

MIT415/2 and MIT417/2

CAT IV Insulation testers



Designed for Electrical and Industrial testing

Insulation testing up to 1000 V and 200 G range

Stabilised insulation test voltage (New)

Single range, faster continuity testing from 0.01 to 1 M (New)

Insulation test voltage from 10 V to 1000 V (New)

600 V Trms AC and DC voltage measurement

Live circuit detection and protection

CAT IV 600 V and IP54

DESCRIPTION

The MIT415/2 and MIT417/2 insulation and continuity testers are designed not just for Electrical and Industrial, but with an exceptionally wide range of applications from electrical installations, cable testing, motor testing, automotive, ESD, panel building, avionics, maintenance etc.

Insulation testing has been enhanced with feedback controlled test voltages to limit over-voltage to 2%, rather than the industry standard 10-20%.

Continuity testing is now significantly faster, and a single auto-ranging 0.01 to 1.0 M function replaces the "ohms" and "kOhms" ranges. Retained are the 200 mA and 20 mA test options.

Replacing the original MIT400 instruments the new units feature a redesigned case, back-stand, and 6 cell battery compartment with separate fuse access.

All instruments are over-moulded for increased protection and achieve an IP54 weatherproof rating.

The MIT415/2 and MIT417/2 include additional low voltage insulation test voltages at 10 V and 25 V for ESD and low-voltage signal-wire testing as found in elevators. The MIT415/2 also includes a display option to show 10^5 , 10^6 , 10^7 instead of the usual K, M, G etc.

THE MIT400 RANGE:

The range consists of 2 instruments:

MIT415/2	10 V, 25 V, 50 V, 100 V, 250 V, 500 V + PI, DAR
MIT417/2	10 V, 25 V, 50 V, 100 V, 250 V, 500 V, 1000 V + PI, DAR

FEATURES INCLUDE:

Output Voltage () *

10 V, 25 V, 50 V, 100 V, 250 V, 500 V and 1000 V.

2%

- The output test voltage is maintained within the tolerance or -0% +2%

A / A () *

- PASS or FAIL displayed depending on threshold voltage

- The voltage is feedback controlled to ensure it remains within specification throughout the full test range

()

- The actual test voltage is displayed on the smaller digital readout, with the measurement on the larger digital display.

A

- The display also features an analogue arc to replicate the response of a moving coil display.

A *

- Polarization Index (PI) and Dielectric Absorption Ratio (DAR) functions

- PI: 10 min / 1 minute ratio

- DAR: 60 sec / 15 sec ratio

60 sec / 30 sec ratio

*

- Automatically test to a time limit

- Insulation testing up to 200 G at 1000 V.

- High quality flexible silicon test leads are comfortable to use and prevent measurement errors on G ranges above 5 G.

- prevents testing if voltages in excess of 25 V, 30 V, 50 V, 75 V 100 V (set by the user) are detected when making insulation tests. (Default is 50 V.)

- The buzzer can be set to buzz if the insulation resistance is above a user adjustable limit, set in the Setup menu.

- Holds insulation test on continuously.

(415/2) ()

- Swap display from k , M , G to 10⁵, 10⁶, 10⁷ etc

* Dependent on model

Test ranges extend from 2 G to 200 G depending on test voltage as below:

10 Volts	2G
25 Volts	5 G
50 Volts.	10 G
100 Volts.	20 G
250 Volts.	50 G
500 Volts.	100 G
1000 Volts	200 G

CONTINUITY (RESISTANCE) TESTING:

()

- One range fully automatic from 0.01 to 1.0 M.

200 mA , 20 mA *

- Either 200 mA or 20 mA continuity test currents are available. 20 mA test current will considerably increase battery life.

- Lead resistance compensation (NULL) operates up to 10 s of resistance.

B

- ON/OFF selected by simple push button.

B

- Continuity buzzer limit alarm provides adjustment of the maximum resistance the continuity buzzer sounds. This is adjustable from 1 to 200 in 12 steps.

VOLTAGE MEASUREMENT:

True RMS voltage measurement to 600 V ac or dc with resolution from 0.1 mV.

Digital voltage measurement up to 600 V AC/DC

Analogue arc measurement to 600 V AC/DC

Automatic display of frequency during voltage measurement.

DISPLAY:

The display offers a combination of analogue arc and a dual digital readout:

Analogue arc:

Full display width analogue arc.

Analogue arc display shows essential charge and discharge characteristics not visible on a digital display.

Single pointer "needle" response is similar to a moving coil meter.

Setup functions allow control of Buzzer limit alarms, Continuity test currents, K /M /G or 10⁴ /10⁵ /10⁶ etc ()

DUAL DIGITAL DISPLAY

Large main digital readout for good visibility of all main measurement results

Second digital display for additional data such as:

Insulation test voltage.

Insulation leakage current.

Supply frequency (when measuring volts).

Test mode eg. PI, DAR or t (t = Timer mode).

OTHER FUNCTIONS AND FEATURES

- Every tester is sealed to IP54, providing a

SPECIFICATION SUMMARY TABLE

INSULATION	MIT415/2	MIT417/2
10 V / 25 V / 50 V / 100 V / 250 V / 500 V		
1000 V		
PI- / DAR / Timed		
Lock button on M		
µA Leakage		
CONTINUITY		
Continuity 0.01 - 1 M		
Auto reverse polarity (setup ON-OFF)		
Lead null (< 10)		
VOLTAGE		
AC / DC Volts 600 V		
mV AC / DC range		
Frequency measurement 15 - 400 Hz		
Input impedance	0.25 m	0.25 m
OTHER FEATURES		
Auto power down (setup)		
AA Alkaline or NiMH	Alk	Alk
CAT IV 600 V		
ACCESSORIES		
Silicone leads (red/black)		
Switched probe supplied		

SPECIFICATION

All quoted accuracies are at +20 °C

Insulation:



ORDERING INFORMATION

	Description	Order Code
A		
Red/Black Silicone test leads with Probes + Clips		
SP5 remote switch probe (not MIT415/2)		
Owners information CD		
Batteries 6 x AA Alkaline		
Hard carry case		
	1 -	
	MIT415/2 Insulation tester	1006-738
	2 -	
	MIT415/2 Insulation tester	1006-739
	5 -	
	MIT417/2 Insulation tester	1004-738
	A	
	UKAS calibration certificate	1000-085
	Mains Charger kit (MIT430/2 only)	1007-464
	12 V DC car charger (requires mains charger kit)	1004-183
	SP5 remote switch probe (not MIT415/2)	1007-157
	Test lead set and crocodile clips	1002-001