

## Sample gas probe GAS 222.35 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 outlet filter and weather hood

The filter element 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

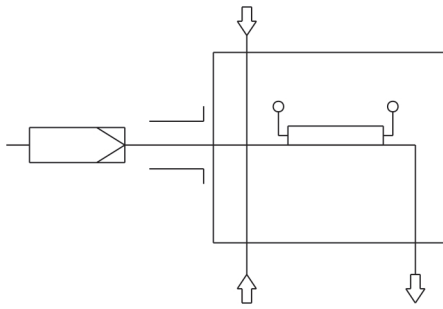
Heater self-regulating to approx. 130 °C (T3)/70 °C (T4) with low temperature alarm

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

This probe is suitable for use in explosive areas




**Flow chart**



**Technical Data**

**Gas Probe Technical Data**

|  |  |                                    |
|--|--|------------------------------------|
| Ambient temperature without accessories: | -20 to +80 °C  |                                    |
| Ambient temperature for accessories:     | <b>Component</b>   | <b>Ambient temperature range</b>   |
|  | Valve for pressurized air:   | -30 °C < T <sub>amb</sub> < +55 °C |
|  | Junction box:  | -20 °C < T <sub>amb</sub> < +70 °C |
| Max. gas inlet temperature:              | +195 °C (T3)/+130 °C (T4)  |                                    |
| Medium temperature (blowback):           | <b>Component</b>   | <b>Medium temperature range</b>    |
|  | Valve for pressurized air:   | -10 °C to +80 °C                   |
| Self-regulating heater:                  | +130 °C (T3)/+70 °C (T4)   |                                    |
| Low temperature alarm:                   | Contact switches at < 95 °C (T3) or < 50 °C (T4);<br>Simple electrical equipment according to EN 60079-11; U <sub>i</sub> 30 V, I <sub>i</sub> = 100 mA; C <sub>i</sub> /L <sub>i</sub> ~0 |                                    |
| Electrical data:                         | 230 V, 2.0 A, 50/60 Hz<br>115 V, 3.8 A, 50/60 Hz   |                                    |
| Max. operating pressure                  | 6 bar  |                                    |
| Material:                                | 1.4571   |                                    |
| Parts in contact with media:             | Seals: Graphite/1.4404<br>and see filter   |                                    |
| Markings:                                | ATEX:  II 3G Ex ec ic mb IIC T3/T4 Gc<br>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:

|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          |   |
|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|
| <b>4622235</b> | <b>X</b> | <b>0</b> | <b>X</b> | <b>X</b> | <b>X</b> | <b>X</b> | <b>3</b> | <b>X</b> | <b>X</b> | <b>X</b> | <b>X</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>Product characteristics</b>                              |
|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          | <b>Junction box</b>   |
|                |          | 0        |          |          |          |          |          |          |          |          |          |          |          |          | No  |
|                |          | 1        |          |          |          |          |          |          |          |          |          |          |          |          | Yes   |
|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          | <b>Flange</b>   |
|                |          | 0        | 1        |          |          |          |          |          |          |          |          |          |          |          | Flange DN65 PN6   |
|                |          | 0        | 2        |          |          |          |          |          |          |          |          |          |          |          | Flange DN3"-150   |
|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          | <b>Hazardous area Outside and Inside</b>                    |
|                |          |          | 2        | 9        |          |          |          |          |          |          |          |          |          |          | Ex-Zone 2 outside, none inside                              |
|                |          |          | 2        | 2        |          |          |          |          |          |          |          |          |          |          | Ex-Zone 2 outside and inside                                |
|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          | <b>Temperature class</b>                                    |
|                |          |          |          |          |          |          | 3        |          |          |          |          |          |          |          | T3  |
|                |          |          |          |          |          |          | 4        |          |          |          |          |          |          |          | T4  |
|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          | <b>Power supply sample probe</b>                            |
|                |          |          |          |          |          |          |          | 3        |          |          |          |          |          |          | 115/230 V   |
|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          | <b>Low temperature alarm</b>                                |
|                |          |          |          |          |          |          |          |          | 1        |          |          |          |          |          | Opener (open at operating temperature) (marked with "ic")   |
|                |          |          |          |          |          |          |          |          | 2        |          |          |          |          |          | Closer (closed at operating temperature) (marked with "ic") |
|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          | <b>Calibration gas port</b>                                 |
|                |          |          |          |          |          |          |          |          | 0        |          |          |          |          |          | No  |
|                |          |          |          |          |          |          |          |          | 1        |          |          |          |          |          | 6 mm  |
|                |          |          |          |          |          |          |          |          | 2        |          |          |          |          |          | 6 mm with check valve                                       |
|                |          |          |          |          |          |          |          |          | 3        |          |          |          |          |          | 1/4"  |
|                |          |          |          |          |          |          |          |          | 4        |          |          |          |          |          | 1/4" with check valve                                       |
|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          | <b>Capacitive vessel *</b>                                  |
|                |          |          |          |          |          |          |          |          | 0        |          |          |          |          |          | No  |
|                |          |          |          |          |          |          |          |          | 1        |          |          |          |          |          | Yes   |
|                |          |          |          |          |          |          |          |          |          |          |          |          |          |          | <b>Valve for pressurized air *</b>                          |
|                |          |          |          |          |          |          |          |          | 0        |          |          |          |          |          | Ball valve  |
|                |          |          |          |          |          |          |          |          | 1        |          |          |          |          |          | Solenoid valve 110 V (marked with "mb")                     |
|                |          |          |          |          |          |          |          |          | 2        |          |          |          |          |          | Solenoid valve 230 V (marked with "mb")                     |
|                |          |          |          |          |          |          |          |          | 3        |          |          |          |          |          | Solenoid valve 24 V (marked with "mb")                      |
|                |          |          |          |          |          |          |          |          | 9        |          |          |          |          |          | none  |

