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 suitable for use in explosive areas

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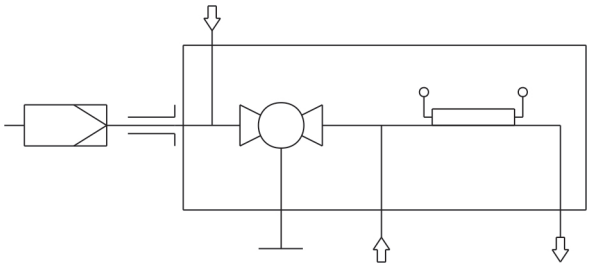
Flow chart



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: Graphite/1.4404 and see filter	
Markings:	ATEX: Ex 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	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
				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 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	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.

Axis Solutions Pvt Ltd is the Authorized Distributor of Bühler Technologies GmbH in India
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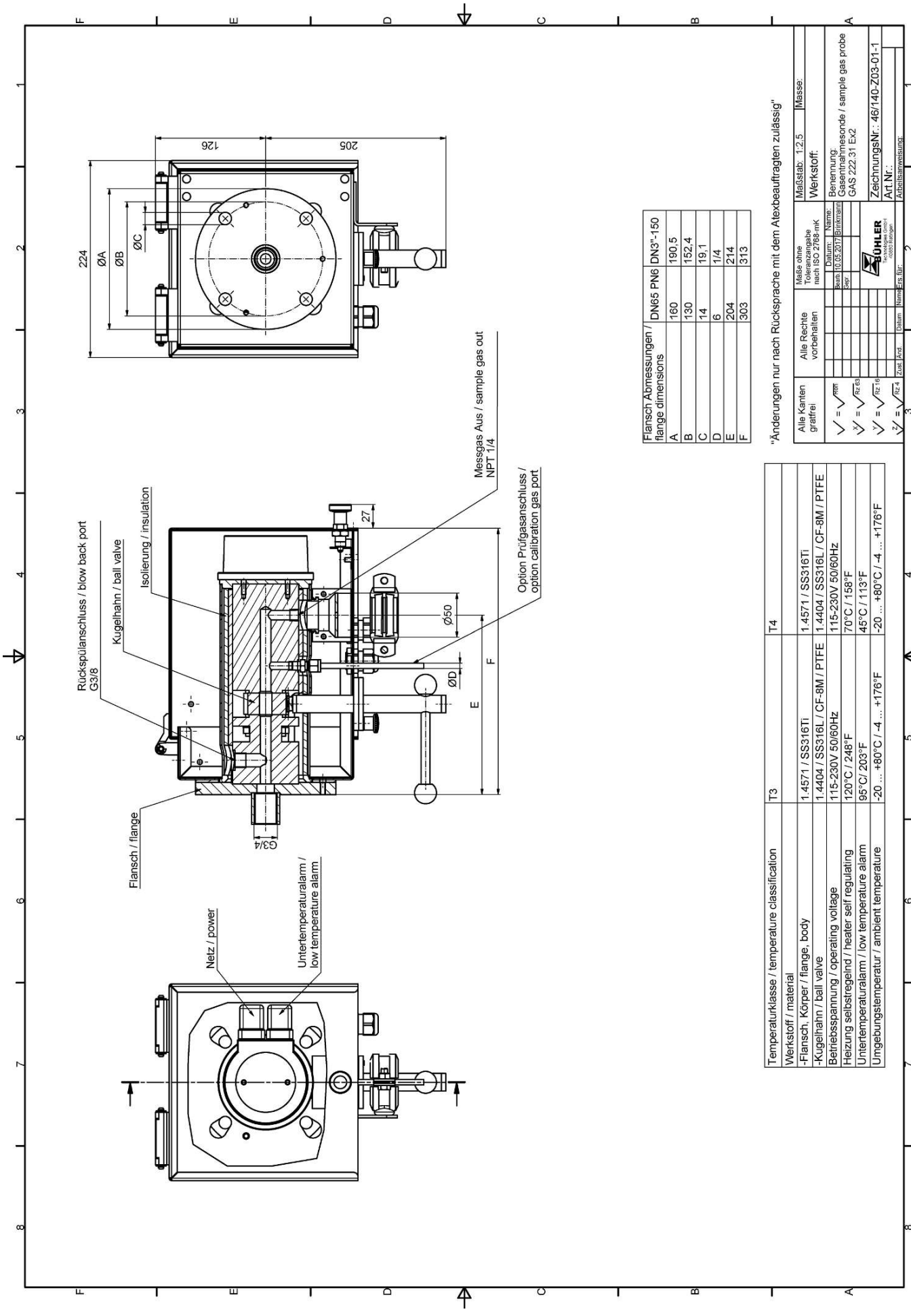
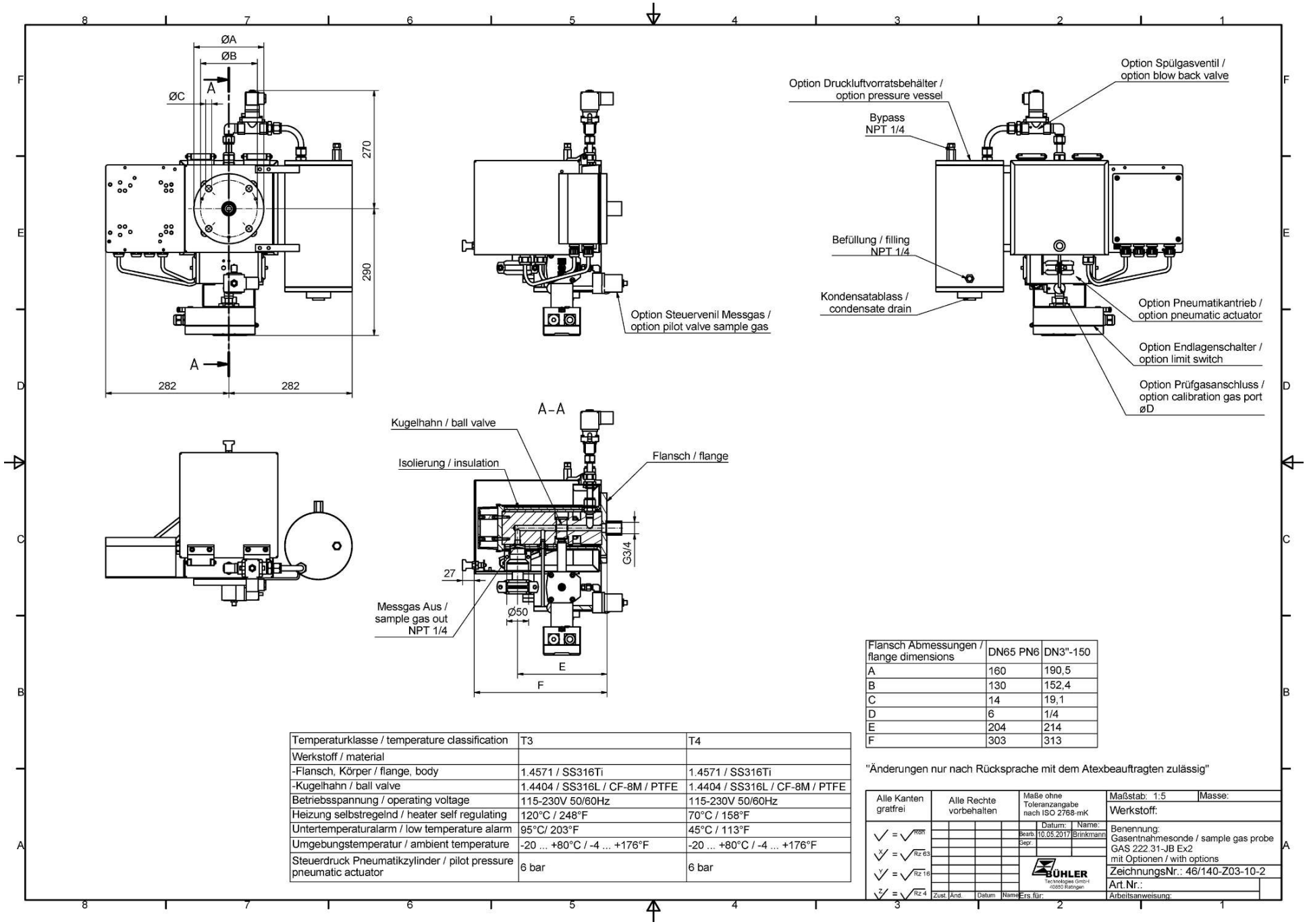
Dimensions



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	204	214
F	303	313

Temperaturklasse / temperature classification	T3	T4
Werkstoff / material		
-Flansch, Körper / flange, body	1.4571 / SS316Ti	1.4571 / SS316Ti
-Kugelhahn / ball valve	1.4404 / SS316L / CF-8M / PTFE	1.4404 / SS316L / CF-8M / PTFE
Betriebsspannung / operating voltage	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



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Steuerdruck Pneumatikzylinder / pilot pressure pneumatic actuator	6 bar	6 bar

"Änderungen nur nach Rücksprache mit dem Atexbeauftragten zulässig"

Alle Kanten gratfrei | Alle Rechte vorbehalten | Maße ohne Toleranzangabe nach ISO 2768-mK

Maßstab: 1:5 | Masse:

Werkstoff:

Datum: 10.05.2017 | Name: Brinkmann

Bearb. | Gepr.

Benennung: Gasentnahmesonde / sample gas probe GAS 222.31-JB Ex2 mit Optionen / with options

ZeichnungsNr.: 46/140-Z03-10-2

Art.Nr.:

Arbeitsanweisung:

BÜHLER Technologies GmbH 40880 Ratingen

Zust. | Änd. | Datum | Name | Ers.für: