

# S40-D DC Voltmeter and Ammeter

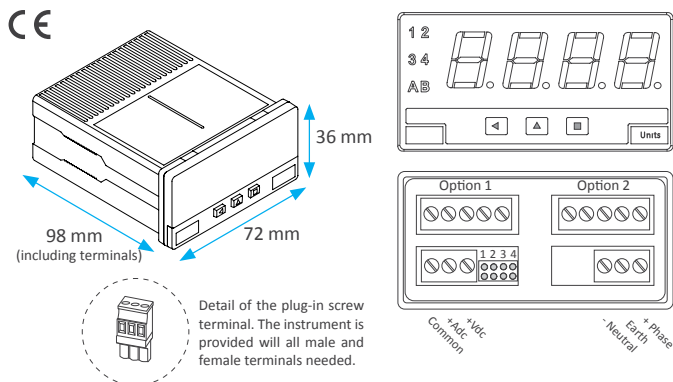
Panel meter with compact 72 x 36 mm size, and 14 mm digit height, for panel mount. DC Voltmeter and DC Ammeter with multiple input scales up to 600 Vdc and up to 5 Adc. Universal high and low AC and DC power options. Optional output modules with relay, transistor, SSR control, analog outputs and MODBUS RTU communication.



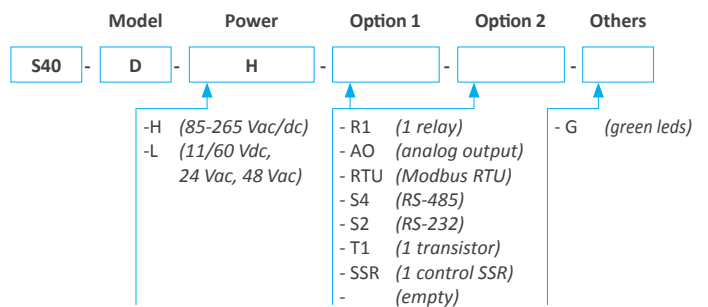
## Technical specifications

|                                    |  |
|------------------------------------|--|
| Digits                             | 4  |
| Reading                            | 9999 / -1999   |
| Decimal point                      | configurable   |
| Led color                          | red or green   |
| Digit height                       | 14 mm  |
| Signal ranges                      | ±600 Vdc, ±100 Vdc, ±10 Vdc, ±1 Vdc, ±0.1 Vdc<br>±5 Adc, ±1 Adc                |
| Reading                            | scalable   |
| Accuracy                           | 0.10 % FS in Vdc<br>0.15 % FS in Adc   |
| Offset drift                       | 50 ppm/°C  |
| Span drift*                        | 100 ppm/°C<br><i>*span drift value includes offset drift</i>                   |
| Readings                           | 15 readings / second   |
| Response time to the step          | <210 mSec. (0 % to 99 % signal)<br><i>*&lt;75 mSec. for changes below 10 %</i> |
| 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, serial communications, ...                              |
| Consumption                        | <1.5 W (meter only)<br><4.0 W (meter with options)                             |
| Protection front                   | IP54   |
| Connections                        | plug-in screw terminal   |
| Weight                             | <150 grams   |
| Mounting                           | panel  |
| Front size                         | 72 x 36 mm   |
| Panel cut-out                      | 69 x 32.5 mm   |
| Deep                               | 98 mm (including terminals)  |
| Operating temperature              | 0 to 50 °C   |

## Dimensions and connections



## Order reference



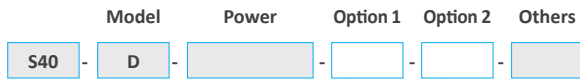
\* Relays R1 with contacts (NC / NO / Common), max. 250 Vac 8 A  
\* Special options with 4 relays.  
\* Analog outputs and serial outputs, isolated.

## 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.

|                                 |   |                                     |   |  |
|---------------------------------|---|-------------------------------------|---|--|
| <b>45</b><br>YEARS<br>1969-2014 | <b>Q</b><br>ISO 9001<br>Certified Quality | <b>CE</b><br>EN-61010-1<br>Security | <b>CE</b><br>EN-61326-1<br>Electromagnetic C. | <b>5</b><br>YEARS<br>Extended Warranty |
|---------------------------------|---|-------------------------------------|---|--|

## Output and control options



|        | Function  | Installable options | Isolated |
|--------|---|---------------------|----------|
| R1     | 1 relay output  | 2                   | yes      |
| T1     | 1 transistor output   | 2                   | yes      |
| SSR    | 1 control for SSR relay                                       | 2                   | yes      |
| AO     | 1 analog output   | 2                   | yes      |
| RTU    | 1 Modbus RTU port   | 2                   | yes      |
| S4     | 1 RS-485 port   | 2                   | yes      |
| S2     | 1 RS-232 port   | 2                   | yes      |
| R2, R4 | special modules up to 4 relay outputs. Check for information. |                     |          |

## Other options

### Option G



Green leds

## Accessories

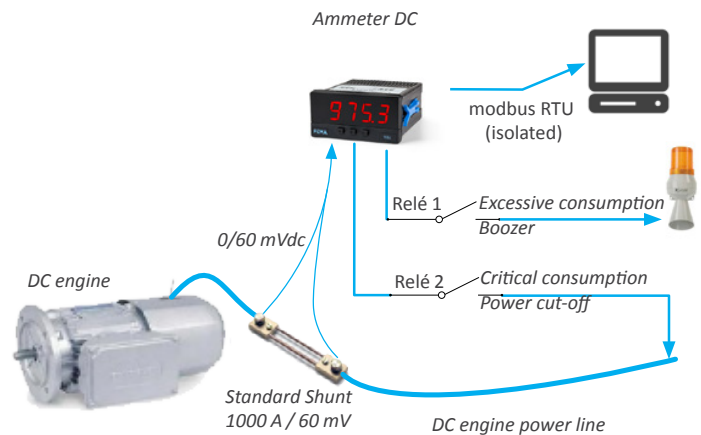
### KA72



Adapter 72 x 72 mm

## 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 Voltmeters and Ammeters DC

### 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



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