



INSULATION TESTERS



Nippen Insulation Testers are used for direct reading of insulation resistance of electrical rotating machine, power distribution lines, communication cables, insulators controls and switching equipment etc.

Its is a robust instrument incorporating a built-in-hand driven generator and a solid-state circuit for stabilised D.C. output.

Nippen Insulation Testers meet the requirements of Indian Standard Specifications IS.2992-1987 insulation resistance measuring instruments.

These instruments are coming in two types of case as -

- (i) In injection moulded ABS plastic case, unique geometry of the cabinet makes it practically unbreakable due to accidental falls and bumps.
- (ii) A sturdy and elegant Aluminium casted case with carrying handle which makes the instrument conveniently portable. It has two sections and is dust free. The rotary magnet type generator runs smooth with minimum noise because of excellent dynamic balance of rotating parts.



Model	Rated Voltage/Rated Resistance	Effective Measuring Range	Application
NITA/NITM	100 V/10 Mohms	0.01 -10 Mohms	Low tension power line
"	100 V/20. Mohms	0.02-20 Mohms	
"	250 V/20 Mohms	0.02-20 Mohms	Communication cable, low tension power line etc.
"	250 V/50 Mohms	0.05-50 Mohms	
"	500 V/50 Mohms	0.05-50 Mohms	General Insulation Resistance Test
"	500 V/100 Mohms	0.1-100 Mohms	
"	500 V/200 Mohms	0.2-200 Mohms	
"	500 V/500 Mohms	0.5-500 Mohms	
"	500 V/1000 Mohms	1-1000 Mohms	
"	1000 V/200 Mohms	0.2-200 Mohms	Power equipment, communication and other electrical machines used in high voltage systems.
"	1000 V/500 Mohms	0.5-500 Mohms	
"	1000 V/1000 Mohms	1-1000 Mohms	
"	1000 V/2000 Mohms	2-2000 Mohms	

General Characteristics :

Scale length : Approximately 70mm.

Rotational speed of handle: 160 r.p.m. and above

Response time : Less than 3 seconds when a resistance, the value of which corresponds to the central scale mark is suddenly inserted between measuring terminals

Limits of error : The insulation resistance measurement is accurate to within $\pm 5\%$ of the indicated value at the scale mark of the rated resistance in conformity with IS:2992-1987

Tolerance on Voltage : within $\pm 10\%$ of the rated voltage for scale mark of infinity & more than 90% of the rated voltage for the central scale marks

Accuracy of Voltage : This facility is provided mainly to determined whether the equipment under test is live or not and not for any accurate measurement work. However the accuracy is within $\pm 10\%$ F.S.D.

Tilt influence : Less than 0.5mm deflection from the infinity scale mark due to inclination of 5 degrees form the horizontal.

Ambient temp. influence : The deviation in indication is less than $\pm 5\%$ near the central scale mark for ambient temperature change of 20 degrees from 27°C.

Influence of humidity : Within the rated accuracy of the relative humidity of 90%

Insulation resistance : 1) More than 25 MW between the electric circuits and case for rated voltage upto and including 250V.
2) More than 50 MW between the electric circuits and case for rated voltage above 250V.

Dielectric strength : Withstands application of 2000 volts AC(rms) for 1 minute between the electric circuits & the case.

External dimensions : **Size** : 160 x 110 x 72 mm. **Weight** : 1.0 kg ABS Body (NITA)
Size : 178 x 122 x 126 mm. **Weight** : 2.3 kg Metal Body (NITM)

Accessories (supplied with instrument) : Test leads and instruction manual

Accessories (supplied optional at extra cost) : Carrying case.