

M40-R for Ratiometric signals

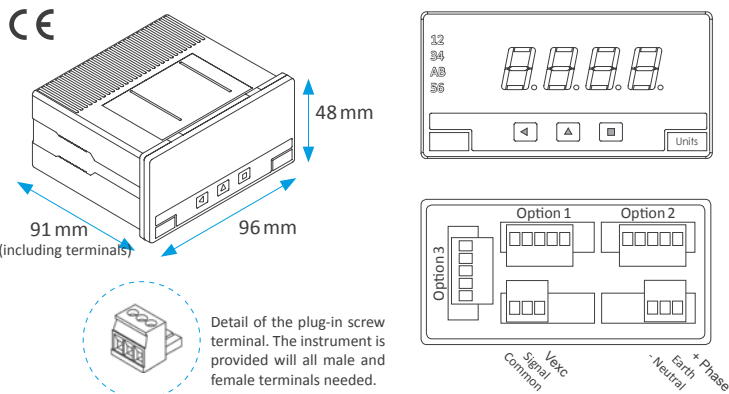
Panel meter for ratiometric signals and potentiometers. Reading at 4 digits with 14 mm digit height. Standard 96x48 mm (1/8 DIN) size, for panel mount. Provides excitation voltage to power the transducer. Universal high and low AC and DC power options. Optional retransmission and control modules with relays, analog outputs and serial outputs.



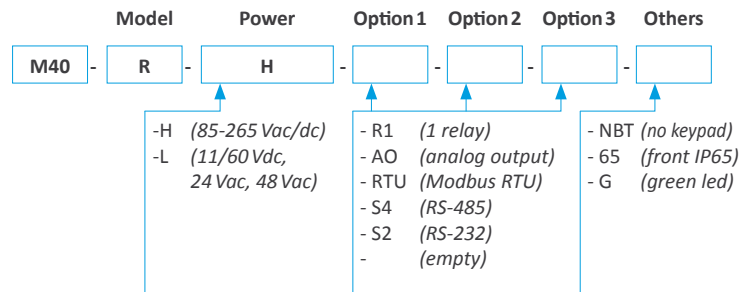
Technical specifications

Digits	4
Reading	9999 / -9999
Decimal point	configurable
Led color	red or green
Digit height	14 mm
Signal ranges	potentiometers from 200 Ohms to 5 MOhms ratiometric signals
Excitation voltage	+5 Vdc (max. 35 mA)
Accuracy	0.15% F.S. ±1 digit
Offset drift	10 ppm/°C
Span drift*	35 ppm/°C *span drift value includes offset drift
Readings	5 readings / second
Refresh	5 refresh / second
Response time	<200 mSec. (0 % to 99 % signal)
Input impedance	932 KOhm
Power 'H'	85 to 265 Vac/dc (isolated 2500 Veff)
Power 'L'	11 to 60 Vdc y 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)
Protection	IP54 standard (optional 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



Order reference



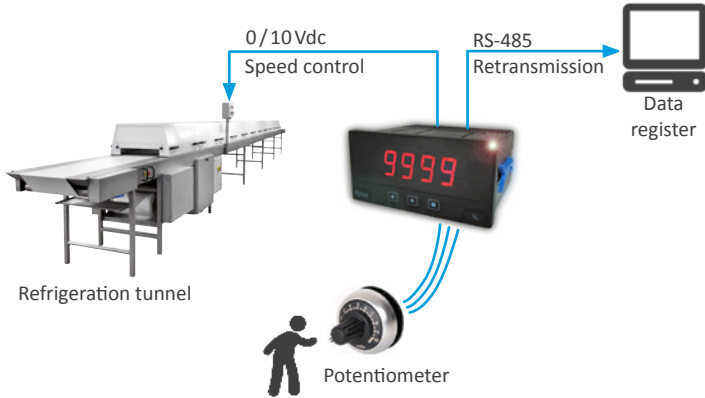
* Relays R1 with contacts (NC / NO / Common), max. 250 Vac 8 A
 * Special options with 4 and 6 relays.
 * Analog outputs and serial outputs, isolated.

Functions included

- Segment linearization. up to 20 segments for linearization of signals from irregular shaped volumes, tanker ships, ...
- 'Fast access' menu a single press on the front keypad gives access to alarm setpoint modification, special functions, memory of maximum and minimum reading, ...
- 'Field correction' function . . . for fast and easy offset corrections when installing on the field.
- 'On power-up' function protects remote systems by delaying the output and control signals at cold start-up.
- 'Measure' function for troubleshooting purposes, it displays the actual signal at input terminals, directly in Vdc, without scaling.
- 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. recursive filters for noisy signals, optional reading in predefined steps, configurable fixed digits, ...
- Brightness 5 levels of brightness intensity.
- Password blocks access to configuration menu.

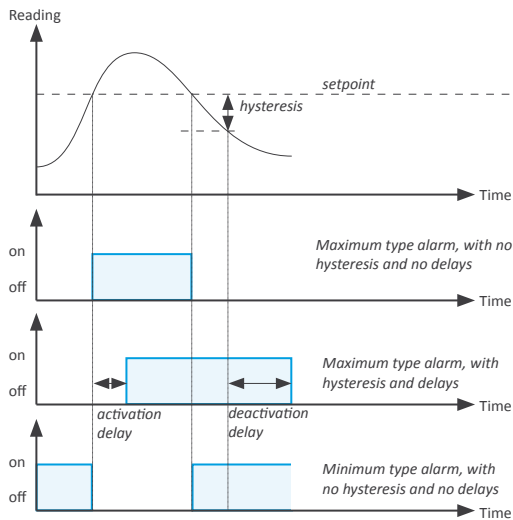
Application example

Manual control of the transit time through a food refrigeration tunnel. The operator controls the speed by manual adjustment of a potentiometer. The M40-R meter can be scaled to read the motor speed in RPM or the transit time in minutes. The M40-R meter controls the motor speed controller with a 0/10Vdc signal. Additionally, a serial retransmission module can be added for information at the control center or quality records of the freezing times applied.



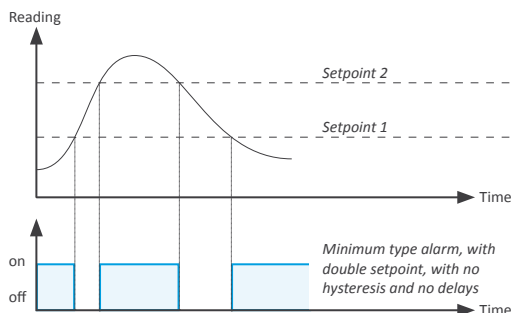
Alarms example

Alarms with one setpoint, configurable deactivation hysteresis, independent activation and deactivation delays.



Double setpoint alarms

Alarms with double setpoint, configurable as maximum or minimum, allow to create activation or deactivation windows..



Other options and accessories

Options for M Series of instruments and mounting accessories for 96x48 mm housings of M Series.



Without front keypad



DIN rail mount adapter



Green leds



96 x96 mm adapter



IP65 front sealing



Benchtop housing

Web documentation

M40-R user's manual
 M40-R datasheet

www.fema.es/docs/2701_M40-R_manual_i.pdf
www.fema.es/docs/3182_M40-R_datasheet_i.pdf

Reading distances

Reading distances and series of product for panel meters with digit height starting at 10 mm and up to 100 mm.

Digit height (mm)	10	14	20	60	100
Reading distance	4 m	5 m	8 m	20 m	40 m
Series	L35	Series M	Series K	BDF-24	BDF-44
		Series S			