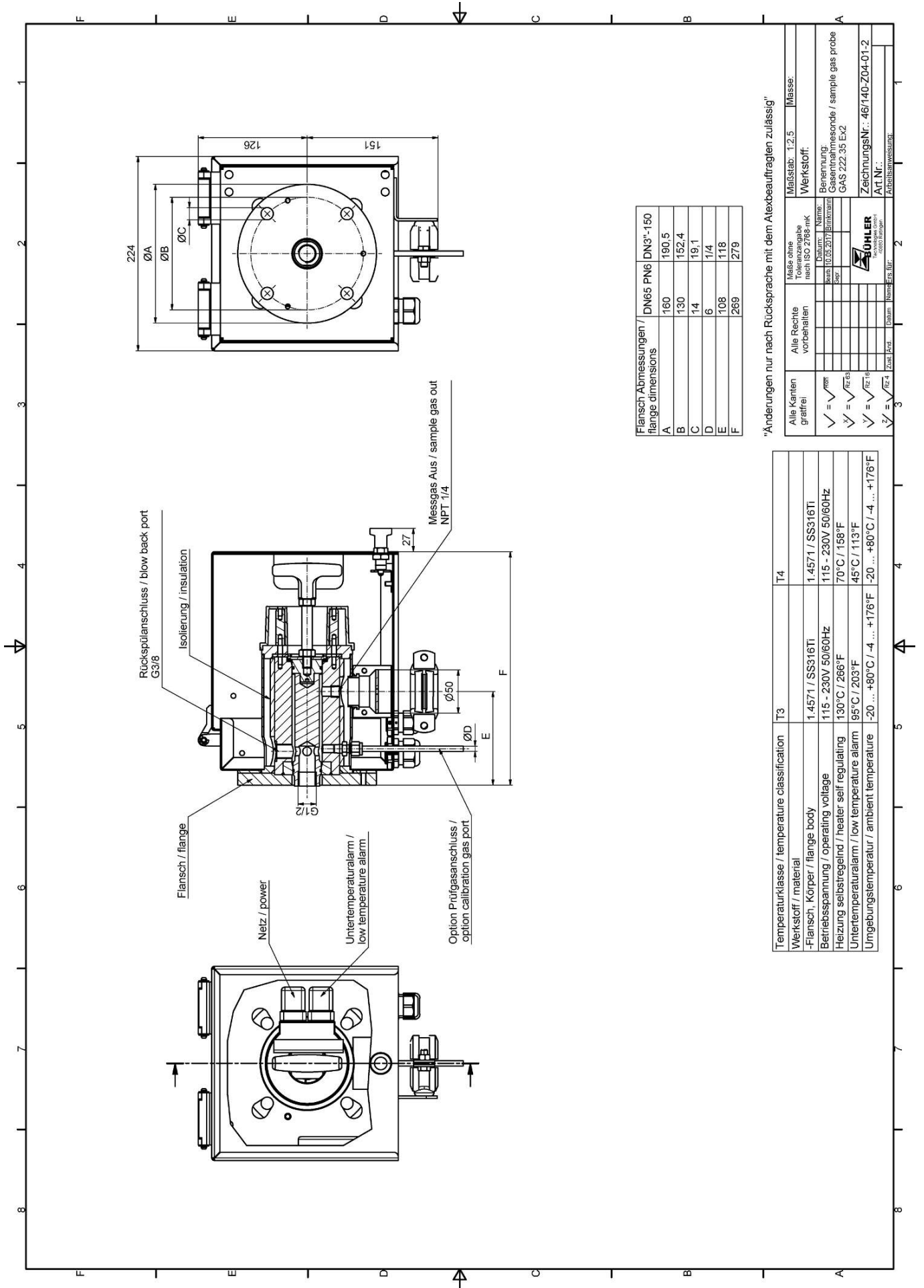
\* Blowback of explosive atmosphere prohibited.

