



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.

Versions with Atex and IECEx approval

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

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

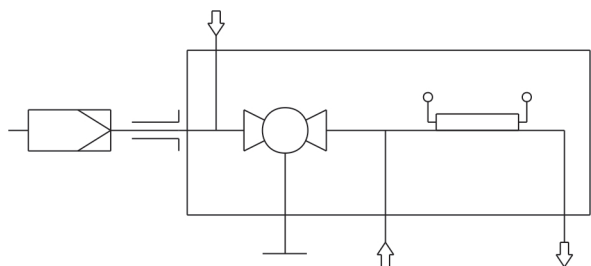
Heater self-regulating to approx. 90 °C

For dust loads up to 200 g/m³

This probe is designed for use in explosive areas (Zone 1 and extracting from Zone 0)



Flow chart



Technical Data

Gas Probe Technical Data

Ambient temperature without accessories:	-40 to +60 °C	
Ambient temperature with accessories:	Component	Ambient temperature range
	Compressed air valve:	-30 °C < T _{amb} < +60 °C
	Solenoid valve for pneumatic drive:	-10 °C < T _{amb} < +55 °C
	Pneumatic drive:	-20 °C < T _{amb} < +60 °C
	Limit switch:	-25 °C < T _{amb} < +60 °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	
Material:	1.4571; ball valve 1.4408	
Parts in contact with media:	Seals: Graphite/1.4404 and see filter	
Markings:	for zone 0/1: ATEX: II 1G/2G Ex db eb mb IIC T5/T6...T1/T2 Ga/Gb IECEx: Ex db eb mb IIC T5/T6...T1/T2 Ga/Gb for zone 1: ATEX: II 2G Ex db eb mb IIC T6...T2 Gb IECEx: Ex db eb mb IIC T6...T2 Gb	
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	
IECEX certificate number:	IECEX IBE 17.0024X	
ATEX certificate number:	IBExU17ATEX1088X	

Ordering instructions

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

46222311	X	X	X	X	4	X	0	X	X	X	X	X	X	X	Product Characteristics
															Flange
	0	1													Flange DN65 PN6
	0	2													Flange DN3"-150
	x	x													Other
															Hazardous area outside
	4														Zone 1
	5														Zone 2
	9														none
															Hazardous area inside
	3														Zone 0
	4														Zone 1
	5														Zone 2
	9														none
															Power supply sample probe
	1														115 V
	2														230 V
															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 (not for indoor gas zone)
															Valve for pressurized air
	0														Ball valve
	1														Solenoid valve 115 V (marked "mb")
	2														Solenoid valve 230 V (marked "mb")
	3														Solenoid valve 24 V (marked "mb")
	9														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 (marked "db")
															Solenoid valve for pneumatic actuator
	0														No
	1														Yes (marked "mb")

