

## SIRAX MT7000 and SIRAX MT7050 AC/DC Current and voltage converter

### Description

The SIRAX MT7000 and MT7050 are all-in-one AC/DC current and voltage converter and they are designed for DIN rail mounting. Common current and voltage transformers, Rogowski coils and temperature sensors (PT100 or NTC) can be connected. They measure RMS AC and DC, average min. and max. Measurement, frequency, crest factor, temperature or resistance measurement, harmonic analysis up to the 63rd, THD,  $I_{peak}$  and measurement of the internal temperature of the module. The SIRAX MT7000 and MT7050 are equipped with a fully configurable analogue output, a digital output and an RS485 Modbus RTU interface. The free configuration software makes it very easy to program the devices.

### Characteristics

- Break-resistant plastic housing made of PBT
- Flame retardant and self extinguishing according to UL94 V0
- Common current and voltage transformers, Rogowski coils and temperature sensors can be connected
- Configuration by configuration software
- Serial RS485 Modbus/RTU output
- DIN rail or wall mounting for vertical or horizontal position



### Technical specifications

Technical specifications	SIRAX MT7000	SIRAX MT7050
Type of measure	RMS AC and DC	
Installation form	DIN rail mounting	
Mounting position	arbitrarily, vertically or horizontally	
<b>Input</b>		
Number of current and voltage input	1	
Current and voltage probes supported	Rogowski probes; Current transformer with secondary 1A/5A; Current and voltage transformer with secondary $\pm 10 V_{pk}$ or $\pm 1 V_{pk}$ ; Current transformer with secondary 100 mAAC/DC; Hall effect sensor $\pm 15 VDC$ (incl. power supply)	
Number of Temperature input	1	
Temperature probes supported	PT100 2-3 wire; NTC (10 k $\Omega$ / 100 $\Omega$ )	
Available measurement	$I_{rms}^1$ ; $I_{DC}^1$ ; $I_{AC}^1$ ; $I_{rms\ max}^1$ ; $I_{rms\ min}^1$ ; $I_{rms\ average}^1$ ; $I_{DC\ max}^1$ ; $I_{DC\ min}^1$ ; $I_{DC\ average}^1$ ; $I_{AC\ max}^1$ ; $I_{AC\ min}^1$ ; $I_{AC\ average}^1$ ; Ah auf $I_{rms}^1$ ; Ah auf $I_{DC}^1$ ; Ah auf $I_{AC}^1$ ; Frequency; Crest Factor; Temperature; Resistance THD; $I_{peak}^1$ ; harmonic analysis up to 63rd; Temperature of the device	
Power supply	10...30 VDC	
Absorption	max. 2.5 VA	
<b>Output</b>		
Digital output	RS485 Modbus/RTU	
Analog output	0...10 V or 4...20 mA (fully configurable via software)	
Relay output	Free contact (alarm) 50 mA, 30 VDC (Optomos contact)	

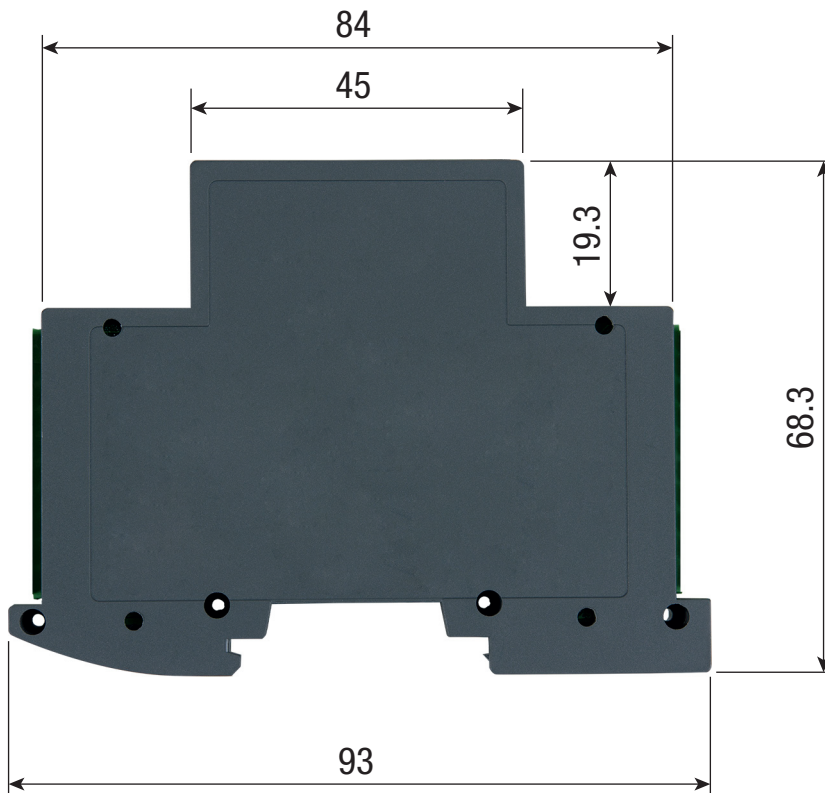
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## AC/DC Current and voltage converter

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<b>Accuracy</b>		
Accuracy channel 1/5 A	Crest Factor: Range 50 mA < I < 250 mA: Range 250 mA < I < 5 A: Temperature coefficient: Bandwidth (-3dB):	4 (@ 5 A) Maximum Error 1% Maximum Error 0.5% < 100 ppm/°C > 2 kHz
Accuracy channel 20/100 mA	Crest Factor: Range 1 mA < I < 5 mA: Range 5 mA < I < 100 mA: Temperature coefficient: Bandwidth (-3dB):	4 (@ 100 mA) Maximum Error 1% Maximum Error 0.5% < 100 ppm/°C > 2 kHz
Accuracy channel ± 1 Vpk	Range 10 mV < V < 50 mV: Range 50 mV < I < 1 V: Temperature coefficient: Bandwidth (-3dB):	Maximum Error 1% Maximum Error 0.5% < 100 ppm/°C > 2 kHz
Accuracy channel ± 10 Vpk	Range 100 mV < V < 500 mV: Range 500 mV < I < 10 V: Temperature coefficient: Bandwidth (-3dB):	Maximum Error 1% Maximum Error 0.5% < 100 ppm/°C > 800 Hz
Accuracy Temperature PT100	Range: Error: Temperature coefficient:	-200 °C ... 600 °C ± 1.2 °C on reading < 100 ppm/°C
Accuracy Temperature NTC	Range 200 Ω ... 20 kΩ: Range 20 kΩ ... 300 kΩ: Temperature coefficient:	± 1.2 °C on reading ± 1.6 °C on reading < 100 ppm/°C
Accuracy Analog Output		< 0.1 % F.S.
Sampling rate		6400 Hz @ 50 Hz
<b>Safety and environmental conditions</b>		
Operating temperature		-10 ... +60 °C
Humidity		10 ... 90 % (not condensing)
Housing protection IP		IP20
Altitude		max. 2000 m
<b>Mechanical properties</b>		
housing material		PBT
Flammability		UL94 V-0, self-extinguishing, non-dripping, halogen-free
Weight		55 g
Connections		Plug-in terminals 3.5 mm, 2x10 Pol
DIP switch		2 Pol
Programming		Via DIP switch, Modbus RTU and software
Dimensions		93 x 17.7 x 68.3 mm (without terminals)
<b>Standards</b>		
Adhered standards		EN61000-6-3; EN61000-4-2; EN61000-4-3; EN61000-4-4; EN61000-4-5; EN61000-4-6; EN61010-1
<b>Order data</b>		
Article-No.	180018	180026

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## Dimensions



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