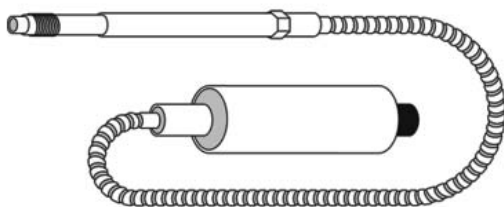


TEX-MP100 Melt pressure controller

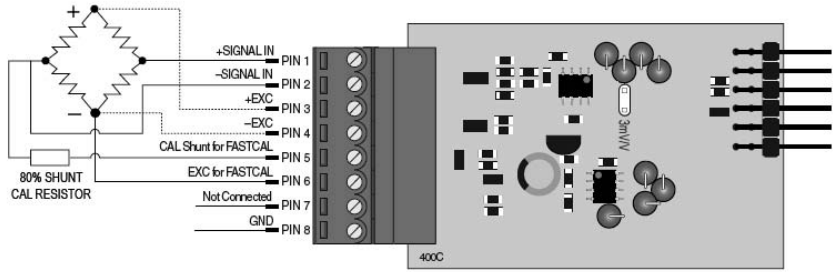


The TEX-MP100 melt pressure indicator and controller is the ideal tool for displaying and controlling melt pressure in injection molding machines. It includes an easy 2-step calibration procedure for sensors with 80% shunt calibration. Relay and analog output options make this controller valuable for stand-alone control or as an interface for PLC applications. Intuitive scrolling text menus guide you step by step through the effortless setup and calibration process, making the TEX-MP100 the world's most user-friendly melt pressure controller.

TEX-MP100 Controller Specifications:

- **Easy setup:** Scrolling text prompts for intuitive, easy setup.
- **Security:** Calibration and set-point functions have independent security code access.
- **Pressure sensor inputs:** Accepts 2-3.5 mV/V with 80% shunt calibration.
- **Excitation:** 8V DC provided by controller.
- **Calibration:** 2 point, zero and FASTCAL (80% span) calibration.
- **Sensor diagnostics:** For mV/V and % offset value. Peak pressure.
- **Resolution:** 16 bit.
- **Sampling rate:** 10Hz.
- **Controller temperature drift :** Typically 50ppm/°C.
- **Analog output:** 16 bit programmable. Selectable 0/4-20mA or 0-10V output.
- **Analog output scaling:** Window programmable over any range within the full scale range of the controller.
- **Relay outputs:** 4 programmable relay outputs with hysteresis and delay on make.

ISO8 Pressure with Shunt Cal Input Module



8V excitation provided by controller.
 Suitable for 2mV/V to 3.5mV/V sensor inputs.

Calibration and Analog Output Setup
















Begin by pressing **[F1]**.
 --- **ENTER CAL PIN NUMBER** and **0** scroll across the display. Use the **[▲]** and **[▼]** buttons to enter your security code number (factory default 1).
 Then press **[P]**.



1.
 - a. --- **FASTCAL CALIBRATION** and **SKIP** scroll across the display. Press **[P]** to skip to **2.** or the **[▲]** button for sensor calibration. *The pressure sensor must be at zero pressure during the calibration procedure.*
 - b. **ENTER** appears on the display. Press **[P]** to enter **FASTCAL** mode.
 - c. --- **PRESS P BUTTON FOR 4 SECONDS TO CALIBRATE** scrolls across the display. Press **[P]** for 4 seconds.
 - d. **ZERO** and **0** toggle on the display. Press **[P]**.
 - e. **SPAN** and **8000** toggle on the display. Using the **[▲]** and **[▼]** buttons, enter 80% of the full scale span of your pressure sensor. Then press **[P]**.

