Electronic Pressure Transmitter
HDA 7446

Description:

The pressure transmitter series HDA 7400 combines excellent technical specifications with a very compact design.

The HDA 7446 was specifically developed for OEM applications e.g. in mobile applications. A strain gauge sensor cell is the basis for a robust, long-life pressure transmitter.
The various pressure ranges between 0 .. 40 bar and 0 .. 600 bar provide versatility when adapting to particular applications.

For integration into modern controls (e.g. with PLC) the analogue output signals 4 .. 20 mA or 0 .. 10 V are available on the standard version.

Other output signals are available on request.

Special features:

- Accuracy ≤ ± 0.5 % FS typ.
- Highly robust sensor cell
- Very compact design
- Very small temperature error
- Excellent EMC characteristics
- Excellent long-term properties

Technical specifications:

Input data	
Measuring ranges	40; 60; 100; 250; 400; 600 bar
Overload pressures	80; 120; 200; 500; 800; 1000 bar
Burst pressure	200; 300; 500; 1000; 2000; 2000 bar
Mechanical connection	G1/4 A DIN 3852
Torque value	20 Nm
Parts in contact with medium	Mech. connection: Stainless steel Seal: FPM
Output data	
Output signal, permitted resistance	4 .. 20 mA, 2 conductor $R_{Lmax} = (U_B - 10\ V) / 20\ mA\ [k\Omega]$ 0 ..10 V, 3 conductor $R_{Lmin} = 2\ k\Omega$
Accuracy to DIN 16086, Max. setting	≤ ± 0.5 % FS typ. ≤ ± 1 % FS max.
Accuracy at min. setting (B.F.S.L.)	≤ ± 0.25 % FS typ. ≤ ± 0.5 % FS max.
Temperature compensation Zero point	≤ ± 0.015 % FS / °C typ. ≤ ± 0.025 % FS / °C max.
Temperature compensation Over range	≤ ± 0.015 % FS / °C typ. ≤ ± 0.025 % FS / °C max.
Non-linearity at max. setting to DIN 16086	≤ ± 0.3 % FS max.
Hysteresis	≤ ± 0.4 % FS max.
Repeatability	≤ ± 0.1 % FS
Rise time	≤ 2 ms
Long-term drift	≤ ± 0.3 % FS typ. / year
Ambient conditions	
Compensated temperature range	0 .. +70 °C
Operating temperature range	-25 .. +85 °C
Storage temperature range	-40 .. +100 °C
Fluid temperature range	-40 .. +100 °C
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance to DIN EN 60068-2-6 at 10 .. 500 Hz	≤ 20 g
Protection class to DIN 40050	IP 67 (M12x1, when an IP 67 connector is used)
Other data	
Supply voltage 2 conductor	10 .. 30 V DC
Supply voltage 3 conductor	12 .. 30 V DC
Residual ripple of supply voltage	≤ 5 %
Current consumption 3 conductor	< 25 mA
Life expectancy	> 10 million cycles 0 .. 100 % FS
Weight	approx. 60 g

Note: Reverse polarity protection of the supply voltage, excess voltage, override, short circuit protection are provided.
FS (**F**ull **S**cale) = relative to the complete measuring range
B.F.S.L.= **B**est **F**it **S**traight **L**ine

Model code:

HDA 7 4 4 6 – X – XXX – 000

Mechanical connection
4 = G1/4 A DIN 3852 (male)

Electrical connection
6 = M12x1, 4 pole
(connector not supplied)

Signal
A = 4 .. 20 mA, 2 conductor
B = 0 .. 10 V, 3 conductor

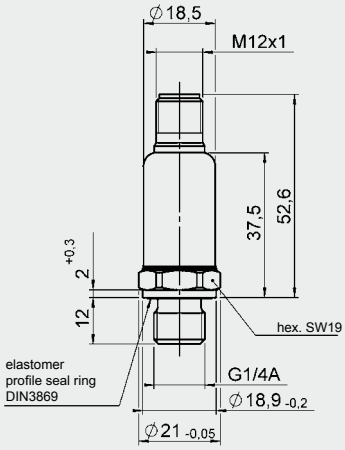
Pressure ranges in bar
040; 060; 100; 250; 400; 600

Modification number
000 = Standard

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

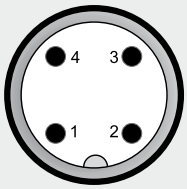
Accessories:
Appropriate accessories, such as electrical connectors, can be found in the Accessories section.

Dimensions:



Pin connections:

M12x1



Pin	HDA 7446-A	HDA 7446-B
1	Signal+	$+U_B$
2	n.c.	n.c.
3	Signal-	0 V
4	n.c.	Signal

Note:

The information in this brochure relates to the operating conditions and applications described.
For applications and operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.

HYDAC ELECTRONIC GMBH
Hauptstraße 27, D-66128 Saarbrücken
Telephone +49 (0)6897 509-01
Fax +49 (0)6897 509-1726
E-Mail: electronic@hydac.com
Internet: www.hydac.com