

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-regulating electrical heating
- Alarm contact for low temperature
- Sample tube 1 m [≈ 3.3 ft] long
- Easy mounting and maintenance

Application

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

Due to the compact design, only a small amount of space is required for installation. The gas sampling probe needs to be installed in a weather-protected place.

provided for low temperature monitoring. The electrical connections are located in a terminal box.

The scope of delivery includes a 1 m [3.3 ft] long stainless steel sample tube which is screwed into the mounting flange. The max. sample temperature for this is 600 °C [1112 °F].

Description

The design of the M&C probe version SP2100-H is geared towards simple mounting, safe operation and trouble-free maintenance.

The filter element can be replaced without using tools and without dismantling the sample line. During the filter change, the filter holder is completely removed from the filter chamber. Easy inspection of the sealing elements, straightforward cleaning of the filter chamber and the possibility of pushing through the sample tube without removing the probe are just a few of the many advantages offered by the M&C probes.

The heated double-jacket sample tubes SP30-H or SP35-H are used for long and cold assembly stubs or when the dew point in the process chamber is underrun.

To meet specific sampling requirements, you will find additional sample tubes and pre-filters in the extensive range of M&C probe accessories.

The large-area ceramic depth filter element with 2 µm filter porosity is located in a heated filter chamber made of stainless steel.

The compact design and the heat insulation on all sides guarantee optimum heat distribution and safe operation without temperatures falling below the dew point in the filter or probe flange area.

The gas sampling probe is heated up to +180 °C [356 °F] by special self-regulating heating elements. The mains voltage ranges from 110 V to 240 V without any necessary switching.

An external temperature controller or temperature limitation is not required. A separate thermal switch (< 160 °C [320 °F], NO) is

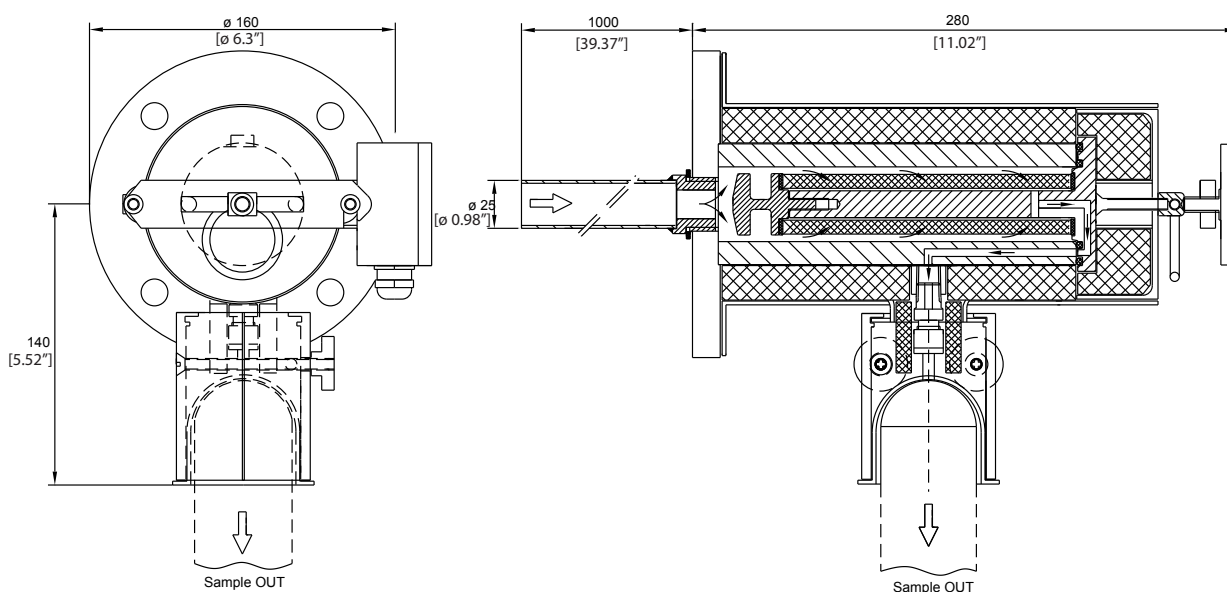
| Probe series SP* | Compact Version SP2100-H | |
|--|--|---------|
| Part No. | 10S1000 | 10S1100 |
| Sample tube | Type SS, stainless steel 316Ti, length 1 m [≈ 3.3 ft]* | No |
| Sample temperature | Max. 600 °C [1112 °F]* | |
| Sample pressure | 0.4 to 2 bar abs. | |
| Ambient temperature | -20 to +60 °C [-4 to 140 °F] | |
| Recommended for dust loading | Up to 2 g/m ³ * | |
| Filter chamber volume | 120 ml | |
| 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 | DN 65 PN 6, B, stainless steel 316Ti | |
| Material of sample contacting parts | SS 316/316Ti, FPM, ceramic | |
| Weight | 9 kg [≈ 19.8 lbs] | |

| Options | |
|---------|---|
| 10S9005 | Calibration flange, DN 65 PN 6 with 1/8" NPT connection including flange gasket and screw set M12 x 80. |

* Standard, other versions on request.

| ΔP and T90 at a flow rate of: | 100 | 200 | 500 | 1000 | NI/h |
|---|------------|------------|------------|-------------|------------|
| | 1.7 | 3.3 | 8.3 | 16.7 | LPM |
| ΔP pressure loss with new filter element S-2K150 | 7 | 11 | 20 | 35 | mbar |
| T ₉₀ time – without sample tube/pre-filter – | 6.0 | 3.5 | 1.0 | < 0.5 | sec |

Dimensions



Dimensions in mm [inch]