AC voltage transmitters with analog output

Product features

- 3 measuring ranges:
  0–125 VAC / 0–250 VAC / 0–450 VAC *
  * switch selectable
- True RMS converter
- CAT III measurement category
- 0.2% accuracy
- 0–20 mA / 4–20 mA / 0–10 V / 2 -10V outputs *
  * switch selectable
- 24 VDC / 230 V AC/DC power supply versions
- 12.5 mm wide, TS-35 rail-mountable terminal housing
- complies with EN 60688

Type designation

DT1612 U	24 VDC POWER SUPPLY
DT1612 U (PS)	230 V AC/DC POWER SUPPLY

The **DT1612 U (PS) AC voltage transmitters** produce an output signal proportional to the true effective value (TRMS) of the input signal.
The transmitter inputs meet the requirements of the CAT III measurement category.
The input measurement ranges can be selected using front-panel switches:
• 0–125 VAC • 0–250 VAC • 0–450 VAC
The inputs can be permanently overridden by 20% of the nominal measurement range.
The transmitters have two outputs:
• 0 (4) mA – 20 mA DC current *
• 0 (2) V – 10V DC voltage *
* only one output can be used at a time
The output signal ranges can also be selected using a front-panel switch.
Transmitter accuracy: 0.2%, in the 40 – 400 Hz frequency range.
Settling time: 120ms (max.)
The devices can be ordered with two types of power supply:
• DT1612 U type: 24 VDC ±10%,
• DT1612 U PS type: 230 V AC/DC ±10%
The inputs, outputs and power supply are galvanically isolated from each other, the separation meets the requirements of EN 61010-1.
Front panel indicators indicate the transmitter's operational status and any error conditions.
The device is a terminal housing design, width: 12.5 mm.
The transmitters fully comply with the requirements of EN 60688.

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Technical specifications

Safety data:	
The connection terminals of the inputs, outputs and supply voltage are galvanically isoleted from each other. The isolation complies with the requirements of EN 61010-1, taking into account the following:	
Pollution level:	2
Measurement category:	CAT III
Input parameters:	
Input voltage:	0-125 VAC, 0-250 VAC, 0-450 VAC
Continuous overvoltage capability:	2 × U, 500 V (max.)
Input consumption:	0.2 VA (max.)
Frequency range:	40–400 Hz
Output prameters:	
Output voltage:	0/2–10 V (max. 14 V)
Load resistance:	500 ohm (min.)
Output current:	0/4–20 mA (max. 24 mA)
Termination resistance:	500 ohm (max.)
Overvoltage protection:	18 V (limiter)
Overcurrent protection:	40 mA (limiter)
Settling time:	120 ms (max.)
Output signal error:	0.2% (max.)
Temperature dependence:	25 ppm / °C (typical)
Frequency dependence:	0.2% (max., 40–400 Hz)
Dupply voltage dependence:	negligible
Load dependence:	negligible
Conversion characteristics:	TRMS value
Power supply:	
Supply voltage:	24 VDC ±10% (DT1612 U ...) 230 V AC/DC ±10% (DT1612 U ... PS)
Consumption:	1.2 W (DT1612 U ...) 1.5 VA (DT1612 U ... PS)
Ambient conditions:	
Operation temperature range:	0–50 °C, on request: -20 – +60 °C
Relative humidity:	90% (max., non condensing)
Place of installation:	cabinet
Installation (recommended):	vertical mounted (on horisontal rail)
Electromagnetic compatibility (EMC) According to EN61326-1:	
Interference emission:	Group 1, Class B
Interference immunity:	industrial environment
General data:	
Design:	TS-35 rail-mounted terminal housing, material: polyamide PA6.6
Electrical connection:	screw terminal
Connecting wire cross section:	0.25–2.5 mm^2
Dimensions:	12.5 × 104 × 114 mm (width × height × depth)
Weight:	0.105 kg
Ptrotection:	IP 20

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

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