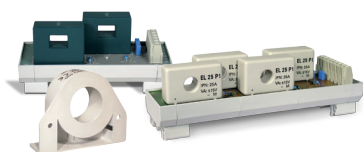


TR16

Multi-channel DC voltage and current analyzer for photovoltaic strings



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



Description

The **TR16** is an analyzer that is used to measure up to 16 photovoltaic strings in direct current. Its features make it the ideal and most versatile unit for measuring different levels of current, depending on the sensor connected to each one of its inputs. The unit features a 0 to 20 mA analogue input and an input for connecting the **PT100** or **PT1000** temperature sensor, allowing environmental variables to be measured.

Application

- Solar photovoltaic string measurement application, used to measure up to sixteen 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	$\pm 20\%$ AC / $\pm 10\%$
	Frequency	50 Hz AC
	Consumption of the unit without transformers	8 mA / 1.84 VA AC 70 mA DC
	Consumption of the unit with 8 sensors (no-load)	32 mA / 7.36 VA AC 270 mA DC
	Consumption of the unit with 8 sensors (current)	32 mA / 7.36 VA AC 270 mA DC
Accuracy	Linearity	$\pm 0.1\%$
	Total	$\pm 0.5\% I_n$
	Resolution	$\pm 0.075\% I_n$
	Offset	$0.075\% I_n$
	Measurement margin	2,5 100% I_n
Transformer accuracy	Linearity (excluding offset)	$\pm 0.5\%$
	Offset 25 °C	± 10 mV at $I_n=0$
	Offset drift / T	± 1 mV / °C
	Thermal drift of the gain	$\pm 0.05\%$ / °C
	Digital inputs	Number of inputs
Type		Optoisolated voltage-free (dry contact)
Maximum activation current		50 mA
Mechanical features	Operating temperature	-10 °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)	

TR16

Multi-channel DC voltage and current analyzer for photovoltaic strings

References

Type	Code	Description	Current
TR16-RS-485	E80003	Measurement of up to 16 configurable channels Measurement of voltages of up to 1,000 V Optional connection of transformers with different primaries	Configurable
TR16-RS-485-UL	E800020000700	Measurement of up to 16 configurable channels Measurement of voltages of up to 1,000 V Optional connection of transformers with different primaries UL certification	Configurable

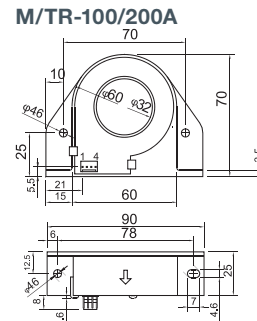
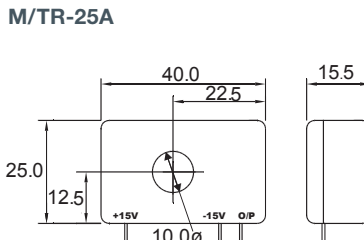
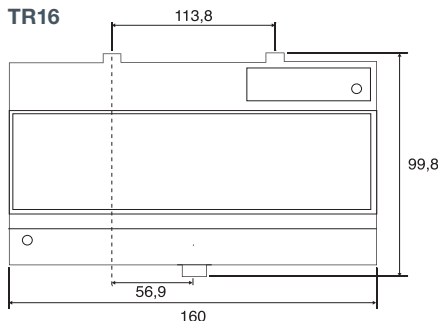
Type	Code	Description
M/TR-25A x2	E80010	Two-transformer module, up to 25 A
M/TR-25A x4	E80011	Four-transformer module, up to 25 A
M/TR-100A	E80012	Transformer, up to 100 A
M/TR-200A	E80013	Transformer, up to 200 A

* 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.

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

** Accessories **E800120000500** and **E800130000500** are complements with **UR** certification. They comply with the **UR** of the units of other manufacturers.

Dimensions



Connections

