

M40-R for Ratiometric signals

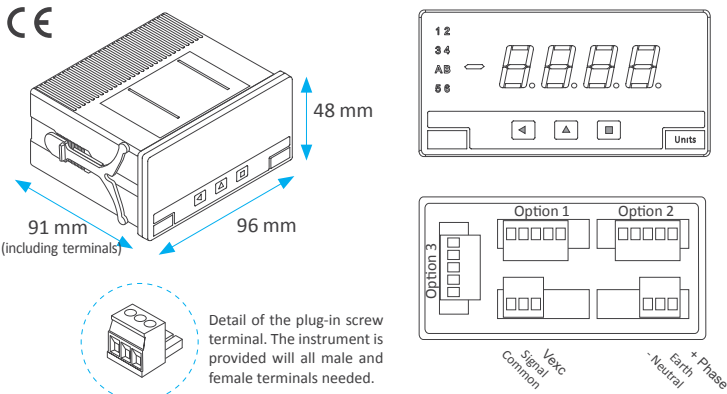
Panel meter for ratiometric signals and potentiometers. Reading at 4 digits with 14 mm digit height. Standard 96 x 48 mm (1/8 DIN) size, for panel mount. Provides excitation voltage to power the transducer. Universal high and low AC and DC power options. Optional output modules with relay, transistor, SSR control, analog outputs and MODBUS RTU communication.



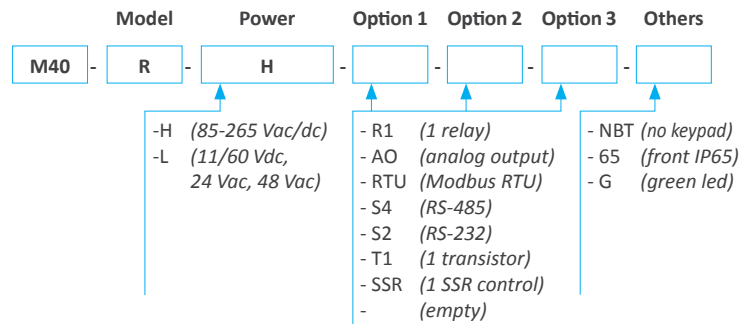
Technical specifications

Digits	4
Reading	9999 / -9999
Decimal point	configurable
Led color	red or green
Digit height	14 mm
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 <i>*span drift value includes offset drift</i>
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 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



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.

Output and control options

Model	Power	Option 1	Option 2	Option 3	Others
M40	R				
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



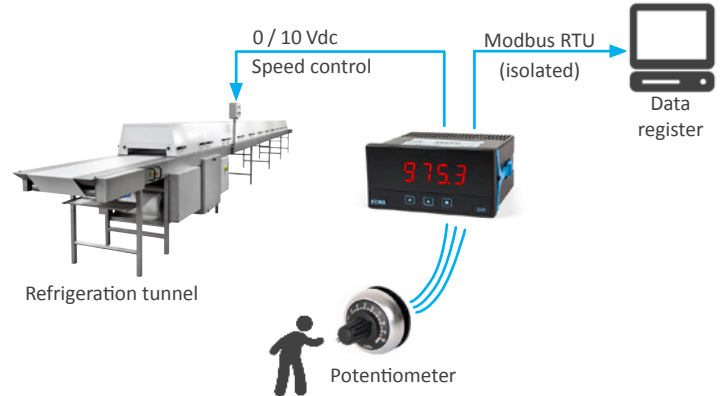
Adapter 96 x 96 mm

Additional documentation

M40-R user's manual	www.fema.es/docs/2701_M40-R_manual_en.pdf
M40-R datasheet	www.fema.es/docs/3182_M40-R_datasheet_en.pdf
Options user's manual	www.fema.es/docs/4254_SERIES_M-K-S_OPTIONS_manual_en.pdf

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 / 10 Vdc signal. Additionally, a serial retransmission module can be added for information at the control center or quality records of the freezing times applied.



Reading distances

Digit height (mm)	10	14	20	60	100
Reading distance	4 m	5 m	8 m	20 m	40 m
Series	L	M,S	K	B2x	B4x

Other Ratiometric 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

