



Pressure, Level & Temperature Transmitters & Transducers

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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.



FEATURES:

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

PRESSURE RANGES:

- From 0-15 PSI thru 0-15,000 PSI

ACCURACY:

- From 0.2% thru 0.1%

| WIRING: | 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 |

Accuracy:

(Includes Hysteresis, Non-linearity, Non-Repeatability)
• Within $\pm 0.2\%$ FSO, RSS, $\pm 0.1\%$ FSO, RSS Available

Full Scale Output (FSO):

- (Model 142) 3.0 mV/V $\pm 0.5\%$ FSO at 70° F
- (Model 242) 5.0 Vdc $\pm 0.5\%$ FSO at 70° F
- (Model 342) 20 mA $\pm 0.5\%$ FSO at 70° F

Temperature Limits:

- Compensated: -40° F to +250° F
- Operating: -65° F to +275° F

Temperature Compensation:

- Zero & 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
- Output at 70° F:
 - (Model 142) 3 mV/V $\pm 0.5\%$ FSO
 - (Model 242) 0-5 Vdc $\pm 0.5\%$ FSO
 - (Model 342) 4-20mA $\pm 0.5\%$ FSO
- Input Impedance:
 - (Model 142) 5,000 ohms nominal
- Load Impedance:
 - (Model 142) 50,000 ohms minimum for less than 0.1% FSO
 - (Model 342) 1350 ohms maximum at 36 Vdc
- Zero Balance:
 - (Model 142) 0.0 mV/V $\pm 0.5\%$ FSO at 70° F
 - (Model 242) 0.0 Vdc $\pm 0.5\%$ FSO at 70° F
 - (Model 342) 4.0 mA $\pm 0.5\%$ FSO at 70° F
- Input Current:
 - (Model 242) 10 mA, nominal
- Output Current:
 - (Model 242) 2.0 mA, max. for less than 0.1% FSO attenuation

Mechanicals:

- Proof Pressure: 2 x full scale pressure range
- Burst Pressure: 5 x full scale pressure range or 22,500 psi, whichever is less.

Identification:

- Etched SST nameplate welded to body

Connections:

- Pressure: MS33656-4 (7/16-20 male thread)
- Electrical: Bendix PTIH-10-6P connector or equivalent

Wetted Materials:

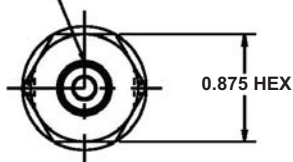
- Types 316 and 15-5 PH SST

Case Materials:

- Weight: 5oz. nominal, 316 SST

Some options will affect dimensions. Consult factory if important.

7/16-20
UNJF-3A THREAD



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



A5SL-42A.00 Rev D

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.



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Typical configurations (consult factory for more options)

MODELS

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

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 |
| RE | 0-250 | SB | 15,000 |
| RF | 300 | SZ | Other |
| RH | 500 | | |

PRESSURE TYPES

| | |
|---|--------------|
| 3 | Absolute |
| 6 | Sealed Gauge |

OPTIONS

(Consult factory for more options not listed)

ELECTRICAL CONNECTIONS

| | |
|----|--------------------------|
| AA | PTIH-10-6P-STD Connector |
| 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) |
| 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 |

NOTE:

Specifications reflect standard product, improved performance / mechanical options available.

Modifications may alter specs, consult factory for more information.