



Electronic Pressure Transmitter HDA 4800

Description:

The pressure transmitter series HDA 4800 has a very accurate and robust sensor cell with a thin-film strain gauge on a stainless steel membrane.

Outstanding technical specifications and robust construction make the HDA 4800 particularly suited to the field of test rig and diagnostic technology. It is also suitable for a broad range of industrial applications.

Since the accuracy of a pressure transmitter varies greatly with the temperature of the fluid, the instrument has excellent characteristics in this respect. The output signals 4 .. 20 mA, 0 .. 10V and 0 .. 20 mA (source) are available as standard.

Special features:

- Accuracy $\leq \pm 0.125\%$ FS typ.
- Highly robust sensor cell
- Very small temperature error
- Excellent EMC characteristics
- Excellent long term stability

Technical data:

Input data	
Measuring ranges	6; 16; 60; 100; 250; 400; 600 bar
Overload pressures	15; 32; 120; 200; 500; 800; 1000 bar
Burst pressures	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 load resistance	4 .. 20 mA, 2 conductor $R_{Lmax} = (U_B - 10 V) / 20 \text{ mA} [\text{k}\Omega]$ 0 .. 10 V, 3 conductor $R_{Lmin} = 2 \text{ k}\Omega$ 0 .. 20 mA, 3 conductor source $R_{Lmax} = (U_B - 4 V) / 20 \text{ mA} [\text{k}\Omega]$
Accuracy to DIN 16086, Max. setting	$\leq \pm 0.125\%$ FS typ. $\leq \pm 0.25\%$ FS max.
Accuracy at min. setting (B.F.S.L.)	$\leq \pm 0.06\%$ FS typ. $\leq \pm 0.125\%$ FS max.
Temperature compensation	$\leq \pm 0.005\%$ FS / °C typ.
Zero point	$\leq \pm 0.01\%$ FS / °C max.
Temperature compensation Over range	$\leq \pm 0.005\%$ FS / °C typ. $\leq \pm 0.01\%$ FS / °C max.
Non-linearity at max. setting to DIN 16086	$\leq \pm 0.15\%$ FS max.
Hysteresis	$\leq \pm 0.1\%$ FS max.
Repeatability	$\leq \pm 0.05\%$ FS
Rise time	$\leq 1 \text{ ms}$
Long-term drift	$\leq \pm 0.1\%$ 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
Fluid temperature range ¹⁾	-40 .. +100 °C / -25 .. +100 °C
CE mark	EN 61000-6-1 / 2 / 3 / 4
UL mark ²⁾	Certificate No. E318391
Vibration resistance to DIN EN 60068-2-6 at 10 .. 500 Hz	$\leq 20 \text{ g}$
Protection class to IEC 60529	IP 65 (for male EN175301-803 (DIN 43650) and Binder 714 M18) IP 67 (M12x1, when an IP 67 connector is used)
Other data	
Supply voltage	10 .. 30 V DC 2-conductor 12 .. 30 V DC 3 conductor
for use acc. to UL spec.	- limited energy - according to 9.3 UL 61010; Class 2; UL 1310/1585; LPS UL 60950
Residual ripple of supply voltage	$\leq 5\%$
Current consumption	$\leq 15 \text{ mA}$
Life expectancy	> 10 million cycles 0 .. 100 % FS
Weight	~ 180 g

Note: Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection are provided.

FS (Full Scale) = relative to complete measuring range

B.F.S.L. = Best Fit Straight Line

¹⁾ -25 °C with FPM seal, -40 °C on request

²⁾ Environmental conditions according to 1.4.2 UL 61010-1; C22.2 No 61010-1

Model code:**HDA 4 8 4 X - X - XXX - 000****Mechanical connection**

4 = G1/4 A DIN 3852 (male)

Electrical connection4 = Male, 4 pole Binder series 714 M18
(connector not supplied)5 = Male, 3 pole+ PE, EN175301-803 (DIN 43650)
(connector supplied)6 = Male M12x1, 4 pole
(connector not supplied)**Signal**

A = 4 .. 20 mA, 2 conductor

B = 0 .. 10 V, 3 conductor

E = 0 .. 20 mA, 3 conductor

Pressure ranges in bar

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

Modification number

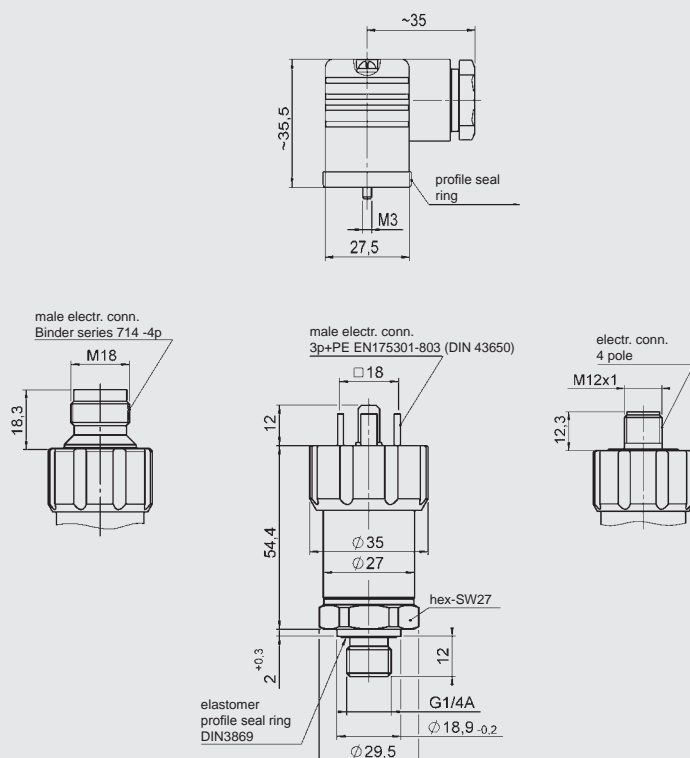
000 = Standard

Note:

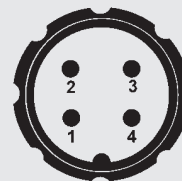
On instruments with a different modification number, please read the label or the technical amendment details supplied with the instrument.

Accessories:

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

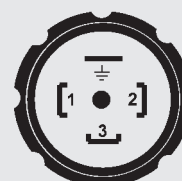
Dimensions:**Pin connections:**

Binder series 714 M18



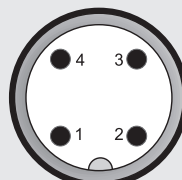
Pin	HDA 4844-A	HDA 4844-B	HDA 4844-E
1	n.c.	+U _B	+U _B
2	Signal+	Signal	Signal
3	Signal-	0 V	0 V
4	n.c.	n.c.	n.c.

EN175301-803 (DIN 43650)



Pin	HDA 4845-A	HDA 4845-B	HDA 4845-E
1	Signal+	+U _B	+U _B
2	Signal-	0 V	0 V
3	n.c.	Signal	Signal
⊥	Housing	Housing	Housing

M12x1



Pin	HDA 4846-A	HDA 4846-B	HDA 4846-E
1	Signal+	+U _B	+U _B
2	n.c.	n.c.	n.c.
3	Signal-	0 V	0 V
4	n.c.	Signal	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