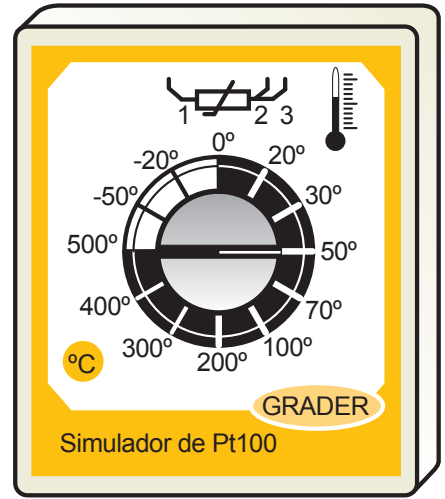


Pt100 SIMULATOR



GRADER



DESCRIPTION

The GRADER is a Pt100 thermoresistance simulator. Autonomous and with a great precision. Is able to verify and adjust any kind of instruments, in an easy and fast way. The simulator gives the corresponding ohmic values to the choosen values in °C, using the DIN 43760.

APLICACIONES

- For converters, indicators, regulators, data acquiring cards, Pt100 sensors...Calibration.
- Temperature process simulator.
- Compensation lines and Pt100 thermoresistance compensation.

TECHNICAL CHARACT.

- Thermal coefficient < 20 ppm
- Final precision for every value of t^a 0,08°C
- Humidity working margin 10 / 90 % HR
- Working temp. -10 / +60°C
- High stability and precision components, protected and covered in anti-moisture Epoxi.
- Allows an independent recalibration of every value by the user.

AMBIENTALS

Working temp.	-10 / +60 °C
Storage temp.	-40 / +80 °C
Tª coefficient	50 ppm / °C
Warm up time	5 min.

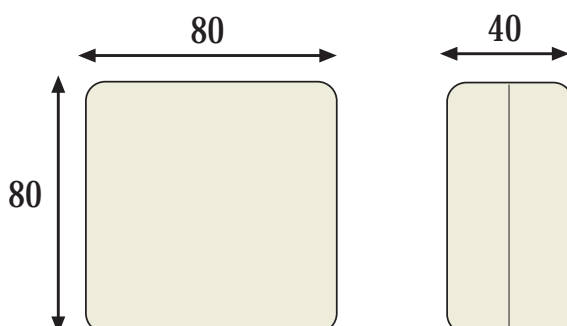
REGULATIONS COMPLIANCE

Electromagnetic Compatibility	2004 / 108 / CE
Low voltage for amb. industrial	2006/95/CEE
Electromagnetic emissions	UNE-EN 50081-2
Electromagnetic immunity	UNE-EN 50082-2
Waste electronics(WEEE)	2002 / 96 / CE

PRECISION

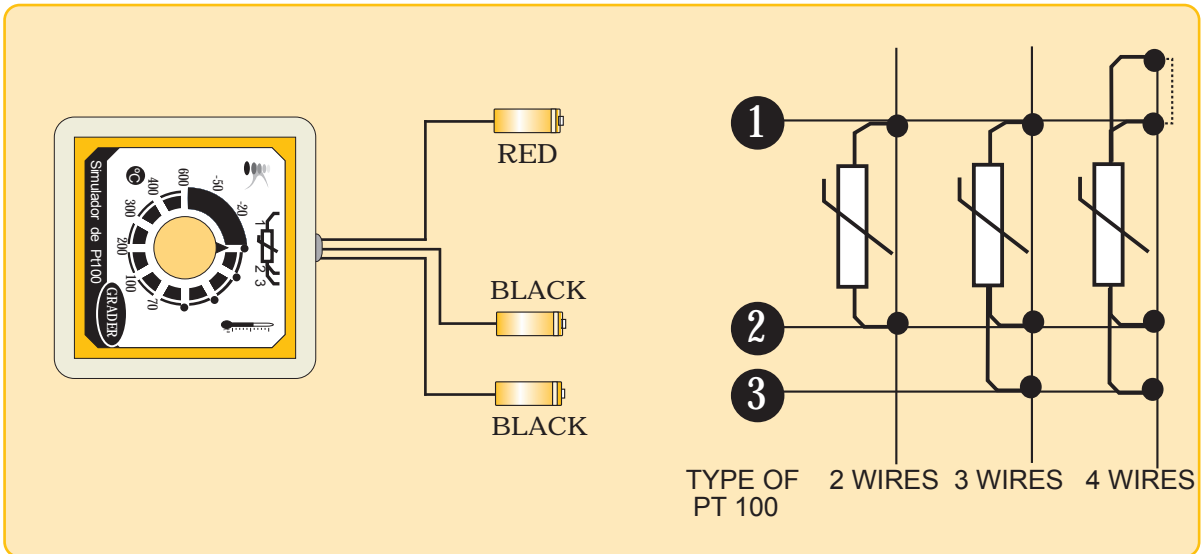
Max. global error	0,1 %
Linearity error	0,08 %
Thermal drift	0,5µA / °C
Thermal drift	0,2mV / °C

DIMENSIONS (mm)



Body	Compact and light weight
Weight	160 grs.
Box	in ABS
Dimensions	80 x 80 x40 mm.
Precision swicht with golden connectors	
Mechanical life greater than 15.000 operations.	

CONNECTIONS



DEPENDING THE MODEL TEMP. RANGE IN °C

Temperature												
GRADER 1	-50	-20	0	20	30	50	70	100	200	300	400	500
GRADER 2	-50	-40	-30	-20	-10	0	10	20	30	40	50	100
GRADER 3	0	10	20	30	40	50	70	80	100	120	140	150

GRADER RECALIBRATION

* The readjustment should be made with a precision Ohmmeter, with at least an indicator of 0.01 Ohms, with 4 probes, 2 of them goes to the red wire and the other 2 wires to the black ones.

* It's highly recommended, before the recalibration, to connect the measure device and the instrument that is going to be calibrated and then wait about 15min for a better stability.

* Recalibration should be done at ambient temperature, between 15°C and 25°C.

* Inside the instrument you can find 12 multiturn adjustables, one for each temperature value.

* The adjustables position match with the temperatures position in the instrument front side cover..

* Turn one of the adjustables correspondent to the temperature value, till match the ohms value with correspondet °C in the table.

EQUIVALENCE TABLE DIN 43760 FOR RTP TYPE PT100

TEMPERATURA RESISTENCIA	-50	-40	-30	-20	-10	0	10	20	30	40	50	°C
	80,31	84,28	88,22	92,16	96,09	100	103,90	107,79	111,67	115,54	119,40	Ohm
TEMPERATURA RESISTENCIA	60	70	80	90	100	110	120	130	140	150	160	°C
	123,24	127,07	130,89	134,70	138,50	142,29	146,06	149,82	153,58	157,31	161,04	Ohm
TEMPERATURA RESISTENCIA	170	180	190	200	220	250	300	350	400	500	600	°C
	164,76	168,46	172,16	175,84	183,17	194,07	212,02	229,67	247,04	280,90	313,59	Ohm