



Gas Analysis





Sample gas probe GAS 222.11 Ex2

In many applications gas analysis is the key for safe and efficient control of process flows, environmental protection and quality assurance. In extractive gas analysis the location of the gas sampling point is crucial for the reproducibility and accuracy of the analysis results.

The specific filter capacity, corrosion resistance and functional equipment requirements for the probe arise from the composition of the sample gas.

However, operating costs are also an important criterion in the selection, as the sampling points are frequently located at hard to access points in the system. Effective particle filter backwashing options and low maintenance characterise the extensive GAS probe series. Versions with Atex and IECEx approval

Unheated probe with shut-off valve and/or upstream filter

The filter element can easily be removed by turning the handle 90°

For dust loads up to 2 g/m³, non-condensable gases. Combined with upstream filter up to 10 g/m³ and higher

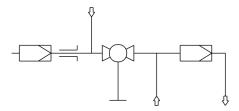
The probe is permitted for use in explosive areas



Bühler Technologies GmbH, Harkortstr. 29, D-40880 Ratingen

GAS 222.11 Ex2

Flow chart



Technical Data

Gas Probe Technical Data

| Ambient temperature without accessories: | -20 to +80 °C | | |
|--|---|------------------------------------|--|
| Ambient temperature for accessories: | Component | Ambient temperature range | |
| | Valve for pressurized air: | -30 °C < T _{amb} < +55 °C | |
| | Solenoid valve for pneumatic actuator: | -10 °C < T _{amb} < +55 °C | |
| | Pneumatic actuator: | -20 °C < T _{amb} < +80 °C | |
| | Limit switch: | -25 °C < T _{amb} < +60 °C | |
| | Junction box: | -20 °C < T _{amb} < +70 °C | |
| Max. gas inlet temperature: | +195 °C (T3)/+130 °C (T4) | | |
| Medium temperature (blowback): | Component | Medium temperature range | |
| | Valve for pressurized air: | -10 °C to +80 °C | |
| | Solenoid valve for pneumatic actuator: | -10 °C to +100 °C | |
| Max. operating pressure: | 6 bar | | |
| Materials in contact with media | | | |
| Flange: | Stainless steel 1.4571 | | |
| Probe body: | Stainless steel 1.4571 | | |
| Ball valve: | Stainless steel 1.4408/1.4462/PTFE | | |
| Seal: | Stainless steel 1.4404/graphite/and see fi | lter | |
| Markings: | ATEX: 🖾 II 3G Ex ec mb IIC T3/T4 Gc IECEx: Ex ec mb IIC T3/T4 Gc | | |
| | TECEN. EX CC IIID IIC 13/14 GC | | |

Ordering instructions

The item number is a code for the configuration of your unit. Please use the following model key:

| | | | | | | | | | | | | Junction box |
|---|---|---|---|---|---|---|---|---|---|---|---|--|
| 0 | | | | | | | | | | | | No |
| 1 | | | | | | | | | | | | Yes |
| | | | | | | | | | | | | Flange |
| | 0 | 1 | | | | | | | | | | Flange DN65 PN6 |
| | 0 | 2 | | | | | | | | | | Flange DN3"-150 |
| | | | | | | | | | | | | Hazardous area Outside and Inside |
| | | | 2 | 9 | | | | | | | | Ex-Zone 2 outside, none inside |
| | | | 2 | 2 | | | | | | | | Ex-Zone 2 outside and inside |
| | | | | | | | | | | | | Temperature class |
| | | | | | 3 | | | | | | | T3 |
| | | | | | 4 | | | | | | | T4 |
| | | | | | | | | | | | | Power supply sample probe |
| | | | | | | 0 | | | | | | none |
| | | | | | | | | | | | | Calibration gas port |
| | | | | | | | 0 | | | | | No |
| | | | | | | | 1 | | | | | 6 mm |
| | | | | | | | 2 | | | | | 6 mm with check valve |
| | | | | | | | 3 | | | | | 1/4" |
| | | | | | | | 4 | | | | | 1/4" with check valve |
| | | | | | | | | | | | | Capacitive vessel * |
| | | | | | | | | 0 | | | | No |
| | | | | | | | | 1 | | | | Yes |
| | | | | | | | | | | | | Valve for pressurized air * |
| | | | | | | | | (|) | | | Ball valve |
| | | | | | | | | 1 | | | | Solenoid valve 110 V (marked with "mb") |
| | | | | | | | | 2 | 2 | | | Solenoid valve 230 V (marked with "mb") |
| | | | | | | | | 3 | 3 | | | Solenoid valve 24 V (marked with "mb") |
| | | | | | | | | g |) | | | none |
| | | | | | | | | | | | | Pneumatic actuator for internal ball valve |
| | | | | | | | | | 0 | | | No |
| | | | | | | | | | 1 | | | Mono stable depressurized open |
| | | | | | | | | | 2 | | | Mono stable depressurized closed |
| | | | | | | | | | | | | Limit switch for pneumatic actuator |
| | | | | | | | | | | 0 | | No |
| | | | | | | | | | | 1 | | Yes |
| | | | | | | | | | | | | Solenoid valve for pneumatic actuator |
| | | | | | | | | | | | 0 | No |
| | | | | | | | | | | | 1 | 110 V (marked with "mb") |
| | | | | | | | | | | | 2 | 230 V (marked with "mb") |
| | | | | | | | | | | | 2 | 24 V (marked with "mb") |

 $^{^{}st}$ Blowback of explosive atmosphere prohibited.

Options

The base unit becomes functional by adding accessories suitable for the application. Please refer to accessory data sheet no. 461099 for information.

Please also refer to data sheet no. 461000 "GAS 222 Gas Probes" for a general description.

Dimensions

