

M40-D DC Voltmeter and Ammeter

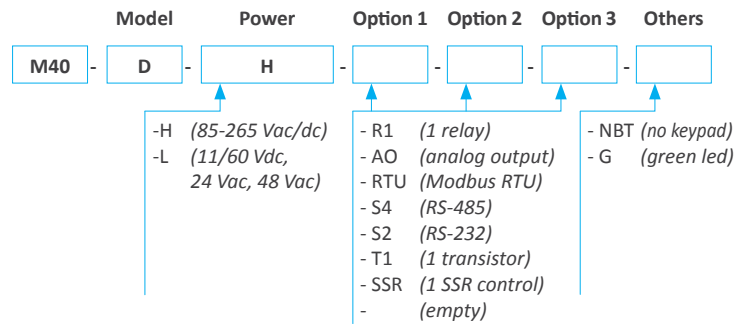
Panel mount DC Voltmeter and DC Ammeter with multiple input scales up to 600 Vdc and up to 5 Adc. Reading with 4 digits and 14 mm digit height. Standard 96 x 48 mm (1/8 DIN) size, for panel mount. Universal high and low AC and DC power options. Optional output modules with relay, transistor, SSR control, 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	±600 Vdc, ±100 Vdc, ±10 Vdc, ±1 Vdc, ±0.1 Vdc ±5 Adc, ±1 Adc
Reading	scalable
Accuracy	0.10 % FS in Vdc 0.15 % FS in Adc
Offset drift	50 ppm/°C
Span drift*	100 ppm/°C *span drift value includes offset drift
Readings	15 readings / second
Response time to the step	<210 mSec. (0 % to 99 % signal) *<75 mSec. for changes below 10 %
Input impedance	depends on range (see User's Manual)
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, Modbus RTU, ...
Consumption	<1.5 W (meter only) <4.0 W (meter with options)
Frot 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

Order reference

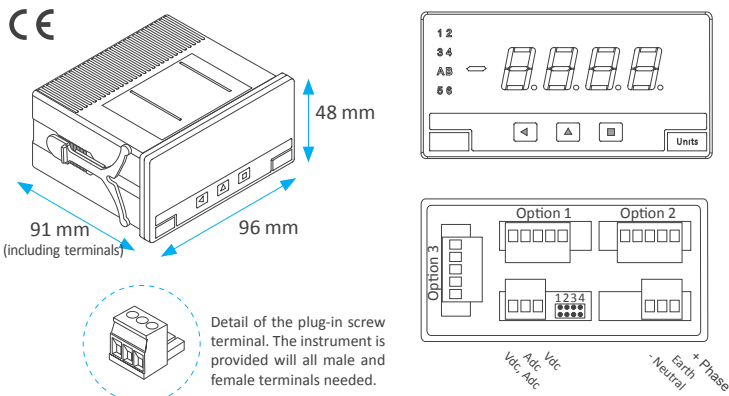


* Relays R1 with contacts (NC / NO / Common), max. 250 Vac 8 A
* Special options with 4 and 6 relays.
* Analog outputs and serial outputs, isolated.

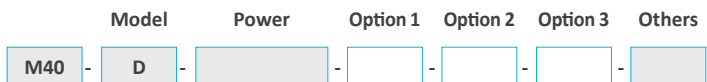
Functions included

- 'Fast access' menu a single press on the front keypad gives access to alarm setpoint modification, special functions, memory of maximum and minimum reading, ...
- '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.
- 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.
- 'Peak & hold' function for test-break applications.
- 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.

Dimensions and connections



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



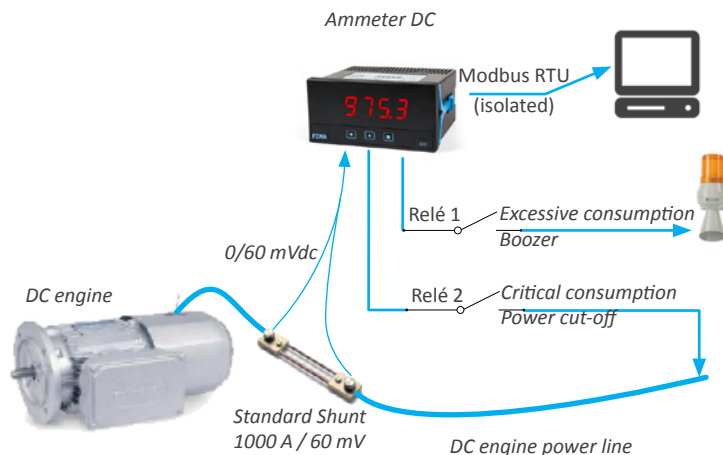
Adapter 96 x 96 mm

Additional documentation

- M40-D user's manual www.fema.es/docs/2149_M40-D_manual_en.pdf
- M40-D datasheet www.fema.es/docs/3180_M40-D_datasheet_en.pdf
- Options user's manual www.fema.es/docs/4254_SERIES_M-K-S_OPTIONS_manual_en.pdf

Application example

Measure of current consumption on an DC engine measured through a standard 1000 Adc / 60 mVdc shunt. A first relay output signal the excessive consumption for operator intervention. A second relay output controls the power cut-off in case of critical consumption. Retransmission of the reading value to a remote SCADA of PLC unit through an isolated Modbus RTU bus.



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 DC Voltmeters and Ammeters

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

