



## Sample gas probe GAS 222.31

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

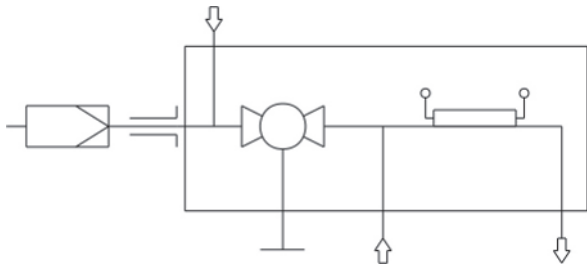
Electronic temperature controller up to 200 °C with low/high temperature alarm and display

For dust loads up to 200 g/m<sup>3</sup>

This probe is not suitable for use in Ex areas



Flow chart



Technical Data

Gas Probe Technical Data

Probe operating temperature:	max. 200 °C	
Ambient temperature without accessories:	-20 to +70 °C	
Ambient temperature with accessories:	<b>Component</b>	<b>Ambient temperature range</b>
	Compressed air valve:	-10 °C < T <sub>amb</sub> < +55 °C
	Pneumatic drive:	-20 °C < T <sub>amb</sub> < +80 °C
	Limit switch:	-20 °C < T <sub>amb</sub> < +100 °C
	Solenoid valve for pneumatic drive:	-10 °C < T <sub>amb</sub> < +55 °C
Medium temperature (blowback):	<b>Component</b>	<b>Medium temperature range</b>
	Compressed air valve:	-10 °C to +80 °C
	Solenoid valve for pneumatic drive:	-10 °C to +100 °C
Regulator setting range:	+50 to +200 °C	
Low/high temperature alarm:	Alarm adjustable ±5.....30 K from setpoint, factory preset 15 K Max. switching current 1 A	
Electrical data:	230 V, 2.0 A, 50/60 Hz 115 V, 3.8 A, 50/60 Hz	
IP rating:	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	

### Ordering Instructions

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

4622231	X	9	9	0	X	X	X	X	X	X	X	X	X	X	X	Product Characteristics
																<b>Flange</b>
				0												DIN DN65 PN6
				2												ANSI 3"-150 lbs - without CSA C & US approval
																<b>Power supply sample probe</b>
															1	115 V
															2	230 V
																<b>Calibrating gas connection</b>
															0	No calibrating gas connection
															1	6 mm
															2	6 mm + check valve
															3	1/4"
															4	1/4" + check valve
																<b>Connection heated extension</b>
															0	No
															1	Yes
																<b>Built-in temperature controller <sup>1)</sup></b>
															0	No
															1	Yes
																<b>Blowback with air reservoir <sup>2)</sup></b>
																<b>Air reservoir heating</b>
															1	Yes
															9	No
																<b>Built-in blowback control <sup>1)</sup></b>
															1	Internal controller
															9	No
																<b>Compressed air valve / valve voltage information</b>
															0	Manual
															1	115 V
															2	230 V
															3	24 V
															9	None (if no blowback requested)
																<b>Pneumatic drive for ball valve</b>
															0	Manual
															1	Monostable pressure-free open
															2	Monostable pressure-free closed
															3	Bi-stable
																<b>Limit switch for pneumatic drive</b>
															1	Yes
															9	No
																<b>Control valve for pneumatic drive</b>
															3	3/2-way valve
															5	5/2-way valve
															9	No control valve

<sup>1)</sup> The electronics can either be equipped with temperature controller for heated extension or blowback control.