2.
 - a. --- **INPUT SETUP** and **SKIP** scroll across the display. Press **[P]** to skip to **3.** or the **[▲]** button to **ENTER** input setup. Then press **[P]**.
 - b. --- **MAINS FREQUENCY** and scrolls across the display. Using the **[▲]** and **[▼]** buttons, select your mains frequency: either **50Hz** or **60Hz**. Then press **[P]**.
 - c. --- **DECIMAL POINT POSITION** scrolls across the display. Using the **[▲]** and **[▼]** buttons, select a decimal point position: either **0.1234**, **0.123**, **0.12**, **0.1** or **NO DP**. Then press **[P]**.
 - d. --- **FULL SCALE PRESSURE OF SENSOR** and a number scroll across the display. Using the **[▲]** and **[▼]** buttons, enter the full scale range of your pressure sensor.


Note: Refer to Appendix B (Sensor Diagnostics) to enter mV/V and % sensor offset details.




3.
 - a. --- **ANALOG OUTPUT SETUP** and **SKIP** scroll across the display. Press **[P]** to skip to **4.** or the **[▲]** button to **ENTER** analog output setup.
Before continuing, set the analog output board header in the correct position, (either current or voltage), and connect a mA or volt meter (depending on the output selected) across the analog output connector.
Then press **[P]**.
 - b. --- **CAL LOW ANALOG OUTPUT** and a calibration number scroll across the display. Using the **[▲]** and **[▼]** buttons, calibrate your low analog output as required. Then press **[P]**.



- c. --- **CAL HIGH ANALOG OUTPUT** and a calibration number scroll across the display. Using the  and  buttons, calibrate your high analog output as required. Then press .
- d. --- **LOW SCALE VALUE FOR ANALOG OUTPUT** scrolls across the display. *This is the display value where the cal low output will be (as calibrated above in 5.b.).* Using the  and  buttons, select a cal low position. Then press .
- e. --- **HIGH SCALE VALUE FOR ANALOG OUTPUT** scrolls across the display. *This is the display value where the cal high output will be (as calibrated above in 5.c.).* Using the  and  buttons, select a cal high position. Then press .
6. a. --- **EDIT PIN NUMBER** and **SKIP** scroll across the display. Press  to skip and return to the operational display, or the  button to **ENTER**. Then press .
- b. --- **ENTER NEW CAL PIN NUMBER** and your current pin number (factory default 1) scroll across the display. Using the  and  buttons, enter your new calibration entry PIN number. Do not forget this number! Then press  to **EXIT** and return to the operational display.

IF YOU LOSE YOUR PIN NUMBER: Press ,  and  at the same time. If you do this correctly, a factory identification text will scroll across the display, followed by: **FLOW TOTALISER PIN NUMBER RESET TO 1.** This will reset the PIN numbers for both calibration and set-point entry to their factory default of 1.

Set-point Setup

Begin by pressing .

--- **ENTER CAL PIN NUMBER** and **O** scroll across the display. Use the  or  buttons to enter your security code number (factory default 1). Then press .

1. a. --- **EDIT SETPOINT** and **SKIP** scroll across the display. Press  to skip to **2.** or use the  button to select a set-point to edit: either **SP_1**, **SP_2**, **SP_3** or **SP_4**. Then

- press **P**.
- b. --- **SETPOINT VALUE** and the last set-point value entered scroll across the display. Using the **▲** and **▼** buttons, adjust the selected set-point value. Then press **P**.
 - c. --- **SP ACTIVATION** scrolls across the display. Using the **▲** and **▼** buttons, select the relay activation to operate **ABOVE** or **BELOW** the set-point value. Then press **P**.
 - d. --- **HYSTERESIS VALUE** and the current hysteresis value scroll across the display. Using the **▲** and **▼** buttons, select the hysteresis value if required. Then press **P**.
 - e. --- **MAKE DELAY** and the last selected make delay value scroll across the display. Using the **▲** and **▼** buttons, select the relay delay on make value (in tenths of a second) if required. Then press **P**.
 - f. --- **EDIT SETPOINT** and **SKIP** scroll across the display. To edit another set-point, use the **▲** and **▼** buttons to select the new set-point to edit. Then press **P** and proceed from **1.b.**. If you do not wish to edit another set-point, press **P** to proceed to step **2.**
2.
 - a. --- **EDIT SP PIN NUMBER?** and **SKIP** scroll across the display. Press **P** to skip and return to the operational display, or the **▲** button to **ENTER**. Then press **P**.
 - b. Your current pin number (factory default 1) will appear on the display. Using the **▲** and **▼** buttons, enter your new set-point entry PIN number. Do not forget this number! Press **P** to return to the operational display.

