

Melt Pressure Gauges

Melt Pressure Gauge Styles for Extrusion Processing

Tempco's Melt Pressure Gauges provide highly reliable, maintenance free, local pressure indications for extrusion and other plastics processes. The sensing diaphragm is designed for minimum deflection, maximum durability, and maximum overload capability.

Two models are available with three styles each:

- Mechanical Gauge Model
- Digital Gauge Model with alarm and retransmission

Style 1 A 6" rigid stem unit for standard installations

Style 2 A 30" flexible capillary with stainless steel armored jacket between the gauge housing and the stem to allow greater installation flexibility in tight places or for easier viewing and durability.

Style 3 The third style provides all the features of the 30" flexible capillary model with the addition of a thermocouple (J-type) output for temperature. (Not displayed directly on digital models.)

All models are rugged, totally self contained and allow extrusion processors to benefit from the significantly improved efficiency that goes with pressure monitoring—at about half the cost of strain gauge melt pressure transducers for the mechanical gauge.

Optional diaphragm materials are available for applications that require extra abrasion and/or corrosion resistance. Refer to page 12-19 for available material options.

Mechanical Melt Pressure Gauge



Design Features

- * No Power (or Wiring) Required
- * No Maintenance, No Grease
- * Electron Beam Welded
- * 150% Overload Capability without Damage
- * Greater than 180° Movement for Optimum Readability
- * Stainless Steel Construction
- * 5.44"/138.2mm Diameter Face
- * An Economical Alternative for Many Applications

Specifications

Linearity, Repeatability, Hysteresis: $L \pm 1.0\%$ FSO

Measurement Range: 0-5000 PSI / 0-350 bar to 0-10000 PSI / 0-700 bar

Maximum overpressure: $1.5 \times$ FSO

Measurement principle: Bourdon tube

Maximum housing temperature: . . . 185°F / 85°C

Maximum diaphragm temperature: . 750°F / 400°C

Standard diaphragm material: 15-5 PH Stainless Steel with Armoloy coating

Standard style 3 thermocouple: . . . Type J (isolated junction)

Digital Melt Pressure Gauge



Design Features

- * Better than $\pm 0.50\%$ Accuracy
- * Economically Priced vs. Separate Transducer and Display
- * Electron Beam Welded
- * 200% Overload Capability without Damage
- * 15-5 Stainless Steel Diaphragm with Armoloy coating standard
- * Alarm Provides no/nc, 5A 115/240Vac High Pressure Only Relay
- * 115 VAC standard, 230 VAC Optional
- * 5.44"/138.2mm Diameter Face
- * An Economical Alternative for many Applications
- * Standard 4-20 mA Retransmission

Specifications

Linearity, Repeatability, Hysteresis: $M \pm 0.50\%$ FSO

Measurement Range: See ordering chart

Maximum overpressure: $2 \times$ FSO

Measurement principle: Strain gauge / bridge circuit

Power supply: 115 or 220 VAC (factory set)

Pressure retransmission: 4-20 ma (650Ω max. load)

Maximum housing temperature: . . . 130°F / 55°C

Maximum diaphragm temperature: 750°F / 400°C

Standard diaphragm material: 15-5 PH Stainless Steel with Armoloy coating

below 1000 PSI/70 bar: 17-7 PH SS Ti Ni coated

Standard style 3 thermocouple: . . . Type J (isolated junction)

Alarm: High only, no/nc, 5A 115/240Vac