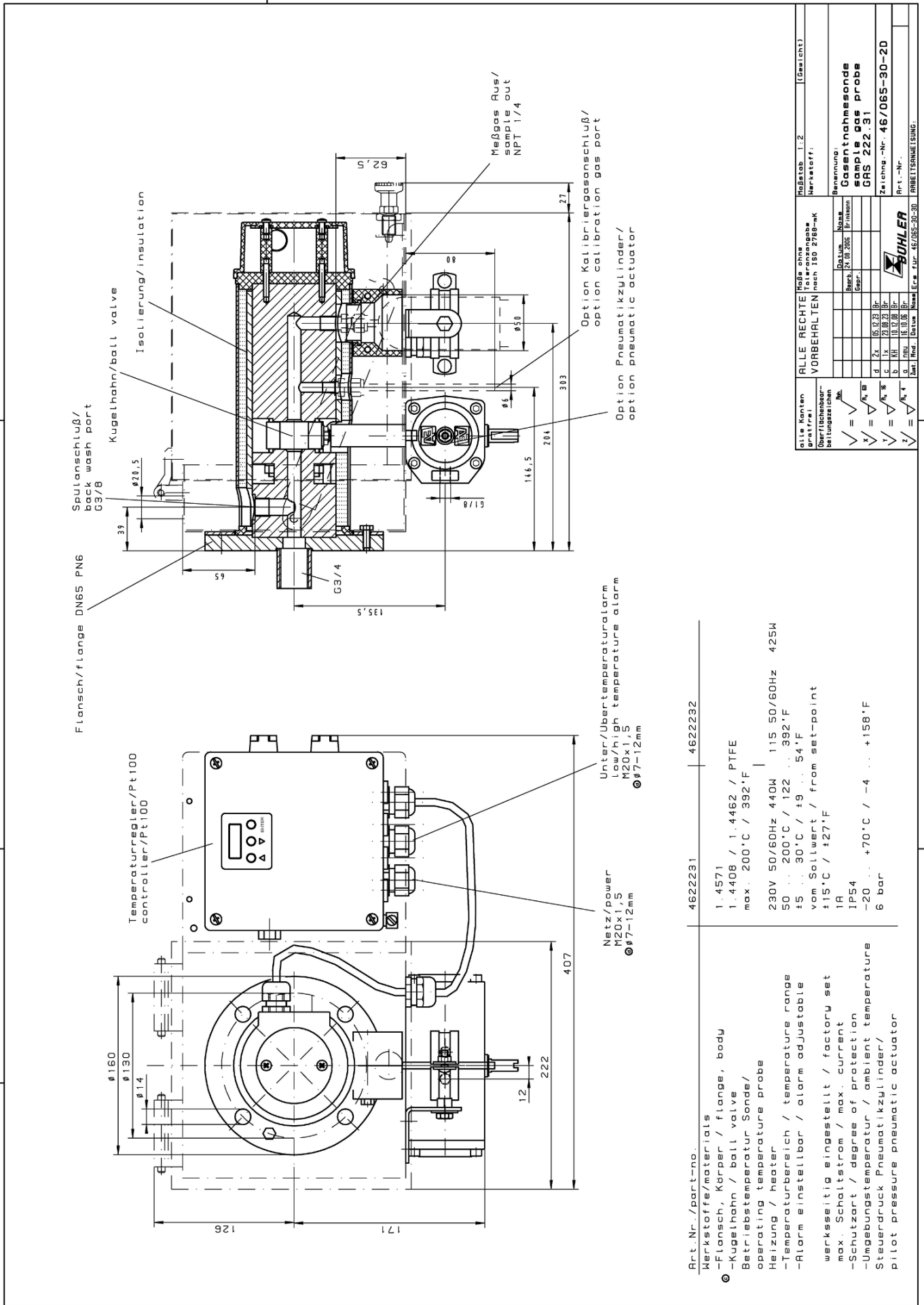
<sup>2)</sup> For flammable sample gas, always use inert gas for blowback. Probe blowback prohibited when using explosive gases!

