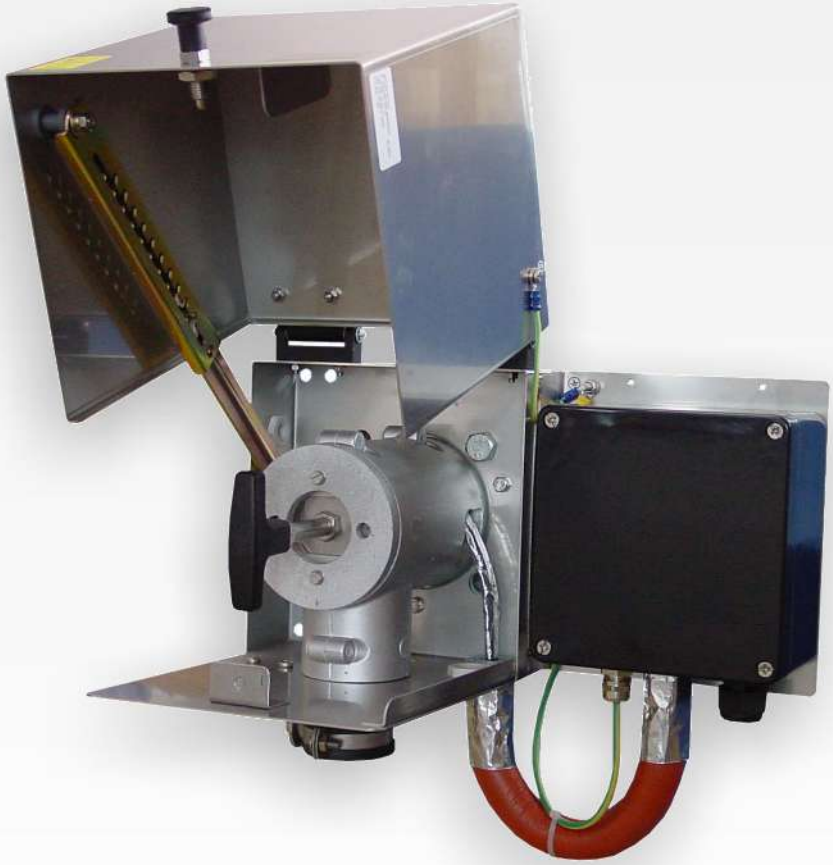


Gas Analysis

Sample gas probe GAS 222.20 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.

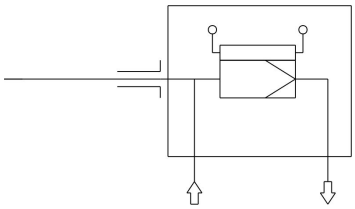
The specific filter capacity, corrosion resistance and functional equipment requirements for the probe arise from the composition of the sample gas.

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.

- Versions with Atex and IECEx approval
- Heated probe with downstream filter and weather hood
- The downstream 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 insulated
- Self-regulating heater
- For dust loads up to 2 g/m³
- This probe is permitted for use in explosive areas.
  Atex: Use in zone 1 and 21 and sampling from zone 0 and 20
  IECEx: Use in zone 1 and sampling from zone 0

Buhler Technologies LLC, 1030 West Hamlin Road, Rochester Hills, MI 48309
Phone: 248.652.1546, Fax: 248.652.1598
e-mail: sales@buhlertech.com
Internet: www.buhlertech.com

