

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
- Average values / True RMS values
- Galvanic isolated inputs, CAT III
- 0.2% accuracy
- 0-20 mA / 4-20 mA / 0-10 V outputs
- 24 VDC / 230 V AC/DC 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 AAC	○ ● ● ●	○ ● ● ●	○ ● ● ●	○ ● ● ●
	I5	0-5 AAC	○ ● ● ●	○ ● ● ●	○ ● ● ●	○ ● ● ●
	U125	0-125 VAC	○ ● ● ●	○ ● ● ●	○ ● ● ●	○ ● ● ●
	U250	0-250 VAC	○ ● ● ●	○ ● ● ●	○ ● ● ●	○ ● ● ●
	U450	0-450 VAC	○ ● ● ●	○ ● ● ●	○ ● ● ●	○ ● ● ●

DT1600		Average Value	
		F	R
		24 VDC Power Supply	
		230 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: 24 VDC (DT1600 ...) or 230 V AC/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:	CAT 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 × I, 2 × U, 500 V (max.)
Short-term (1 sec.) overdrive rating:	20 × I, 100 A (max.)
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 kohm (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:	24 VDC (DT1600 ...) 230 V AC/DC (DT1600 ... PS)
Consumption:	1.2 W (DT1600 ...) 0.9 VA (DT1600 ... PS)

Ambient conditions:

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

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

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

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 mm ²
Dimensions:	22.5 × 99 × 115 mm (width × height × depth)
Weight:	0.15 kg
Protection:	IP 20

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