

# M40-T Temperature panel meter

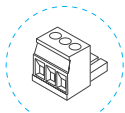
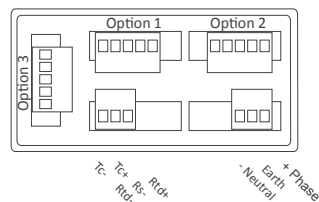
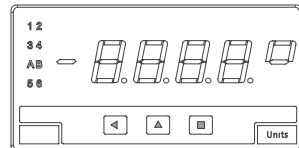
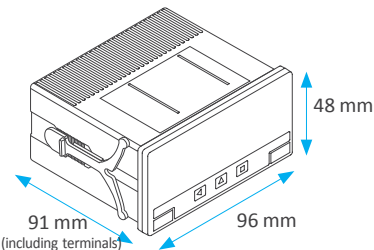
Temperature panel meter for Pt100 / RTD and thermocouple probes J, K, T, E, S, R, N, C, L and X. Reading with 4 digits at 14 mm digit height. Standard 96 x 48 mm (1/8 DIN) size, for panel mount. Reading in °C or °F. Configurable cold junction compensation. Configurable manual offset. Universal high and low AC and DC power options. Optional output modules with relay, transistor, SSR control, analog outputs and MODBUS RTU communication.



## Technical specifications

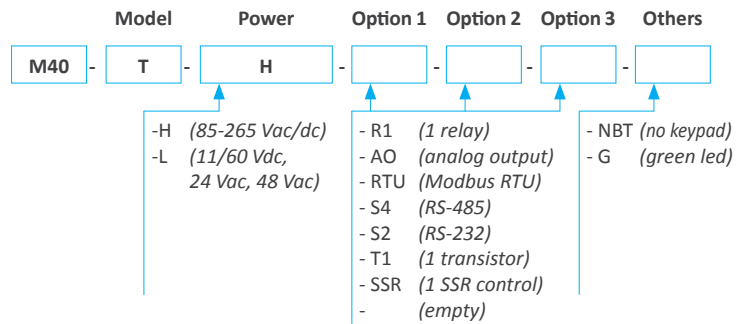
Digits	4
Reading	9999 / -9999
Decimal point	configurable
Led color	red or green
Digit height	14 mm
Signals	pt100 / RTD with 2 and 3 wires thermocouples J, K, T, E, S, R, N, C, L and X
Accuracy	<0.2° for pt100 / RTD <2° or <4° for thermocouples
Offset drift	0.05 °/° for pt100 / RTD 0.05 °/° or 0.2°/° for thermocouples
Span drift*	0.10 °/° for pt100 / RTD 0.02 °/° or 0.2°/° for thermocouples <i>*span drift value includes offset drift</i>
Refresh	3 refresh / second
Power 'H'	85 to 265 Vac/dc (isolated 2500 Veff)
Power 'L'	11 to 60 Vdc and 24/48 Vac (isolated 1500 Veff)
Retransmission and control options	relays, analog output, serial communications, ...
Consumption	<1.5 W (meter only) <4.0 W (meter with options)
Front protection	IP65
Connections	plug-in screw terminal
Weight	<150 grams
Mounting	panel
Front size	96 x 48 mm
Panel cut-out	92 x 44 mm
Deep	91 mm (including terminals)
Operating temperature	0 to 50 °C

## Dimensions and connections



Detail of the plug-in screw terminal. The instrument is provided with all male and female terminals needed.

## Order reference

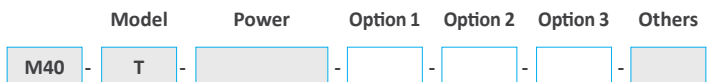


\* Relays R1 with contacts (NC / NO / Common), max. 250 Vac 8 A  
 \* Special options with 4 and 6 relays.  
 \* Analog outputs and serial outputs, isolated.