Appendix

Appendix A Fastcal calibration

Fastcal calibration is an easy 2-step calibration procedure for zero + auto 80% span, for melt pressure sensors with the 80% shunt calibration option. Calibration must be done with zero pressure on the sensor and the sensor should be near operating temperature during calibration.



Appendix B Peak pressure



Pressing the **▲** button from the operational display will show the peak pressure. (Press **P** to return to the operational display).

To reset the peak pressure value, connect the hold pin to the common pin at the rear of the meter by means of an external switch.

Appendix C Sensor diagnostics

After calibration, view the sensor diagnostics for future reference for your sensor condition.

Pressing the  button twice will display the mV/V output of your sensor. (Press  to return to the operational display).

Pressing the  button will display % zero offset of the sensor full scale. (Press  to return to the operational display).

If the readings are outside the normal parameters for sensor mV/V or you have a large % zero offset value, check your sensor condition for possible sensor failure.

Appendix D Analog output setup

CAL LOW ANALOG OUTPUT: This is the low analog output V or mA calibration. The analog output low can be calibrated from 0V up to 10V or from 0mA up to 20mA.

CAL HIGH ANALOG OUTPUT: This is the high analog output V or mA calibration. The analog output high can be calibrated from 10V down to 0V or from 20mA down to 0mA.

LOW SCALE VALUE FOR ANALOG OUTPUT: This is the display value which corresponds to the 'cal low analog output' as calibrated above.

HIGH SCALE VALUE FOR ANALOG OUTPUT: This is the display value which corresponds to the 'cal high analog output' as calibrated above.

Appendix E Edit set-point

SETPOINT VALUE: This is the display value at which the selected set-point will activate.

SETPOINT ACTIVATION: Select **ABOVE** for the relay to turn on above the set-point value and off below it. Select **BELOW** for the relay to turn on below the set-point and off above it.

HYSTERESIS: The hysteresis value is the separation value from set-point value for set-point reactivation. If **ABOVE** is selected for set-point activation, the hysteresis value determines how far the input must fall below the set-point value to deactivate the set-point. If **BELOW** is selected for set-point activation, the hysteresis value determines how far the input must rise above the set-point value to deactivate the set-point.

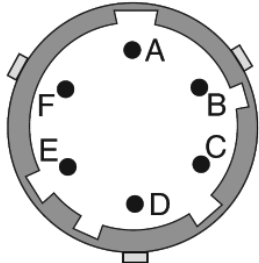
MAKE DELAY: This is the time delay between set-point activation and when the relay turns on. The time is 1/10th second resolution.

Appendix F Display brightness

To adjust the brightness of the display, press the **P** and **▲** buttons together. The display flashes **BRI** and the current brightness setting. Use the **▲** and **▼** down buttons to set the required brightness. Then press **P**.

Connections Gefran GF-M3 to TEX-MP100

**6-pin connector
VPT07RA10-6PT2
(FT02A-10-6P)**



GF-M3 *	TEXIS08
A=SIG+	Pin 1
B=SIG-	Pin 2
C=EXC+	Pin 3
D=EXC-	Pin 4
E=CAL-	Pin 5
F=CAL+	Pin 6
	Pin 7 N/C
	Pin 8 GND

* This is the connector of the GF-M3.

SD Case Dimensions and Panel Cutouts

The clear lockable cover is designed to be dust and water proof to NEMA-4X, IP65 standards. It has a cam hinge and an O-ring which forms a seal between the base and the panel. A key-lock employs a cam locking device to force the spigot into the recess, ensuring seal integrity, and a safety catch keeps the cover closed when the key is removed.

