



सत्यमेव जयते

TEST / CALIBRATION REPORT

TYPE TEST FOR
3 ½ DIGIT DIGITAL AC VOLTAGE PANEL METER



ELECTRONICS REGIONAL TEST LABORATORY (WEST)

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

Government of India

Plot No. F 7 & 8, MIDC Area, Opp. SEEPZ,
Andheri (E), Mumbai - 400 093.

Phone : (022) 2832 5134, 2830 1468, 2830 1138 Fax : (022) 2822 5713

E-mail : ertlbom@bom4.vsnl.net.in

ELECTRONICS REGIONAL TEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY	REPORT NO. ERTL (W)/2004E&S276		
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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

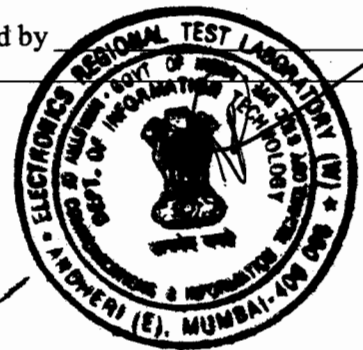
1.3 Description	Qty	Manufacturer	Type No.	Serial Nos.
3 ½ DIGIT PANELMETER (AC VOLTAGE)	01	MECO INSTRUMENTS PVT. LTD	SMP35S	0411983

1.4 Test specifications : TYPE TESTING AS PER IS 13875

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

- 1.6 Test Equipment used :
- | | |
|-------------------------|----------|
| 1.UNIVERSAL CALIBRATOR | S&C /138 |
| 2.TEMP-HUMIDITY CHAMBER | ENV/42 |
| 3.VIBRATION MACHINE | ENV/62 |
| 4. SHOCK TEST MACHINE | ENV/11 |
| 5.ENERGY TEST BENCH | E&S/128 |

Released by _____



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2.0 TEST RESULTS

Sr.No.	Test/Parameter	Test Condition	Requirement	Observation		Remark
				Set value(volt)	Measured value(volt)	
2.1	Intrinsic Error Test	As per Cl. No. 4.2	Error shall be within $\pm 0.5\%$ of reading +2 Digits	75	75	Complied
				150	150	
				300	299	
				600	599	
				750	749	
2.2	Influence error Test	As per Cl. No. 4.3				
2.2.1	Error due to Change in Ambient Temperature	Temperature varied from a) 0 deg. C. to b) 50 deg. C. while other conditions at reference value	Deviation shall be 100% of error for a change of ± 10 deg.c	75	75	Complied
				675	675	
2.2.2	Error due to Change in Relative Humidity	Relative Humidity varied from a) 25%. To b) 80%RH while other conditions at reference value	Deviation shall be 100% of error	75	75	Complied
				675	674	
2.2.3	Error due to Change in Position	The UUT is tilted till it get topple while other conditions at reference value	Deviation shall be 50% of error.	75	75	Complied
				675	674	



BR= Reference Value BX=Influential value

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2.0 TEST RESULTS (CONTINUED)

Sr.No.	Test/Parameter	Test Condition	Requirement	Set Value (volt)	Observation BR	BX	Remark
2.2.4	Error due to Change in supply voltage	Supply voltage = $\pm 10\%$ of 230 V AC a) 207 V b) 253 V	Deviation shall be 50% of error	75	75	a) 75 b) 75	Complied
				675	674	a) 675 b) 675	
2.2.5	Error due to Change in supply frequency	Supply frequency = $\pm 10\%$ of 50 Hz a) 45 Hz b) 55 Hz	Deviation shall be 100% of error	75	75	a) 75 b) 74	Complied
				675	675	a) 674 b) 673	



**ELECTRONICS REGIONAL TEST LABORATORY (WEST)
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Sr.No.	Test/Parameter	Test Condition	Requirement	Observation	Remark
3	Mechanical Load	As per cl. No. 4.9			
3.1	Shock test	As per IS 9000 (part 7/sec.1) Pulse shape=Half sine wave Pulse duration=11 ms Peak acceleration= 147m/S ² No of shocks=18	No visual damage shall occur.	Conditioned	Complied
3.1.1	Intrinsic Error Test	accuracy test at 10% and 90 % of range.	Error shall be within±0.5% of reading +2 Digits	Set Value (volt) a) 75 b) 675	Measured value(volt) a) 75 b) 674 Complied
3.2	Vibration test	As per IS 9000 (part 8) Amplitude=± 0.15 mm Frequency=10-55-10 Hz Rate=1 oct/min No of scan cycles 2 in each direction	No visual damage shall occur.	Conditioned	Complied
3.2.1	Intrinsic Error Test	accuracy test at 10% and 90 % of range.	Error shall be within±0.5% of reading +2 Digits	Set Value (volt) a) 75 b) 673	Measured value(volt) a) 74 b) 673 Complied



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3.0 General Remarks : Nil.

REPORT APPROVED BY

REPORT REVISION

HEAD (E&S)



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