



# AEROSPACE / GROUND SUPPORT PRECISION PRESSURE TRANSDUCER / TRANSMITTER

## Models 142, 242, 342

Developed specifically for the harsh operating environments encountered in ground support testing, these units feature the latest blend of mechanical and circuit technology to achieve superior ruggedness, accuracy, and fatigue life. When you need assistance with your pressure application, call GP:50 Aerospace.

### FEATURES:

- Accurate to  $\pm 0.1\%$  FSO
- Environment proof
- All-welded, hermetically sealed, stainless steel
- Indestructible - totally encapsulated electronics
- Wide temperature operating range
- RFI/EMI protection to Mil std 461

### PRESSURE RANGES:

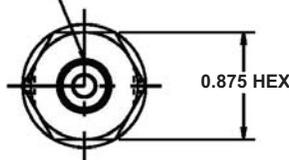
- From 0-15 psi to 0-15,000 psi

### ACCURACY:

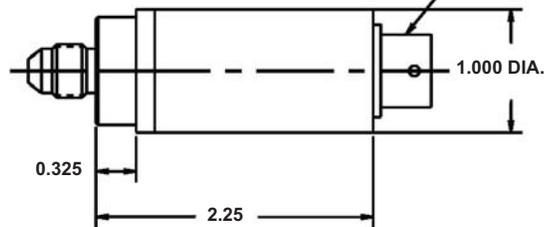
- From 0.2% to 0.1%



7/16-20  
UNJF-3A THREAD



BENDIX PTIH-10-6P  
(OR EQUIV.) CONNECTOR



Some options will affect dimensions. Consult factory if important.

## WIRING CODE

	142	242	342
A/1	+ EXC.	+ EXC.	+ EXC./SIGNAL
B/2	+ SIGNAL	+ SIGNAL	NC
C/3	- SIGNAL	NC	NC
D/4	- EXC.	- EXC./SIGNAL	- EXC./SIGNAL
E/5	NC OPTION GH	NC OPTION GH	NC OPTION GH
F/6	NC OPTION GH	NC OPTION GH	NC OPTION GH

GP:50 reserves the right to make product improvements and amendments to the product specifications stated throughout this brochure without prior notification. Please contact the factory on all critical dimensions and specifications for verification.



# Pressure, Level & Temperature Transmitters & Transducers

Specifications reflect standard product, improved performance/mechanical options available. Modifications may alter specs, consult factory for more information.

<b>Accuracy</b>		Within $\pm 0.2\%$ FSO, RSS (includes the effects of non-linearity, hysteresis, non-repeatability) $\pm 0.1\%$ FSO, RSS Available		
<b>Full Scale Output (FSO) *</b>	<b>(Model 142)</b> 3.0 mV/V $\pm 0.5\%$ FSO at 70°F	<b>(Model 242)</b> 5.0 Vdc $\pm 0.5\%$ FSO at 70°F	<b>(Model 342)</b> 20 mA $\pm 0.5\%$ FSO at 70°F	
<b>Wetted Parts</b>		Types 316 and 15-5 PH stainless steel		
<b>Temperature Limits</b>				
Compensated	-40°F to +250°F			
Operating	-65°F to +275°F			
<b>Temperature Compensation</b>				
Zero	Within $\pm 0.0075\%$ FSO/°F			
Span	Within $\pm 0.0075\%$ FSO/°F			
<b>Electricals</b>	<b>(Model 142)</b>	<b>(Model 242)</b>	<b>(Model 342)</b>	
Excitation Voltage	3.5-15 Vdc	9-40 Vdc	9-36 Vdc	
Output at 70° F	3 mV/V $\pm 0.5\%$ FSO	0-5 Vdc $\pm 0.5\%$ FSO	4-20 mA $\pm 0.5\%$ FSO	
Input Impedance, Load Impedance,	5,000 ohms, nominal 50,000 ohms minimum, for less than 0.1% FSO		1350 ohms maximum at 36 Vdc	
Zero Balance*	0.0 mV/V 0.5% FSO at 70°F	0.0 Vdc 0.5% FSO at 70°F	4.0 mA 0.5% FSO at 70°F	
Input Current, Output Current		10 mA, nominal 2.0 mA, maximum for less than 0.1% FSO attenuation		
<b>Mechanicals</b>				
Proof Pressure*	2 times full scale pressure range			
Burst Pressure	5 times full scale pressure range or 22,500 psi, whichever is less			
<b>Case Materials</b>		316 Stainless steel		
Weight	5oz. nominal			
<b>Identification</b>		Etched stainless steel nameplate welded to body		
<b>Connections</b>				
Pressure*	MS33656-4 (7/16-20 male thread)			
Electrical	Bendix PTIH-10-6P connector or equiv.			

\* See modifications on ordering guide.

## ORDERING GUIDE:

Ordering: Specify model, and pressure range and indicate modifications or accessories required.  
Use the following codes to identify desired item. Example: 142-C-RD-6-CM

MODEL	SERIES	RANGE	TYPE	OPTIONS
●	-	●	-	●/●

### MODEL

142 3 mV/V  
242 0 - 5 Vdc  
342 4 - 20 mA

### ACCURACY (Series)

C 0.2% FSO  
D 0.1% FSO

### PRESSURE RANGE (PSI)

PP 15	RK 750
PR 20	RM 1,000
PT 30	RO 1,500
PV 50	RR 2,000
PX 75	RT 3,000
PZ 100	RV 5,000
RB 150	RX 7,500
RD 200	RZ 10,000
RE 0-250	SB 15,000
RF 300	SZ Other
RH 500	

### PRESSURE TYPE

3 Absolute  
6 Sealed Gauge

### OPTIONS

#### CONNECTORS

AA PTIH-10-6P (Std)  
CI D38999/27YB98PN  
CM PTIH-8-4P  
DB D38999/27YA35PN

#### PRESSURE PORT

AA MS33656-4 (7/16-20 male thread for 1/4" tubing) Std.  
FA MS33656-4 (7/16-20)(F)  
FJ 1/4" NPT male thread  
FL 1/8" NPT male thread  
LT SAE-4 (M) 7/16-20 UNF  
LH SAE-6 (M) 9/16-18 UNF

#### GENERAL

GB Alternate electronic output, specify zero and span output values  
GG Alternate shunt calibration signal  
GH Internal shunt calibration, to 100%  $\pm 0.5\%$  FSO  
GS 0-10 Vdc FSO output (requires 16-40 Vdc excitation)  
HL RFI Protection (increases length by 0.5")  
MK 350 ohm strain gauge bridge

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