Electronic Pressure Transmitter
HDA 4700

Description:

The pressure transmitter series HDA 4700 has a very accurate and robust sensor cell with a thin-film strain gauge on a stainless steel membrane.

The output signals 4 .. 20 mA or 0 .. 10 V allow for all HYDAC ELECTRONIC measurement and control devices as well as standard evaluation systems (e.g. PLC controls) to be connected.

The main areas of application are in the mobile or industrial sectors of hydraulics and pneumatics, particularly in applications with restricted installation space.

Special features:

- Accuracy ≤ ± 0.25 % FS typ.
- Highly robust sensor cell
- Very small temperature error
- Excellent EMC characteristics
- Very compact design
- Persuasive price / performance ratio

Technical specifications:

Input data	
Measuring ranges	6; 16; 60; 100; 250; 400; 600 bar
Overload pressures	15; 32; 120; 200; 400; 800; 1000 bar
Burst pressure	100; 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 [kΩ] 0 ..10 V, 3 conductor R_{Lmin} = 2 kΩ
Accuracy to DIN 16086, Max. setting	≤ ± 0.25 % FS typ. ≤ ± 0.5 % FS max.
Accuracy at min. setting (B.F.S.L.)	≤ ± 0.15 % FS typ. ≤ ± 0.25 % FS max.
Temperature compensation Zero point	≤ ± 0.008 % FS / °C typ. ≤ ± 0.015 % FS / °C max.
Temperature compensation Over range	≤ ± 0.008 % FS / °C typ. ≤ ± 0.015 % FS / °C max.
Non-linearity at max. setting to DIN 16086	≤ ± 0.3 % FS max.
Hysteresis	≤ ± 0.1 % FS max.
Repeatability	≤ ± 0.05 % FS
Rise time	≤ 1 ms
Long-term drift	≤ ± 0.1 % FS typ. / year
Ambient conditions	
Compensated 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 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 65 (DIN 43650 and Binder 714 M18) 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	approx. 25 mA
Life expectancy	> 10 million cycles 0 .. 100 % FS
Weight	approx. 145 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 4 7 4 X – X – XXX – 000

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

Electrical connection
4 = 4 pole Binder series 714 M18 (connector not supplied)
5 = 3 pole + PE, DIN 43650 (connector supplied)
6 = M12x1, 4 pole (connector not supplied)

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

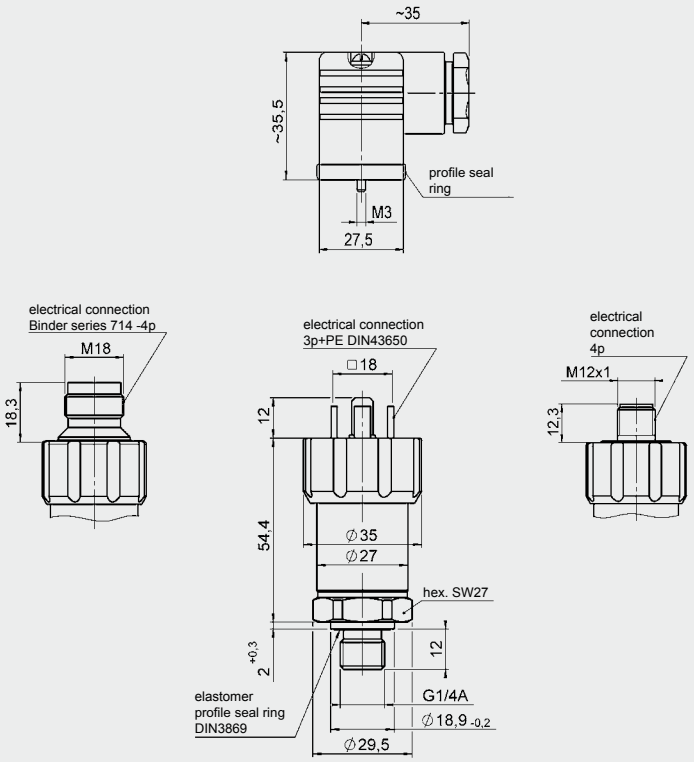
Pressure ranges in bar
006; 016; 060; 100; 250; 400; 600

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.

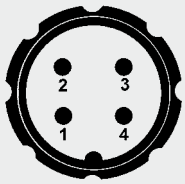
Accessories:
Appropriate accessories, such as electrical connectors, can be found in the Accessories section.

Dimensions:



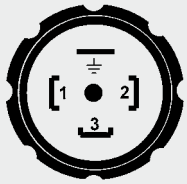
Pin connections:

Binder series 714 M18



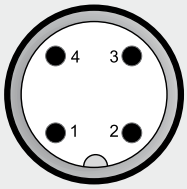
Pin	HDA 4744-A	HDA 4744-B
1	n.c.	$+U_B$
2	Signal+	Signal
3	Signal-	0 V
4	n.c.	n.c.

DIN 43650



Pin	HDA 4745-A	HDA 4745-B
1	Signal+	$+U_B$
2	Signal-	0 V
3	n.c.	Signal
⊥	PE	PE

M12x1



Pin	HDA 4746-A	HDA 4746-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.

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