ni-CrNi	20 S 9028
Execution with second PT100 sensor		/2-PT100	20 S 9026
Execution with special adapter flange size DN..PN6 or ANSI..150 lbs		/DN	20 S 9004
Execution with gas pre-heater GVW1, material SS304	2-1.2.5	/GVW1	20 S 9058
Execution with connection of the gas pre-heater to valve "BB" and to gas inlet	2-1.2.5	/GVW	20 S 9062
Execution with steam heating, without controller and valves		/D	20 S 9033



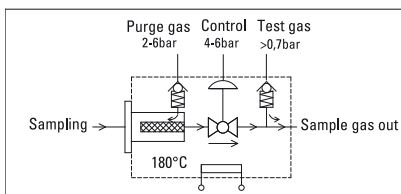
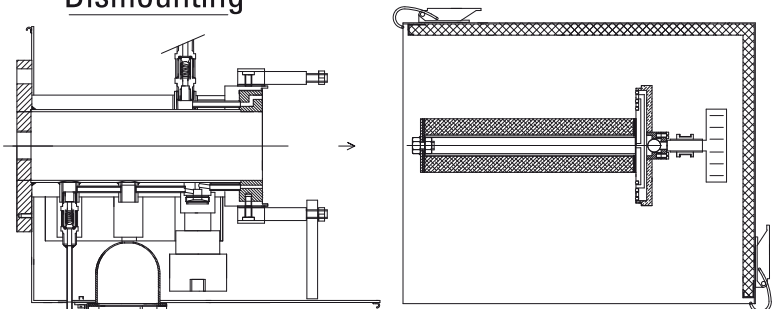
**Dismounting**



Dimensions in mm



**Dismounting**



Dimensions in mm