## Functions included

- 'Fast access' menu . . . . . a single press on the front keypad gives access to alarm setpoint modification, special functions, memory of maximum and minimum reading, ...
- 'On power-up' function . . . . . protects remote systems by delaying the output and control signals at cold start-up.
- Function '° on display' . . . . . enables the '°' symbol at the right of the display.
- Function 'Manual offset' . . . . . allows to add a number of counts to the display reading.
- Function 'Cold junction' . . . . . allows to enable or disable the automatic compensation of the thermocouple cold junction.
- Function 'Sensor break' . . . . . allows to define the behavior of the display in case of sensor break.
- Alarms . . . . . with one or two setpoints, independent activation and deactivation delays, hysteresis, optional manual deactivation of the relay.
- Inverted relay . . . . . for security applications, relay can be configured with inverted function.
- Display filters . . . . . configurable reading in predefined steps.
- Brightness . . . . . 5 levels of brightness intensity.
- Password . . . . . blocks access to configuration menu.

## Output and control options



	Function	Installable options	Isolated
R1	1 relay output	3	yes
T1	1 transistor output	3	yes
SSR	1 control for SSR relay	3	yes
AO	1 analog output	3	yes
RTU	1 Modbus RTU port	3	yes
S4	1 RS-485 port	3	yes
S2	1 RS-232 port	3	yes
R2, R4, R6	special modules up to 6 relay outputs. Check for information.		

## Other options

### Option NBT



Without front keypad

### Option G



Green leds

## Accessories

### WME



Wall mount

### DRA



DIN rail mount

### THM



Benchtop housing

### KIP



Protector IP65

### KA96



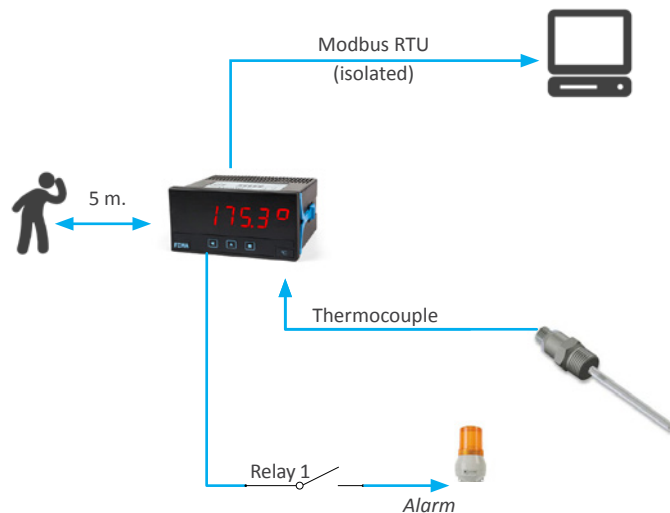
Adapter 96 x 96 mm

## Additional documentation

- M40-T user's manual: [www.fema.es/docs/2185\\_M40-T\\_manual\\_en.pdf](http://www.fema.es/docs/2185_M40-T_manual_en.pdf)
- M40-T datasheet: [www.fema.es/docs/3176\\_M40-T\\_datasheet\\_en.pdf](http://www.fema.es/docs/3176_M40-T_datasheet_en.pdf)
- Options user's manual: [www.fema.es/docs/4254\\_SERIES\\_M-K-S\\_OPTIONS\\_manual\\_en.pdf](http://www.fema.es/docs/4254_SERIES_M-K-S_OPTIONS_manual_en.pdf)

## Application example

Measure of temperature from a thermocouple probe, with relay output to control a buzzer in case of exceeding temperature. Retransmission of the reading value to a remote SCADA of PLC unit through an isolated MODBUS RTU bus.



## Reading distances



## Other Temperature meters

### Series M

4, 5 and 6 digits  
digit height ..... 14 mm  
color ..... red, green  
vision ..... 5 meters  
size ..... 96 x 48 mm

DIGITAL PANEL METER  
**SERIES M**  
Full Signal Ranges Available



### Series K

Further view  
digit height ..... 20 mm  
color ..... red  
vision ..... 8 meters  
size ..... 96 x 48 mm

DIGITAL PANEL METERS  
**SERIES K**  
20 mm Digit Size



### Series S

Compact size  
digit height ..... 14 mm  
color ..... red, green  
vision ..... 5 meters  
size ..... 72 x 36 mm

DIGITAL PANEL METERS  
**SERIES S**  
Compact Size 72x36 mm

