

# MX 409 INSULATION TESTER - MULTIMETER



# Verification according to the applicable standards

- Insulation at 250 / 500 / 1,000 V
- Insulation resistance up to 11 GΩ
- Manual, locked and timer modes
- AC and AC+DC voltage measurement up to 700 V
- Continuity at 200 mA
- Visual alarm, blue / red backlighting







IEC 61557







# **ERGONOMICS**

Equipped with a large display with 2-colour backlighting, the **MX 409** insulation tester is particularly easy to read. The double digital display simultaneously shows the insulation value and the real test voltage. Thanks to alarm threshold programming, the test sanction can be read directly on the display.

Equipped with a shockproof sheath, the instrument offers excellent grip. It has a stand which can be folded out to ensure stability when used on a horizontal surface. The bag supplied as standard can be used to stow all the accessories and the built-in neck strap allows hands-free use. The automatic power-off function helps to optimize the life span of the batteries.



Backlit LCD screen, double digital display: insulation value and real voltage

**TEST start** 

HOLD: automatic freezing of the display at the end of each measurement

**Measurement terminals** 





Bag for hands-free use.

4 keys for access to the functions: HOLD, backlighting, compensation of cable resistance, buzzer, timer, etc.

7-position switch for direct access to the functions

# **FUNCTIONS AND APPLICATIONS**

The **MX 409** is mainly used to check the safety of electrical installations. It measures resistance, insulation and continuity in compliance with the applicable standards: IEC 60364, NF C 15-100, VDE 100, etc. It is also ideal for maintenance and repair of electrical equipment such as motors, cables, etc.

**Preventive maintenance** "In addition to the measurements carried out on new and reconditioned equipment during commissioning, regular insulation testing on installations and equipment helps to avoid such incidents through preventive maintenance. These tests detect ageing and premature deterioration of the insulating properties before they reach a level likely to cause problems. The severity of such incidents may affect the safety of people and property, as well as generating production downtime costs in industry."

# **SAFETY**

The **MX 409** is a safe instrument. The presence of a hazardous voltage is detected automatically. Insulation measurement in the presence of a voltage greater than 30 V is automatically inhibited, making insulation testing.

# **MEASUREMENTS**

The **MX 409** insulation tester can measure insulation at 250 V / 500 V / 1,000 V, making it ideal for a large number of applications. It offers high-performance insulation resistance measurements up to 11 G $\Omega$ , while also measuring resistance up to 420 k $\Omega$  and voltage up to 700 VAC/DC. In compliance with the applicable standards, continuity measurement is performed with a test current  $\geq$  200 mA. This measurement directly integrates automatic compensation of cable resistance for greater accuracy.



Preventive maintenance preventive on a motor



Insulation measurement with simultaneous display of the insulation and the real test voltage > Insulation measurement in manual or locked mode or with a duration programmed using the timer



Voltage measurement and battery charge test in the voltage position



Resistance measurement



Continuity measurement at 200 mA with measurement  $< 2\Omega$ Blue screen and  $| \nabla |$ 

> the blue or red backlighting is used to indicate the alarm status immediately



Continuity measurement at 200 mA with measurement > 2 Ω
Red screen and ★

# **TECHNICAL SPECIFICATIONS**

## **MX 409**

Voltage		
	Range	1-700 V
	Resolution	1V
	Accuracy	$\pm 1.2\%$ R $\pm 1$ ct in AC+DC; $\pm 1\%$ R $\pm 1$ ct in DC
Insulation		
Test voltage	250 V	50 kΩ to 4.2 GΩ
	500 V	100 kΩ to 4.2 GΩ
	1 000 V	200 kΩ to 11 GΩ
Accuracy	50 kΩ to 400 MΩ	±1.5% R ± 10 cts
	360 M $\Omega$ to 4.2 G $\Omega$	$\pm 4\%$ R $\pm 10$ cts; $\pm 4\%$ R $\pm 5$ cts (at 1,000 V)
	3.6 G $\Omega$ to 11 G $\Omega$	±10% R ± 10 cts
Voltage alert indicator		Yes > 30 V
	Test inhibition	Yes > 30 V
	Timer	10 s to 39 min 59 s
Continuity		
	Range	0.02 Ω - 40Ω
Measurement current		≥ 200 mA
Cable compensation		up to 5 $\Omega$
	Audible beep	<20 or <10
Resistance		
	Range	$1\Omega$ to $420\mathrm{k}\Omega$
	Accuracy	±1.2% R ± 3 cts
Automatic power-off		After 10 min without use
Backlighting		blue / red
Power supply		6 x LR 6 or AA batteries
Standards		IEC 61557-1-2-4-10
Electrical safety		IEC 61010-1, 61010-2-030, 61010-2-034 - 600V CAT IV
IP / IK index		IP 40

## **STATE AT DELIVER AND REFERENCES**

**Dimensions / weight** 

### MX 409 MX0409

MX409 insulation tester delivered in a hands-free bag containing 2 safety leads (1 red and 1 black), 1 red crocodile clip, 1 black test probe, 1 protective sheath mounted on the instrument, 6 x LR6 or AA batteries, 1 safety datasheet, 1 quick start guide and 1 verification certificate.



## **ACCESSORIES AND REPLACEMENT PARTS**

Set of safety leads (red and black, 1.5 m)
Crocodile clips (red + black)
Test probe (red + black)
Continuity rod

218 x 95 x 63 mm / 760 g

P01295289Z P01295457Z P01295454Z P01102084A



The continuity rod is ideal for use with the MX 409 (option). Practical and time-saving, it can be used to quickly test all the metal chassis earths: lighting, mains socket, etc.

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