

# **TEST / CALIBRATION REPORT**

# Type Test Report

### for

## **MECO AC Voltage Transducer**

Testing as per IEC 60688 (Edition 2.2)



# 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

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ELECTRONICS REGIONAL TEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY	REPORT NO. ERTL (W	)/2003 E&	\$26
SUBJECT: TESTING OF AC VOLTAGE TRANSDUCER	DATE	PAGE	OF
	. 9 MAY 2003	1	7

### 1. SCOPE

1.1	Service Request No		: ERTL(W)/2003	30563 DATED	21 <sup>st</sup> March 2003
1.1	.1 Service Request finalised	on	: 21 <sup>st</sup> March 2003	i	
1.2	Requested by (Name and address of org	anisation)	: MECO INSTRU 301, BHARAT I T.J. ROAD, SE MUMBAI – 400	INDUSTRIAL WREE (W),	
1.3	Description	Qty	Manufacturer	Type No.	Serial Nos.
	AC VOLTAGE TRANSDUCER, INPUT : 0 – 132 VAC, OUTPUT : 0 – 10 mA & 4 – 20 mA Accuracy: 0.2 %	01 No.	MECO	VMT	030932
1.4	Test specifications		Testing as per IEC	C 60688 (Editio	on 2.2)
1.5	Lab Ambient		Temperature: (25 RH : (5	<u>+</u> 2) ° C 55 <u>+</u> 5) %	
1.6	Test Equipment used :		<ol> <li>Calibration Sy</li> <li>Energy Meter</li> <li>System DMM</li> <li>Vibration Ma</li> <li>Shock Test M</li> <li>Over Voltage</li> <li>HF Test Gene</li> <li>Coupling Net</li> <li>Programmable Chamber</li> </ol>	Calibrator chine lachine Test Generator rator work	S&C/138 E&S/126 EM!/006 ENV/008 ENV/018 EMI/002 EMI/019 EMI/021 ENV/042
				Andreas And Part	

