Pressure Transmitter
HDA 7400

Relative pressure | **Accuracy 0.5 %**

Flush membrane

Description:

Pressure Transmitter HDA 7400 with a flush membrane was designed specifically for applications in which a standard pressure port could become blocked, clogged or frozen by the particular medium used. Further applications include processes where the medium changes regularly and any residues could cause mixing or contamination of the media.

Like the standard model, the HDA 7400 with flush membrane has a pressure measurement cell with a thin-film strain gauge on a stainless steel membrane for relative pressure measurement in the high pressure range.

The pressure port is achieved with a fully-sealed stainless steel front membrane filled internally with a pressure transfer fluid. The process pressure is transmitted hydrostatically to the measurement cell via the pressure transfer fluid.

The output signals 4 .. 20 mA or 0 .. 10 V permit connection to all HYDAC measuring and control devices, as well as connection to standard evaluation systems (e.g. PLC controls).

Technical data:

Input data						
Measuring ranges	bar	40	100	250	400	600
Overload pressure	bar	80	200	500	800	1000
Burst pressure	bar	200	500	1000	2000	2000
Mechanical connection			G1/4 A ISO 1179-2 G1/4 with additional front O-ring seal			
Pressure transfer fluid			Silicone-free oil			
Tightening torque, recommended			20 Nm			
Parts in contact with fluid [1]			Mech. connection: Stainless steel Seal: FKM O-ring: FKM			
Output data						
Output signals, 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. ≤ ± 1.0 % 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 max.			
Rise time			≤ 2 ms			
Long-term drift			≤ ± 0.3 % FS / year typ.			
Environmental conditions						
Compensated temperature range			-25 .. +85 °C			
Operating temperature range			-25 .. +85 °C			
Storage temperature range			-40 .. +100 °C			
Fluid temperature range [2]			-30 .. +100 °C / -25 .. +100 °C			
CE mark			EN 61000-6-1 / 2 / 3 / 4			
cULus mark [3]			Certificate-No.: E318391			
Vibration resistance acc. to DIN EN 60068-2-6 at 10 .. 500 Hz			≤ 20 g			
Protection class acc. to DIN EN 60529 [4]			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			> 10 million cycles (0 .. 100 % FS)			
Weight			~ 80 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] Other seal materials on request
[2] -25 °C with FKM seal, -30 °C on request
[3] Environmental conditions acc. to 1.4.2 UL 61010-1; C22.2 No. 61010-1
[4] With mounted mating connector in corresponding protection class

Model code:

HDA 7 4 Z 6 – X – XXXX – XXX – 000

Mechanical process connection
Z = flush membrane

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

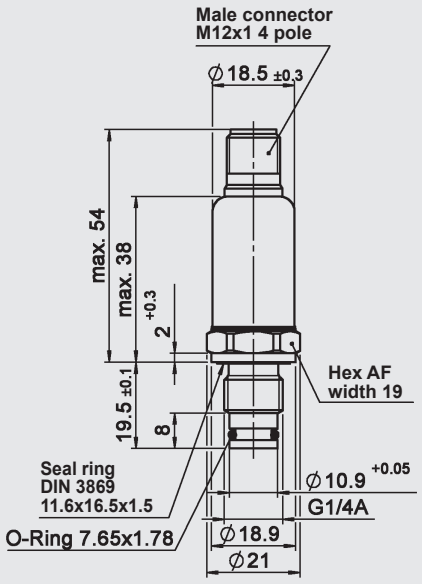
Measuring ranges in bar
0040; 0100; 0250; 0400; 0600

Mechanical connection
G04 = G1/4 with additional front O-ring seal
G05 = G1/4 A DIN 3852

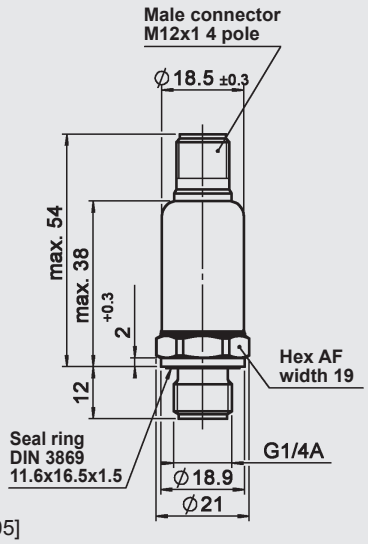
Modification number
000 = standard

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

Dimensions:



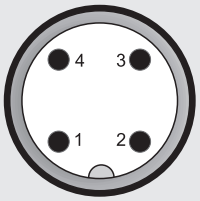
[G04]



[G05]

Pin connections:

M12x1



Pin	HDA 74Z6-A	HDA 74Z6-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.

HYDAC ELECTRONIC GMBH
Hauptstr. 27, 66128 Saarbrücken
Germany
Phone +49 (0)6897 509-01
Fax +49 (0)6897 509-1726
e-mail: electronic@hydac.com
Internet: www.hydac.com