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 ±10% or 230 V AC/DC ±10% power supply
- TS-35 rail mounting, 22.5 mm width
- Full EN 60688 compliance

Type designation

DT1600 □□□□

			Output				
			I0A 0-20 mA active	**I0P** 0-20 mA passive	**I4A** 4-20 mA active	**I4P** 4-20 mA passive	**U10** 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 □□□□

F	Average Value
R	TRMS Value
	24 VDC Power Supply
PS	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 ±10% (DT1600 ...) or 230 V AC/DC ±10% (DT1600 ... PS).

H-1148 Budapest, Fogarasi út 5., Hungary
Tel.: +361 460-1000 Fax: +361 460-1001 e-mail: datcon@datcon.hu www.datcon.eu
DATCON IPARI ELEKTRONIKAI KFT.

Technical specification

Safety data:	
The connection terminals of the inputs, outputs, and suppy 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 ±10% (DT1600 ...) 230 V AC/DC ±10% (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 mm²
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!

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