**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

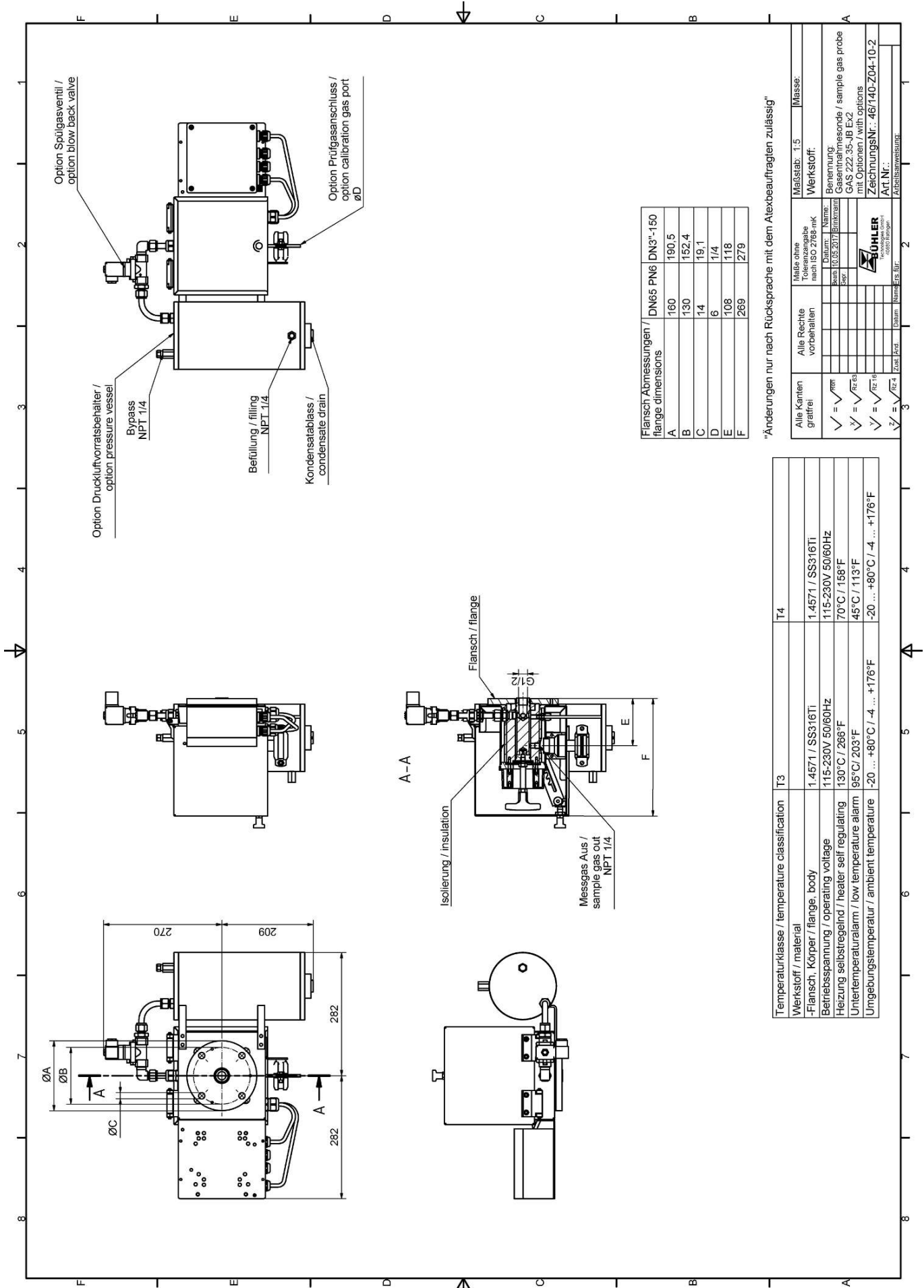


| Flansch Abmessungen / flange dimensions | DN65 PN6 | DN3"-150 |
|---|----------|----------|
| A                                       | 160      | 190,5    |
| B                                       | 130      | 152,4    |
| C                                       | 14       | 19,1     |
| D                                       | 6        | 1/4      |
| E                                       | 108      | 118      |
| F                                       | 269      | 279      |

"Änderungen nur nach Rücksprache mit dem Alexbeauftragten zulässig"

| Temperaturklasse / temperature classification  | T3                            | T4                            |
|--|-------------------------------|-------------------------------|
| Werkstoff / material                           | 1.4571 / SS316Ti              | 1.4571 / SS316Ti              |
| Flansch, Körper / flange body                  | 115 - 230V 50/60Hz            | 115 - 230V 50/60Hz            |
| Betriebsspannung / operating voltage           | 130°C / 266°F                 | 70°C / 158°F                  |
| Heizung selbstregelnd / heater self regulating | 95°C / 203°F                  | 45°C / 113°F                  |
| Untertemperaturalarm / low temperature alarm   | -20 ... +80°C / -4 ... +176°F | -20 ... +80°C / -4 ... +176°F |
| Umgebungstemperatur / ambient temperature      |                               |                               |

| Alle Kanten gratfrei | Alle Rechte vorbehalten | Mitte ohne Toleranz nach ISO 2768-mK | Maßstab: 1:2,5                    | Masse: |
|----------------------|-------------------------|--------------------------------------|-----------------------------------|--------|
| ✓ = √R0,4            |                         |                                      | Werkstoff:                        |        |
| ✓ = √R0,63           |                         |                                      | Bearbeitung:                      |        |
| ✓ = √R0,16           |                         |                                      | Gasentfärbende / sample gas probe |        |
| ✓ = √R0,4            |                         |                                      | GAS 222.35 Ex2                    |        |
