



Sample gas probe GAS 222.31 Ex1

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.

Heated probe with shut-off valve, upstream filter and weather hood

The probe body and the area around the screw connection for the heated sample gas line are completely isolated

Heater self-regulating to approx. 90 °C

For dust loads up to 200 g/m³

This probe is designed for use in explosive areas under ATEX and IECEx.

Use in zone 1 and 21 and sampling from zone 0 and 20.



Technical Data

Gas Probe Technical Data

Ambient temperature without accessories:	-40 to +55 °C	
Ambient temperature with accessories:	Component	Ambient temperature range
	Compressed air valve:	-30 °C < T _{amb} < +55 °C
	Solenoid valve for pneumatic drive:	-10 °C < T _{amb} < +55 °C
	Pneumatic drive:	-20 °C < T _{amb} < +55 °C
	Limit switch:	-25 °C < T _{amb} < +55 °C
Permissible gas inlet temperatures:	Outer zone temperature class	Permissible gas inlet temperature
	T2	135 °C
	T3	135 °C
	T4	130 °C
Medium temperature (blowback):	Component	Medium temperature range
	Compressed air valve:	-10 °C to +80 °C
	Solenoid valve for pneumatic drive:	-10 °C to +100 °C
Self-regulating heater:	+90 °C	
Electrical data:	Probe: 230 V, 150 W, 50/60 Hz 115 V, 150 W, 50/60 Hz	External circuit breaker type C: 230 V, 3 A, 50/60 Hz 115 V, 4 A, 50/60 Hz
Max. operating pressure:	6 bar	
Max. flow rate:	1000 L/h	
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 filter	
Probe marking, depending on the selected options and temperature class:	<p>for zone 0/1: ATEX: Ⓔ II 1G/2G Ex db¹ eb mb² IIC T5/T6...T1/T2 Ga/Gb IECEX: Ex db¹ eb mb² IIC T5/T6...T1/T2 Ga/Gb</p> <p>for zone 1: ATEX: Ⓔ II 2G Ex db¹ eb mb² IIC T6...T2 Gb IECEX: Ex db¹ eb mb² IIC T6...T2 Gb</p> <p>for zone 0/21: ATEX: Ⓔ II 1G/2D Ex db¹ eb mb² IIC T5 ... T1 Ga Ex tb mb² IIIC T80 °C ... T226 °C Db IECEX: Ex db¹ eb mb² IIC T5 ... T1 Ga Ex tb mb² IIIC T80 °C ... T226 °C Db</p> <p>for zone 20/1: ATEX: Ⓔ II 1D/2G Ex ta IIIC T120 °C ... T300 °C Da Ex db¹ eb mb² IIC T6 ... T2 Gb IECEX: Ex ta IIIC T120 °C ... T300 °C Da Ex db¹ eb mb² IIC T6 ... T2 Gb</p> <p>for zone 20/21: ATEX: Ⓔ II 1D/2D Ex ta/tb mb² IIIC T120°C/T80°C...T300°C/T226°C Da/Db IECEX: Ex ta/tb mb² IIIC T120°C/T80°C...T300°C/T226°C Da/Db</p> <p>for zone 21: ATEX: Ⓔ II 2D Ex tb mb² IIIC T80°C...T226°C Db IECEX: Ex tb mb² IIIC T80°C...T226°C Db</p> <p>¹ "db" only for GAS 222.21/31 versions with limit switch ² "mb" only for versions with solenoid valve</p>	
Applied standards:	IEC 60079-0 (Ed. 6.0); IEC 60079-7 (Ed. 5.0); IEC 60079-26 (Ed. 3.0); EN 60079-0:2012+A11:2013; EN 60079-7:2015; EN 60079-26:2015	

