

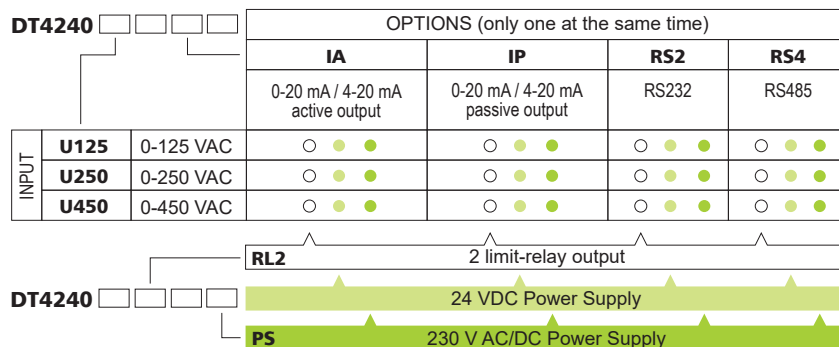
AC Voltage Meter

Product features

- 0-125 VAC / 0-250 VAC / 0-450 VAC (rms max.) VAC inputs
- 5 digit LED display, 14.2 mm character height
- 0.03% accuracy
- 0-20 mA / 4-20 mA, galvanic isolated output
- Min. / max. values detection
- 2 limit-relay outputs
- RS232 / RS485 communication, MODBUS RTU protocol
- 96 × 48 mm panel instrument, < 50 mm built-in depth
- 24 VDC ±10%
- 230 V AC/DC ±10% power supply
- IP 65 front side protection



Type designation



The DT4240 ... AC Voltage Meter enable 0-125 VAC / 0-250 VAC/ 0-450 VAC (rms max.) voltage ranges to be displayed on the control panel. Large 5 digit, 14.2 mm height LED display make process value easily visible at a distance.

The displayed value is proportional to the True RMS value of the input voltage.

The instrument is available with the following output options:

- 2 normally open relay contacts (SPST) for limit switching or for simple control tasks
- 0-20 mA / 4-20 mA galvanic isolated scalable current output \*
- RS232 / RS485 galvanic isolated communication output with MODBUS RTU slave protocol \*.

(\* either analogue or communication option can be implemented at the same time)

Easy on-site configuration through the front panel membrane keypad is a major advantage of the microcontroller-based technology. The configuration parameters: input range, voltage transformer ratio, signal filtering, output scaling, display refresh rate, limit modes, limit values, etc. are stored in EEPROM. The settings are protected by a two-level password against unauthorised manipulation.

The instruments has two power supply versions: 24 VDC ±10% (DT4240 ...) or 230 V AC/DC ±10% (DT4240 ... PS).

The DT4240 ... is housed in a DIN standard 96 × 48 mm ABS case with IP 65 protection from the front and IP 30 protection from the back side, for installation on the control panel.

**Safety data:**

The connection terminals of the supply voltages are isolated from each other, the isolation is in compliance with the standard EN 61010-1, taking into consideration the following:

Pollution level: 2  
 Measurement category: II

**Input parameters:**

Input signal: AC voltage, non isolated  
 Rectification: True RMS  
 Measurement range: 0-125 VAC / 0-250 VAC / 0-450 VAC (rms max.) voltage  
 Sampling: 12 measurement / sec.  
 Number of averaged samples: 1 / 2 / 4 / 8 / 16 / 32 / 64 (selectable)  
 Error of displayed value: < 0.2% (Ta = 23 °C ± 2 °C)  
 Temperature-coefficient: ±25 ppm / °C (max.)

**Output parameters:**

**Analogue output (optional):**

Output type: 1 active or passive DC current (scalable)  
 Range: 0-20 mA / 4-20 mA  
 Burden: 600 ohm (max.)  
 Error: < 0.03% (Ta = 23 °C ± 2 °C) < 0.4% (Ta = 0 - +60 °C)

**Limit outputs (optional):**

Outputs: 2 NO SPST relays  
 Contact rating: 30 VDC, 3 ADC / 240 VAC, 3 AAC

**Communication interface (optional):**

Type: RS232 or RS485 (isolated)  
 Protocol: MODBUS RTU slave  
 Baud rate: 300 / 600 / 1200 / 2400 / 4800 / 9600 Baud

**Display:**

Display: 5 digit (+ values), 4 digit (- values), negative sign, decimal point  
 Display unit: 5 digit LED, 14.2 mm character height  
 Displayed value: voltage, multiplied by voltage transformer ratio

**Manual controls:**

Manual controls: 3 membrane push-buttons on the front cover

**Power supply:**

Power supply: 24 VDC ±10% (DT4240 ...)  
 230 V AC/DC ±10% (DT4240 ... PS)  
 Consumption: 3.5 W / 3 VA

**Ambient conditions:**

Operating temperature range: 0 - +60 °C (-20 - +60 °C for customer request)  
 Relative humidity: 90% (max., non-condensing)  
 Place of installation: cabinet

**Electromagnetic compatibility (EMC)**

**accordance with the standard EN 61326-1**

Immunity: industrial area  
 Noise emission: Group 1, Class B

**General data:**

Housing: panel instrument  
 Connection: plug-in screw terminal / push-in direct connection  
 Connection cable: 0.25-1.5 mm<sup>2</sup> (max.)  
 Dimensions / weight: 96 × 48 × 45 mm (width × height × depth) / 0.15 kg  
 Protection: IP 65 (front), IP 30 (rear)

Detailed information see in operating instructions. The Manufacturer maintains the right to change the technical data!