



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

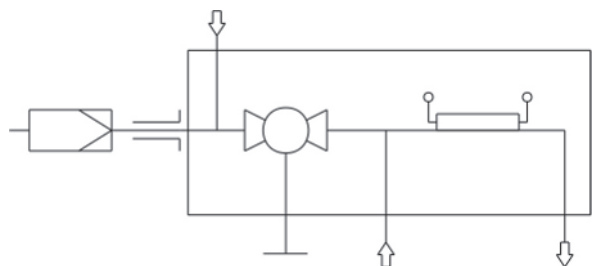
Electronic temperature controller up to 395 °F with low/high temperature alarm and display

For dust loads up to 200 g/m³

This probe is not suitable for use in Ex areas



Flow chart



Technical Data

Gas Probe Technical Data

Probe operating temperature:	max. 392 °F										
Ambient temperature without accessories:	-4 to 158 °F										
Ambient temperature with accessories:	<table> <tr> <th>Component</th><th>Ambient temperature range</th></tr> <tr> <td>Compressed air valve:</td><td>14 °F < T_{amb} < +131 °F</td></tr> <tr> <td>Pneumatic drive:</td><td>-4 °F < T_{amb} < 176 °F</td></tr> <tr> <td>Limit switch:</td><td>-4 °F < T_{amb} < 212 °F</td></tr> <tr> <td>Solenoid valve for pneumatic drive:</td><td>14 °F < T_{amb} < 131 °F</td></tr> </table>	Component	Ambient temperature range	Compressed air valve:	14 °F < T _{amb} < +131 °F	Pneumatic drive:	-4 °F < T _{amb} < 176 °F	Limit switch:	-4 °F < T _{amb} < 212 °F	Solenoid valve for pneumatic drive:	14 °F < T _{amb} < 131 °F
Component	Ambient temperature range										
Compressed air valve:	14 °F < T _{amb} < +131 °F										
Pneumatic drive:	-4 °F < T _{amb} < 176 °F										
Limit switch:	-4 °F < T _{amb} < 212 °F										
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Medium temperature (blowback):	<table> <tr> <th>Component</th><th>Medium temperature range</th></tr> <tr> <td>Compressed air valve:</td><td>14 °F to 176 °F</td></tr> <tr> <td>Solenoid valve for pneumatic drive:</td><td>14 °F to 212 °F</td></tr> </table>	Component	Medium temperature range	Compressed air valve:	14 °F to 176 °F	Solenoid valve for pneumatic drive:	14 °F to 212 °F				
Component	Medium temperature range										
Compressed air valve:	14 °F to 176 °F										
Solenoid valve for pneumatic drive:	14 °F to 212 °F										
Regulator setting range:	50 to 392 °F										
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:	85 psia										
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
																Flange
0																DIN DN65 PN6
2																ANSI 3"-150 lbs - without CSA C & US approval
																Power supply sample probe
1																115 V
2																230 V
																Calibrating gas connection
0																No calibrating gas connection
1																6 mm
2																6 mm + check valve
3																1/4"
4																1/4" + check valve
																Connection heated extension
0																No
1																Yes
																Built-in temperature controller ¹⁾
0																No
1																Yes
																Blowback with air reservoir ²⁾
																Air reservoir heating
1																Yes
9																No
																Built-in blowback control ¹⁾
1																Internal controller
9																No
																Compressed air valve / valve voltage information
0																Manual
1																115 V
2																230 V
3																24 V
9																None (if no blowback requested)
																Pneumatic drive for ball valve
0																Manual
1																Monostable pressure-free open
2																Monostable pressure-free closed
3																Bi-stable
																Limit switch for pneumatic drive
1																Yes
9																No
																Control valve for pneumatic drive
3																3/2-way valve
5																5/2-way valve
9																No control valve

