# TR8

# Multi-channel DC voltage and current analyzer for photovoltaic strings



Compatible with all modules of the **M/TR** transformer range.



### **Description**

It is extremely difficult to certify that a photovoltaic plant is at its peak performance without having control over the primary power generation sources that would certify it. **TR8** has been designed specifically to control strings in photovoltaic plants; it checks the level of current generated in the various groups in real time and, therefore, checks the current flowing through the voltage and current sensors connected to the unit.

### **Applications**

 Solar photovoltaic string monitoring application, used to measure up to 8 direct-current generation strings and a reference voltage of up to 1,000 V.

### **Technical features**

Power circuit	Rated voltage 230 Vac / 24 Vdc power supply		
	Tolerance	± 30% AC / ± 10% DC  50 Hz AC  8 mA / 1.84 VA AC  70 mA  32 mA / 7.36 VA AC  270 mA  32 mA / 7.36 VA AC  270 mA	
	Frequency		
	Consumption of the unit without transformers		
	Consumption of the unit with 8 sensors (no-load)		
	Consumption of the unit with 8 sensors (current)		
Accuracy	Linearity	± 0.1%	
	Total	± 0.5% I <sub>n</sub>	
	Resolution	± 0.075% I <sub>n</sub>	
	Offset	0.075% I <sub>n</sub>	
	Measurement margin	2,5 100% I <sub>n</sub>	
	Voltage	1%	
Transformer accuracy	Linearity (excluding offset)	± 0.5%	
	Offset 25 °C $\pm$ 10 mV at $I_n = 0$		
	Offset drift / T	± 1 mV / °C	
	Thermal drift of the gain	± 0.05% / °C	
Digital inputs	Number of inputs	8	
	Туре	Optoisolated voltage-free (dry contact	
	Maximum activation current	50 mA	
Mechanical features	Operating temperature	-35 °C+ 65 °C	
	Relative humidity	5%95% (without condensation)	
	Protection degree	IP 20	
Safety	Category III – 300 Vac (EN 61010) Double-insulated electric shock protection class II		
Standards	CE certification UL certification (see attached codes) UR certification (Canada) (see attached codes)		



## E

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#### References

Code	Description	Current
E80000	Measurement of up to eight 25 A channels Measurement of voltages of up to 1,000 V for the 25 A module	25 A
E80000000700	Measurement of up to eight 25 A channels Measurement of voltages of up to 1,000 V for the 25 A module <b>UL certification</b>	25 A
E80001	Measurement of voltages of up to 1,000 V, exclusive for 100 or 200 A transformers	acc. to trans. (100 or 200 A)
E800010000700	Measurement of voltages of up to 1,000 V, exclusive for 100 or 200 A transformers UL certification	acc. to trans. (100 or 200 A)
	E80000  E800000000700  E80001	E80000 Measurement of up to eight 25 A channels Measurement of voltages of up to 1,000 V for the 25 A module  E8000000000000000  Measurement of up to eight 25 A channels Measurement of voltages of up to 1,000 V for the 25 A module UL certification  E80001  Measurement of voltages of up to 1,000 V, exclusive for 100 or 200 A transformers  E800010000700  Measurement of voltages of up to 1,000 V, exclusive for 100 or 200 A transformers

<sup>\*</sup> Accessories E80000, E800000000700, E80001 and E800010000700 are complements listed in the UL file, so that together with the TR8s with UL certification they represent an assembly that can be fully certified

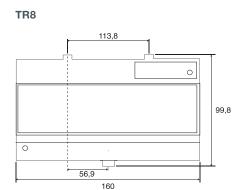
Туре	Code	Description
M/TR-25A x2	E80010	Two-transformer module, up to 25 A
M/TR-25A x4	E80011	Four-transformer module, up to 25 A
M/TR-100A	E80012	Transformer, up to 100 A
M/TR-200A	E80013	Transformer, up to 200 A

<sup>\*</sup> Accessories E80010, E80011, E80012 and E80013 are complements listed in file UL, so that together with the TR16 with UL certification they represent an assembly that can be fully certified.

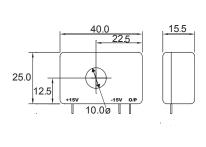
Туре	Code	Description
M/TR-100A - UR certification	E800120000500	Transformer, up to 100 A
M/TR-200A - UR certification	E800130000500	Transformer, up to 200 A

<sup>\*\*</sup> Accessories E800120000500 and E800130000500 are complements with UR certification. They comply with the UR of the units of other manufacturers.

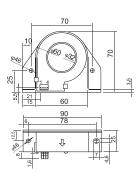
### **Dimensions**



#### M/TR-25A

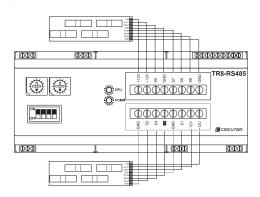


### M/TR-100/200A



### Connections

TR8-25A



### TR8-100/200A

