



Sample gas probe GAS 222.21 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

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

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

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

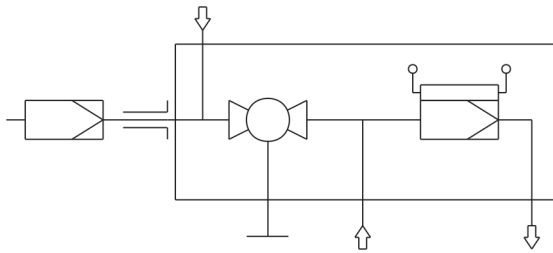
Heater self-regulating to approx. 120 °C (T3)/70 °C (T4) with low temperature alarm

For dust loads up to 2 g/m³ with downstream filter or > 10 g/m³ with upstream filter

This probe is suitable for use in explosive areas




Flow chart



Technical Data

Gas Probe Technical Data

Ambient temperature without accessories:	-20 to +80 °C	
Ambient temperature for 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} < +80 °C
	Limit switch:	-25 °C < T _{amb} < +60 °C
	Terminal box:	-20 °C < T _{amb} < +70 °C
Max. gas inlet temperature:	+195 °C (T3)/+130 °C (T4)	
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:	+120 °C (T3)/+70 °C (T4)	
Low temperature alarm:	Contact switches at < 95 °C (T3) or < 50 °C (T4); Simple electrical equipment according to EN 60079-11; U _i 30 V, I _i = 100 mA; C _i /L _i ~0	
Electrical data:	230 V, 2.0 A, 50/60 Hz 115 V, 3.8 A, 50/60 Hz	
Max. operating pressure:	6 bar	
Material:	1.4571; ball valve 1.4408	
Parts in contact with media:	Seals: PTFE/graphite/1.4404 and see filter	
Markings:	ATEX:  II 3G Ex ec ic mb IIC T3/T4 Gc IECEx: Ex ec ic mb IIC T3/T4 Gc	