Part Date       Part Condition     Requirement     Observation       Test Condition     Requirement     O/p 1     O/p 2       Test Condition     Requirement     0/0 1%     0.03 %       Outgage = 0 V AC     (0.2 %)     -0.05 %     -0.05 %       Ontage = 132 V AC     0.01 %     0.01 %     0.03 %       Se varied from 38.4 V to     50 % of class     0.01 %     0.03 %       Se varied from 0 deg. C to     index     1.56 %     2.49 %       Test supply: 48 V DC     100 % of class     0.01 %     0.2 %       Sower supply: 48 V DC     index     0.01 %     0.2 %       Sower supply: 48 V DC     100 % of class     0.01 %     0.2 %       Sower supply: 48 V DC     50 % of class     0.01 %     0.2 %       Sower supply: 48 V DC     50 % of class     0.01 %     0.2 %       Sower supply: 48 V DC     50 % of class     0.01 %     0.01 %       Sower supply: 48 V DC     50 % of class     0.01 %     0.01 %	Participation     Date       Test Condition     Requirement     Observation       Test Condition     Requirement     Observation       Test Condition     Requirement     Op1     Op2 %       ower supply : 48 V DC.     Class index     0.01 %     0.03 %       oltage = 0 V AC     0.02 %)     -0.05 %     -0.05 %       oltage = 66 V AC     0.01 %     0.01 %     0.03 %       oltage = 132 V AC     0.01 %     0.03 %     -0.03 %       wer supply : 48 V DC     100 % of class     0.01 %     0.03 %       ower supply : 48 V DC     100 % of class     0.01 %     0.2 %       ower supply : 48 V DC     100 % of class     0.01 %     0.2 %       ower supply : 48 V DC     index     0.01 %     0.2 %       ower supply : 48 V DC     index     0.01 %     0.2 %       ower supply : 48 V DC     findex     0.01 %     0.2 %       ower supply : 48 V DC     50 % of class     0.01 %     0.2 %       ower supply : 48 V DC     findex     0.01 %     0.01 %       ower supply : 48 V DC     findex     0.01 %     0.01 %       ower supply : 48 V DC     findex     0.01 %     0.01 %       ower supply : 48 V DC     findex     0.01 %     0.01 %       ower supply	Y     PAGE     PAGE       Test Condition     Requirement     Observation     Remark       Ower supply: 48 V DC.     Class index     Op1     Op2       Othage = 0 V AC     0.03 %     0.02 %     0.03 %       Othage = 132 V AC     0.03 %     0.03 %     0.03 %       Ontage = 132 V AC     0.01 %     0.03 %     0.03 %       Ontage = 132 V AC     0.03 %     0.03 %     0.01 %       Ower supply: 48 V DC     100 % of class     1.56 %     2.49 %     Complied       Ower supply: 48 V DC     100 % of class     0.01 %     0.03 %     Complied       Ower supply: 48 V DC     100 % of class     0.01 %     0.02 %     Solder at one joint       which was rectific     ndex     0.01 %     0.2 %     Complied       Ower supply: 48 V DC     50 % of class     0.01 %     0.2 %     Complied       Ower supply: 48 V DC     50 % of class     0.01 %     0.2 %     Complied       Ower supply: 48 V DC     50 % of class     0.01 %     0.02 %     Complied       Ower supply: 48 V DC     50 % of class     0.01 %     0.01 %     Complied       Ower supply: 48 V DC     50 % of class     0.01 %     0.01 %     Complied       Ower supply: 48 V DC     50 % of class     0.01 %	NFOR	ELECTRONICS REGIONAL TEST LABORATORY ( DEPARTMENT OF INFORMATION TECHNOLOGY	TORY (WEST) OLOGY	KE	PORT NO. E	(W)/	
