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Part Number 928398, HDA 8000 Hydrogen Pressure Transducers

The pressure transmitter series HDA 8400 has been specially developed for measuring tasks with hydrogen in mobile applications. The transmitters are based on a robust, long-life sensor cell with a thin-film strain gauge on a stainless steel membrane. The sensor cell is welded to the process connection, there are no internal seals. The compatibility with hydrogen is ensured by using a particular material. All hydrogen-wetted parts are made of stainless steel 1.4435 with a Ni content of $\geq 13\%$.



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Specifications

Industry Standards/Certifications	CE Mark: EN 61000-6-1 / -2 / -3 / -4
Mechanical Connection Type	SAE 4, Male (7/16-20 UNF 2A)
Housing Material	Stainless Steel
Burst Pressure	1812.5 psi
Mechanical Connection Size	SAE-4, Male
Output Signal	4 to 20 mA

Wetted Material	1.4435 (Ni content $\leq 13\%$)
Electrical Connection	Deutsch DT04-3P
DC Power Supply Voltage	8 to 30 V
Model Code Description	HDA 846K-A-0300-H00(PSI)
Output Maximum Accuracy to DIN 16086 At Maximum Setting (Full Scale)	$\leq \pm 0.5 \%$
Output Typical Accuracy According to DIN 16086, Terminal Based (Full Scale)	$\leq \pm 1.0 \%$
Output Typical Accuracy at Minimum Setting Best Fit Straight Line (B.F.S.L) (Full Scale)	$\leq \pm 0.25 \%$
Output Maximum Accuracy at Minimum Setting Best Fit Straight Line (B.F.S.L) (Full Scale)	$\leq \pm 0.5 \%$
Output Typical Temperature Compensation Zero Point (Full Scale)	$\leq \pm 0.015 \%/^{\circ}\text{C}$
Output Maximum Temperature Compensation Zero Point (Full Scale)	$\leq \pm 0.025 \%/^{\circ}\text{C}$
Output Typical Temperature Compensation Over Range (Full Scale)	$\leq \pm 0.015 \%/^{\circ}\text{C}$
Output Maximum Temperature Compensation Over Range (Full Scale)	$\leq \pm 0.025 \%/^{\circ}\text{C}$
Output Maximum Non-Linearity at Maximum Setting to DIN 16086 (Full Scale)	$\leq \pm 0.3 \%$
Seal Material	Zurcon 22 (Polyurethane)
Output Maximum Hysteresis (Full Scale)	$\leq \pm 0.4 \%$
Output Repeatability (Full Scale)	$\leq \pm 0.1 \%$
Output Rise Time	$\leq 2 \text{ ms}$

Output Long-Term Drift Per Year (Full Scale)	$\leq \pm 0.3 \%$
Vibration Resistance According to DIN EN 60068-2-6 at 10 to 500 Hz	$\leq 25 \text{ g}$
Pin Connection 1	+U _B
Pin Connection 2	Signal
Pin Connection 3	0 Voltage
Current Consumption	$\leq 25 \text{ mA}$
Residual Ripple of Supply Voltage	$\leq 5 \%$
Life Expectancy (0 to 100% Full Scale (FS))	> 10 Million Cycles
Input Overload Pressure	725 psi
Input Measuring Pressure Range	0 to 300 psi
Operating Temperature [Min]	-40 °C
Operating Temperature [Max]	100 °C
Compensated Temperature Range	-25 to 85 °C
Storage Temperature Range	-40 to 100 °C
Medium Temperature Range	-40 to 125 °C
Degree of Protection	According to DIN EN 60529 - IP 67, According to ISO 20653 - IP 6K9K
Torque Value	15 N·m
Weight	0.12 lb
Division	ELECTRONICS
Product Group Family	PRESSURE TRANSDUCERS
Product	PRESSURE TRANSDUCERS

Additional Information

The transmitters are certified according to the regulations EC 79/2009, the type approval for hydrogen-driven vehicles. For optimum adaptation to the respective application, a variety of hydrogen-suited process connections have been implied into the certification.

For integration into modern controls, standard analogue output signals are available, e.g. 4..20 mA, 0.5 .. 4.5 V or 1 .. 5 V. Ratiometric output signals are also available. Various mobile suited, integrated connectors and cable solutions are available for the electrical connection.

Note

Note

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