

**High Performance
Melt Pressure
Transducers
The HP-Series**



■ **Precise Pressure Measurement**

The Gentran HP-Series melt pressure transducers are designed to meet the highest criteria for performance in the plastics and rubber industries. The non-linearity specification of the GT72HP is $\pm 0.5\%$ and $\pm 1.0\%$ of full scale BFS on the GT76HP.

■ **Rugged and Durable**

The HP-Series is designed to operate from 0 to 750°F. The diaphragm is rugged and is available in various metals for special applications. The standard diaphragm material is 17-4 PH stainless steel. Many customers find that our units will last up to 6 times longer than other units.

■ **Easily Installed**

This series is installed directly into the extruder, melt pump or other pressure tap. There are no remote boxes to mount. The electrical cable is designed for easy connection and even comes with the spade lugs attached. Various cable lengths are available for your convenience.

■ **Industry Compatible**

All Gentran products are configured to industry standards for effortless replacement of parts. We offer compatible units complete with flexible armor stems so that you can replace a transducer without disturbing your existing wiring or indicator configuration.

■ **Versatility**

Gentran offers various body lengths, thread dimensions and options for thermocouples. Integral, flexible armored cable is also available. For special applications, we can custom design unique configurations to fit your needs.

Ordering Information

TYPICAL PART NUMBER

TRANSDUCER GT72HP /6 J C D6 Z1 -10K

| Melt Pressure Transducer Model | | Barrel Length | | Thermocouple Type | | Diaphragm Material | | Wiring Options | | "Z" Options | | Pressure Range** | | |
|--------------------------------|----------------------------------|---------------|---|-------------------|------------|--------------------|--------------------------|----------------|---------------------------------------|---|---|---------------------------|----------|---------|
| GT72HP ¹ | High Accuracy Unit ± 0.5% | 3 | 3 inch "A" Length | J | "J" Type | None | 17-4 PH SST | None | Standard 6-pin Cannon Connector | None | Standard Unit | 5C | 0-500* | |
| | | | | K | "K" Type | C | Hard Chrome | Z1 | | 18" Integral Flexible Armored Cable | | 1K | 0-1,000* | |
| GT76HP ² | Standard Accuracy Unit ± 1.0% | 6 | 6 inch "A" Length | T | "T" Type | H | Hastelloy C-276 | D6 | Bendix 6-pin Connector | Z2 | 24" Integral Flexible Armored Cable | 1.5K | 0-1,500 | |
| | | | | R | "RTD" Type | I | Inconel 718 | D8 | | | | Bendix 8-pin connector | 3K | 0-3,000 |
| | | | | | | N | Titanium Nitride- TiN | | | | | | 5K | 0-5,000 |
| | | | | | | NN | Double Coated TiN | | | | | | 7.5K | 0-7,500 |
| 12 | 12 inch "A" Length | Z3 | 30" Integral Flexible Armored Cable | 10K | 0-10,000 | | | | | | | | | |
| | | | | 100 BAR | 0-100 BAR | | | | | | | | | |
| | | | | 200 BAR | 0-200 BAR | | | | | | | | | |
| | | | | | | | | | | | 350 BAR | 0-350 BAR | | |

¹HP 6" unit available in 10K and under.
²HP 12" unit available in 5K and under.

**Other ranges available upon request.
*Special range.

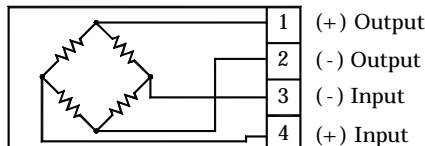
TYPICAL PART NUMBER

CABLE ASSEMBLY 72 04 02 -10

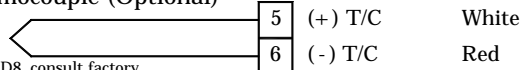
| Cable Type | | Thermocouple Type | | Connector Type | | Cable Length* | |
|------------|----------|-------------------|-----------------|----------------|----------------------|---------------|---------|
| 72 | Standard | 04 | No Thermocouple | 02 | Gentran | 10 | 10 Feet |
| 75 | Armored | 64 | "J" Type | 11 | Bendix 8-pin (D8) | 20 | 20 Feet |
| | | 74 | "K" Type | | | 40 | 40 Feet |
| | | 94 | "T" Type | | | | |
| | | 84 | "RTD" Type | | | | |

*Special lengths available upon request.

Schematic and Pin Connections (Standard)*



Thermocouple (Optional)

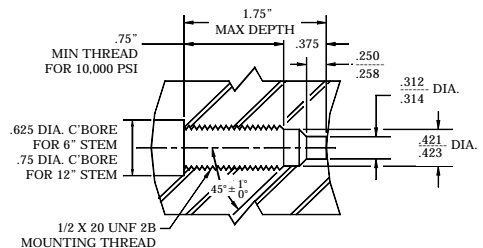


*D6 and D8, consult factory

Cable

Green
White
Black
Red
White
Red

RECOMMENDED WELL DIMENSIONS FOR 1/2 MOUNTING THREAD TRANSDUCER



Specifications: GT72HP & GT76HP

Performance Characteristics

Standard Pressure Ranges:

0-1,500 psig, 0-3,000 psig, 0-5,000 psig,
0-7,500 psig, 0-10,000 psig,
0-100 BAR, 0-200 BAR, 0-350 BAR,

Special Ranges:

0-500 psig, 0-1,000 psig
Other ranges available upon request.

Accuracy:

GT72HP: $\pm 0.5\%$ of full scale
maximum (BFSL)
GT76HP: $\pm 1.0\%$ of full scale
maximum (BFSL)

Repeatability:

Within $\pm 0.1\%$ of full scale maximum.

Resolution:

Infinite

Overload Pressure:

150% of rated range, no damage.

Electrical Characteristics

Sensor Type:

Bonded Strain-gage, 4 Leg Wheatstone
Bridge.

Bridge Resistance:

350 ohms, $\pm 5.0\%$

Sensitivity:

3.0 mV/V nominal (open circuit)

Zero Balance:

$\pm 10.0\%$

Excitation:

5-12 VDC or AC (RMS), maximum 15
Volts.

External Shunt Calibration Resistor

Standard Feature. Options Available.

Insulation Resistance:

> 1,000 Mohms @ 50 VDC

Thermocouple:

Types J, K, T and RTD available as an
internal option.

Temperature Characteristics

Diaphragm:

0 to 750°F (-18 to 400°C)

Electrical Connector:

0 to 250°F (-18 to 121°C)

Zero Drift:

$\pm 0.01\%$ of full scale/°F
 $\pm 0.02\%$ of full scale/°C

Sensitivity Drift: Drift:

$\pm 0.01\%$ of full scale/°F
 $\pm 0.02\%$ of full scale/°C

Mechanical Characteristics

Diaphragm Material

Standard 17-4 PH Stainless steel.
Options include Hastelloy, Hard Chrome
Plate, Inconel 718 & Titanium Nitride.

Pressure Fitting:

1/2 inch-20 UNF-2A.
Metric m 18 x 1.5 optional.
Custom Options Available.

Dimensions