Test Condition     Requirement     Observation       Test Condition     Requirement     Opservation       Input voltage = 0 V AC     0.02 %     0.02 %       Input voltage = 0 V AC     0.01 %     0.03 %       Input voltage = 0 V AC     0.01 %     0.03 %       Input voltage = 132 V AC     0.01 %     0.03 %       input voltage varied from 38.4 V to     50 % of class     0.01 %     0.03 %       .6 V     index     0.01 %     0.03 %     0.03 %       .6 V     index     0.01 %     0.03 %     0.03 %       .6 V     index     0.01 %     0.03 %     0.03 %       .6 V     index     0.01 %     0.03 %     0.03 %       .6 V     index     0.01 %     0.2 %       .6 V     index     0.01 %     0.2 %       .6 V     index     0.17 %     0.2 %       .6 V     index     0.17 %     0.2 %       .6 V     index     0.01 %     0.01 %	Test Condition     Requirement     Observation       Axiliary power supply: 48 V DC.     Class index     0/p 1     0/p 2       Input voltage = 0 V AC     (0.2 %)     -0.05 %     -0.05 %       Input voltage = 0 V AC     0.01 %     -0.05 %     -0.05 %       Input voltage = 13 V AC     0.01 %     0.01 %     0.03 %       .6 V     input voltage = 13 V AC     -0.06 %     -0.05 %     -0.05 %       .6 V     input voltage = 13 V AC     100 % of class     0.11 %     0.03 %       .6 V     index     0.09 % of class     0.17 %     0.2 %       .6 V     index     0.09 % of class     0.01 %     0.2 %       .6 V     index     0.09 % of class     0.01 %     0.2 %       .6 V     index     0.01 %     0.2 %     0.01 %       .6 V     index     0.09 % of class     0.17 %     0.2 %       .6 V     index     0.01 %     0.2 %     0.01 %       .6 V     index     0.01 %     0.2 %     0.01 %       .6 V     index     0.01 %     0.2 %     0.01 %       .6 V     index     0.01 %     0.2 %     0.01 %       .6 V     index     0.01 %     0.2 %     0.01 %       .6 Si Haz     0.00 %     0.01 %	Test Condition     Requirement     Observation       Test Condition     Requirement     O/p 1     O/p 2       Input voltage = 0 V AC     (0.2 %)     -0.05 %     -0.05 %       Input voltage = 0 V AC     0.01 %     0.01 %     0.03 %       Input voltage = 132 V AC     0.01 %     0.01 %     0.03 %       .6 V     input voltage = 132 V AC     0.01 %     0.03 %     -0.05 %       .6 V     input voltage varied from 38.4 V to     50 % of class     0.01 %     0.03 %       .6 V     index     0.01 %     of class     0.01 %     0.03 %       .6 V     index     0.01 %     of class     0.01 %     0.03 %       .6 V     index     0.01 %     of class     0.01 %     0.02 %       .6 V     index     0.01 %     of class     0.01 %     0.02 %       .6 V     index     0.01 %     of class     0.01 %     0.02 %       .6 V     index     0.00 %     of class     0.01 %     0.02 %       .6 V     index     0.01 %     of class     0.01 %     0.02 %       .6 V     index     0.01 %     of class     0.01 %     0.02 %       .6 V     index     0.00 %     of class     0.01 %     0.02 %       .6 V<	SUBJECT: TESTING OF AC VOLTAGE TRANSDUCER	3 I	NNSDUCER		r 9 MAY	2003	PAGE OF 2 7
Test ConditionRequirementObservationxiliary power supply: 48 V DC.Class index $0/p \ 1$ $0/p \ 2$ input voltage = 0 V AC $0.2  \%$ $0.05  \%$ $0.02  \%$ Input voltage = 0 V AC $0.02  \%$ $0.05  \%$ $0.05  \%$ Input voltage = 66 V AC $0.00  \%$ $0.01  \%$ $0.03  \%$ input voltage = 132 V AC $50  \%$ of class $0.01  \%$ $0.03  \%$ $.6  V$ index $0.01  \%$ $0.03  \%$ $0.03  \%$ $.6  V$ index $1.56  \%$ $2.49  \%$ index $1.56  \%$ $0.09  \%$ $0.2  \%$ $.6  V$ index $1.00  \%$ of class $0.09  \%$ $0.2  \%$ index $1.00  \%$ of class $0.17  \%$ $0.2  \%$ index. C $100  \%$ of class $0.17  \%$ $0.2  \%$ index. C $100  \%$ of class $0.01  \%$ $0.02  \%$ index. C $100  \%$ of class $0.01  \%$ $0.2  \%$ index. C $100  \%$ of class $0.17  \%$ $0.2  \%$ inferency varied from 0 deg. C toindex $0.17  \%$ $0.2  \%$ inferency varied from 0 deg. C toindex $0.01  \%$ $0.01  \%$ if form 0 ohm to 1000 ohm.index $0.01  \%$ $0.01  \%$ if of from 0 ohm to 500 ohm.index $0.01  \%$ $0.01  \%$	Test Condition     Requirement     Observation       xiliary power supply: 48 V DC.     