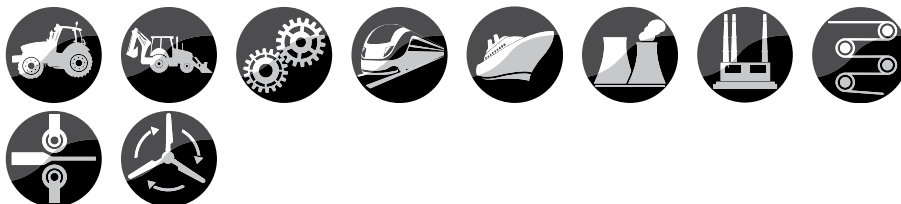


HDA 7400 Series Compact Pressure Transducer



Applications



Description

The pressure transmitter series HDA 7000 combines excellent technical specifications with a very compact design.

The HDA 7400 was specifically developed for OEM applications e.g. in mobile applications. A stainless steel sensor cell with thin-film strain gauge is the basis of a robust, longlife pressure transmitter.

Various pressure ranges between 0 to 500 psi and 0 to 9000 psi provide versatility when adapting to particular applications.

For integration into modern controls (e.g. with PLC) standard analog output signals are available.

Special Features

- Accuracy $\leq \pm 0.5\%$ BFSL
- Highly robust sensor cell
- Highly compact design
- Very small temperature error
- Excellent EMC characteristics
- Excellent long-term characteristics

Approvals



CE mark is a mandatory conformity mark on many products placed on the single market in the European Economic Area

Technical Details

Sensor Specifications	
Measuring ranges - psi	300, 500, 750, 1000, 1500, 3000, 6000, 9000
Overload pressure - psi	1160, 1160, 1160, 2900, 2900, 7250, 11600, 14500
Burst pressure - psi	2900, 2900, 2900, 7250, 7250, 14500, 29000, 29000
Mechanical connection	G1/4A DIN 3852 male (standard for bar ranges only) SAE 6 9/16-18 UNF 2A (standard for psi ranges only)
Tightening torque	15 lb-ft (20 Nm)
Parts in contact with media	Stainless Steel; FPM seal
Accuracy (B.F.S.L.) including linearity, hysteresis, and repeatability	$\leq \pm 0.5\%$ BFSL
Temperature compensation zero point	$\leq \pm 0.0085\%$ FS/°F typ. $\leq \pm 0.017\%$ FS/°F max.
Temperature compensation over range	$\leq \pm 0.0085\%$ FS/°F typ. $\leq \pm 0.017\%$ FS/°F max.
Rise time	≤ 2 ms
Long-term drift	$\leq \pm 0.3\%$ FS typ./year
Life expectancy	10 million load cycles (0 to 100% FS)
Weight	Approximately 60 g
Output signal	4 to 20 mA, 2 wire, $R_{Lmax} = (UB - 10V) / 20 \text{ mA}$ [kΩ] 0 to 10 V, 3 wire, $R_{Lmin} = 2 \text{ kΩ}$
Environmental Condition	
Compensated temperature range	-32° to 158°F (0° to 70°C)
Operating temperature range	-13° to 185°F (-25° to 85°C)
Storage temperature range	-40° to 212°F (-40° to 100°C)
Media temperature range	-40° to 212°F (-40° to 100°C)
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance to DIN EN 60068-2-6 at 10 to 500 Hz	$\leq 20g$
Environmental protection	IP 67 (ZBE 06 molded cable or integrated open ended cable)
Electrical Specifications	
Supply voltage, 2-wire	10 to 30 VDC
Supply voltage, 3-wire	12 to 30 VDC
Residual ripple supply voltage	$\leq 5\%$
Max supply current, 3-wire	approximately 25 mA
Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection	Standard

Model Code

HDA 7 4 X X - X - XXXX - 000 (PSI)

Mechanical Connection*

- 4 = G1/4A DIN 3852 male (*bar ranges only*)
- 7 = SAE 6 9/16-18 UNF2A (*psi ranges only*)

Electrical Connection*

- 6 = M12x1 plug, 4 pole (*connector not included*)
- Cable version available upon request*

Output Signal*

- A = 4-20mA, 2-wire
- B = 0-10VDC, 3-wire

Pressure Range

For HDA 7476 only (SAE 6 9/16-18 UNF2A)
0300, 0500, 0750, 1000, 1500, 3000, 5000, 6000, 9000 psi

Modification Number

000 = Standard

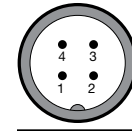
(psi)

psi version (*leave blank for bar version*)

**Other options available upon request*

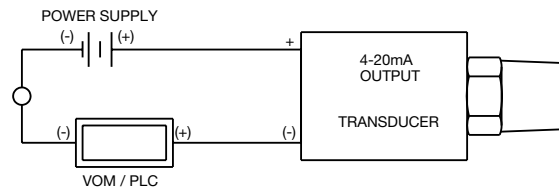
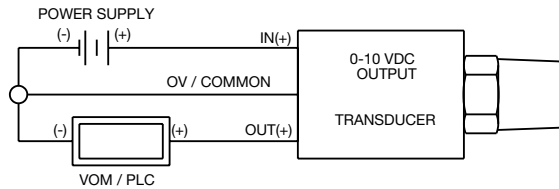
Pin Connections

M12x1



Pin	7446-A	7446-B
1	Signal +	+U _B
2	nc	nc
3	Signal -	0 V
4	nc	Signal

Circuit Diagram



Dimensions

