AC current transmitters up to 10 A with analog output

Product features

- 3 measuring ranges: 0–1 AAC / 0–5 AAC / 0–10 AAC *
  * 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
- 22.5 mm wide, TS-35 rail-mountable terminal housing
- complies with EN 60688

Type designation

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

The **DT1612 I AC current transmitters** produce an output signal proportional to the true effective value (TRMS) of the input signal. The input is separated from the electrical network to be measured by a wide-band measuring transformer.
The inputs of the transmitters meet the requirements of the CAT III measurement category.
The input measuring ranges can be selected using front-panel switches:
• 0 – 1 AAC • 0–5 AAC • 0–10 AAC
The continuous input overcurrent capability is 20 A.
The measuring range can be expanded as desired with an external current transformer with a ratio of x/5 or x/1.
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 with 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 I type: 24 VDC ±10% • DT1612 I 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: 22.5 mm.
The transmitters fully comply with the requirements of EN 60688.

H-1148 Budapest, Fogarasi út 5., Hungary
Tel.: +361 460-1000 e-mail: datcon@datcon.hu www.datcon.eu
DATCON IPARI ELEKTRONIKAI KFT.

Technical specifications

Safety data:	
The connection terminals of the inputs, outputs and supply voltage are galvanically isolated 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 current:	0–1 AAC / 0–5 AAC / 0–10 AAC
Continuous overcurrent capability:	20 A
Short-term (1 sec.) overcurrent capability:	200 A
Input consumption:	0.2 VA (max.)
Frequency range:	40–400 Hz
Output parameters:	
Output voltage:	0–10 V (max. 14 V)
Load resistance:	500 ohm (min.)
Output current:	0–20 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)
Supply voltage dependence:	negligible
Load dependence:	negligible
Conversion characteristic:	TRMS value
Power supply:	
Supply voltage:	24 VDC ±10% (DT1612 I ...) 230 V AC/DC ±10% (DT1612 I ... PS)
Consumption:	1.2 W (DT1612 I ...) 1.5 VA (DT1612 I ... PS)
Ambient conditions:	
Operating temperature range:	0–50 °C, on request: -20 – +50 °C
Relative humidity:	90% (max., non condensing)
Place of installation:	cabinet
Installation (recommended):	vertical (mounted on horizontal rail)
Electromagnetic compatibility (EMC) According to EN 61326-1:	
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:	22.5 × 104 × 114 mm (width × height × depth)
Weight:	0.125 kg
Protection:	IP 20

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

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