Portable
Micro-Ohmmeter RESISTOMAT®
Type 2323

Code:	2323 E
Manufacturer:	burster
Delivery:	ex stock
Warranty:	12 months
Issue:	1.5.2001

2323-E

- **Mains rechargeable battery operation**
- **6 ranges from 600 µΩ to 60 Ω**
- **High resolution up to 0.1 µΩ**
- **Measuring current up to 10 A**
- **Input protected up to 415 V_{rms}**
- **Rugged industrial design**
- **RS232 data output**

Application

This portable, battery operated micro-ohmmeter is a practical instrument for low resistance measurement in the field.

It is of rugged construction, contained in a sealed ABS plastic case with lid and carrying handle, ideal for use in the workshop, field or test facilities. For documentation of the measuring values a front panel socket provides a serial RS232 output for connection of an external start switch.

- Engine and transformer windings
- Transition and contact resistors
- Wires and cable drums
- Conductivity measurements on aircrafts and helicopters
- Quality of soldered and welded joints
- Heating elements

Description

Four-wire technology in accordance with KELVIN eliminates transition and lead resistance.

Any of the 8 measuring ranges can be selected by a key on the membrane keyboard. The measuring results are displayed on a 6000 counts LED display. The measuring terminals are protected up to 415 volts rms. By forward and reserve current measurement with automatic average a thermocouple compensation can be realized.

The digital calibration of this instrument is activated by a key on the front panel. The integrated rechargeable battery allows measurements up to 10 hours without mains.

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Technical Data

Measuring Range	Resolution	Measuring Current	Uncertainty at 20 °C ± 5 °C 1 year
600.0 µΩ	0.1 µΩ	10 A	0.2 % Rdg. +12 Counts
6.000 mΩ	1 µΩ	10 A	0.2 % Rdg. + 6 Counts
60.00 mΩ	10 µΩ	1 A	0.15 % Rdg. + 3 Counts
600.0 mΩ	100 µΩ	100 mA	0.15 % Rdg. + 3 Counts
6.000 Ω	1 mΩ	10 mA	0.15 % Rdg. + 3 Counts
60.00 Ω	10 mΩ	1 mA	0.15 % Rdg. + 3 Counts

Temperature coefficient/°C: typ. 40 ppm rdg. + 30 ppm F.S.

Display: 0.8" LED 6000 count

Ranges: 6 push button selected, LED indicated

Terminals:
4 wire technology, with 6 mm ø binding posts, accepts spade tags and 4 mm ø banana plugs.

Input protection: up to 415 V_{rms}

Thermocouples compensation:
Forward and reserve current measurement with automatic average

Battery check: with bargraph

RS232 output: 9 pin submin D-bush
baudrate: 75 ... 9600
databits: 8
startbit: 1
stopbit: 1
parity: no

Working temperature: 0 °C ... 20 °C ... 40 °C

Relative humidity: max. 80 % non condensing

Storage temperature: - 20 °C ... + 50 °C

Mains supply: 100/ 120/ 220/ 240 V + 10 % - 13 %
47 ... 63 Hz, max. 80 VA

Batteries:
Sealed lead acid rechargeable cells allowing a minimun of 1 hour continuous measurement on the lowest 10 amp range and 10 hours on all other ranges. Internal charges with battery state indicators.

Safety:
IEC 1010 protective class 1. All inputs floating with respect to earth/ ground max. 50 V_{rms}.

Housing:
Rugged construction, contained in a sealed ABS plastic case with lid and carrying handle.

Dimensions (w x h x d): approx. 343 x 327 x 152 [mm]

Weight: approx.8 kg

Calibration Set

The calibration set type 2323-Z001 consists of 4 calibration resistors series 1240 with the values 500 µΩ, 5 mΩ, 50 mΩ and 500 mΩ. Every resistor is provided with a DKD Certificate.
Measurement values and uncertainties indicated in the certificate were found with standards and measurement devices regularly compared with governmental standards of the Federal Republic of Germany. This is proofed in the certificate itself and is also marked on the resistance.
For detailed information please refer to data sheet 1240 E.

Order Information

RESISTOMAT® **Type 2323**
with RS232 output

Accessories

Calibration Set **Type 2323-Z001**

Kelvin measuring pliers and probes
For detailed information please refer **to data sheet 2385 E**

Wire holding devices
For detailed information please refer **to data sheet 2381 E**

Calibration resistances
For detailed information please refer **to data sheet 1240 E**

Resistance Measurement on a Motor Winding

Fast and precise measurement of a stator winding with model 2323 and KELVIN measuring pliers model 2385-V001 in 4-conductors technology.

e. g. 5 kW stator winding
resistance value 1,476 Ω

Technical changes reserved