



## Sample gas probe GAS 222.21 Ex1

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 and/or downstream filter and weather hood

The outlet 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 isolated

Heater self-regulating to approx. 90 °C

For dust loads up to 2 g/m<sup>3</sup> with outlet filter or > 10 g/m<sup>3</sup> with inlet filter







This probe is designed for use in explosive areas under ATEX and IECEx.

Use in zone 1 and 21 and sampling from zone 0 and 20.



**Technical Data**

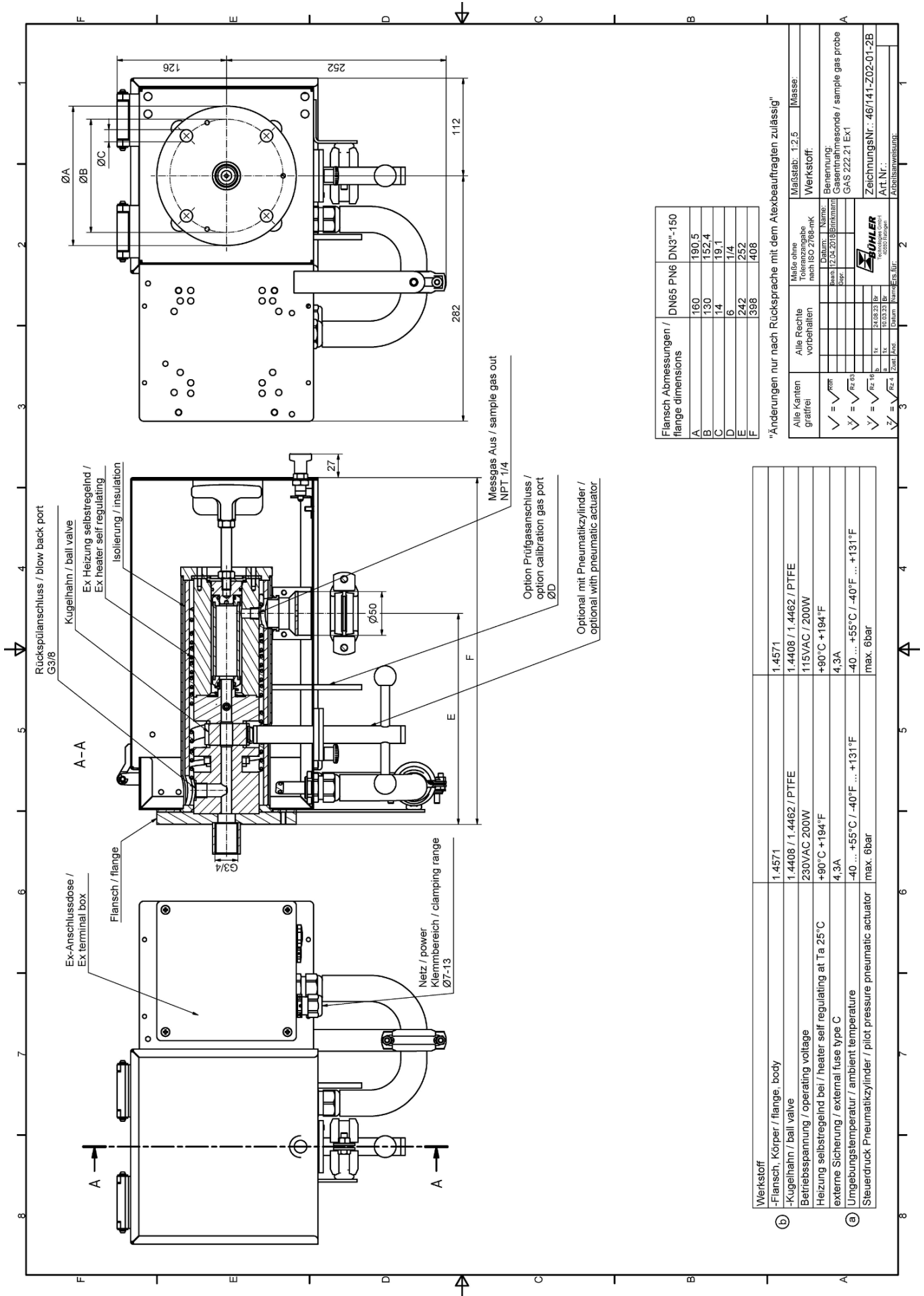
**Gas Probe Technical Data**

Ambient temperature without accessories:	-40 to +55 °C	
Ambient temperature with accessories:	<b>Component</b>	<b>Ambient temperature range</b>
	Compressed air valve:	-30 °C < T <sub>amb</sub> < +55 °C
	Solenoid valve for pneumatic drive:	-10 °C < T <sub>amb</sub> < +55 °C
	Pneumatic drive:	-20 °C < T <sub>amb</sub> < +55 °C
	Limit switch:	-25 °C < T <sub>amb</sub> < +55 °C
Permissible gas inlet temperatures:	<b>Outer zone temperature class</b>	<b>Permissible gas inlet temperature</b>
	T2	135 °C
	T3	135 °C
	T4	130 °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
Self-regulating heater:	+90 °C	
Electrical data:	Probe: 230 V, 200 W, 50/60 Hz 115 V, 200 W, 50/60 Hz	External circuit breaker type C: 230 V, 3 A, 50/60 Hz 115 V, 4 A, 50/60 Hz
Max. operating pressure:	6 bar	
Max. flow rate:	1000 L/h	
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	
Probe marking, depending on the selected options and temperature class:	<p><b>for zone 0/1:</b> ATEX:  II 1G/2G Ex db<sup>1</sup> eb mb<sup>2</sup> IIC T5/T6...T1/T2 Ga/Gb IECEX: Ex db<sup>1</sup> eb mb<sup>2</sup> IIC T5/T6...T1/T2 Ga/Gb</p> <p><b>for zone 1:</b> ATEX:  II 2G Ex db<sup>1</sup> eb mb<sup>2</sup> IIC T6...T2 Gb IECEX: Ex db<sup>1</sup> eb mb<sup>2</sup> IIC T6...T2 Gb</p> <p><b>for zone 0/21:</b> ATEX:  II 1G/2D Ex db<sup>1</sup> eb mb<sup>2</sup> IIC T5 ... T1 Ga Ex tb mb<sup>2</sup> IIIC T80 °C ... T226 °C Db IECEX: Ex db<sup>1</sup> eb mb<sup>2</sup> IIC