

SP2100-H

Gas Sample Probe Series SP®

Electrically heated, compact version SP2100-H

Special Features

- Sampling of dust loaded process gases
- Small volume, fast response time
- Self-regulated electrical heater
- Alarm contact for low temperature
- Insitu probe tube 1 m (3.28 ft) long
- Easy mounting and maintenance

Application

The patented M&C gas sample probe version SP2100-H is used for continuous gas sampling.

The compact design requires only limited space. It is to be mounted in a weather-proof position.

In case to avoid cooling and condensation of the sample in the insitu tube from the sample point to the heated sample probe the SP 30-H or SP 35-H heated sampling tubes can be used.

The wide range of M&C probe accessories offers various insitu probe tubes and pre-filters to solve your specific sampling problem.

Description

The design of the M&C probe version SP2100-H guarantees simple mounting, safe operation and problem-free maintenance.

Changing the external filter element needs no tools and no disassembling of the sample line. The complete filter assembly is removed out of the probe head. This simplifies the checkup of the filter element and the gaskets. The filter area of the probe head respectively the insitu probe tube can be cleaned very easily without dismounting the sample probe.

The large external filter element of ceramic with 2 µm porosity is heated up with the stainless steel probe head to constant 180 °C (356 °F), using a special self-regulated heating element. This avoids dew point problems at the probe flange and filter area.

A heat insulation covers all sides of the probe and ensures an optimized heat distribution as well as safe operation.

The power supply of the probe can be in a range between 110 V and 240 V without switching.

No thermostat or temperature limiter is necessary. The separate thermo switch enables a low temperature monitoring (<160 °C [<320 °F], NO). For electrical connection a junction box with terminals is mounted.

A one-meter stainless steel sampling tube is provided. This is screwed into the mounting flange. The maximum operating temperature of the tube out of stainless steel is 600 °C (1112 °F).

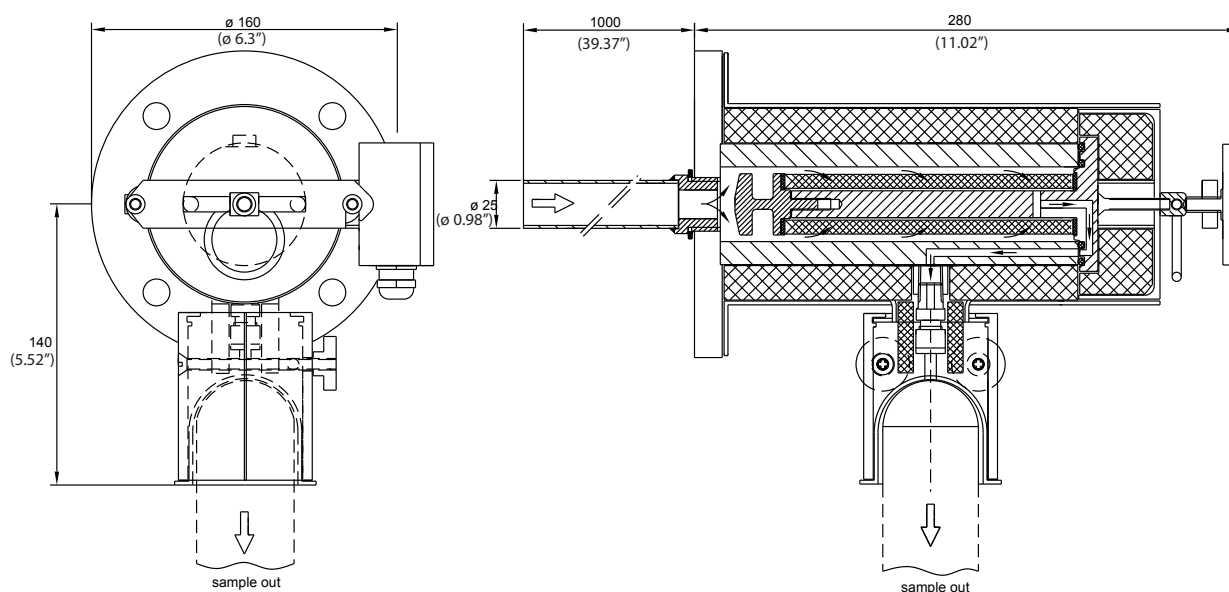
Technical Data

Probe series SP*	compact version SP 2100-H	
Part No.	10 S 1000	10 S 1100
Sample tube	Type SS, stainless steel 316Ti, length 1 m (3.28 ft)*	no
Sample temperature	max. 600 °C (1112 °F)*	
Sample pressure	0.4 to 2 bar abs.	
Ambient temperature	-20 °C to +60 °C (approx. -4 to 140 °F)	
Recommended for dust loadings	up to 2 g/m ³ *	
Filter chamber volume	120 ml (0.032 gal)	
Filter element	S-2K 150, filter porosity 2 µm, ceramic	
Probe heating temperature	+180 °C (356 °F), self-regulating	
Ready for operation	after 2 hours	
Temperature alarm contact, alarm point	<160 °C (<320 °F), NO	
Temperature alarm, contact rating	250 V - 3 A AC, 30 V - 3 A DC	
Connection sample outlet	1/4"-NPT inside, for max. ø 10 mm tube connectors	
Power supply	110 up to 240 V 50/60 Hz	
Power consumption	start up: 400 VA, operation mode: 100 VA, (fuse 6 A)	
Electrical connection	terminals max. 2,5 mm ² , 2 x PG11 cable glands	
Electrical equipment standard	EN 61010, EN 60335-1	
Degree of protection	IP54, EN 60529	
Mounting flange	DN65 PN6, B, stainless steel 316Ti	
Material of sample contacting parts	SS 316 / 316Ti, FPM, ceramic	
Weight	9 kg (19.84 lbs)	
Options		
10 S 9005	Calibration flange, DN65 PN6 with 1/8"NPT connection inclusive flange gasket and screw set M12 x 80.	

* Standard, other versions on request.

ΔP and T90 at flow of:	100	200	500	1000	NI/h
ΔP pressure loss with new filter element S-2K150	7	11	20	35	mbar
T ₉₀ time – without sample tube/prefilter –	6.0	3.5	1.0	< 0.5	sec

Dimensions



Dimensions in mm (inch)