

**Melt Pressure Indicator****MP100**

- 1/8 DIN case.
- Single 6-digit display.
- Alarm annunciators.



The Texmate MP100 Melt Pressure Indicator is ideally suited to displaying the melt pressure in injection moulding machines. It is a high performance, programmable indicator with intuitive scrolling text menus running on a single 6-digit alphanumeric display.

**Features**

- **FASTCAL** shunt calibration.
- **Scrolling text setup menus.**
- **Sensor diagnostics.**
- **Calculates gain and offset of sensor.**
- **Standard 4-20 mA analog output.**
- **Decimal point position setting.**
- **Auto-sensing high voltage 85-265 V AC / 95-370 V DC power supply.**
- **Built-in strain gage +8 V excitation with 2 mV/V or 3 mV/V wire bridge sensitivity setting (3 mV/V default).**
- **Automatic analog output scaling from pressure sensor.**

**Options**

- **Serial output – ASCII or Modbus.**
- **0-20 mA or 0-10 V DC analog output.**
- **Optional auto-sensing low voltage 18-48 V AC/10-72 V DC power supply.**
- **Data logging of up to 4000 samples with real-time clock.**
- **Up to four relays with multiple relay combination options.**

Pressure and temperature are the two most important measurable process variables in the injection moulding industry.

With the MP100 and MPT200, Texmate provide a pair of indicators that precisely measure and display one or both of these variables.

**Melt Pressure & Temperature Indicator****MPT200**

- 1/8 DIN case.
- Two independent 6-digit displays.
- Alarm annunciators.



The Texmate MPT200 Melt Pressure & Temperature Indicator is ideally suited to displaying both the melt pressure and temperature in injection moulding machines. It is a high performance, programmable indicator with intuitive scrolling text menus running on two independent 6-digit alphanumeric displays for easy calibration and setup of input parameters, and displaying both process variables.

**Features**

- **FASTCAL** one-button shunt calibration.
- **Scrolling text setup menus.**
- **Sensor diagnostics.**
- **Calculates gain and offset of sensor.**
- **Decimal point position setting.**
- **Selectable units for temperature.**
- **Dual independent 6-digit alphanumeric displays.**
- **Auto-sensing high voltage 85-265 V AC / 95-370 V DC power supply.**
- **Factory calibrated for J type thermocouple input.**
- **Built-in strain gage +8 V excitation with 2 mV/V or 3 mV/V wire bridge sensitivity setting (3 mV/V default).**
- **4-20 mA analog output.**
- **Automatic analog output scaling from pressure sensor.**

**Options**

- **Serial output – ASCII or Modbus.**
- **0-20 mA or 0-10 V DC analog output.**
- **Dual 0-10 V DC analog output.**
- **Optional auto-sensing low voltage 18-48 V AC/10-72 V DC power supply.**
- **Data logging of up to 4000 samples with real-time clock.**
- **Up to four relays with multiple relay combination options.**
- **K type thermocouple input calibration on request.**

## SPECIFICATIONS

**Digital Display:** 14-segment alphanumeric, 0.56" (14.2 mm) LEDs.  
**Display Color:** Red (standard). Green or Super-bright Red (optional).  
**Display Range:** -199999 to 999999.  
**Display Update Rate:** 3, 10, or 100 times per second.  
**Display Dimming:** 4 brightness levels. Front panel selectable.  
**Scrolling Display Text Menus:** Full alphanumeric text characters supported.  
**Polarity:** Assumed positive. Displays – negative.  
**Annunciators:** 6 red LEDs on front panel; 1 per setpoint, plus 2 spare.  
**Overrange Indication:** **OVER**  
**Underrange Indication:** **UNDER**  
**Front Panel Controls:** F1, F2, PROGRAM, UP, and DOWN buttons.  
**A/D Convertors:** Dual Slope (17-bit).  
**Warm Up Time:** 5 Minutes.  
**Conversion Rate:** 250 milliseconds on temperature and pressure.  
**Frequency Select:** 50 Hz/60 Hz noise rejection, software selectable.  
**Pressure Input:** 4-wire Bridge.

**Relay Output Modules:** Plug into carrier board from rear:

- Four Relay Module:** Available in six combinations from one relay up to a total of two 10 A Form C Relays\* and two 5 A Form A Relays\*\*.
- Four Relay Module:** Available with one to four 5 A Form A Relays\*\*.  
\*Form C Relay Specifications: 10 A 240 VAC~1/2 HP, 8 A 24 VDC. Isolation 3000 V. UL and CSA listed.  
\*\*Form A Relay Specifications: 5 A 240 VAC, 4 A 24 VDC. Isolation 3000 V. UL and CSA listed.

### Environmental

**Operating Temperature:** 0 to 50 °C (32 °F to 122 °F).  
**Storage Temperature:** -20 °C to 70 °C (-4 °F to 158 °F).  
**Relative Humidity:** 95% (non-condensing) at 40 °C (104 °F).

