Electronic Pressure Transmitter
HDA 8700

(Minimum order quantity 500 units)

Description:

The pressure transmitter series HDA 8700 has been specifically developed for the OEM market, e.g. in mobile applications. Like most of our pressure transmitter series, the HDA 8700 is based on a robust, long-life thin-film sensor.

All parts (sensor and pressure connection) which are in contact with the fluid are made of stainless steel and are welded together. This means that there are no sealing points in the interior of the sensor and the possibility of leakage is excluded.

The pressure transmitters are available in various pressure ranges from 0 .. 40 bar to 0 .. 600 bar. For integration into modern controls, standard analogue output signals are available, e.g. 4 .. 20 mA, 0 .. 5 V, 1 .. 6 V or 0 .. 10 V. Ratiometric output signals are also available.

For the electrical connection, various integrated connections are available.

A basic accuracy of max. ≤ ± 0.5 % FS, combined with a small temperature drift, ensures a broad range of applications for the HDA 8700.

Special features:

- Accuracy ≤ ± 0.25 % FS typ.
- Outstanding performance in terms of temperature effect and EMC
- Very compact design
- ECE type approval E13 (approved for road vehicles)

Technical data:

Input data	
Measuring ranges	40; 60; 100; 160; 250; 400; 600 bar
Overload pressures	80; 120; 200; 320; 500; 800; 1000 bar
Burst pressures	200; 300; 500; 800; 1250; 2000; 2000 bar
Mechanical connection (Torque value)	G1/4 A DIN 3852 (20 Nm) 7/16-20 UNF 2A (15 Nm) 9/16-18 UNF 2A (20 Nm) each with orifice 0.5 mm
Parts in contact with medium	Mech. conn.: Stainless steel Seal: FPM
Output data	
Output signal	e.g.: 4 .. 20 mA, 0 .. 5 V, 1 .. 6 V, 0 .. 10 V, ratiometric: 0.5 .. 4.5 V for U_B = 5 V DC (10 .. 90 % U_B ± 5 %), etc.
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	≤ ± 0.01 % FS / °C typ. ≤ ± 0.02 % FS / °C max.
Temperature compensation Over range	≤ ± 0.01 % FS / °C typ. ≤ ± 0.02 % FS / °C max.
Non-linearity at max. setting to DIN 16086	≤ ± 0.3 % FS max.
Hysteresis	≤ ± 0.1 % FS max.
Repeatability	≤ ± 0.1 % FS
Rise time	≤ 1.5 ms
Long-term drift	≤ ± 0.3 % FS typ. / year
Environmental conditions	
Compensated temperature range	-25 .. +85 °C
Operating temperature range[1)]	-40 .. +100 °C/ -25 .. +100 °C
Storage temperature range	-40 .. +100 °C
Fluid temperature range[1)]	-40 .. +125 °C / -25 .. +125 °C
CE mark	EN 61000-6-1 / 2 / 3 / 4
cULus mark[2)]	Certificate No. E318391
Vibration resistance to DIN EN 60068-2-6 at 5 .. 2000 Hz	≤ 25 g
Shock resistance to DIN EN 60068-2-27	100 g / 6 ms / half sine 500 g / 1 ms / half sine
Protection class to IEC 60529 to ISO 20653	IP 65, IP 67 (depending on the electrical connection) IP 69 K (depending on the electrical connection)
Other data	
Electrical connection	M12x1, 4 pole AMP DIN 72585 code 1, 3 pole Packard Metri Pack Series 150, 3 pole Deutsch DT 04, 3 pole AMP Superseal, 3 pole. AMP Junior Power Timer, 3 pole Flying leads, 1 m cable length EN175301-803 (DIN 43650), 3 pole
Supply voltage for use acc. to UL specification	8 .. 30 V DC 12 .. 30 V DC for output signal 0 .. 10 V 5 V ± 5 % for ratiometric output signal - limited energy - according to 9.3 UL 61010; Class 2; UL 1310/1585; LPS UL 60950
Current consumption	max. 22 mA total
Residual ripple of supply voltage	≤ 5 %
Life expectancy	> 10 million cycles 0 .. 100 % FS
Weight	~ 55 g

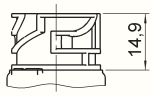
Note: Reverse polarity protection of the supply voltage, excess voltage, override, short-circuit protection are provided.
FS (**F**ull **S**cale) = relative to complete measuring range
B.F.S.L.= **B**est **F**it **S**traight **L**ine

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

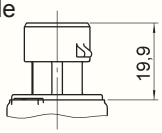
2) Environmental conditions according to 1.4.2 UL 61010-1; C22.2 No 61010-1

Dimensions:

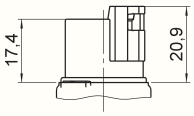
Male connection
DIN 72585
3 pole



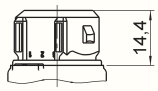
Male connection
Metri-Pack
series 150
3 pole



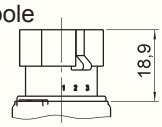
Male connection
Deutsch DT04
3 pole



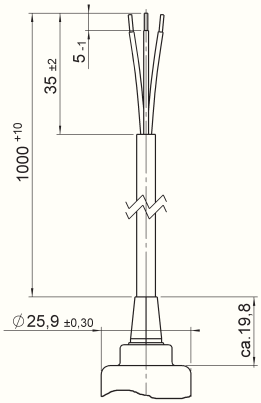
Male connection
Junior Power Timer
3 pole



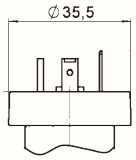
Male connection
Superseal
series 1.5
3 pole

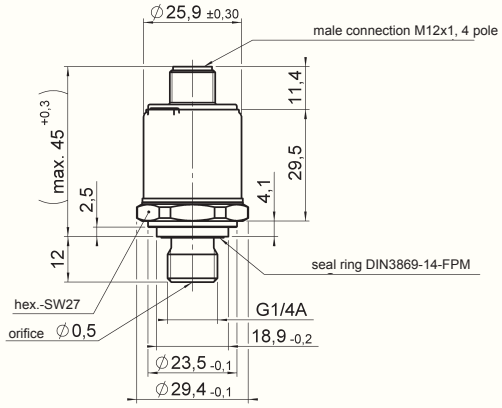


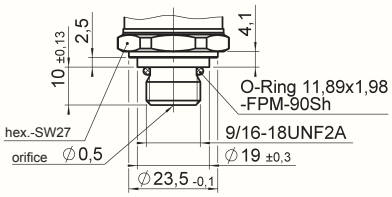
Flying leads

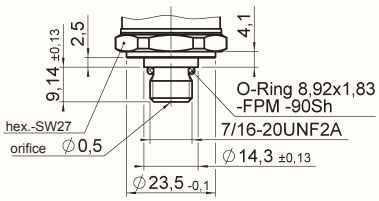


Male connection
EN175301-803 (DIN 43650)
3 pole









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.

Order details:

The electronic pressure switch HDA 8700 has been specially developed for OEM customers and is available for minimum order quantities of 500 units per type.
For exact specification, please contact the Sales Department of HYDAC ELECTRONIC.

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