



Sample gas probe GAS 222.31 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 filter and weather hood

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

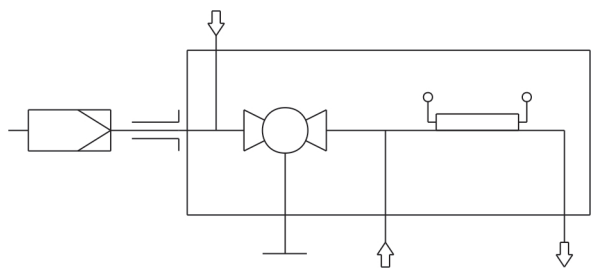
Heater self-regulating to approx. 120 °C (T3)/70 °C (T4) with low temperature alarm

For dust loads up to 200 g/m³

This probe is permitted 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
	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
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	
Protection class:	IP54	
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 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:

4622231	X	0	X	X	X	X	3	X	X	X	X	X	X	X	X	Product characteristics
																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
								3								115/230 V
																Low temperature alarm
									1							Opener (open at operating temperature) (marked with "ic")
									2							Closer (closed at operating temperature) (marked with "ic")
																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 *
									0							Ball valve
									1							Solenoid valve 110 V (marked with "mb")
									2							Solenoid valve 230 V (marked with "mb")
									3							Solenoid valve 24 V (marked with "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
																Solenoid valve for pneumatic actuator
									0							No
									1							110 V (marked with "mb")
									2							230 V (marked with "mb")
									3							24 V (marked with "mb")

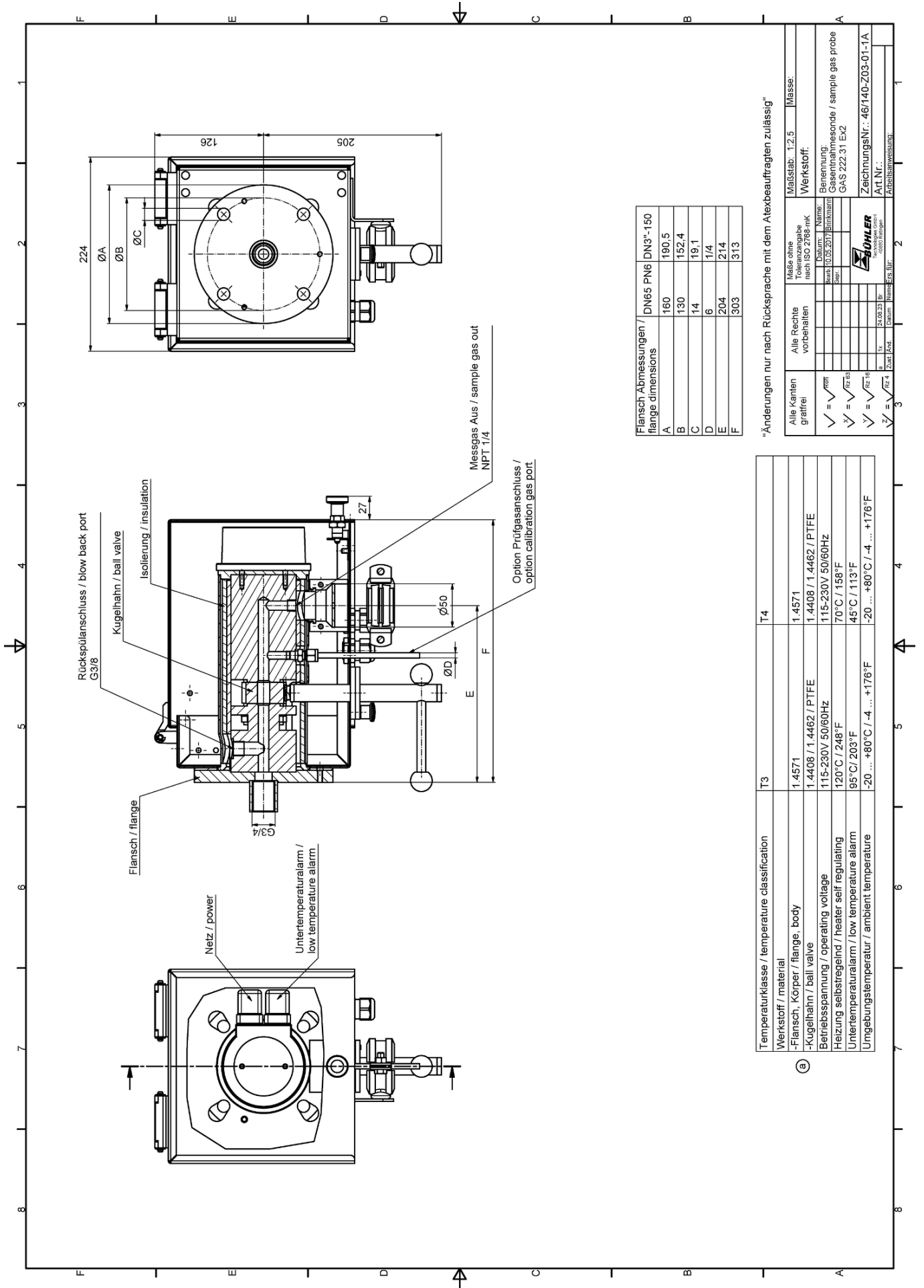
* Blowback of explosive atmosphere prohibited.