|                      |                         |                                      | ZerchnungsNr.: 46/140-Z04-01-2    |        |
|                      |                         |                                      | Art Nr.:                          |        |
|                      |                         |                                      | Abteilungsverl.                   |        |



| 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\*

| Temperaturklasse / temperature classification      | T3                            | T4                            |
|--|-------------------------------|-------------------------------|
| Werkstoff / material                               | 1.4571 / SS316Ti              | 1.4571 / SS316Ti              |
| Betriebsspannung / operating voltage               | 115-230V 50/60Hz              | 115-230V 50/60Hz              |
| Heizung selbstregulierend / heater self regulating | 130°C / 266°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 |

| Alle Kanten gratfrei   | Alle Rechte vorbehalten | Alle ohne Angabe nach ISO 2768 mK    | Maßstab: 1:5                        | Masse: |
|------------------------|-------------------------|--------------------------------------|-------------------------------------|--------|
| ✓ = ✓ <sup>min</sup>   |                         | Name: <input type="text"/>           | Werkstoff:                          |        |
| ✓ = ✓ <sup>max</sup>   |                         | Datum: <input type="text"/>          | Benennung:                          |        |
| ✓ = ✓ <sup>RE 63</sup> |                         | Zeichnungs-Nr.: <input type="text"/> | Gasentnahmesonde / sample gas probe |        |
| ✓ = ✓ <sup>RE 16</sup> |                         | Art.Nr.:                             | GAS 222.35-Ex2                      |        |
|                        |                         | Arbeitsweise:                        | mit Optionen / with options         |        |
|                        |                         |                                      | Zeichnungs-Nr.: 461740-Z04-10-2     |        |
|                        |                         |                                      | Art.Nr.:                            |        |
|                        |                         |                                      | Arbeitsweise:                       |        |