

HYDAC INTERNATIONAL



Electronic Pressure Transmitter

For shipbuilding and offshore
HDA 3700

Description:

This pressure transmitter, which has been specially developed for shipbuilding and offshore applications, is based on a very robust and accurate sensor cell with a thin film DMS on a stainless steel membrane.

All parts in contact with the fluid are in stainless steel and are welded together. Since no seals are required in the sensor chamber, leakage is eliminated.

The 4 .. 20 mA output signal in two conductor technique enables connection to the relevant evaluation electronics. Since the accuracy varies markedly with the temperature of the fluid being measured, this instrument offers outstanding characteristics in this respect.

Areas of application are pressure monitoring on marine transmissions, diesel engines, pumps and general hydraulic and pneumatic systems.

Approvals:

- American Bureau of Shipping
No.: 00-ES19976-X



- Lloyds Register of Shipping
No.: 00/20049



- Det Norske Veritas
No.: A-7711 (892.10)



- Germanischer Lloyd
No.: 15520-00HH



- Bureau Veritas



Other approvals on request.

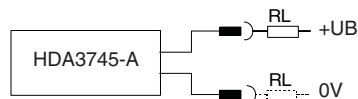
Technical Specifications:

Input data	HDA 3700
Measuring range	6; 16; 60; 100; 250; 400; 600 bar
Overload pressure	200 % FS, max. 900 bar
Burst pressure	400 % FS
Mechanical connection	G1/4 A DIN 3852
Torque rating	approx. 20 Nm
Parts in contact with media	Stainless steel, Seal: FPM
Output data	
Curve deviation at max. setting to DIN16086 (accuracy class)	≤ ±0.25 %FS typ. ≤ ±0.5 %FS max.
Curve deviation at min. setting (B.F.S.L.)	≤ ±0.15 %FS typ. ≤ ±0.25 %FS max.
Temperature compensation zero point	≤ ±0.08 %FS/10K typ. ≤ ±0.15 %FS/10K max.
Temperature compensation over range	≤ ±0.08 %FS/10K typ. ≤ ±0.15 %FS/10K max.
Linearity at max. setting to DIN 16086	≤ ±0.15 %FS typ. ≤ ±0.3 %FS max.
Hysteresis	≤ ±0.05 %FS typ. ≤ ±0.1 %FS max.
Repeatability	≤ ±0.05 %FS
Rise time	approx. 0.5 ms
Long-term drift	≤ ±0.1 %FS typ. / year
Ambient conditions	
Nominal temperature range	-25 .. +85 °C
Operating temperature range	-40 .. +85 °C
Storage temperature range	-40 .. +100 °C
Fluid temperature range	-40 .. +100 °C
CE mark	EN 50081-1 and EN 50081-2 EN 50082-1 and EN 61000-6-2
Vibration resistance	5 .. 25 Hz: 3.2 mm 25 .. 100 Hz: 4g
Safety type to DIN 40050	IP 65
Other data	
Supply voltage	10 .. 30 V
Residual ripple supply voltage	≤ 5 %
Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection	available
Life expectancy	>10 million load cycles 0 .. 100 %FS
Weight	approx. 180 g

Note: **FS** (Full Scale) = relative to the full measuring range
B.F.S.L. = Best Fit Straight Line
Special models on request.

Electrical connection:

2-conductor technique 4 .. 20 mA



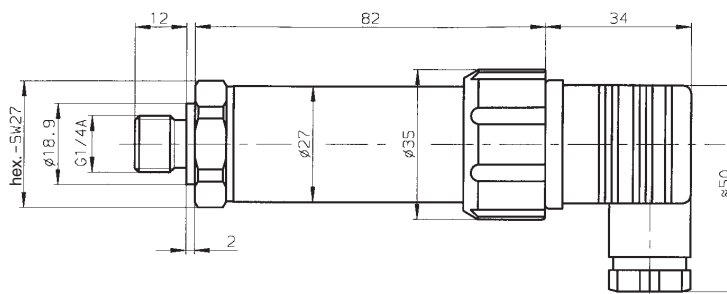
$$RL_{max.} = \frac{UB - 10 V}{0.02 A} \quad [\Omega]$$

Note

The load resistance RL is produced by the measuring resistance inside the evaluation unit and the line resistance of the connection line.

Dimensions:

HDA 3745, illustrated with ZBE 01



Pin connections (HDA 3745):

HDA 3745

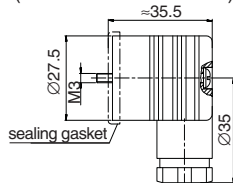


- Pin 1: +UB
- Pin 2: 0V
- Pin 3: free
- Pin 4: \perp

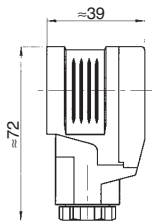
Electrical accessories:

Plug connectors, right-angled 3-pole + earth
DIN 43650/ISO 4400

ZBE 01 (Hirschmann GDM 3009)



ZBE 09 (Hirschmann GDME 311)



Model code:

HDA 3 7 4 5 - A - XXX - S00

Type of connection, mechanical

4 = G1/4 A male thread

Type of connection, electrical

5 = appliance plug 3-pole + earth, DIN 43650/ISO 4400
plug connector ZBE 01 is supplied as standard

Signal technology

A = 2-conductor, 4 .. 20 mA

Measuring ranges in bar

006, 016; 060; 100; 250; 400; 600

Modification number

S00 standard

On units with a different modification number, please read the label or the technical amendment details supplied with the unit.

Note:

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.