



MELT PRESSURE TRANSMITTER WITH 0-10 VOLT OUTPUT

6-pin
connector
version

MODEL 0270



MODEL 0270

The 0270 converts applied pressure at the point of measurement to a proportional voltage output signal. An amplifier converts the strain gage signal to a 0 - 10 volt output. The small capillary tube filled with a special medium isolates the amplifier from potential thermal damage. The rigid stem makes installation fast and easy.

FEATURES

The ISI 0270 Series Melt Pressure Transmitter is based on the same basic fluid capillary and strain gage design found in ISI's high accuracy line of melt pressure transducers.

- High level output 3 and 4-wire, 0-10 Vdc
- Better than 0.5% combined error
- Fluid filled system for temperature stability
- 80% output signal for easy calibration
- Armoloy coated diaphragm
- Other diaphragms available

MODEL 0271



MODEL 0271

The 0271 offers all the advantages of Model 0270, but incorporates an 18-inch flexible capillary tubing with a stainless steel armored jacket between the amplifier housing and the stem.

These transmitters are designed for applications requiring further thermal isolation or where installation would be otherwise difficult or impractical.

MODEL 0272

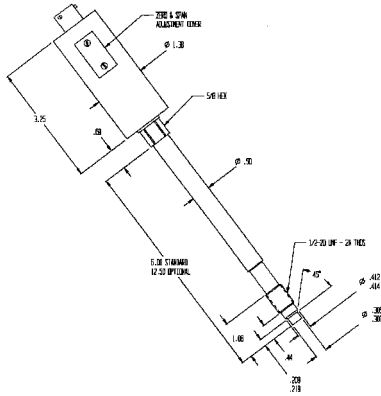


MODEL 0272

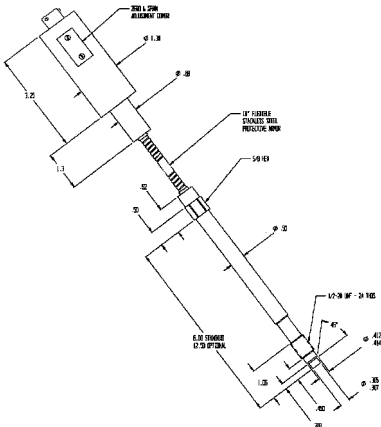
The 0272 provides simultaneous measurement of pressure and temperature at a single point.

Only one mounting hole is required for installation. The thermocouple or optional RTD is protected from process hazards and can be replaced without interrupting the pressure signal. Pressure performance is identical to Models 0270 and 0271.

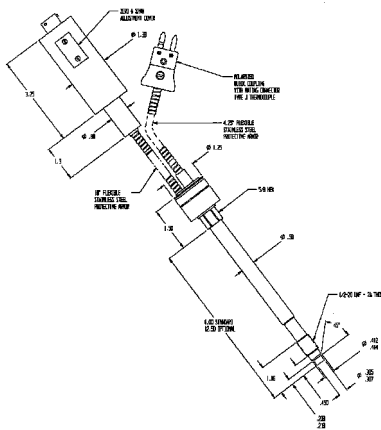
MODEL 0270



MODEL 0271



MODEL 0272



DEVICE SPECIFICATIONS

MECHANICAL RANGES

| | | | | | |
|---------|-------|---------|-------|----------|---------|
| PSIG | BAR | PSIG | BAR | PSIG | BAR |
| 0-500 | 0-35 | 0-3,000 | 0-200 | 0-10,000 | 0-700 |
| 0-750 | 0-50 | 0-5,000 | 0-350 | 0-15,000 | 0-1,000 |
| 0-1,000 | 0-70 | 0-7,500 | 0-500 | 0-20,000 | 0-1,400 |
| 0-1,500 | 0-100 | | | | |

| | |
|---------------------------|---|
| Combined Error/Error Band | ±0.5% of full scale output ±1.0% of full scale output for ranges 0-1000 PSIG and below |
| Repeatability | ±0.1% of full scale output |
| Overload Capability | 2 times full scale output |
| Mounting Torque | 500 inch-pounds maximum (120 inch-pound recommended) |
| Diaphragm Material | 15-5PH stainless steel (Armoloy coated) |

ELECTRICAL

| | |
|--|---|
| Output | 0-10 Vdc |
| Input Voltage | 18-36 Vdc (24 Vdc recommended) |
| Load Resistance | 2000 minimum |
| Supply Current | 3 mA minimum |
| Internal Resistance Calibration (factory adjusted) | Produces a precise electrical signal which is 80% of full scale output within ±0.5% |

TEMPERATURE ON AMPLIFIER HOUSING

| | |
|---------------------|--------------------------|
| Maximum Temperature | 160°F or 70°C |
| Zero Shift | Less than 2.0% FSO/100°F |
| Sensitivity Shift | Less than 1.0% FSO/100°F |

TEMPERATURE ON DIAPHRAGM

| | |
|---------------------|--------------------------------|
| Maximum Temperature | 750°F or 400°C |
| Zero Shift | 15 PSIG/100°F or 27 PSIG/100°C |

CONNECTIONS

| | |
|------------------------------------|--|
| Mounting | 1/2-20 UNF thread (standard) M18x1.5 (also available) |
| Electrical | 6 pin Bendix (PT02A-10-6P) |
| Mating Connector (sold separately) | PT06A-10-6S(SR) |

ORDERING GUIDE

MELT PRESSURE TRANSMITTER

When ordering, specify: ISI Model, Code #, Stem Length and Flex Length*

Example: ISI 0270-5.0T-6 or 0271-5.0T-6/18

| ISI MODEL | PRESSURE RANGE | | STEM LENGTH** | FLEX LENGTH** |
|-----------|----------------|--------|---------------|---------------|
| | PSIG | CODE # | | |
| ISI 0270 | 0-500 | 0.50 T | 6 = 6 in. | 18 in. |
| | 0-750 | 0.75 T | | |
| | 0-1,000 | 1.0 T | | |
| | 0-1,500 | 1.5 T | | |
| ISI 0271 | 0-3,000 | 3.0 T | 12 = 12.5 in. | 24 in. |
| | 0-5,000 | 5.0 T | | |
| | 0-7,500 | 7.5 T | | |
| ISI 0272 | 0-10,000 | 10.0 T | 30 in. | |
| | 0-15,000 | 15.0 T | | |
| | 0-20,000 | 20.0 T | | |
| | | | | |

*(0271 and 0272 version only) ** (other lengths available)