

K40-A AC Voltmeter and Ammeter

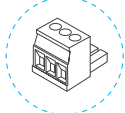
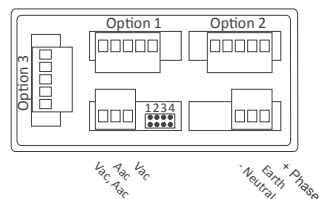
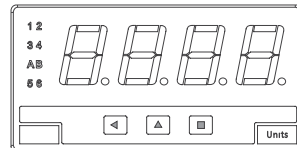
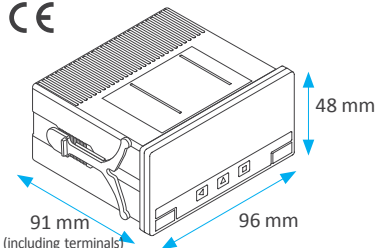
Digital AC voltmeter and AC ammeter, with 20 mm digit height, in 96 x 48 mm (1/8 DIN) standard size, for panel mount. Accepts multiple input scales up to 600 Vac and up to 5 Aac. True RMS measure. Universal high and low AC and DC power options. Optional output modules with relay, transistor, SSR control, analog outputs and MODBUS RTU communication.



Technical specifications

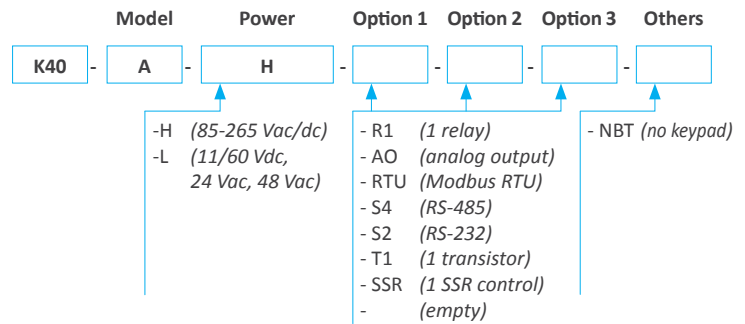
Digits	4
Reading	9999 / -1999
Decimal point	configurable
Led color	red
Digit height	20 mm
Signal ranges	600 Vac, 100 Vac, 10 Vac, 1 Vac, 0.1 Vac 5 Aac, 1 Aac
Type of measure	True RMS
Coupling	'AC' or 'AC+DC' (by internal jumper selection)
Accepted connections	phase - neutral and phase - phase
Oversignal	up to +20 % of the scale
Bandwidth	1.3 KHz for measures in Vac 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)
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)
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, ...
- 'Field correction' function for fast and easy offset corrections when installing on the field.
- 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.
- 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.

45 YEARS

ISO 9001
Certified Quality

CE
EN-61010-1
Security

CE
EN-61326-1
Electromagnetic C.

5 YEARS
Extended Warranty

Output and control options

Model	Power	Option 1	Option 2	Option 3	Others
K40	A				
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

WME



Wall mount

DRA



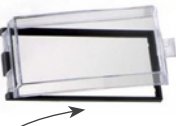
DIN rail mount

THM



Benchtop housing

KIP



Protector IP65

KA96



Adapter 96 x 96 mm

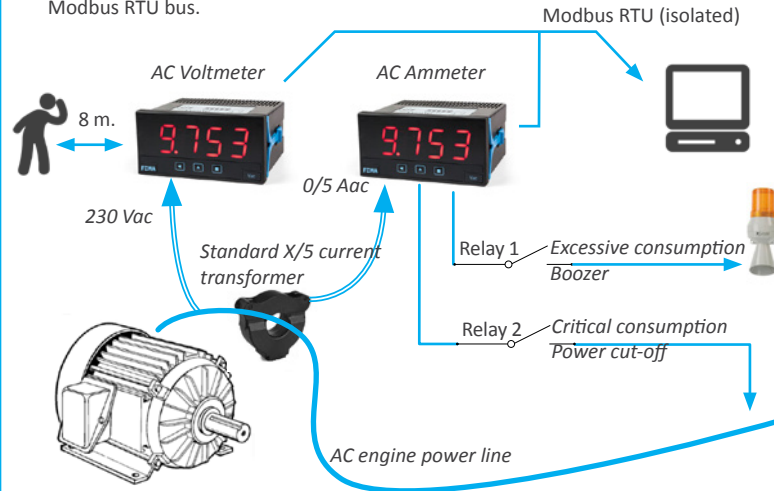
Additional documentation

K40-A user's manual
K40-A datasheet
Options user's manual

www.fema.es/docs/3632_K40-A_manual_en.pdf
www.fema.es/docs/3630_K40-A_datasheet_en.pdf
www.fema.es/docs/4254_SERIES_M-K-S_OPTIONS_manual_en.pdf

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. Re-transmission of the reading value to a remote SCADA or PLC unit through an isolated Modbus RTU bus.



Reading distances



Other Ammeters and Voltmeters AC

Series M

4, 5 y 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