### 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

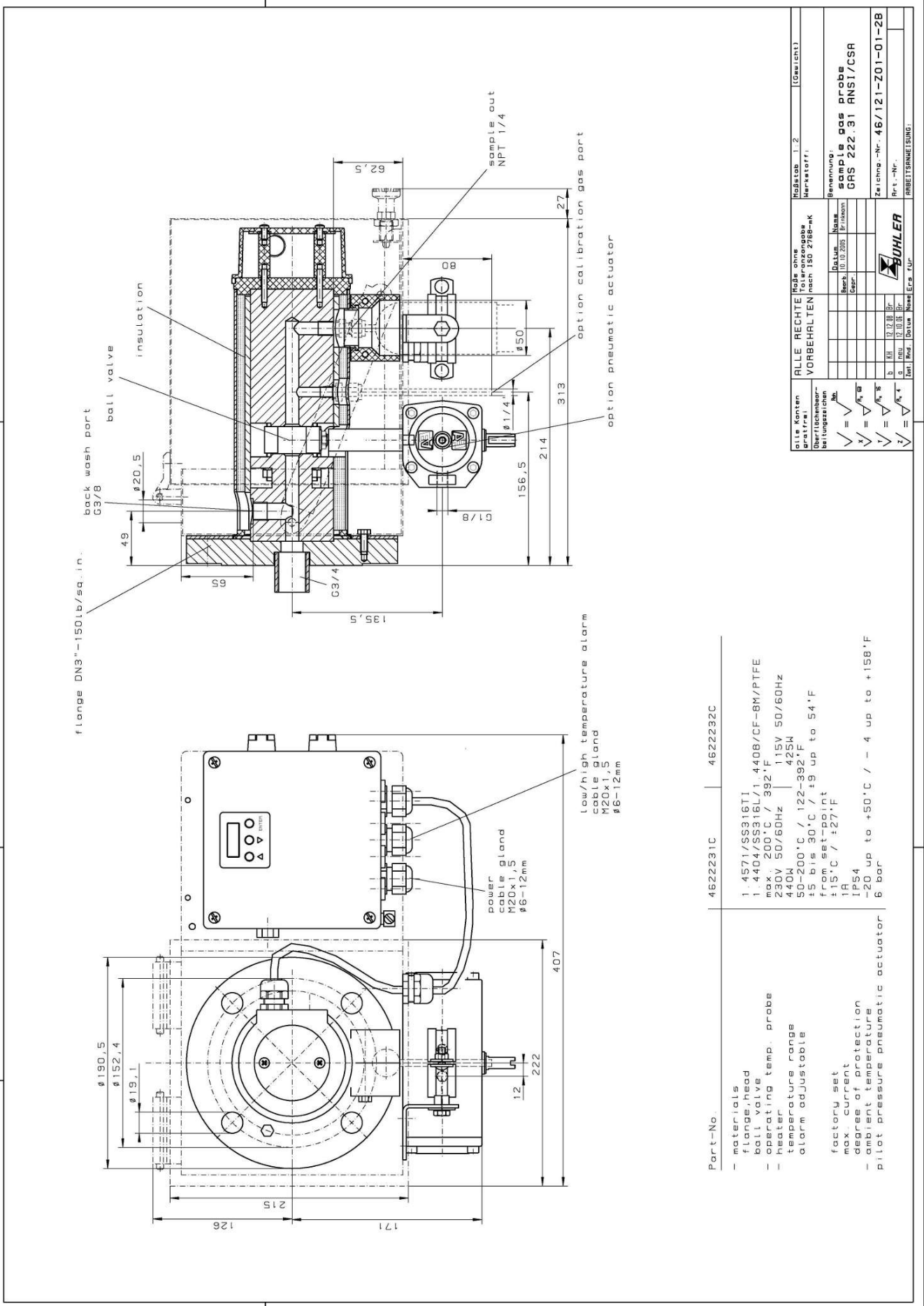


ALLE Kanten gestreift		ALLE RECHTE VORBEHALTEN		Maße ohne Nachschabe nach ISO 2768-mK		Maßstab 1:2	
Überflächenbearbeitungszustand		Datei		Name		Herbststoff	
✓	✓	✓	✓	✓	✓	Benennung: <b>Gasentnahmesonde sample gas probe GAS 222.31</b>	
✓	✓	✓	✓	✓	✓	Zeichnung-Nr. <b>46/065-30-2D</b>	
✓	✓	✓	✓	✓	✓	Art.-Nr.	
✓	✓	✓	✓	✓	✓	ARBEITSRISIKO	
✓	✓	✓	✓	✓	✓	Name Erw. für 46/065-30-30	

Art. Nr./part-no.	4622231	4622232
Werkstoffe/materials	1.4571	1.4408 / 1.4462 / PTFE
Flansch, Körper / flange, body	max. 200°C / 392°F	
Kugelhahn / ball valve	230V 50/60Hz 440W	115 50/60Hz 425W
Betriebstemperatur Sonde / operating temperature probe	50 ... 200°C / 122 ... 392°F	
Heizung / heater	±5 ... 30°C / ±9 ... 54°F	vom Sollwert / from set-point
-Temperaturbereich / temperature range	±15°C / ±27°F	
-Alarm einstellbar / alarm adjustable	IP54	
werkseitig eingestellt / factory set	-20 ... +70°C / -4 ... +158°F	
max. Schaltstrom / max. current	6 bar	
-Schutzart / degree of protection		
-Umgebungstemperatur / ambient temperature		
Steuerdruck Pneumatikzylinder / pilot pressure pneumatic actuator		

Dimensions (ANSI flange)

NOTICE! ANSI flange only available without CSA approval.



alle Konten gerätfrei Überlieferungs- bedingungen	Maße ohne Montage nach ISO 2768-MK	Maßstab 1:2 Hersteller:	Benennung: sample gas probe GAS 222.31 ANSI/CSA
✓ = ✓ ✓ = ✓ ✓ = ✓ ✓ = ✓	Datum: 10.10.2023 Erreicht:	Zeichnung-Nr.: 46/121-Z01-01-2B Art.-Nr.:	BÜHLER ARBEITSZEICHNUNG

- |                                     |                                    |          |
|-------------------------------------|------------------------------------|----------|
| Part-No.                            | 4622231C                           | 4622232C |
| - materials                         | 1 4571/SS316TI                     |          |
| - flange head                       | 1 4404/SS316L/1 4408/CF-8M/PTFE    |          |
| - ball valve                        | max 200°C / 392°F                  |          |
| - operating temp. probe             | 230V 50/60Hz   115V 50/60Hz        |          |
| - heater                            | 440W   425W                        |          |
| - temperature range                 | 50-200°C / 122-392°F               |          |
| - alarm adjustable                  | +5 bis 30°C / +9 up to 54°F        |          |
| - factory set                       | factory point                      |          |
| - max. current                      | 15°C / ±27°F                       |          |
| - degrees protection                | 1A                                 |          |
| - ambient temperature               | IP54                               |          |
| - pilot pressure pneumatic actuator | -20 up to +50°C / - 4 up to +158°F |          |
|                                     | 6 bar                              |          |