# M40-A AC Voltmeter and Ammeter

Panel mount AC Voltmeter and AC Ammeter with multiple input scales up to 600 Vac and up to 5 Aac. Reading with 4 digits and 14 mm digit height. Standard 96 x 48 mm (1/8 DIN) size, for panel mount. True RMS measure. 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

Reading 9999 / -9999 Decimal point configurable Led color red or green Digit height

600 Vac, 100 Vac, 10 Vac, 1 Vac, 0.1 Vac Signal ranges

5 Aac. 1 Aac Type of measure True RMS

'AC' or 'AC+DC' (by internal jumper selection) Coupling Accepted connections phase - neutral and phase - phase

Oversignal up to +20 % of the scale 1.3 KHz for measures in Vac Bandwith 2.0 KHz for measures in Aac

Crest factor 3 for nominal accuracy 5 for accuracy 2.5 % F.S.

Accuracy 0.15 % to 0.25 % F.S. depends on the range Offset drift 75 ppm/°C to 150 ppm/°C depends on the range Span drift\* 100 ppm/°C to 200 ppm/°C depends on the range

\*span drift value includes offset drift

Readings 15 readings / second

Response time to the step <300 mSec. (0 % to 99 % signal) depends on range (see User's Manual) Input impedance 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, ...

<1.5 W (meter only) Consumption <4.0 W (meter with options)

Front protection

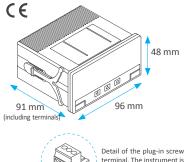
Connections plug-in screw terminal

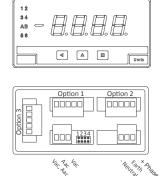
Weight <150 grams Mounting panel Front size 96 x 48 mm Panel cut-out 92 x 44 mm

91 mm (including terminals)

Operating temperature 0 to 50 °C

## **Dimensions and connections**





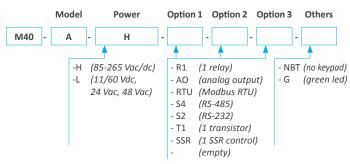








#### Order reference



- \* 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**

'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

DC component filter . . . . . . configurable filter to block the DC component of the signal.

'On power-up' function . . . . protects remote systems by delaying the output and control signals at cold start-up.

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.



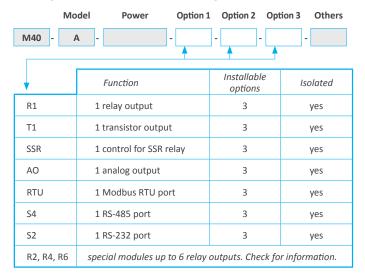








## **Output and control options**



### Other options





#### **Accessories**





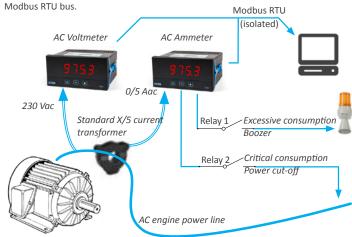






## **Application example**

Measure of current consumption on an AC engine measured through a standard X/5 current transformer, and measure of the 230 Vac voltage level of the power line. 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



## **Reading distances**

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

#### **Other AC Voltmeters and Ammeters**















5 YEARS Extended Warranty



IT and Instrumentation for industry