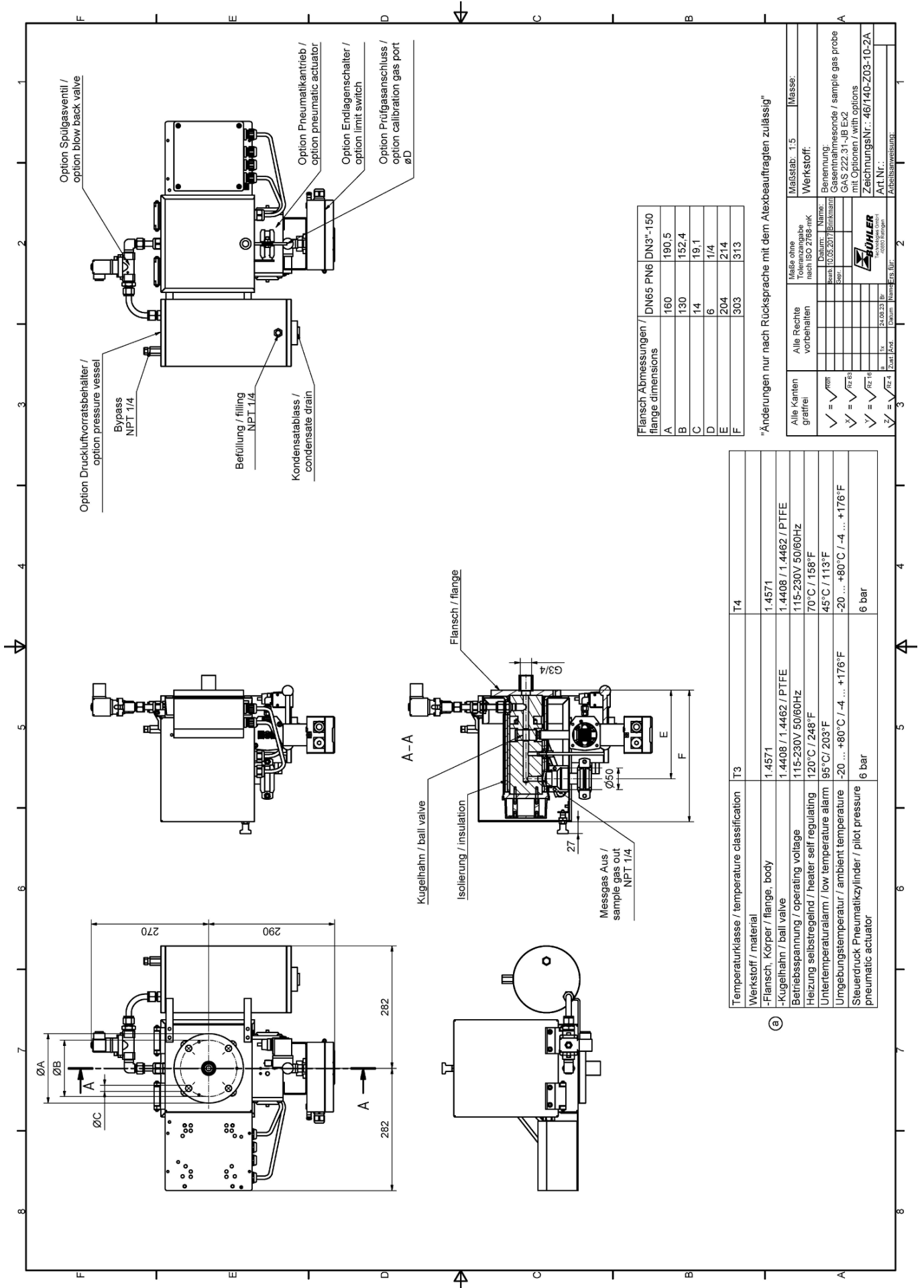
Options

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





Änderungen nur nach Rücksprache mit dem ATEXbeauftragten zulässig

Alle Kanten gratfrei	Alle Rechte vorbehalten	Masse ohne Topfengehe nach ISO 2768 mK	Maßstab: 1:5	Masse:
✓ = ✓ _{min}	✓ = ✓ _{max}	Datum: 10.05.2017	Werkstoff:	
✓ = ✓ _{RE 65}	✓ = ✓ _{RE 16}	Name: 10.05.2017	Benennung: Gasentnahmesonde / sample gas probe	
✓ = ✓ _{RE 16}	✓ = ✓ _{RE 4}	Druck: 24.06.23	GAS 222.31-Ex2	
✓ = ✓ _{RE 4}		Zeit: 16:00	mit Optionen / with options	
		Name: F.B.	Zeichnungs-Nr.: 461740-Z03-10-2A	
			Art.Nr.:	
			Arbeitsweise:	

(a)

Temperaturklasse / temperature classification	T3	T4
Werkstoff / material	1.4571	1.4571
-Flansch, Körper / flange, body	1.4408 / 1.4462 / PTFE	1.4408 / 1.4462 / PTFE
-Kugelhahn / ball valve	115-230V 50/60Hz	115-230V 50/60Hz
Heizung selbstregelnd / heater self regulating	120°C / 248°F	70°C / 158°F
Untertemperaturalarm / low temperature alarm	95°C / 203°F	45°C / 113°F
Umgebungstemperatur / ambient temperature	-20 ... +80°C / -4 ... +176°F	-20 ... +80°C / -4 ... +176°F
Steuerdruck Pneumatikzylinder / pilot pressure pneumatic actuator	6 bar	6 bar