Flow chart



Technical Data

Gas Probe Technical Data

Ambient temperature:	-40 to 131 °F	
Permissible gas inlet temperatures:	**Outer zone temperature class**	**Permissible gas inlet temperature**
	T2	275 °F
	T3	275 °F
	T4	266 °F
	T6	158 °F
Self-regulating heater:	T4	176 °F
	T6	113 °F
Probe electrical data:	**Power at 32 °F:**	**External circuit breaker type C:**
	T4: 230 V, 100 W, 50/60 Hz 115 V, 100 W, 50/60 Hz	230 V, 2 A, 50/60 Hz 115 V, 3 A, 50/60 Hz
	T6: 230 V, 50 W, 50/60 Hz 115 V, 50 W, 50/60 Hz	
Max. operating pressure:	85 psia	
Max. flow rate:	16.66 lpm	
Material:	1.4571	
Parts in contact with media:	Seals: Graphite/1.4404 and see filter	
Probe marking, depending on the selected options and temperature class:	**for zone 0/1:** ATEX: Ⓔx II 1G/2G Ex db[1] eb mb[2] IIC T5/T6...T1/T2 Ga/Gb IECEx: Ex db[1] eb mb[2] IIC T5/T6...T1/T2 Ga/Gb **for zone 1:** ATEX: Ⓔx II 2G Ex db[1] eb mb[2] IIC T6...T2 Gb IECEx: Ex db[1] eb mb[2] IIC T6...T2 Gb **for zone 0/21:** ATEX: Ⓔx II 1G/2D Ex db[1] eb mb[2] IIC T5 ... T1 Ga Ex tb mb[2] IIIC T80 °C ... T226 °C Db IECEx: - **for zone 20/1:** ATEX: Ⓔx II 1D/2G Ex ta IIIC T120 °C ... T300 °C Da Ex db[1] eb mb[2] IIC T6 ... T2 Gb IECEx: - **for zone 20/21:** ATEX: Ⓔx II 1D/2D Ex ta/tb mb[2] IIIC T120°C/T80°C...T300°C/T226°C Da/Db IECEx: - **for zone 21:** ATEX: Ⓔx II 2D Ex tb mb[2] IIIC T80°C...T226°C Db IECEx: - [1] "db" only for GAS 222.21/31 versions with limit switch [2] "mb" only for versions with solenoid valve	
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	
IECEx certificate number:	IECEx IBE 17.0024X	
ATEX certificate number:	IBExU17ATEX1088X	