Class index     0/p 1     0/p 2       Input voltage = 0 V AC     0.02 %     0.02 %     0.02 %       Input voltage = 0 V AC     0.01 %     0.03 %     0.03 %       Input voltage = 66 V AC     0.01 %     0.03 %     0.03 %       6 V     input voltage = 132 V AC     0.01 %     0.03 %       6 V     index     0.01 %     0.2 %       7 S Hiary power supply: 48 V DC     50 % of class     0.17 %     0.2 %       8 Kiliary power supply: 48 V DC     50 % of class     0.17 %     0.2 %       7 S Hiary power supply: 48 V DC     50 % of class     0.17 %     0.2 %       8 Kiliary power supply: 48 V DC     50 % of class     0.17 %     0.2 %       7 S Hiary power supply: 48 V DC     50	Test Condition     Requirement     Observation       Natiary power supply: 48 V DC.     Class index     0/p 1     0/p 2       Input voltage = 0 V AC     0.02 %     -0.05 %     -0.05 %       Input voltage = 0 V AC     0.01 %     -0.03 %     -0.03 %       Input voltage = 132 V AC     0.01 %     0.03 %     -0.03 %       6 V     input voltage = 132 V AC     0.01 %     0.03 %       6 V     index     0.01 %     0.2 %       7 S Hz     index     0.01 %     0.2 %       7 S Hz     index     0.01 %     0.2 %       7 S Hz     index     0.01 %     0.2 %       8 S Hz     Si Hz     0.01 %     0.2 %       8 S Hz     Si Hz     0.01 %     0.01 %       9 of form 0 ohm to 1000 ohm.     0.01 %     0.01 %       9 of form 0 ohm to 500 ohm.     0.01 %     0.01 % </th <th></th> <th></th> <th></th> <th>· · ·</th> <th></th> <th></th> <th></th>				· · ·			
xiliary power supply: 48 V DC.Class indexInput voltage = 0 V AC(0.2 %)-0.05 %-0.05 %Input voltage = 0 V AC-0.06 %-0.05 %-0.05 %Input voltage = 66 V AC-0.06 %-0.05 %-0.05 %Input voltage = 132 V AC50 % of class0.01 %0.03 %.6 Vindex0.01 %0.03 %.6.6 Vindex0.09 % of class0.09 %0.2 %mp. varied from 0 deg. C toindex0.01 %0.2 %mp. varied from 0 deg. C toindex0.17 %0.2 %mp. varied from 0 deg. C toindex0.01 %0.10 %mp. varied from 0 deg. C toindex0.01 %0.01 %mp. varied from 0 deg. C toindex0.01 %0.01 %mp. varied from 0 deg. C50 % of class0.01 %0.01 %iffequency varied from 45 Hzindex0.01 %0.01 %xiliary power supply: 48 V DC50 % of class0.01 %0.01 %iffort 1: Output load resistanceindex0.01 %0.01 %iffort 2: Output load resistanceindex0.01 %0.01 %iffort 0: ohm to 500 ohm.index0.01 %0.01 %	xxiliary power supply: 48 V DC.       Class index       -0.05 %       0.02 %         Input voltage = 0 V AC       0.02 %       -0.05 %       -0.05 %       -0.05 %         Input voltage = 66 V AC       0.01 %       0.03 %       -0.05 %       -0.05 %       -0.05 %         Input voltage = 132 V AC       0.01 %       0.03 %       -0.05 %       -0.05 %       -0.05 %       -0.05 %         xx. Voltage varied from 38.4 V to       50 % of class       0.01 %       0.03 %       -0.05 %       -0.05 %       -0.05 %         .6 V       index       index       0.01 %       0.03 %       -0.05 %       -0.05 %       -0.05 %       -0.05 %         .6 V       index       index       0.01 %       0.03 %       -0.05 %       -0.05 %       -0.05 %         .6 V       index       index       0.01 %       0.03 %       -0.02 %       -0.05 %       -0.02 %       -0.05 %	xiliary power supply: 48 V DC.     Class index       Input voltage = 0 V AC     (0.2 %)       Input voltage = 0 V AC     0.05 %       Input voltage = 132 V AC     0.01 %       not voltage = 66 V AC     0.01 %       Input voltage = 132 V AC     0.01 %       of C     0.03 %       .6 V     index       .6 V     0.03 %       .6 V     0.03 %       .6 V     index       .6 V     index       .6 V     0.03 %       .6 V     index       .6 V     0.03 %       .6 V     0.09 % of class       .7 %     0.17 %       .8 % DC     50 % of cla	Test/Parameter		Test Condition	Requirement	Observ O/p 1	ation O/p 2	Remark