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

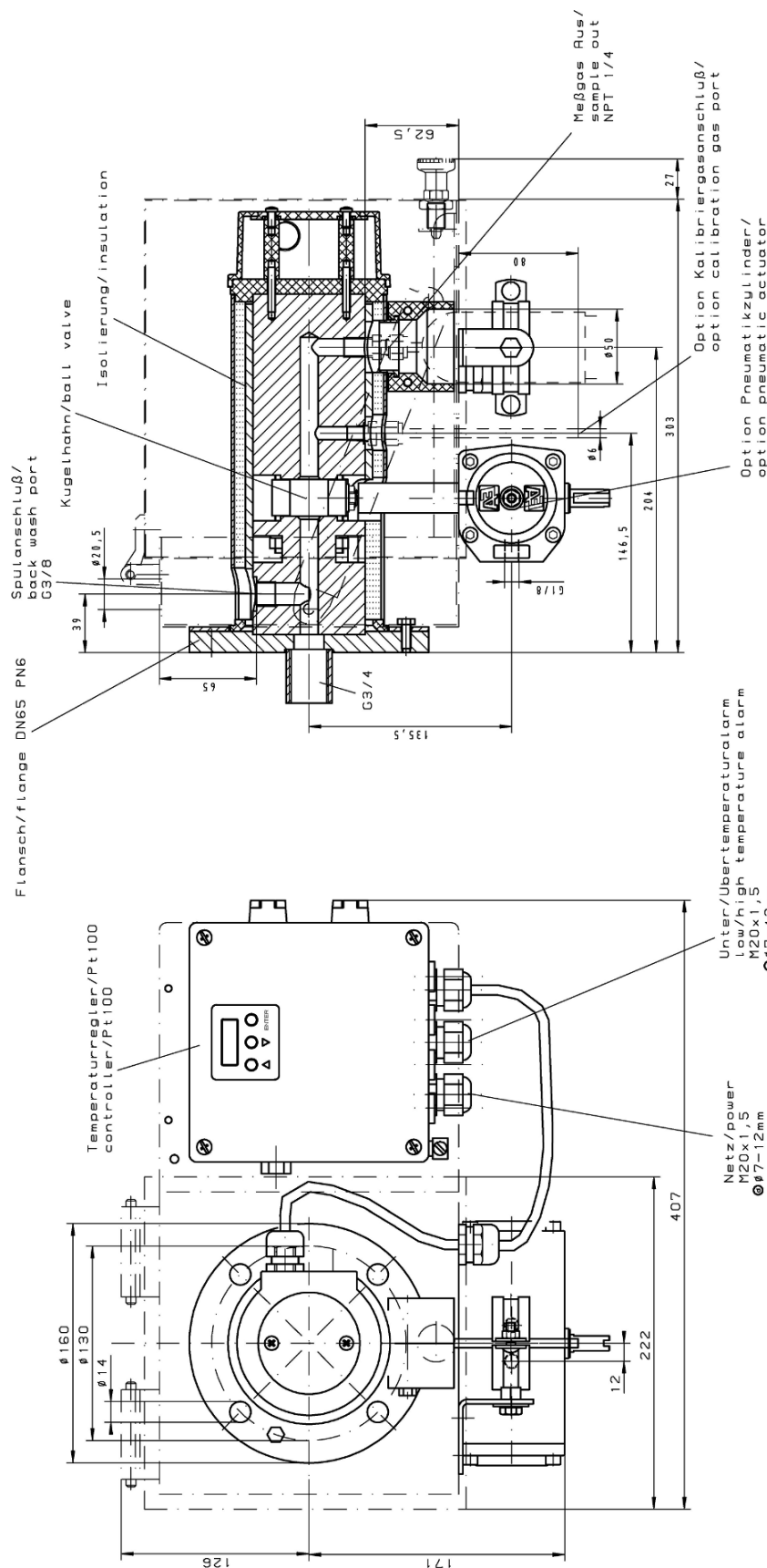
²⁾ For flammable sample gas, always use inert gas for blowback. Probe blowback prohibited when using explosive gases!