Ordering instructions

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

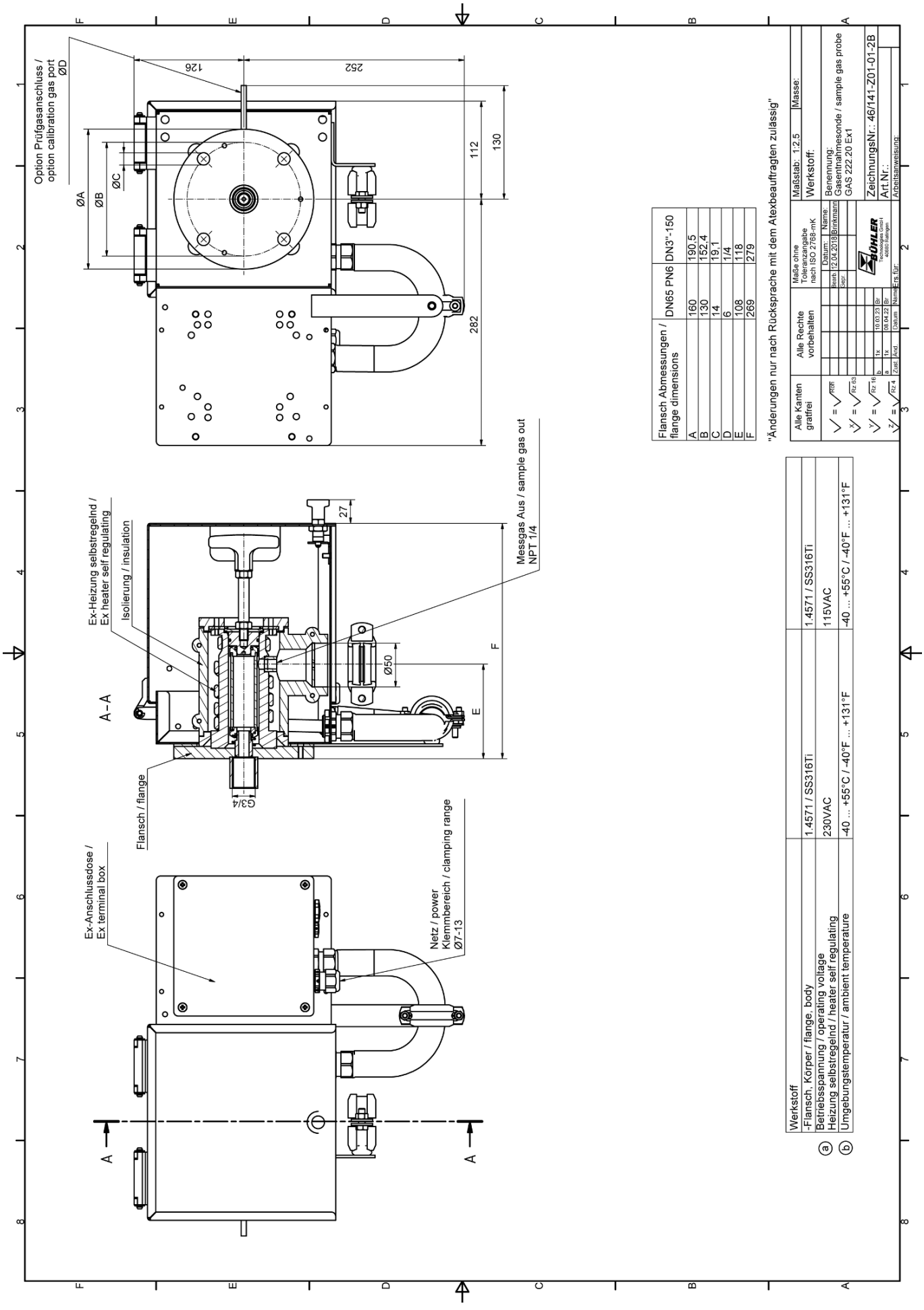
46222201	X	X	X	X	X	X	0	X	0	9	0	0	0	Product Characteristics			
														Flange			
	0	1												Flange DN65 PN6			
	0	2												Flange DN3"-150			
	x	x												Other			
														Hazardous area			
														Outside			
			4											Zone 1 (Atex/IECEx)			
			7											Zone 21 (Atex)			
			9											none			
														Inside			
				3										Zone 0 (Atex/IECEx)			
				4										Zone 1 (Atex/IECEx)			
				6										Zone 20 (Atex)			
				7										Zone 21 (Atex)			
				9										none			
														Temperature class inside/outside (dust only ATEX)			
														Ga/Gb	**Ga/Db**	**Da/Gb**	**Da/Db**
					4									T3/T4	T3/T130°C	T175°C/T4	T175°C/T130°C
					6									T5/T6	T5/T80°C	T120°C/T6	T120°C/T80°C
														Temperature class inside/outside (dust only ATEX)			
														Gb/Gb	**Gb/Db**	**Db/Gb**	**Db/Db**
					4									T4/T4	T4/T130°C	T130°C/T4	T130°C/T130°C
					6									T6/T6	T6/T80°C	T80°C/T6	T80°C/T80°C
														Power supply sample probe			
						1								115 V			
						2								230 V			
														Calibration gas port			
								0						No			
								1						6 mm			
								2						6 mm with check valve			
								3						1/4"			
								4						1/4" with check valve			

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


Option Prüfgasanschluss / option calibration gas port ØD
ØA
ØB
ØC
126
252
112
130
282
Ex-Heizung selbstregelnd / Ex heater self regulating
Isolierung / insulation
A–A
27
Messgas Aus / sample gas out NPT 1/4
Ø50
F
E
G3/4
Flansch / flange
Ex-Anschlussdose / Ex terminal box
Netz / power Klemmbereich / clamping range Ø7-13
A
A
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 108 118
F 269 279
"Änderungen nur nach Rücksprache mit dem Atexbeauftragten zulässig"
Alle Kanten gratfrei
Alle Rechte vorbehalten
Maße ohne Toleranzangabe nach ISO 2768-mK
Maßstab: 1:2,5
Masse:
Werkstoff:
Benennung: Gasentnahmesonde / sample gas probe GAS 222.20 Ex1
Bearb. 12.04.2018 Brinkmann
Datum
Name
BÜHLER
ZeichnungsNr.: 46/141-Z01-01-2B
Art.Nr.:
Ers. für:
Arbeitsanweisung
Werkstoff
-Flansch, Körper / flange, body 1.4571 / SS316Ti 1.4571 / SS316Ti
Betriebsspannung / operating voltage 230VAC 115VAC
ⓐ Heizung selbstregelnd / heater self regulating
ⓑ Umgebungstemperatur / ambient temperature -40 ... +55°C / -40°F ... +131°F -40 ... +55°C / -40°F ... +131°F