

AC Current Transmitters, AC Voltage Transmitters

Product features

- 0-1 AAC / 0-5 AAC measurement ranges
- 0-125 VAC / 0-250 VAC / 0-450 VAC measurement ranges
- Galvanic isolated inputs, CAT III
- Average values / True RMS values
- 0.2% accuracy class
- 0-20 mA / 4-20 mA / 0-10 V outputs
- 18-40 VDC / 18-250 VAC power supply
- TS-35 rail mounting, 22.5 mm width
- Full EN 60688 compliance



Type Designation

DT1600			Output				
			I0A	I0P	I4A	I4P	U10
			0-20 mA active	0-20 mA passive	4-20 mA active	4-20 mA passive	0-10 V
Input	I1	0-1 A AC	○ ● ●	○ ● ●	○ ● ●	○ ● ●	○ ● ●
	I5	0-5 A AC	○ ● ●	○ ● ●	○ ● ●	○ ● ●	○ ● ●
	U125	0-125 V AC	○ ● ●	○ ● ●	○ ● ●	○ ● ●	○ ● ●
	U250	0-250 V AC	○ ● ●	○ ● ●	○ ● ●	○ ● ●	○ ● ●
	U450	0-450 V AC	○ ● ●	○ ● ●	○ ● ●	○ ● ●	○ ● ●
DT1600			Average Value				
			TRMS Value				
			18-40 V AC/DC Power Supply				
			PS 180-250 V AC/DC Power Supply				

Customer defined inputs and outputs are also available.

The **DT1600 ... AC Current Transmitters, AC Voltage Transmitters** provide an output signal proportionally with the average value (F) or with the effective value (R) of the input AC-current, AC-voltage signal. The version marked with R (True RMS) is recommended to use for measure of non-sinusoidal signals.

In all types the input, the output and the power supply are galvanically isolated from each other.

The input parameters must be specify at the order.

At the **DT1600 I ... AC Current Transmitters** the input signal can be 0-1 AAC or 0-5 AAC.

At the **DT1600 U ... AC Voltage Transmitters** the input signal can be 0-125 VAC or 0-250 VAC or 0-450 VAC.

The output signal may be active or passive 0-20 mA, 4-20 mA, or 0-10 V.

Other customer defined inputs and outputs are also available.

The **DT1600 ..** has two power supply versions: 18-40 V AC/DC (DT1600 ...) or 180-250 VAC/DC (DT1600 ...PS)

Safety data:

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

Pollution level: 2
Overvoltage group: III

Input parameters:

Input voltage: see the table on the previous page
Input current: see the table on the previous page
Long-term overdrive rating: 2 x I, 2 x U, 500 V (max.)
Short-term (1 sec) overdrive rating: 20 x I
Consumption of the input: 0.5 VA (max.)
Frequency range: 40-400 Hz

Output parameters:

Output voltage: see the table on the previous page
Load: 500 ohm (min.)
Output current: see the table on the previous page
Burden: 500 ohm (max.)
Overvoltage protection: 18 V (limiter)
Overcurrent protection: 40 mA (limiter)
Noise voltage: 0.2% p-p (max., referred to FS)
Error: 0.2% @ Ta = 23°C ± 2°C
Temperature-coefficient: 50 ppm / °C (typically)
Frequency-response: 0.5% (max., 40-400 Hz)
Supply-voltage effect: practically zero
Loading-effect: practically zero
Rectifying characteristic: effective value (R), or average value (F) AC/DC conversion
Additional error measuring non-sinusoidal signal: 0.5% (max., R version, Fcrest factor < 3)

Power supply:

Supply voltage: 18-40 V AC/DC (DT1600...) 180-250 V AC/DC (DT1600... PS)
Consumption: 1.2 W 0,9 VA

Ambient conditions:

Operating temperature range: 0-50°C (-20 - 50°C for customer request)
Relative humidity: 90% (max., non-condensing)
Place of installation: cabinet

Electromagnetic compatibility (EMC)
accordance with the standard EN 61326:2000:

Immunity: -A- criterion
Noise emission: -A- class

General data:

Housing: terminal assembly box, rail mounting on TS-35 rail, material: polyamide PA6.6
Connection: screw terminal
Connection cable: 0.25-2.5 mm²
Dimensions / weight: 22,5 x 99 x 115 mm (width x height x depth) / 0.15 kg
Protection: IP 20

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