

MultiServicer

A complete solution to testing of safety on machines, switchgears, controlgears, and portable electrical appliances

MI 2170 - Machine, Switchgear, PAT Tester

Three testers in one - its your choice

* also available MI 2171 - Machine Tester only



Measurements in accordance with:

- | | |
|-------------------------|--|
| IEC 60204 | Electrical equipment of machines. |
| IEC 60439-1 | Switchgear and controlgear assemblies. |
| IEC 60755 | Residual current operated protected devices. |
| IEC 60598-1 | Luminaires. |
| VDE 701, VDE 702 | Repair and modification inspections and repeat tests of electrical appliances. |
| IEC 50144-1 | Safety of hand-held electric motor operated tools. |

New for Multi Applications

- electrical service engineers
- switchgear / safety engineers
- electrical maintenance engineers



Final test on a portable appliance in a service workshop



Testing of safety in a construction site on a switchgear



Complete testing of safety on machines (at initial installation or on periodic basis)

Automatic test: One-man operation by remote probe

METREL ®

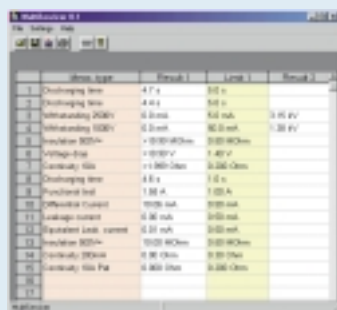
POWER
measure

Key Features

All accessories are placed in the protective bag

Large custom LCD, PASS / FAIL LEDs

Fuses for additional protection of the test socket



RS 232 port for downloading data on PC, and print-out of test reports

Quick reference guide for testing

Withstanding voltage test
2500 V AC / 250 VA;
1000 V AC / 500 VA

Multifunction test sockets

Robust waterproof case

Selection of functions by large and robust selection switch

Memory and display commands

Technical specification

Function	Measuring range;	Accuracy	MI 2170	MI 2171
Withstanding voltage test 2500 V AC / 250 VA Trip-out current / time	0 - 3000 V	± (5% + 5 dig.)	✓	
Withstanding voltage test 1000 V AC / 500 VA Trip-out current / time	0 - 1500 V	± (5 % + 5 dig.)	✓	✓
Insulation resistance test 500 V DC (Hi and Lo terminal) Test current Primary field of use: testing of machines, switchgears	0 - 19.99 MΩ min. 1 mA at 500 kΩ	± (5 % + 5 dig.)	✓	✓
Voltage drop test / Continuity test 10 A (*) (Hi and Lo terminal) Test current Primary field of use: testing of machines	0 - 11.99 V 0 - 1.999 Ω >10 A at R <330 mΩ	± (5 % + 5 dig.) ± (5 % + 5 dig.)	✓	✓
Discharge time test 60 V, 120 V (Hi and Lo terminal) Input resistance	0 - 9.9 s 48 MΩ	± (5 % + 3 dig.)	✓	✓
Voltage measurement	0 - 450 V TRMS	± (2 % + 3 dig.)	✓	✓
Functional test	0 - 15.99 A	± (5 % + 3 dig.)	✓	✓
Continuity test 10 A (*) (on shuko plug) Test current Primary field of use: testing of appliances	0 - 1.999 Ω >10 A at R <330 mΩ		✓	
Continuity test 200 mA Test current	0 - 19.99 Ω >200 mA	± (5 % + 5 dig.)	✓	
Insulation resistance test 500 V DC (on shuko plug) Test current Primary field of use: testing of appliances	0 - 19.99 MΩ min. 1 mA at 500 kΩ	± (5 % + 5 dig.)	✓	
Substitute Leakage Open circuit voltage	0 - 19.99 mA 40 V	± (5 % + 5 dig.)	✓	
Touch Leakage Current Probe resistance	0 - 1.99 mA 1.8 kΩ	± (5 % + 5 dig.)	✓	
Differential Leakage Current	0 - 19.99 mA	± (5 % + 5 dig.)	✓	✓

(*) Automatic test

General specification

Power supply	230 V AC (optional 110 V)
Memories	50 locations
Degree of protection (closed case)	IP 54
Protection classification	I
Pollution category	2
Overvoltage category	Cat III 300 V
Compensation of test leads	yes
Dimensions (w x h x l)	345 × 160 × 335 mm
Weight (without accessories)	9.5 kg

Standard set

Order No. **MI 2170, MI 2171**



- Instrument
- HV test lead
- Test lead (black), 2 m
- Test lead (red), 2 m
- Test tip (black)
- Test tip (red)
- Crocodile clip (black)
- Crocodile clip (red)
- PC SW Multi Link with RS 232 cable
- Protective bag for accessories
- Instruction manual
- Production verification data
- Declaration of conformity

Optional accessories



- INS / SUB adapter (for connection of CLASS II equipment)
- Adapter for hard connection (for all hard wired equipment)
- Continuity extension - 10 m, set of 2 pcs

Order No:

A 1095

A 1096

S 2012



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