Electrical Resistance Tester

Model OHM2, OHM3, OHM3A, OHM4

Model OHM2

Test procedure

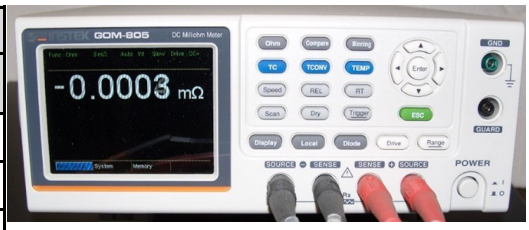
The wire's resistance shall be expressed as the directional current resistance at 20°C. The method used shall provide an accuracy of 0.5%. If the resistance is measured at a temperature other than 20°C, a correction factor has to be applied.

System description

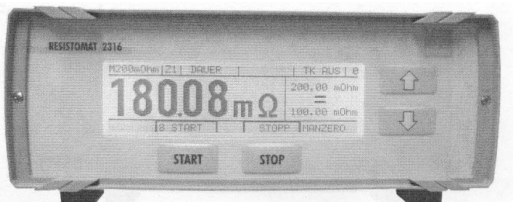
- Suitable for wire diameter up to 3.15 mm (8 AWG)
- Digital milliohm meter with 8 test range, resolution 1 µohms, accuracy 0.05%
- Four terminal measurement method
- Range selection: Manually, automatically via built-in auto-range function or RS232 serial interface
- LCD 4½ digit display, sampling rate 5 reading per second
- Automatic temperature compensation for Cu, MS63, MS80, and thermal e.m.f. compensation from 0 to 40°C
- Dry-circuit measurement (20mV limit)
- Go-No go circuit
- One meter sample holder with automatic clamping device

- CAL1, One meter sample holder suitable for wire diameter 0.025mm to 2mm
- CAL2, One meter sample holder suitable for wire diameter >1.5mm and strip wire up to 23x7.5mm
- CAL3, One meter sample holder suitable for wire diameter >4.5mm and strip wire up to 300mm^2

OHM 2		
Measuring range	**Resolu-tion**	**Measuring current**
20.000 mΩ	1 mΩ	900 mA
200.00 mΩ	10 mΩ	90 mA
2.0000 Ω	100 mΩ	9 mA
20.000 Ω	1 mΩ	900 mA
200.00 Ω	10 mΩ	900 mA
2.0000 kΩ	100 mΩ	90 mA
20.000 kΩ	1 Ω	90 mA
200.00 kΩ	10 Ω	90 mA



OHM 3		
Measuring range	**Resolu-tion**	**Measuring current**
2.0000 mΩ	0.1 mΩ	1A
20.000 mΩ	0.1 mΩ	1A, 0.1A
200.00 mΩ	1.0 mΩ	1A, 0.1A, 10 mA
2.0000 Ω	10 mΩ	1A, 0.1A,10 mA,,1 mA
20.000 Ω	0.1 mΩ	0.1A, 10 mA, 1 mA, 0.1mA
200.00 Ω	1.0 mΩ	10 mA, 1mA, 100mA
2.0000 kΩ	10 mΩ	1 mA, 100mA
20.000 kΩ	0.1 Ω	100mA



OHM 3A		
Measuring range	**Resolu-tion**	**Measuring current**
200 mΩ	0.01 mΩ	7A
2 mΩ	0.1 mΩ	7A
20 mΩ	0.1 mΩ	1A
200 mΩ	1.0 mΩ	100 mA
2 Ω	10 mΩ	10 mA
20 Ω	0.1 mΩ	0.1A, 10 mA
200 Ω	1.0 mΩ	10 mA, 1mA
2 kΩ	10 mΩ	1 mA
20 kΩ	0.1 Ω	100mA

OHM 4		
Measuring range	**Resolution**	**Measuring current**
200.00 mΩ	1.0 nΩ	10A
2.0000 mΩ	10 nΩ	10A, 1A
20.000 mΩ	100 nΩ	10A, 1A, 0.1A
200.00 mΩ	1.0 mΩ	1A, 0.1A, 10mA
2.0000 Ω	10 mΩ	1A, 0.1A, 1A, 1mA
20.000 Ω	0.1 mΩ	0.1A, 10mA, 1mA, 100mA
200.00 Ω	1.0 mΩ	10mA, 1mA, 100mA
2.0000 kΩ	10 mΩ	1mA, 100mA
20.000 kΩ	0.1 Ω	100mA

Specifications

Model	
OHM2, OHM3, OHM3A, OHM4	
Power supply	
Volt	230 V
Hertz	50/60 single phase
Volt-amperes	60 (model OHM3) 260 (model OHM4)
Standards	
IEC	60851-5.3
NEMA	MW 1000
DIN	46453
Options	

The device is designed in a modular system and built in a stable steel sheet housing. Therefore, every structural component is easily accessible, thus securing an optimal service. All operational knobs, the LCD graphic display, and the connector box are situated clearly and easy to survey on the front panel. On the rear panel, the in/out interfaces, the comparators, and the Pt100 sensor are placed for temperature compensation and for controlling the instrument.

- Suitable for wire diameter > 3.0 mm and strip wire
- Auto-range selection
- Interfaces in series IEEE 488, RS 232, RS 485
- Checking tolerances and classification with statistics
- Measuring error <0.05% (OHM3) <0.01% (OHM4) with thermal e.m.f. compensation
- Measuring time with pure ohmic sample: 3½ digit < 300mS. 4½ digit < 500mS, 5½ digit < 5 seconds
- Measuring method: continuous, single, unipolar, or bipolar
- Zero balance: microprocessor controlled. Automatic temperature compensation applied complete software

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