

AR915

RTD & TC Temperature Calibrator



Applications

This device is for measuring and simulating temperature sensors designed for service work

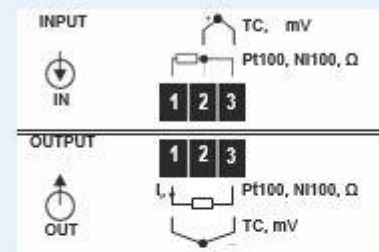
Features

- Setting the output value directly in °C or in physical units (Ω , mV)
- Ergonomic hand-held, pocket housing with small dimensions and low weight
- Rubberised non-slip side grips
- Simple and reliable banana connectors for laboratory use
- Highly visible LCD display and functional keyboard
- Power supply from two AA batteries (R6)
- Very long operation with fully charged batteries
- Auto shut-off of the calibrator after a specified time of inactivity
- Option of testing measurement devices and temperature sensors
- Option of protecting access to the configuration of parameters with password
- Auto power off when battery charge level is too low

TECHNICAL DATA

Universal input/output (programmable), measuring and setting range	
RTD	
Pt100 (3- or 2-wire)	- 100 ÷ 850°C
Ni100 (3- or 2-wire)	- 50 ÷ 170°C
Thermocouple	
thermocouple J	- 40 ÷ 800°C
thermocouple K	- 40 ÷ 1200°C
thermocouple S	- 40 ÷ 1600°C
thermocouple B	300 ÷ 1800°C
thermocouple R	- 40 ÷ 1600°C
thermocouple T	- 25 ÷ 350°C
thermocouple E	- 50 ÷ 750°C
thermocouple N	- 80 ÷ 1300°C
temperature compensation of cold ends of thermocouples	
Linear	
voltage	-5 ÷ 55mV
resistance measurement	10 ÷ 540Ω
setting (I _p -polarizing current)	0÷1000/I _p [Ω]≤3200Ω
Leads resistance for RTD	R _d < 25Ω (for each line)
Resistance input current (RTD, Ω)	~250mA (for measurements)
Output polarizing current I _p RTD, Ω	100 ÷ 1900mA (for simulation) (1)
Basic processing error (at ambient temperature equal to 25°C)	- measurement: Pt100, -5÷55mV, 10÷540 Ω ≤ 0,2% of sensor range ±1 digit -Ni100, all thermocouples ≤ 0,3% of sensor range ±1 digit - setting: Pt100, Ni100 ≤ 2 °C for I _p > 200 mA - J, K, E, N, 55 mV, 0÷3,2 kΩ ≤ 0,2% of sensor range ≤ 1,5Ω for 0÷3,2kΩ - S, B, R, T ≤ 0,3% of sensor range
Additional error	for setting Pt100,Ni100, 0÷3, 2kΩ ≤ 2,5°C lub ≤1Ω (nonlinearity)
Additional error for thermocouple inputs	≤2°C (present only in automatic compensation of cold tip temperature)
Additional error from temperature changes	≤0,01% of the sensor range/°C
Resolution of indications	0,1°C lub 1°C (programmable)
Resolution of settings in simulations	0,5 ÷ 200,0 °C (programmable)
Response time for measurements	s (10÷90% 0,7 ÷ 2,3 s (programmable)
LCD display	(7-segment, 4 digits, weight 10 mm) - range of indications -1999÷9999
Power supply	(Regular or rechargeable batteries) 2x1,5V (2 x1,2V NiMH), typ AA(R6)
Operation time	300 ÷ 400 hours (2 x 1,2V/2500mAh)
Operating temperature range	0 ÷ 50°C
Relative humidity range	0 ÷ 90% (non-condensing)
Weight	~130g (w/o batteries), ~165g (w/ batteries)
Electromagnetic compatibility (EMC)	- immunity: acc. to the PN-EN 61000-6-2 - emissivity: acc. to the PN-EN 61000-6-4

DESCRIPTION OF CONNECTION



View from the bottom of the device

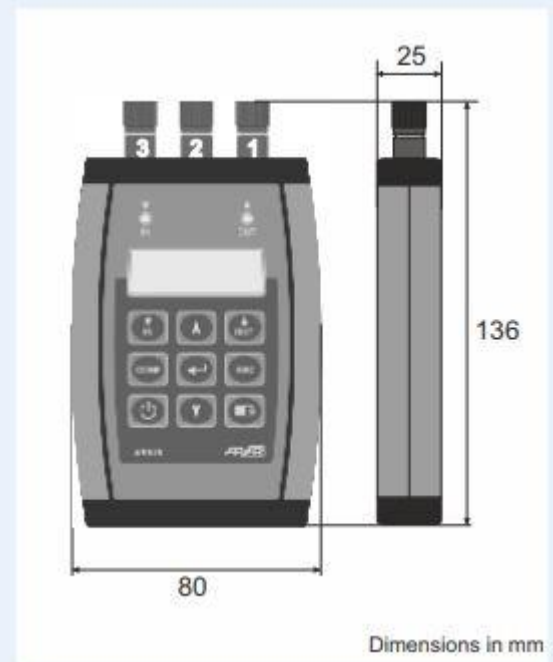
I_p-resistance output polarizing current in simulations

THE ENCLOSURE

Enclosure dimensions..... 136 x 80 x 25 mm

Material..... ABS

Protection rating..... IP43



Dimensions in mm

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CAPE INSTRUMENT SERVICES CC

38 Section Street, Paarden Eiland, CAPE TOWN, 7405

Tel: +27 21 511 4104 Fax: +27 21 511 9866 sales@cis-online.co.za www.cis-online.co.za