Ordering instructions

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

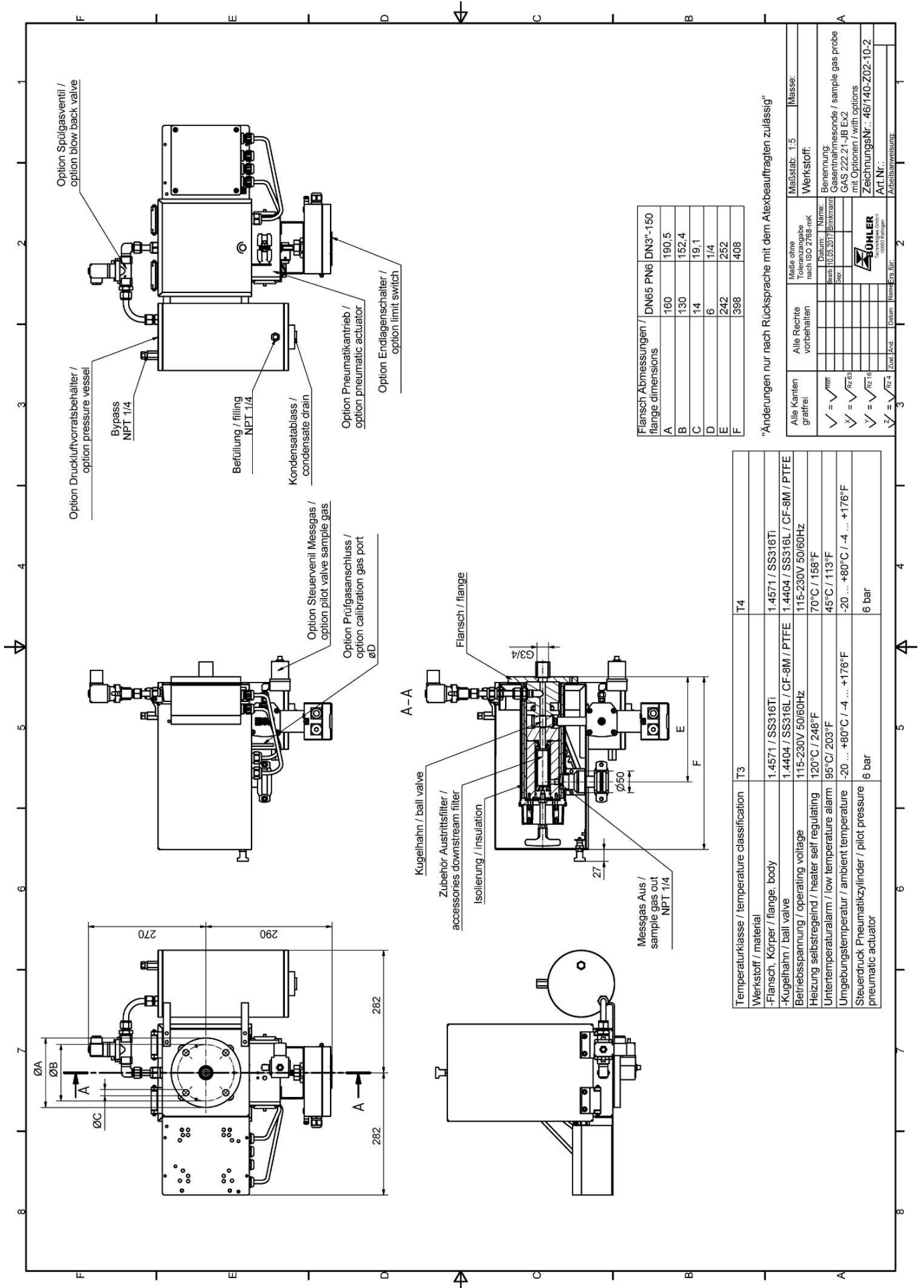
4622221	X	0	X	X	X	X	3	X	X	X	X	X	X	X	Product Characteristics
															Terminal box
	0														No
	1														Yes
															Flange
	0	1													Flange DN65 PN6
	0	2													Flange DN3"-150
															Hazardous area Outside and Inside
	2	9													Ex-Zone 2 outside
	2	2													Ex-Zone 2 outside and inside
															Temperature class
	3														T3
	4														T4
															Power supply sample probe
	3														115/230 V
															Low temperature alarm
	1														NC contact (open at operating temperature) (marked "ic")
	2														NO contact (closed at operating temperature) (marked "ic")
															Calibrating 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 Zone 2 inside)
															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 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														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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Flansch Abmessungen / flange dimensions	DN65 PN6	DN3"-150
A	180	190,5
B	130	152,4
C	14	19,1
D	6	1/4
E	242	252
F	398	408

Änderungen nur nach Rücksprache mit dem Atexbeauftragten zulässig

Temperaturklasse / temperature classification	T3	T4
Werkstoff / material	1.4571 / SS316Ti	1.4571 / SS316Ti
-Flansch, Körper / flange, body	1.4404 / SS316L / CF-8M / PTFE	1.4404 / SS316L / CF-8M / PTFE
-Kugelhahn / ball valve	115-230V 50/60Hz	115-230V 50/60Hz
Betriebsspannung / operating voltage	120°C / 248°F	70°C / 158°F
Heizung selbstregelnd / heater self regulating	95°C / 203°F	45°C / 113°F
Untertemperaturalarm / low temperature alarm	-20 ... +80°C / -4 ... +176°F	-20 ... +80°C / -4 ... +176°F
Umgebungstemperatur / ambient temperature	6 bar	6 bar
Steuerdruck Pneumatikzylinder / pilot pressure pneumatic actuator		

Alle Rechte vorbehalten	Maßstab: 1:5	Masse:
Malle ohne Toleranzangabe nach ISO 2768 mK Datum: 10.05.2017 Name: [] Zeichnung: [] Blatt: []	Werkstoff:	
Benennung: Gasrohrmessende / sample gas probe GAS 222.21-Ex2 mit Optionen / with options Zeichnungsnr.: 461740-Z02-10-2 Art Nr.: [] Arbeitsweise: []		
Zust. []	Datum []	Name []
3	2	