Pressure Transmitter
HDA 7446

Relative pressure | **Accuracy 0.5 %**

Description:

The pressure transmitter series HDA 7400 combines excellent technical data with highly compact design.

The HDA 7446 was specifically developed for OEM applications, especially for use in confined cavities. A sensor cell with a thin-film strain gauge on a stainless steel membrane is the basis for a robust, long-life pressure transmitter.

Various pressure ranges between 0 .. 40 bar and 0 .. 1000 bar provide versatility when adapting to particular applications.

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

Other measuring ranges and output signals can be provided on request.

Technical data:

Input data								
Measuring ranges	bar	40	60	100	250	400	600	1000
Overload pressures	bar	80	120	200	500	800	1000	1600
Burst pressure	bar	200	300	500	1000	2000	2000	3000
Mechanical connection				G1/4 A ISO 1179-2				
Tightening torque, recommended				20 Nm				
Parts in contact with fluid				Mech. connection: Stainless steel Seal: FKM				
Output data								
Output signal, permitted load resistance				4 .. 20 mA, 2-conductor $R_{Lmax} = (U_B - 8\ V) / 20\ mA\ [k\Omega]$ 0 .. 10 V, 3-conductor $R_{Lmin} = 2\ k\Omega$				
Accuracy acc. to DIN 16086, terminal based				≤ ± 0.5 % FS typ. ≤ ± 1 % FS max.				
Accuracy, 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 Span				≤ ± 0.015 % FS / °C typ. ≤ ± 0.025 % FS / °C max.				
Non-linearity acc. to DIN 16086, terminal based				≤ ± 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				
Environmental conditions								
Compensated temperature range				-25 .. +85 °C				
Operating temperature range[1)]				-40 .. +85 °C / -25 .. +85 °C				
Storage temperature range				-40 .. +100 °C				
Medium temperature range[1)]				-40 .. +100 °C / -25 .. +100 °C				
CE mark				EN 61000-6-1 / 2 / 3 / 4				
cULus mark[2)]				Certificate no.: E318391				
Vibration resistance acc. to DIN EN 60068-2-6 at 10 .. 500 Hz				≤ 20 g				
Shock resistance acc. to DIN EN 60068-2-27				≤ 100 g / 6 ms				
Protection class acc. to DIN EN 60529[3)]				IP 67				
Other data								
Supply voltage when applied acc. to UL specifications				8 .. 30 V DC 2-conductor 12 .. 30 V DC 3-conductor - limited energy - acc. to 9.3 UL 61010; Class 2; UL 1310/1585; LPS UL 60950				
Residual ripple of supply voltage				≤ 5 %				
Current consumption				≤ 25 mA				
Life expectancy[4)]				> 10 million cycles 0 .. 100 % FS				
Weight				~ 60 g				

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

[1)] -25 °C with FKM seal, -40 °C on request
[2)] Environmental conditions acc. to 1.4.2 UL 61010-1; C22.2 No 61010-1
[3)] With mounted mating connector in corresponding protection class
[4)] Measuring range 1000 bar: > 1 million cycles (0 .. 100 % FS)

Model code:

HDA 7 4 4 6 – X – XXX – 000

Mechanical connection
4 = G1/4 A ISO 1179-2

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

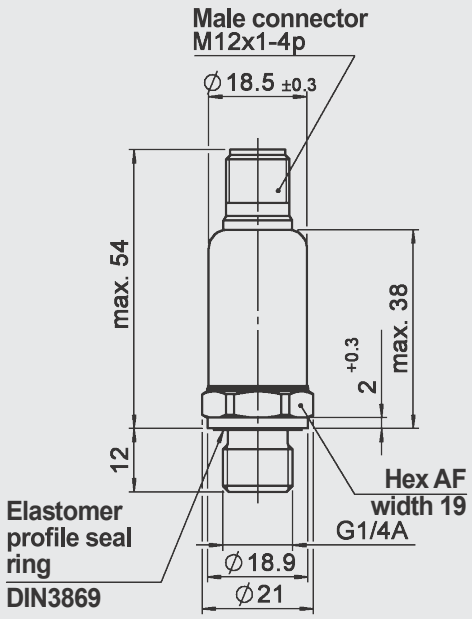
Output signal
A = 4 .. 20 mA, 2-conductor
B = 0 .. 10 V, 3-conductor

Measuring ranges in bar
040; 060; 100; 250; 400; 600; 1000

Modification number
000 = standard

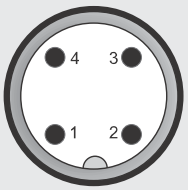
Accessories:
Appropriate accessories, such as mating connectors, can be found in the Accessories brochure.

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

Subject to technical modifications.

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