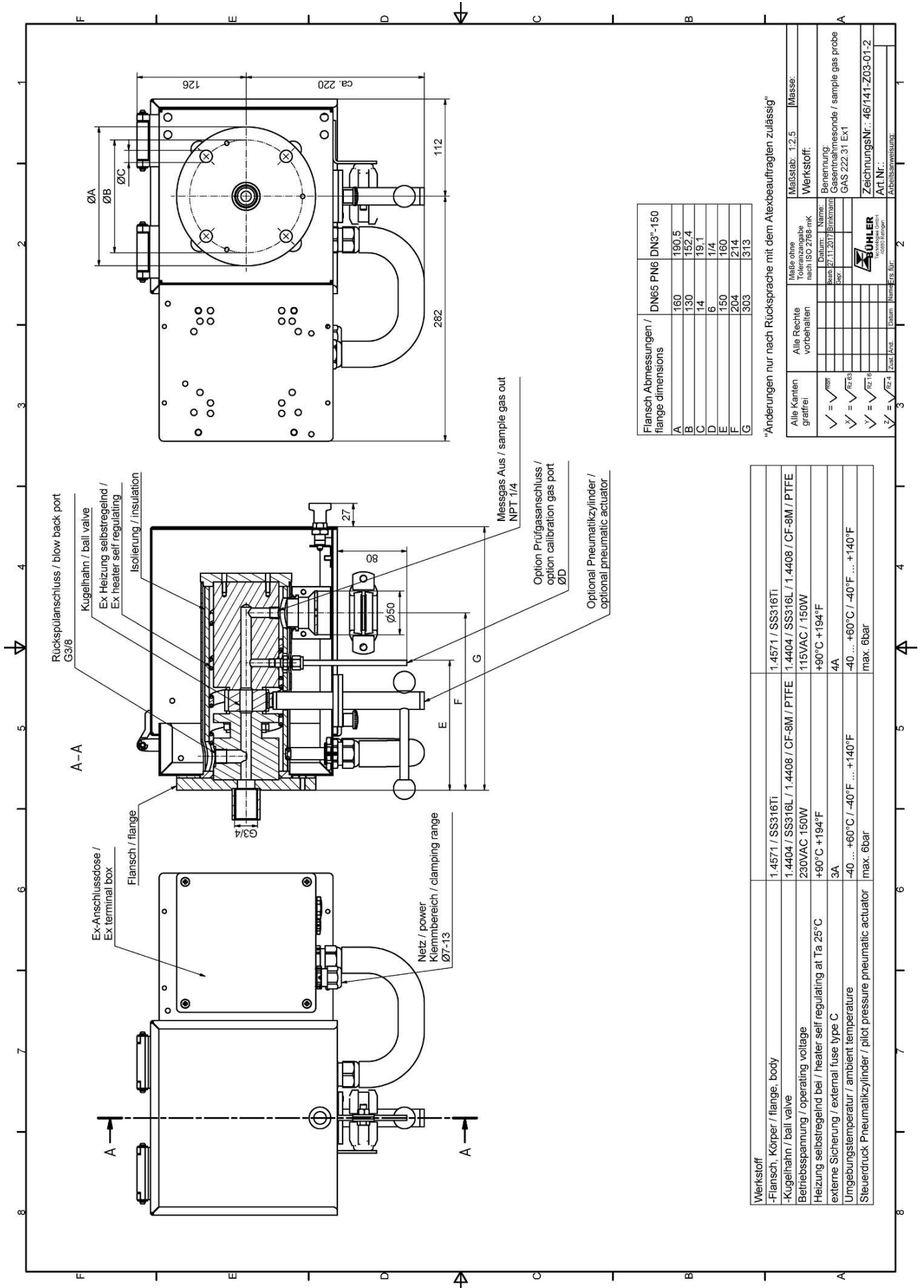
Options

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.

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Dimensions



Flansch Abmessungen / flange dimensions	DN65 PN6	DN3"-150
A	160	190.5
B	130	152.4
C	14	19.1
D	6	1/4
E	150	160
F	204	214
G	303	313

"Änderungen nur nach Rücksprache mit dem Alexbeauftragten zulässig"

Werkstoff	1.4571 / SS316Ti
-Flansch / Körper / flange / body	1.4571 / SS316Ti
-Kugelhahn / ball valve	1.4404 / SS316L / 1.4408 / CF-8M / PTFE
Betriebsspannung / operating voltage	115VAC / 150W
Heizung selbstregelnd bei / heater self regulating at Ta 25°C	+90°C +194°F
externe Sicherung / external fuse type C	4A
Umgebungstemperatur / ambient temperature	-40 ... +60°C / -40°F ... +140°F
Steuerdruck Pneumatikzylinder / pilot pressure pneumatic actuator	max. 6bar

Maßstab: 1:2.5	Masse:
Werkstoff:	
Benennung: Gasentwässernde / sample gas probe	
GAS 222.31 Ex1	
ZerchungsNr.: 46/141-Z03-01-2	
Art.Nr.:	
Abteilungsbezeichnung:	