



सत्यमेव जयते

TEST / CALIBRATION REPORT

TYPE TEST OF
ANALOG INSULATION TESTER
MODEL : MC904A-2



ELECTRONICS REGIONAL TEST LABORATORY (WEST)

MINISTRY OF COMMUNICATIONS & INFORMATION TECHNOLOGY, (STQC Dte.)

Government of India

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ELECTRONICS REGIONAL TEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY		REPORT NO. ERTL (W)/2004E&S284	
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1. SCOPE

1.1 Service Request No : ERTL (W)/20042011 Dated: 6th Oct 04

1.1.1 Service Request finalised on : DT. 6th Oct 2004

1.2 Requested by
(Name and address of organisation) : MECO INSTRUMENTS PVT. LTD.
301, BHARAT INDUSTRIAL ESTATE,
T.J. ROAD, SEWREE,
MUMBIA 400 015

1.3	Description	Qty	Manufacturer	Type No.	Serial Nos.
	ANALOG INSULATION TESTER	01	MECO INSTRUMENTS PVT. LTD.	MC904A-2	1223/4

1.4 Test specifications : TYPE TESTING AS PER IS 10656

1.5 Lab Ambient : Temperature: (25 ± 2) ° C
RH : (55 ± 5) %

1.6 Test Equipment used :

1. HIGH STABILTIY DECADE MEGAOHM BOX	S&C /156
2. HV PROBE	S&C /14(A)
3. DMM	E&S/122
4. VIBRATION MACHINE	ENV/62
5. SHOCK TEST MACHINE	E&S/11
6. TEMP. TEST CHAMBER	ENV/28
7. HUMIDITY CHAMBER	ENV/58
8. OSCILLOSCOPE	E&S/77
9. WI TESTER	E&S/66
10. INSU TESTER	E&S/123



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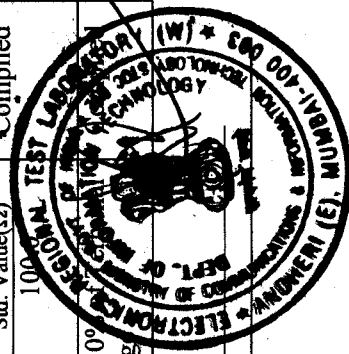
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2.0 TEST RESULTS

Sr.No.	Test/Parameter	Test Condition	Requirement	Observation		Remark
				Measured value(Ω)	Std. Value(Ω)	
2.1	Initial measurement	As per cl.9.0	As per cl. 9.1	20 M	20.01M	Complied
				100M	100.0M	
				200M	200.0M	
2.2	HIGH VOLTAGE TEST	2 kV AC for 1 min. between all the terminals connected together and the case	As per cl. 9.2 (terminal voltage) No break down, arcing or sparking shall occur.	500V	515.2 V	Complied
2.3	INSULATION RESISTANCE TEST	At 500 V DC between all the terminals connected together and the case	50Mohm	>50Mohm		Complied
2.4	TEST FOR LIMITS OF ERROR					
2.4.1	Error due to variation of level.	A change of 5 degrees in the level of the tester in any direction	Deviation of the pointer from its initial position should be less than 0.5 mm	Deviation of the pointer from its initial position observed be less than 0.5 mm		Complied
2.4.2	Error due to variation of Ambient Temperature	a) at 47 deg.c b) at 7 deg.c	Deviation Shall not exceed $\pm 5\%$	Measured value(Ω) a)100.15M b)100.15M	Std. Value(Ω) 100.0M 100.0M	Complied
2.4.3	Error due to variation of Excessive Humidity	At 27 deg.c, 90% RH for 24 Hours	Deviation Shall not exceed $\pm 5\%$	Measured value(Ω) 100.10	Std. Value(Ω) 100.0M	Complied
2.4.4	Ripple at Meas. Terminal	As per cl 11.6.4	Less than 10% of Terminal voltage	Ripple is less than 10% voltage		Complied



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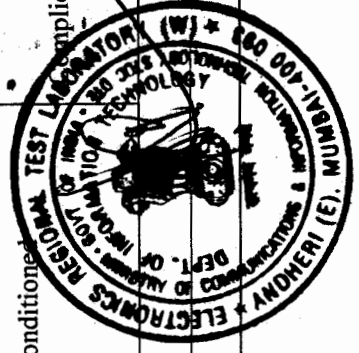
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2.0 TEST RESULTS (CONTINUED)

Sr.No.	Test/Parameter	Test Condition	Requirement	Observation Measured value(Ω) Std. value(Ω)	Remark
2.5	Dust test	Temp. 40 \pm 2 and RH 80% Duration: 4 hrs.	Conditioning	Conditioned	---
2.5.1	Post measurement	As per cl.9.0	Resistance: \pm 5%	20 M 100M 200M	Complied
			Terminal voltage: \pm 25%	500V	520 V
2.6	Vibration Test	As per cl 11.8, Accordance with IS 9000 (Part 8) Freq. 10 to 150 Hz Amplitude: 0.15mm Duration:6 hrs	Conditioning	Conditioned	Complied
2.6.1	Post measurement	As per cl.9.0	Resistance: \pm 5%	20 M 100M 200M	Complied
			Terminal voltage: \pm 25%	500V	518 V
2.7	Bump Test	As per cl 11.9, Accordance with IS 9000 (Part 7/sec 2)) No. of bumps:4000 Acc.: 100 m/s ² Pulse duration:6 ms	Conditioning	Conditioned	Complied

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2.0 TEST RESULTS (CONTINUED)

Sr.No.	Test/Parameter	Test Condition	Requirement	Observation		Remark
				Measured value(Ω)	Std. value(Ω)	
2.7.1	Post measurement	As per cl.9.0	Resistance: $\pm 5\%$	20 M	20.11M	Complied
				100M	100.0M	
				200M	200.0M	
2.8	Dry heat Test	As per cl 11.10, Accordance with IS 9000 (Part 3/sec 2) Duration: 16 Hrs.	Conditioning	Terminal voltage: $\pm 25\%$	500V	---
				Conditioned	522V	
2.8.1	Post measurement	As per cl.9.0	Resistance: $\pm 5\%$	20 M	20.11M	Complied
				100M	100.0M	
				200M	200.0M	
2.9	Cold Test	As per cl 11.11 Accordance with IS 9000 (Part 2/sec 2) Temp.: -10 deg.c Duration: 16 Hrs.	Conditioning	Terminal voltage: $\pm 25\%$	500V	Conditioned
				Conditioned	544V	



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2.0 TEST RESULTS (CONTINUED)

Sr.No.	Test/Parameter	Test Condition	Requirement	Observation		Remark
				Measured value(Ω)	Std. value(Ω)	
2.9.1	Post measurement	As per cl.9.0	Resistance: $\pm 5\%$	20 M	21.0M	Complied
				100M	100.2M	
				200M	200.0M	
				500V	545V	
2.10	Damp Heat (cyclic)	As per cl 11.12 of IS 10656 IS 9000(Part 5/sec 2) Number of cycle: 2	Terminal voltage: $\pm 25\%$			
2.10.1	Post measurement	As per cl.9.0	Resistance: $\pm 5\%$	20 M	20.5M	Complied
				100M	100.0M	
				200M	200.0M	
				500V	536V	
			Terminal voltage: $\pm 25\%$			

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3.0 General Remarks : Nil

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HEAD (E&S)

