

Industrial pressure transducers Series IDA3X0

Description

Due to modern diaphragm and adapter technology, these transducers are intended for use in the hardest industrial applications.

Specializing in dynamic, pulsating hydraulic pressure regulation for injection moulding machines and presses, they have for more than 20 years proven their excellent accuracy and long term stability.

Automotive cranes, industrial robots, concrete pumps, in-

dustrial test purposes and off-shore business are further installation possibilities with high demands with respect to accurate pressure, vibration and shock resistance, as well as weatherproofing.

The flush diaphragm version IDA 37X is designed for applications requiring a zero volume pressure port in measurement of gases, viscous liquids and slurries and has excellent cleanability

Features

- Stainless steel construction withstands harsh operating environments and corrosive media
- Contoured diaphragm ensures greater accuracy, repeatability and fatigue strength
- Optimum diaphragm heat treatment contributes a longer operating life
- Internal Shunt-Calibration provides quick transducer and system calibration



Technical Data / Operating Data

Pressure range	0 - 35 bar to 0 - 1000 bar	Burst pressure	4 x pressure range
Accuracy	± 0.25 % f.s.v. ± 1 % for IDA370		3 x pressure range at 0 - 35 bar and 0 - 1000 bar
Repeatability	± 0.1 % f.s.v.	Material in contact with media	15-5 Mat. No. 1.4545
Resolution	infinite		
Rise time	300 µs max. IDA370 + 30 µs max.		

Electrical Characteristics

Configuration	4-arm Wheatstone bridge strain gauge (DMS)	Supply voltage	10 V DC, max. 12 V DC min. 6 V DC
Strain resistance	350 Ω	Internal Shunt-Calibration	80 % f.s.v. ± 0.5 %
Output signal	2.9 mV/V	Leakage resistance	1000 MΩ at 50 V DC
Zero balance	± 1 % f.s.v., adjustable ± 2 % f.s.v. for IDA370		

Temperature influence

Max. media temperature 120 °C

Max. operating temperature 120 °C

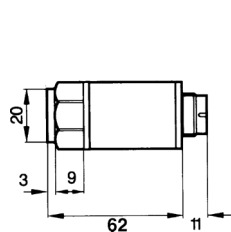
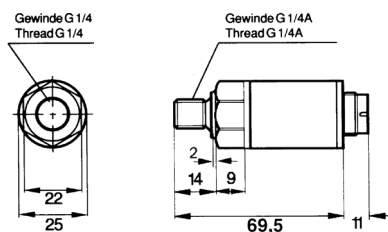
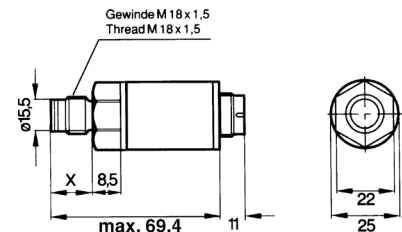
Zero shift due to temperature change

 $\pm 0.1 \% \text{ f.s.v.} / 10 \text{ }^\circ\text{C}$
 IDA370 $\pm 0.4 \% \text{ f.s.v.} / 10 \text{ }^\circ\text{C}$

Sensitivity shift due to temperature change

 $\pm 0.2 \% \text{ f.s.v.} / 10 \text{ }^\circ\text{C}$
 IDA370 $\pm 0.4 \% \text{ f.s.v.} / 10 \text{ }^\circ\text{C}$

Dimensions

IDA330

IDA350

IDA370


Order specifications

IDA3X0 - XXXX - XXX
Pressure side connection
3 = Internal thread ISO 228/1-G1/4
5 = External thread DIN 3852-AG1/4A
7 = M18 x 1,5 flush diaphragm

Pressure range
35* = 0 - 35 bar **3,5C** = 0 - 350 bar
50 = 0 - 50 bar **5C** = 0 - 500 bar
1C = 0 - 100 bar **7C** = 0 - 700 bar
1,5C = 0 - 150 bar **1M** = 0 - 1000 bar
2C = 0 - 200 bar

Options
D05 = Cable connection
D06 = Cable connector IP65
D21 = Bendix-Connector