### MI 3201 TeraOhm 5 kV Plus



## Advanced 5 kV Insulation Tester with Diagnostics Tools



- **Diagnostic tools** Polarization index (PI), Dielectric discharge (DD) and Dielectric Absorption Ratio (DAR) with automated resistance ranging (AR). All parameters can be measured and displayed in one single measurement.
- **Step voltage test** Insulation resistance will be measured at five different, equality sequenced test voltages for profound insulation system diagnostics.
- **R(t) graph** Real time resistance against time graph plotting facility to graphically illustrate the response of a material to an applied test voltage.
- **High charging capacity** With 5 mA charging current insulation systems up to 50  $\mu$ F can be quickly charged and tested.
- **High EM (noise) immunity** Built in noise rejection filters and shielded test leads supplied in a standard set make the instrument suitable for accurate insulation testing in environments with high EM interferences like HV switchyards or similar.
- High protection level CAT IV / 600V overvoltage category for industrial environments.
- Lightweight and user-friendly design TeraOhm 5kV is packed in a handy, rugged carrying case weighing only 3 kg.

The new TeraOhm 5 kV insulation tester has all necessary features for a profound insulation diagnostics. Automated calculation of PI, DD and DAR, combined with a possibility to perform a step voltage test make the instrument suitable for the most demanding customers and applications. Large LCD display allows real time R(t) graphs to be displayed. Windows compatible TeraLink PC Software and either RS232 or USB communications ports serve for connecting the instrument to the PC and management of the recorded test data.











#### **TYPICAL APPLICATIONS:**

- power transformers
- high voltage cables
- rotating machines
- surge arrestors
- measuring transducers

#### **STANDARDS:**

Instruments operation: IEC/EN61557-2

Electromagnetic compatibility: EN 61326 class B

Safetv:

EN 61010-1 (instrument) EN 61010-031(accessories)



# **Technical Specification**

INSULATION		
Test voltage range	250 - 5000 V	
Measuring range	10 ΤΩ	
Voltage steps	up to 5 kV, step by 25 V	
Voltage ramp test	yes	
Automatic discharge after test	yes	
Calculation of DD, DAR, PI	yes	
Step voltage testing	yes	
Withstanding voltage test	yes	
Timer	yes	
Leakage current measurement	yes	
Capacitance measurement	yes	
Short circuit / charge current	5 mA	
Guard terminal	yes	
Auto adjustment function	yes	
Audible warnings	yes	
Auto ranging	yes	
Shielded test leads included	ves	
VOLTAGE		
Voltage test AC/DC	up to 600 V AC and DC	
ACCURACY		
Insulation	5 % +3d (to 1 TΩ), 15 % +3d (to 10 TΩ)	
Voltage	3 % +3 V	
Capacitance	5 % +4 nF	
DISPLAY		
R(t) graphs plotting facility	yes	
Backlit	yes	
Graphic display	LCD	
MEMORY, SOFTWARE AND COMMUNICATION		
USB / RS232 downloading	yes	
Memory size	128 kB	
Software	optional TeraLink PRO PC Software	
SAFETY AND PROTECTION		
IP	44	
Safety category	CAT IV, 600 V	
POWER SUPPLY		
Rechargeable batteries	included	
In-built battery charger	yes	
Low battery indication	yes	
Battery life	4 h at at 5 kV	
DIMENSIONS		
Weight	3 kg	
Dimensions	310 x 130 x 250 mm	



Real time resistance against time graph plotting facility



Shielded test leads 12 kV included in standard set

#### ORDERING INFORMATION

MI 3201

Standard set



Instrument TeraOhm 5 kV
Carrying bag
Mains cable
12 kV shielded test lead set, 2 m (black, red)
10 kV alligator set (black, red)
Test lead with alligator clip, 2 m (green)
6 x 1.2 V NiMH batteries, C type
Handbook "Modern insulation testing" on CD
Instruction manual
Product verification data

#### **OPTIONAL ACCESSORIES**

Photo	Order No.	Acc. decription
	A 1275	PC SW TeraLink PRO with USB and RS232 cable
P	S 2029	12 kV shielded test lead set, 8 m (black, red)
P	S 2030	12 kV shielded test lead set, 15 m (black, red)
**	S 2036	10 kV alligator set (black, red)



**Measuring and Regulation Equipment Manufacturer** 

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