### Mechanical

**Case Dimensions:** 1/8 DIN, 96x48 mm (3.78" x 1.89")  
**Case Material:** 94V-0 UL rated self-extinguishing polycarbonate.  
**Weight:** 11.5 oz (0.79 lbs), 14 oz (0.96 lbs) when packed.

### Approvals

**CE:** As per EN-61000-3/4/6 and EN-61010-1.

### Pressure:

**Excitation:** 8 V DC, 100 mA maximum, four x 350 Ω bridges.  
**Input Range:** 2 mV/V or 3 mV/V, header selectable.  
**Input Sensitivity:** 0.5 μV/count maximum.  
**Zero Drift:** ± 0.5 μV/°C maximum.  
**Span Drift:** ± 50 ppm/°C of full scale typical.

### Temperature:

**Resolution:** 0.1° F or 0.1° C software selectable.  
**Linearity Error:** 1° C maximum.  
**CJC Error:** 0.1° C/°C maximum 0-50° C.  
**Zero Drift:** ± 0.01° C/°C maximum.  
**Span Drift:** ± 50 ppm/°C of full scale typical.



### U.S. Corporate Headquarters:

995 Park Center Drive, Vista, California, U.S.A. 92083-8397

• Phone: ..... (760) 598-9899  
• Fax: ..... (760) 598-9828 • Email: ..... sales@texmate.com

### New Zealand office:

1st Floor, 6/22 Te Pai Place, Henderson, Auckland.  
PO Box 245 Westpark Village, West harbour, Auckland

• Phone: ..... +64-9-835 1550 **Australia Freecall: 1800 810 820**  
• Fax: ..... +64-9-835 1250 • Email: ..... dcurry@texmate.co.nz

## Melt Pressure & Temperature Indicator

### Configuration Menu Logic Tree

Operational Display



#### F2 [ ] SELECT FREQUENCY 50/60 HZ

Pressing [F2] enters the Input/Output Parameters Setup Mode and, after selecting the noise rejection frequency, allows you to set up the following input / output parameters:

[P] [ ] SELECT DECIMAL POINT PLACING FOR PRESSURE

[P] [ ] SET FULL SCALE PRESSURE OF SENSOR

[P] [ ] SELECT TEMPERATURE UNITS [DEG F]

[P] [ ] ENTER MINIMUM TEMPERATURE FOR ANALOG OUTPUT

[P] [ ] ENTER MAXIMUM TEMPERATURE FOR ANALOG OUTPUT

Note, analog output temperature range settings only display if dual analog output module ADV is installed.

#### F1 [ ] CALIBRATING THE METER [ ] METER CALIBRATED

Pressing [F1] performs a FASTCAL calibration of the pressure sensor. With no pressure applied to the sensor head, FASTCAL calibrates the meter to 80% of the full scale range using the indicator's internal calibration resistor. Pressure settings for analog output 1 are automatically set during FASTCAL. The indicator automatically returns to the operational display after FASTCAL. FASTCAL should only be performed after the pressure sensor's full scale range setting has been set using [F2].

#### [P] [ ] [HI1\_PR] [0.0000] Setpoints Activation Setup

Pressing [P] [ ] enters the setpoints activation setup mode and allows you to set the activation values for all six setpoints individually.

#### [P] [ ] [BRI] [2] Brightness Setting

Pressing [P] [ ] enters the display brightness mode and allows you to set the brightness of the display to one of four settings: 0, 1, 2, 3 (Default 2).

Pressing [P] then takes you into the controller's calibration mode. This allows you to calibrate analog output 1 and analog output 2.

#### [ ] [3.751] [MV/V] Sensor Gain View Mode

Pressing [ ] displays the pressure sensor gain reading.

#### [ ] [0.0%] [OFFSET] Sensor Offset View Mode

Pressing [ ] displays the pressure sensor offset reading.

The resident Tiger 320 operating system also provides a range of measurement and control functions and options giving you a reliable and precise industrial quality solution. These include:

- **Excitation.** The controller provides excitation for up to four 4-wire, 350 Ω load cells.
- **Status Inputs.** Manual zero, tare and reset tare from external status inputs.
- **Relays.** Up to six multi-option 5 and 10 amp relays.
- **Setpoints.** Six programmable setpoints with adjustable activation settings and above or below activation on rising or falling signals.
- **Analog Output.** Fully scalable from 0~4 to 20 mA (or reverse) as standard, or optional single or dual 0 to 10 V DC (or reverse).
- **Serial Communications.** Optional single ASCII or Modbus RS-232 or RS-485, Ethernet (TCP/IP), DeviceNet, direct serial output to printer.
- **Data Logging.** Optional data logging of up to 4000 samples with real-time clock.
- **Power Supplies.**

**Standard high voltage AC / DC power supply** 85-265 V AC / 95-370 V DC.

**Optional low voltage AC / DC power supply** 18-48 V AC / 10-72 V DC.

For product details visit:

**www.texmate.com**