

# 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:

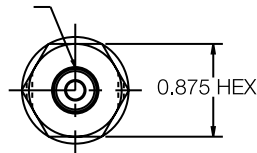
- From 0-15 psi to 0-15,000 psi

## ACCURACY:

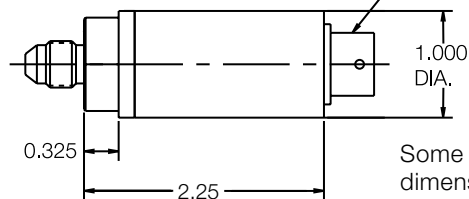
- From 0.2% to 0.1%

MODEL	OUTPUT @ 70°F	EXCITATION
142	3 mV/V $\pm 0.5\%$ FSO	3.5-15 Vdc
242	0 to 5 Vdc $\pm 0.5\%$ FSO	9-40 Vdc
342	4-20 mA $\pm 0.5\%$ FSO	9-36 Vdc

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	+ Excit.	+ Excit.	+ Excit./Signal
B/2	+ Signal	+ Signal	NC
C/3	- Signal	NC	NC
D/4	- Excit.	- Excit./Signal	- Excit./Signal
E/5	NC Option GH	NC Option GH	NC Option GH
F/6	NC Option GH	NC Option GH	NC Option GH

# SPECIFICATIONS

Unless otherwise stated, these specifications are the standards to which the units are normally constructed. Alterations may be easily and readily accomplished by the standard modification code or by discussion with the factory. We invite your inquiry.

Accuracy	Within $\pm 0.2\%$ FSO, RSS (includes the effects of non-linearity, hysteresis, non-repeatability) $\pm 0.1\%$ FSO, RSS Available		
Zero Balance*	Model 142	0.0 mV/V	0.5% FSO @ 70°F
	Model 242	0.0 Vdc	0.5% FSO @ 70°F
	Model 342	4.0 mA	0.5% FSO @ 70°F
Full Scale Output (FSO)*	Model 142	3.0 mV/V	$\pm 0.5\%$ FSO @ 70°F
	Model 242	5.0 Vdc	$\pm 0.5\%$ FSO @ 70°F
	Model 342	20 mA	$\pm 0.5\%$ FSO @ 70°F
Materials in contact with measured fluids	Types 316 and 15-5 PH stainless steel		
Temperature Limits			
Compensated	-40°F to +250°F		
Operating	-65°F to +275°F		
Temperature Compensation			
Zero	Within $\pm 0.0075\%$ FSO/°F		
Span	Within $\pm 0.0075\%$ FSO/°F		
Electricals			
Excitation Voltage	Model 142	3.5-15 Vdc	
	Model 242	9-40 Vdc	
	Model 342	9-36 Vdc	
Input Impedance	Model 142	5000 ohm nominal	
Input Current	Model 242	10 mA nominal	
Load Impedance	Model 142	50,000 ohms minimum, for less than 0.1% FSO	
	Model 342	1350 ohms maximum at 36 Vdc	
Output Current	Model 242	2.0 mA maximum, for less than 0.1% FSO attenuation	
Mechanicals			
Proof Pressure*	2 times full scale pressure range		
Burst Pressure	5 times full scale pressure range or 22,500 psi, whichever is less		
Case Materials	316 stainless steel		
Weight	5 oz. nominal		
Connections			
Pressure*	MS33656-4 (7/16-20 male thread)		
Electrical	Bendix PTIH-10-6P connector or equiv.		
Identification	Etched stainless steel nameplate welded to body		

\* 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

### SERIES (Accuracy)

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
RF 300	SB 15,000
RH 500	SZ Other

### 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 (female, made with an adapter)  
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

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