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

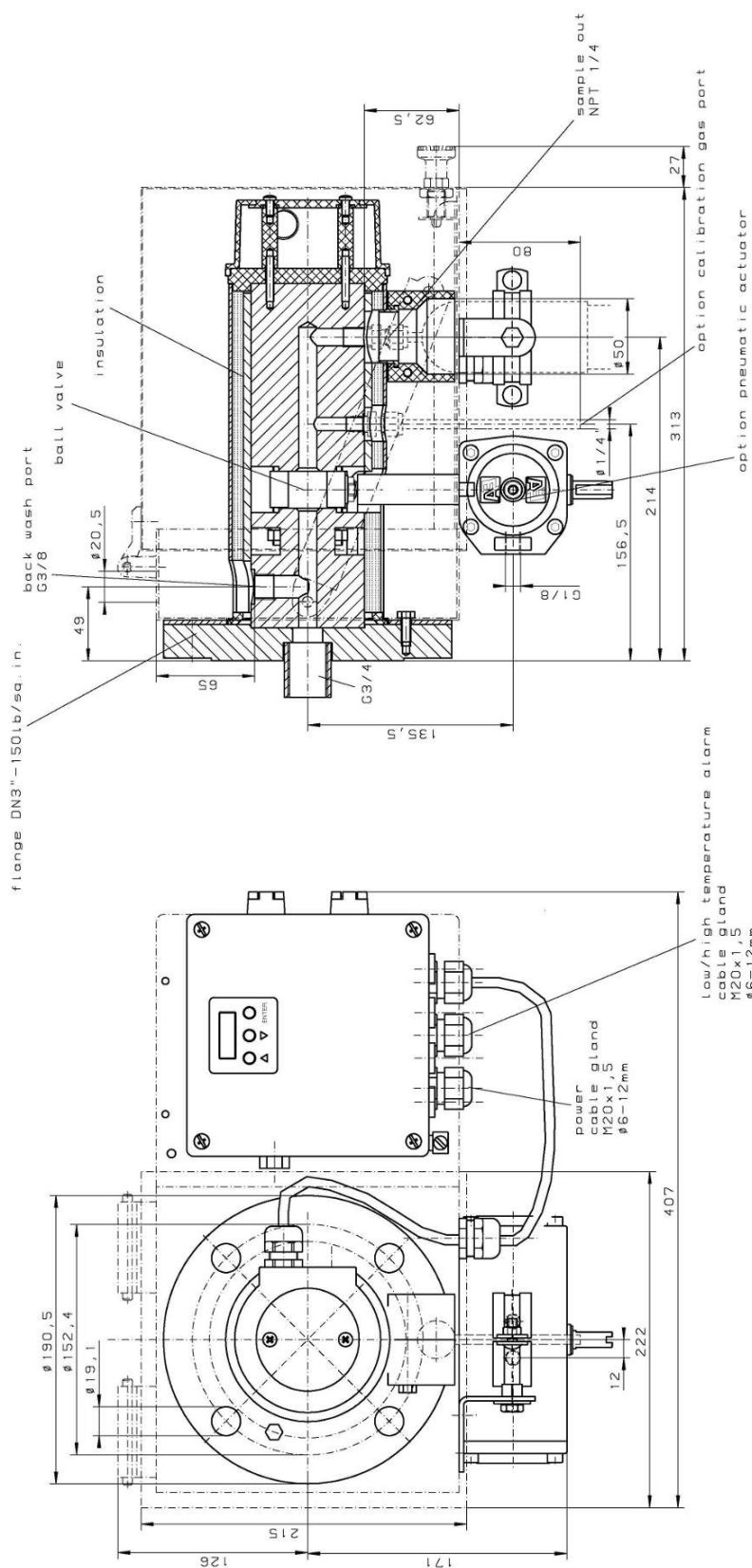


Art.-Nr./part-no.		4622231		4622232	
Werkstoffe/materials		1.4571		1.4571	
②-Flansch, Körper / flange, body		1.4408 / 1.4462 / PTFE		1.4408 / 1.4462 / PTFE	
Kugelhahn / ball valve		max. 200°C / 392°F		max. 200°C / 392°F	
Betriebsstemperatur Sonde/ operating temperature probe		230V 50/60Hz 440W		115 50/60Hz 425W	
Heizung / heater		50 ... 200°C / 122 ... 392°F		15 ... 30°C / 59 ... 84°F	
-Temperaturbereich / temperature range		vom Sollwert / from set-point		±15°C / ±27°F	
-Alarm einstellbar / alarm adjustable		IP54		-20 ... +70°C / -4 ... +158°F	
werkseitig eingestellt / factory set		max. Schaltstrom / max. current		6 bar	
-Schutzart / degree of protection		Steuerdruck Pneumatikzylinder/ pilot pressure pneumatic actuator			
-Umgebungstemperatur / ambient temperature					

ALLE RECHTE VORBEHALTEN		Maße ohne Montage nach ISO 2768-MK		Maßstab 1:2	
Übersichtsbild		Maße ohne Montage nach ISO 2768-MK		Maßstab 1:2	
Detailansicht		Maße ohne Montage nach ISO 2768-MK		Maßstab 1:2	
Schnittansicht		Maße ohne Montage nach ISO 2768-MK		Maßstab 1:2	
Flanschanzeige		Maße ohne Montage nach ISO 2768-MK		Maßstab 1:2	
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Dimensions (ANSI flange)

NOTICE! ANSI flange only available without CSA approval.



Part-No.	4522231C	4522232C
- 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	40W	425W
temperature range	50-200°C / 122-392°F	
alarm adjustable	+5 bis 30°C / +9 up to 54°F	
	from set-point	
factory set	15°C / 127°F	
max. current	1A	
degree of protection	IP54	
- ambient temperature	-20 up to +50°C / - 4 up to +158°F	
- pilot pressure pneumatic actuator	6 bar	

[illegible]