

Pressure Transducer DG-12 / 2,5...2500 bar DG-12K / 10...2500 bar

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Purpose

Masuring pressure against air pressure

Operating

Strain gauges measure diaphragm bending

Advantages

- Tight, compact, corrosion-protected
- High overload
- Small dead volume, deaeration screw
- Flange receptacle with gold-contacts
- Small combined error
- K-Option with very small tolerances and three years guarantee

Application

Static and dynamic pressure-measuring combined with amplifiers, e.g. our models AVS, AV-1, DDZ-1, DDZ-3 or AN-units.

For large distances and for wet and electric noise fields we recommend models with internal amplifier for 10 V-output (protected against HF-pickup):

- DGW-12(K), Data sheet E 01.4 or
- DGW-15(K), Data sheet E 01.8.

Construction

Diaphragm-part and pressure connection are turned out of one unique piece of stainless steel, bronze or aluminium. Connection thread M 20 x 1,5 is standard. But we deliver G 1/2" on request (more cost).

The diaphragm-part bears

- the strain gauge array with adjusting elements for ZERO and sensitivity, at the K-Option moreover for temperature drift,
- the top disk with receptacle and protecting tube tightened with O-rings and fastened by screws.

Accessories

We deliver (within plastic foam packaging) the following accessories:

- Plug-in-connector for measuring cable
- Protecting caps for receptacle + thread
- Tightening rings
- Hook-spanner
- *Spanner for the deaeration screw*

Electrical Data

Resistance,nominal.....4 x 350 Ω
 " actual value:.....test certificate
 Flange receptacle.....T 3106-003 BINDER
 " Option(more cost.....RAE 2307 LEMO
 Housing connection.....Contact 1
 Exciting voltage.....10... 12 V
 " at contacts.....3 and 6

 Output(nom.pressure).....1 mV/V
 " at contacts.....5 and 7
 Tolerance(20°C).....1 %; K-Option 0.25 %
 Combined error< 0.05 % f.s. 10 bar
 "< 0.5 % f.s.2.5/5 bar

 Zero signal(20°C).....< 2 %; K-Option 1 %
 (= Output signal at.....pressure Zero)
 " Temp.Drift/10K.....< 0.3 %; " 0.1 %
 Output " "< 0.4 %; " 0.1 %

 Nominal Temp.-Range....- 20°C...+ 70°C
 Tolerated Range.....- 50°C...+ 120°C

Data sheet E 01.3 page 2 (11/1994)

Mechanical Data

Working pressure.....1.5 x nominal pressure
 Limiting pressure.....2 x nominal pressure
 Breaking pressure.....> 4 x nominal pressure

 Dead vol. standard.....< 3 cm³
 " Option.....< 0.3 cm³
 Press.Conn.Standard.....M 20 x 1,5
 " Option.....G 1/2" (more cost)

 Standard-Steps.....2.5* 5* 10 bar
 *) not in K-Option.....25 50 100 bar
250 500 1000 bar
2500 bar
 Other steps.....on request

 Natural frequ.(Hz).....800√*Nom. press in bar*

 Examples.....2.5 bar 1300 Hz
25 bar 4000 Hz
250 bar 13000
2500 bar 40000

 Weight (kg).....0.6
 Dimensions.....see drawing

