Electronic Pressure Transmitter
HDA 7476

Description:

The pressure transmitter series HDA 7400 combines excellent technical specifications with a highly compact design.

The HDA 7476 was specifically developed for OEM applications e.g. in mobile applications.
A strain gauge sensor cell is the basis for a robust, long-life pressure transmitter.

Various pressure ranges between 0 .. 300 psi and 0 .. 9000 psi provide versatility when adapting to particular applications.

For integration into modern controls (e.g. with PLC), the analog output signals 4 .. 20 mA or 0 .. 10V are also available on the standard version.

Other output signals are available on request.

Special features:

- Accuracy ≤ ± 0.5 % FS B.F.S.L.
- Highly robust sensor cell
- Very compact design
- Very small temperature error
- Excellent EMC characteristics
- Excellent durability

Technical data:

Input data	
Measuring ranges	300, 500, 750, 1000, 1500, 3000, 6000, 9000 psi
Overload pressures	1160, 1160, 1740, 2900, 2900, 7250, 11600, 14500 psi
Burst pressures	2900, 2900, 4350, 7250, 7250, 14500, 29000, 29000 psi
Mechanical connection	9/16-18 UNF 2A (SAE 6 male)
Torque value	15lb-ft (20 Nm)
Parts in contact with medium	Mech. conn.: Stainless steel Seal: FPM
Output data	
Output signal, permitted load resistance	4 .. 20 mA, 2 conductor $R_{Lmax.} = (U_B - 8\ V) / 20\ mA\ [k\Omega]$ 0 ..10 V, 3 conductor $R_{Lmin.} = 2\ k\Omega$
Accuracy to DIN 16086 Max. setting	≤ ± 0.5 % FS typ. ≤ ± 1 % FS max.
Accuracy at min. setting (B.F.S.L.)	≤ ± 0.25 % FS typ. ≤ ± 0.5 % FS max.
Temperature compensation Zero point	≤ ± 0.0085% FS/°F typ. ≤ ± 0.017% FS/°F max.
Temperature compensation Over range	≤ ± 0.0085% FS/°F typ. ≤ ± 0.017% FS/°F max.
Non-linearity at max. setting to DIN 16086	≤ ± 0.3 % FS max.
Hysteresis	≤ ± 0.4 % FS max.
Repeatability	≤ ± 0.1 % FS
Rise time	≤ 2 ms
Long-term drift	≤ ± 0.3 % FS typ. / year
Environmental conditions	
Compensated temperature range	-13..+185°F
Operating temperature range[1)]	-40..+185°F/-13..+185°F
Storage temperature range	-40..+212°F
Fluid temperature range[1)]	-40..+212°F/-13..+212°F
CE mark	EN 61000-6-1 / 2 / 3 / 4
cULus-mark[2)]	Certificate No. E318391
Vibration resistance to DIN EN 60068-2-6 at 10 .. 500 Hz	≤ 20 g
Protection class to IEC 60529	IP 67 (for M12x1, when an IP 67 connector is used)
Other data	
Supply voltage for use acc. to UL spec.	8 .. 30 V DC 2 conductor 12 .. 30 V DC 3 conductor - limited energy - according to 9.3 UL 61010; Class 2; UL 1310/1585; LPS UL 60950
Residual ripple of supply voltage	≤ 5 %
Current consumption	≤ 25 mA
Life expectancy	> 10 million cycles 0 .. 100 % FS
Weight	~ 60 g

Note: Reverse polarity protection of the supply voltage, excess voltage, override and 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)] -13 °F with FPM seal, -40 °F on request
[2)] Environmental conditions according to 1.4.2 UL 61010-1; C22.2 No 61010-1

E 18.326.2/11.13

Model code:

HDA 7 4 7 6 – X – XXXX – 000 (PSI)

Mechanical connection
7 = 9/16-18 UNF2A (SAE 6 male)

Electrical connection
6 = Male M12x1, 4 pole
(connector not supplied)

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

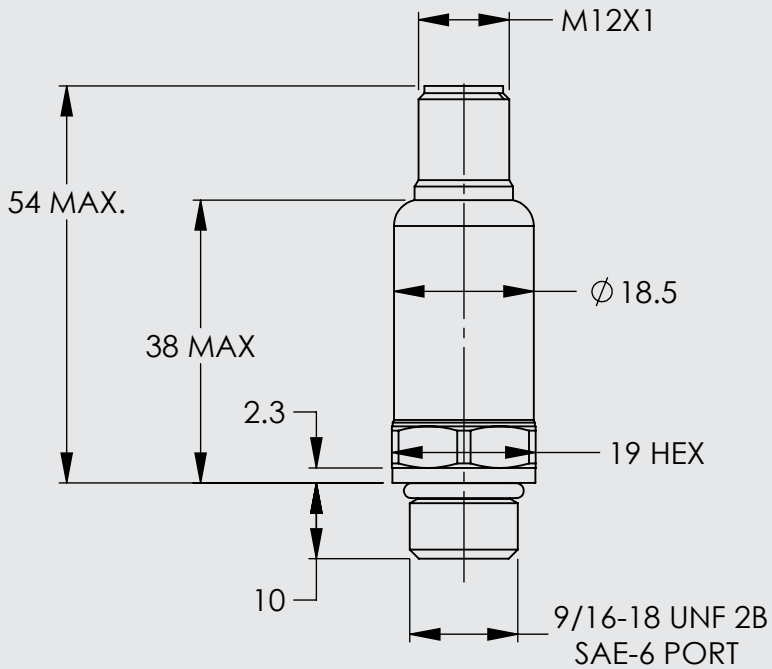
Pressure ranges in psi
0300, 0500, 0750, 1000, 1500, 3000, 5000, 6000, 9000

Modification number
000 = Standard

Version
PSI = Pounds per square inch

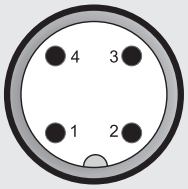
Accessories:
Appropriate accessories, such as electrical connectors, can be found in the Accessories brochure.

Dimensions:



Pin connections:

M12x1



Pin	HDA 7476-A	HDA 7476-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 or operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.
For European mechanical connection and bar ranges see European Catalog

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