T5 ... T1 Ga Ex tb mb<sup>2</sup> IIIC T80 °C ... T226 °C Db</p> <p><b>for zone 20/1:</b> ATEX:  II 1D/2G Ex ta IIIC T120 °C ... T300 °C Da Ex db<sup>1</sup> eb mb<sup>2</sup> IIC T6 ... T2 Gb IECEX: Ex ta IIIC T120 °C ... T300 °C Da Ex db<sup>1</sup> eb mb<sup>2</sup> IIC T6 ... T2 Gb</p> <p><b>for zone 20/21:</b> ATEX:  II 1D/2D Ex ta/tb mb<sup>2</sup> IIIC T120°C/T80°C...T300°C/T226°C Da/Db IECEX: Ex ta/tb mb<sup>2</sup> IIIC T120°C/T80°C...T300°C/T226°C Da/Db</p> <p><b>for zone 21:</b> ATEX:  II 2D Ex tb mb<sup>2</sup> IIIC T80°C...T226°C Db IECEX: Ex tb mb<sup>2</sup> IIIC T80°C...T226°C Db</p> <p><sup>1</sup> "db" only for GAS 222.21/31 versions with limit switch <sup>2</sup> "mb" only for versions with solenoid valve</p>	
Applied standards:	IEC 60079-0 (Ed. 6.0); IEC 60079-7 (Ed. 5.0); IEC 60079-26 (Ed. 3.0); EN 60079-0:2012+A11:2013; EN 60079-7:2015; EN 60079-26:2015	





Dimensions



Flansch-Abmessungen / flange dimensions	DN65 PN6 DN3"-150
A	160
B	130
C	14
D	6
E	242
F	398

"Änderungen nur nach Rücksprache mit dem Atexbeauftragten zulässig"

Werkstoff	1.4571
Flansch, Körper / flange, body	1.4571
Kugelhahn / ball valve	1.4408 / 1.4462 / PTFE
Betriebsspannung / operating voltage	115VAC / 200W
Heizung selbstregelnd bei / heater self regulating at Ta 25°C	+90°C / +194°F
externe Sicherung / external fuse type C	4,3A
Umgebungstemperatur / ambient temperature	-40 ... +55°C / -40°F ... +131°F
Steuerdruck Pneumatikzylinder / pilot pressure pneumatic actuator	max. 6bar

Alle Kanten gratfrei	Alle Rechte vorbehalten	Maßstab: 1:2,5	Masse:
✓ = $\sqrt{r_{min}}$	✓ = $\sqrt{r_{max}}$	Werkstoff:	
✓ = $\sqrt{r_{z, 1}}$	✓ = $\sqrt{r_{z, 2}}$	Bezeichnung:	
✓ = $\sqrt{r_{z, 3}}$	✓ = $\sqrt{r_{z, 4}}$	Gesamtheißenkunde / sample gas probe	
✓ = $\sqrt{r_{z, 5}}$	✓ = $\sqrt{r_{z, 6}}$	GAS 222.21 Ex1	
✓ = $\sqrt{r_{z, 7}}$	✓ = $\sqrt{r_{z, 8}}$	Zeichnungs-Nr.: 46/141-Z02-01-2B	
✓ = $\sqrt{r_{z, 9}}$	✓ = $\sqrt{r_{z, 10}}$	ART.Nr.:	
✓ = $\sqrt{r_{z, 11}}$	✓ = $\sqrt{r_{z, 12}}$	Arbeitsanweisung:	