

Product Bulletin

85HP Series Hermetic Pressure Transducer

**Current Output, High Accuracy,
Enhanced Package**

www.tisensors.com



The 85HP Series is ideally suited for severe industrial OEM applications. This is a high accuracy, high level mA output that requires no end user amplification. Housed in corrosion

resistant stainless steel, the 85HP includes a hermetic front end with a variety of electrical connectors. This transducer is available in sealed gage

and vented gage from 15 psi up to 30,000 psi with several package options. Contact factory regarding agency approvals.

Features

Low total error band.....
(-20°C to 100°C)
Stainless steel housing.....
EMC protected to 20 V/m.....
Wide operating temperature range.....
(-40° up to +125°C)
Reverse polarity protection.....
Small size.....
Repeatability <0.05%.....
High accuracy +/- 0.25% F.S. typ.....
Static Error Band

Benefits

*High accuracy through wide
operating temperature range*
Media Compatible
High reliability in noisy environments
Wide range of applications
Robust installation
More mounting options
Measurement confidence
*Precise measurement for severe industrial
OEM applications*

Applications

- Compressors & Pumps
- Hydraulics & Pneumatics
- Agriculture & Construction Equipment
- Transportation & Off Road Vehicles
- Engine Controls & Monitors
- HVAC /Refrigeration
- Alternative Energy Management
- Load Management
- Process Control & Automation

Technical Specifications

Pressure Ranges

0-15 psig through 0-500 psig
0-500 psis through 0-30,000 psis

Performance

Accuracy... +/-0.25% F.S. typ
(static error band @ 25°C)
Total Thermal Effect
Standard:
+/- 0.007% F.S. / °C typ
(-20°C to +100°C)
Operating Temperature:
-40°C to 125°C
Storage Temperature:
-40°C to 150°C

Electrical

Vs... 10 - 30Vdc
Io... 4 - 20mA
Output Load Range..... (Vs - 10Vdc)
20mA
Output Response Time..... 1ms
Overvoltage Protection..... 30Vdc
Reverse Voltage Protection..... -30Vdc
Short Circuit Protected Yes

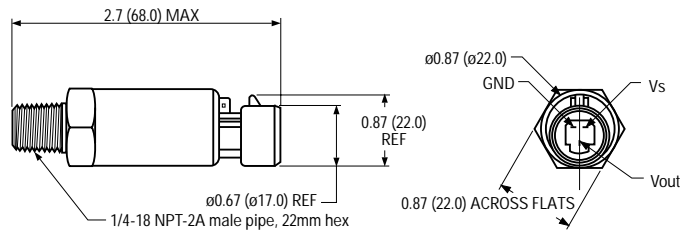
Physical

Proof Pressure Up to 1,500 psi..... 2X
Up to 7,000 psi..... 1.5X
Up to 30,000 psi..... 1.2X
Burst Pressure 3X
Cycle Life 100M F.S. cycles,
25-80°C
Random Vibration
(up to 1kHz) 20g
Drop (any axis) 1m
Electrical Connection Packard Metri-Pack™
Hirschman DIN
wire leads

85HP Series Hermetic Pressure Transducer

Dimensions (Typical)

in (mm)



Ordering Information

EXAMPLE:

Series	85HP	06	2	Y	00500	S	S	0	A
Pressure Connection	1/4-18NPT-2A male pipe, 22mm								
Electrical Connection	Standard Packard Metri-Pack								
Device Input-Output	Power Input: 10-30Vdc, Device Output 4-20mA								
Pressure Range	0-0500psi								
Pressure Reference	Sealed Gage								
EMC	Standard-(20V/m, 1MHz-400MHz)								
Potted Wire Lead Length	1m								
Total Thermal Effect Standard									

STANDARD OPTIONS		SPECIAL OPTIONS	
Series	85HP	(Contact factory for availability)	
Pressure Connection	05 3/8 - 24UNF-2A male o-ring thread per SAE J514, 22mm hex 06 1/4 - 18NPT-2A male pipe, 22mm hex 07 7/16 - 20UNF-2A male o-ring per SAE J514, 22mm hex 12 M14 x 1.5 male o-ring thread per ISO 6149, 22mm hex 14 1/8-27 NPT-2A male pipe, 22mm hex		
Electrical Connection	2 Standard Packard Metri-Pack™ 3 Hirschman DIN 4 Wire leads		
Device Input - Output	Y Vs... 10-30Vdc Io... 4-20mA		
Pressure Ranges	0-15 psig through 0-500 psig 0-500 psis through 0-30,000 psis (psig = sealed gage) (psig = vented gage)		
Pressure Reference	S Sealed Gage G Vented gage		
EMC	S 20v/m, 1MHz-400Mhz		
Total Thermal Effect	A +/-0.007% F.S./°C typ (-20°C to +100°C)		

Important Notice: Texas Instruments (TI) reserves the right to make changes to or discontinue any product or service identified in this publication without notice. TI advises its customers to obtain the latest version of the relevant information to verify, before placing any orders, that the information being relied upon is current. TI assumes no responsibility for infringement of patents or rights of others based on TI applications assistance or product specifications since TI does not possess full access concerning the use or application of customers' products. TI also assumes no responsibility for customers' product designs.

Packard Metri-pack is a trademark of Delphi Packard Electric Systems.

© 2001 Texas Instruments Incorporated
Printed in U.S.A., July, 2001 1K
85HP Rev.B



Texas Instruments Incorporated
34 Forest St., MS 23-10
Attleboro, MA 02703-0964
Phone: 1-888-438-2214
Fax: (508) 236-2349
email: tisensors@ti.com
www.tisensors.com