



## Pressure Transmitter HDA 8400 for series applications

Relative pressure

Accuracy 0.5 %

Customised designs thanks to diverse electrical and mechanical connections and a large number of output signals



### Description:

The pressure transmitter series HDA 8400 has been specifically developed for the OEM market, e.g. in mobile applications. Like most of our pressure transmitter series, the HDA 8400 is based on a robust and long-life thin-film sensor.

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

The pressure transmitters are available in various pressure ranges from 0 .. 40 bar up 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.

A variety of connection plugs integrated in the device and diverse cable solutions are available for the electrical connection.

A basic accuracy of  $\leq \pm 0.5\%$  FS typical, combined with a small temperature drift, ensures a broad range of applications for the HDA 8400.

### Technical data:

Input data								
Measuring ranges	bar	40	60	100	160	250	400	600
Overload pressures	bar	80	120	200	320	500	800	1000
Burst pressure	bar	200	300	500	800	1250	2000	2000
Mechanical connection	Various threads e.g.: G1/4 A ISO 1179-2 M14x1.5 SAE 6, 9/16-18 UNF 2A							
Parts in contact with fluid <sup>1)</sup>	Mech. connection: Stainless steel Seal: FKM							
Output data								
Output signal	Various signals 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 % $U_B \pm 5\%$ )							
Accuracy acc. to DIN 16086, terminal based	$\leq \pm 0.5\%$ FS typ. $\leq \pm 1\%$ FS max.							
Accuracy, B.F.S.L.	$\leq \pm 0.25\%$ FS typ. $\leq \pm 0.5\%$ FS max.							
Temperature compensation Zero point / span	$\leq \pm 0.015\%$ FS / °C typ. $\leq \pm 0.025\%$ FS / °C max.							
Non-linearity acc. to DIN 16086, terminal based	$\leq \pm 0.3\%$ FS max.							
Hysteresis	$\leq \pm 0.4\%$ FS max.							
Repeatability	$\leq \pm 0.1\%$ FS							
Rise time	$\leq 1.5$ ms							
Long-term drift	$\leq \pm 0.3\%$ FS typ. / year							
Environmental conditions								
Compensated temperature range	-25 .. +85 °C							
Operating temperature range <sup>2)</sup>	-40 .. +100 °C / -25 .. +100 °C							
Storage temperature range	-40 .. +100 °C							
Medium temperature range <sup>2)</sup>	-40 .. +125 °C / -25 .. +125 °C							
CE mark	EN 61000-6-1 / 2 / 3 / 4							
cRUUS mark <sup>3)</sup>	Certificate no.: E318391							
E13 mark	E13*10R00*10R03*3969*01							
Vibration resistance acc. to DIN EN 60068-2-6 at 5 .. 2000 Hz	$\leq 25$ g							
Shock resistance acc. to DIN EN 60068-2-27	100 g / 6 ms / half-sine 500 g / 1 ms / half-sine							
Protection class acc. to DIN EN 60529 ISO 20653	IP 67 or IP 69 (depending on electr. connection) IP 6K9K							
Other data								
Electrical connection	Various male connectors e.g.: M12x1, Packard Metri Pack, Deutsch DT 04, AMP Superseal, AMP Junior Power Timer, jacketed cable							
Supply voltage	8 .. 30 V DC 12 .. 30 V DC for output signal 0 .. 10 V 5 V $\pm 5\%$ for ratiometric output signal - limited energy - acc. to 9.3 UL 61010; Class 2 UL 1310/1585; LPS UL 60950							
when applied acc. to UL specifications								
Residual ripple of supply voltage	$\leq 5\%$							
Current consumption	max. 22 mA total							
Life expectancy	$> 10$ million cycles, 0 .. 100 % FS							
Weight	~ 55 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

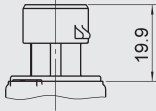
<sup>1)</sup> Other seal materials on request

<sup>2)</sup> -25 °C with FKM seal, -40 °C on request

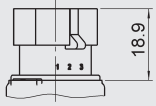
<sup>3)</sup> Environmental conditions acc. to 1.4.2 UL 61010-1; C22.2 No 61010-1

## Dimensions:

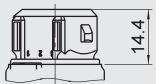
Male connector  
Metri-Pack series 150  
3 pole



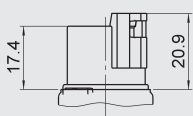
Male connector  
Superseal series 1.5  
3 pole



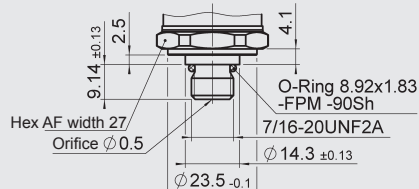
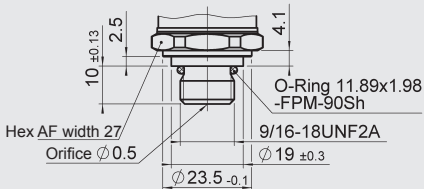
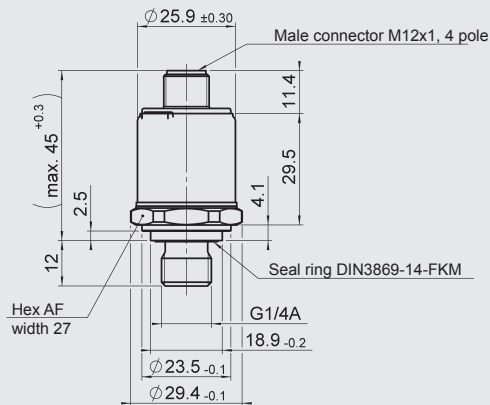
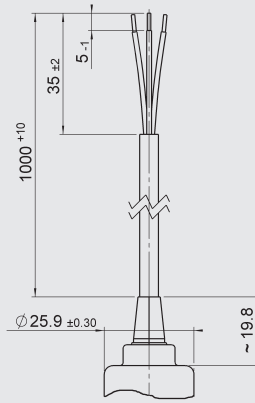
Male connector  
Junior Power Timer  
3 pole



Male connector  
Deutsch DT04  
3 pole



Jacketed cable



## 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 transmitter HDA 8400 has been specially developed for OEM customers and is available for minimum order quantities of 500 units per type.

For precise specifications, please contact the Sales Department of HYDAC ELECTRONIC.

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