# Pressure Transducer
with amplifier
# DGZ-12K-HF / 10…1000 bar


## Purpose
Measuring, especially remote measuring of pressure

## Operating
Signal of strain gauge bridge upon the diaphragm is amplified by an internal amplifier

## Advantages
- Tight, non corroding, high overload
- Small dead room, deaeration screw
- Very small combined error
- Suitable for wet areas, waterproof receptacle with gold-plated contacts
- Protected against HF-Interferences by shielding and filter
- Integrated amplifier with 4…20 mA output
- K-Option is improved in accuracy and shift. It has three years guarantee

## Application
Measuring static and dynamic pressure, remote control, even in wet and electrically disturbed areas. Electro-hydraulic control, e.g. of screw down movement of top roll of mill.

## Construction
Diaphragm, fabricated together with the pressure connection thread from one part of stainless steel, bronze or aluminium is furnished with:
- strain gauge bridge with adjusting elements for ZERO/SPAN (K-option f. shift)
- print-card with amp and CAL-unit in shock-proof SMD-technics, bridge and amplifier with separate feeding
- the front plate with the receptacle
- shield tube sealed by joint O-rings.

## Accessories
We deliver, in foam-plastics packaging, together with the following accessories:

protection caps, joint rings, spanner for hook + deaeration screw, cable-connector.

## Electrical Data

| | |
|---|---|
| Resistance, nom. value | 4 x 350 Ω |
| " actual value | see test certificate |
| Flange receptacle | Binder Ser.723 5p, |
| IP67 prof. class | gold-plated contacts |
| Strain gauge exciting | generated internal |
| Feeding voltage | 18…30 V DC |
| Output(0.nom.press.) | 4…20 mA |
| Burden | ≤500 Ω |
| Output at overload | ≤ 34 mA ≤ 100 Ω |
| CAL-Unit simulates | 100 % nom. pressure |
| Tolerances(20°C) | Standard/K-Option |
| Zero signal*) | < 2 % < 1 % |
| Temp.Shift/10K | < 0.3 % < 0.1 % |
| Output*) /nom.value | < 1 % < 0.1 % |
| /type plate | < 0.1 % < 0.05 % |
| Temp.-Shift/10K | < 0.3 % < 0.1 % |
| Combined error | ≤ 0.7 % |
| K-type | ≤ 0.1 % |
| *) *including unbalance* | *by fastening* |
| Common mode rejetion | 100 dB 100 Hz typ. |
| Ampl.frequency range | 0…20 kHz 3 db |
| Nominal temp.-range | - 20°C…+ 80°C |
| Tolerated range | - 50°C…+ 120°C |

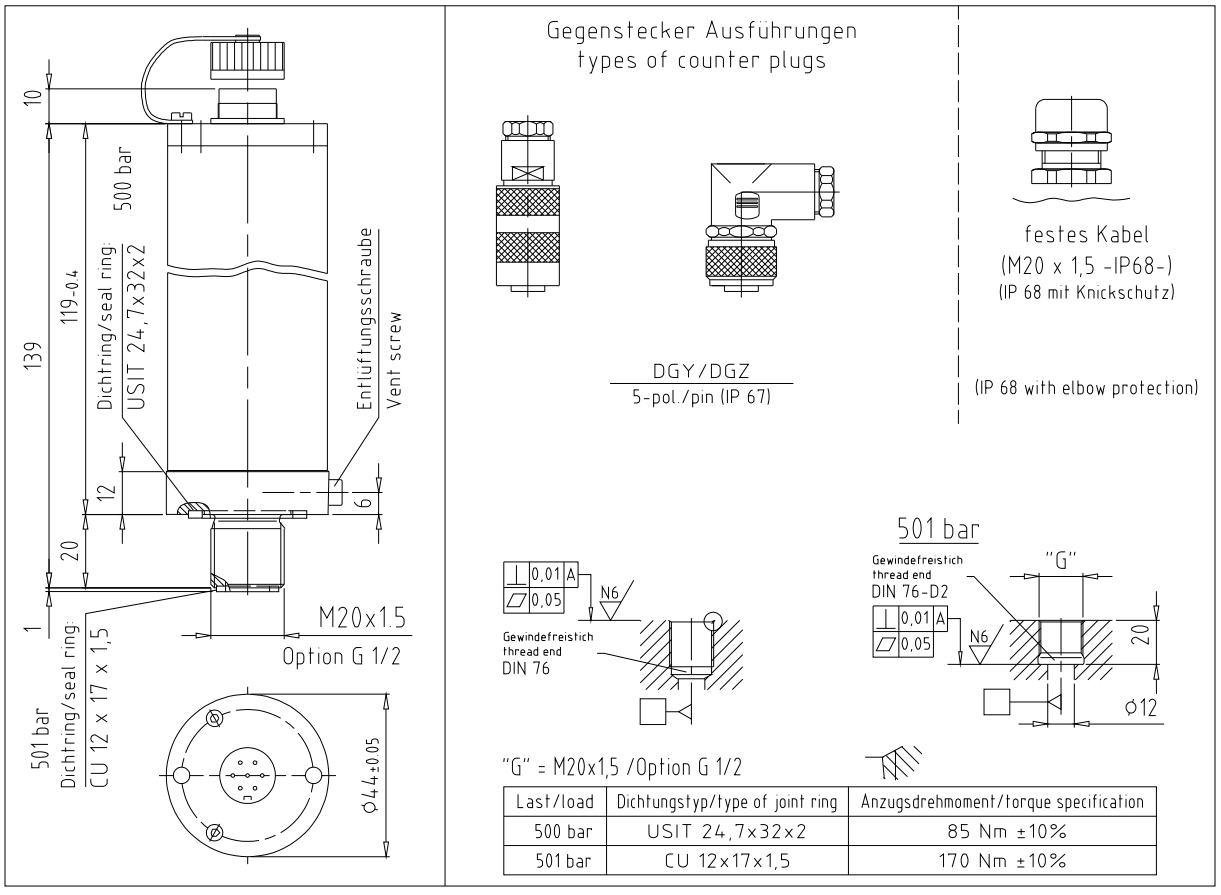
## Mechanical Data

| | |
|---|---|
| Pressure connection | M 20 x 1.5 or G 1/2“ |
| Very small dead room | Normally no evacuation necessary |
| Working pressure | 1.5 x nom. pressure |
| Limiting pressure | 2 x nom. pressure |
| Destroying pressure | > 4 x nom. pressure |
| Standard ranges (bar) | 10 - 25 - 50 100 - 250 - 500 - 1000 |
| Other ranges | optional |
| Natural frequencies at ranges | 4…13 kHz 25…250 bar |
| Weight nearly | 0.6 kg |
| Dimensions | see drawing |

Transducers DGZ-12(K) contain a CAL-UNIT simulating 100 % nominal pressure to be remote activated by a voltage + 15 V switched to the CAL-lead in the control room (SPS...).

*Therefore it is not more necessary to measure near the transducer or to induce an exact pressure value to the transducer.*






| Last/load | Dichtungstyp/type of joint ring | Anzugsdrehmoment/torque specification |
|---|---|---|
| 500 bar | USIT 24,7x32x2 | 85 Nm ±10% |
| 501 bar | CU 12x17x1,5 | 170 Nm ±10% |