Input voltage = 0 V AC-0.05 %0.02 %Input voltage = 66 V ACInput voltage = 66 V AC-0.05 %-0.05 %Input voltage = 132 V AC50 % of class0.01 %0.03 %.s. Voltage varied from 38.4 V to50 % of class0.01 %0.03 %.6 Vindex0.01 %0.03 %0.03 %.6 Vindex0.01 %0.03 %0.03 %.6 Vindex0.01 %0.03 %0.03 %.6 Vindex0.00 % of class1.56 %2.49 %mp. varied from 0 deg. C toindex0.09 %0.2 %mp. varied from 0 deg. C toindex0.09 %0.2 %mp. varied from 0 deg. C toindex0.01 %0.2 %mp. varied from 0 deg. C toindex0.01 %0.2 %mp. varied from 0 deg. C toindex0.01 %0.01 %mp. varied from 0 deg. C toindex0.01 %0.01 %index0.01 %index0.01 %stiliary power supply : 48 V DC50 % of class0.01 %stiliary power supply : 48 V DC50 % of class0.01 %stiliary power supply : 48 V DC50 % of class0.01 %stiliary power supply : 48 V DC50 % of class0.01 %stiliary power supply : 48 V DC50 % of class0.01 %stiliary power supply : 48 V DC50 % of class0.01 %stiliary power supply : 48 V DC50 % of class0.01 %stiliary power supply : 48 V DC50 % of class0.01 %	Input voltage = 0 V AC-0.05 %0.02 %Input voltage = 66 V ACInput voltage = 66 V AC-0.05 %-0.05 %Input voltage = 132 V AC50 % of class0.01 %0.03 % $6$ Vindex1.56 %2.49 % $6$ Vmp. varied from 38.4 V to50 % of class0.01 %0.03 % $6$ Vindex1.56 %2.49 % $6$ Vmp. varied from 0 deg. C toindex0.09 %0.2 % $6$ Vmp. varied from 0 deg. C toindex0.017 %0.2 % $6$ S Yindex0.017 %0.2 %0.01 % $6$ S Yindex0.017 %0.2 % $6$ S Yindex0.017 %0.2 % $6$ S Yindex0.017 %0.2 % $6$ S Hzindex0.017 %0.2 % $6$ S Hzxiliary power supply: 48 V DC50 % of class0.01 % $6$ S Hzxiliary power supply: 48 V DC50 % of class0.01 % $6$ S Hzxiliary power supply: 48 V DC50 % of class0.01 % $6$ S Hzxiliary power supply: 48 V DC50 % of class0.01 % $6$ S Hzxiliary power supply: 48 V DC50 % of class0.01 % $6$ S Hzxiliary power supply: 48 V DC50 % of class0.01 % $6$ S Hzxiliary power supply: 48 V DC50 % of class0.01 % $6$ S Hzxiliary power supply: 48 V DC50 % of class0.01 % $6$ S Hzxiliary power supply: 48 V DC50 % of class0.01 % $6$ S Hzxiliary power supply: 48	Input voltage = 0 V AC     -0.05 %     0.02 %       Input voltage = 66 V AC     -0.05 %     -0.05 %       Input voltage = 66 V AC     -0.05 %     -0.05 %       input voltage = 56 V AC     -0.05 %     -0.05 %       .6 V     index     0.01 %     0.03 %       .6 V     index     0.09 %     0.2 %       .6 V     index     0.17 %     0.2 %       .6 V     index     0.01 %     0.17 %       .6 V     index     0.17 %     0.2 %       .6 V     index     0.01 %     0.10 %       .6 V     index     0.01 %     0.10 %       .6 V     index     0.01 %     0.2 %       .6 V     index     0.01 %     0.2 %       .7 Matter     50 % of class     0.10 %     0.10 %       .6 Matter     0.01 %     0.01 %     0.2 %  <	Intrinsic error	1	Auxiliary power supply : 48 V DC.	Class index (0.2 %)			Complied
50 % of class     0.01 %     0.03 %       index     100 % of class     1.56 %     2.49 %       index     100 % of class     0.09 %     0.2 %       index     0.01 %     0.2 %       50 % of class     0.17 %     0.2 %       index     0.01 %     0.01 %	50 % of class     0.01 %     0.03 %       index     100 % of class     1.56 %     2.49 %       index     100 % of class     0.09 %     0.2 %       index     0.01 %     0.2 %       index     0.01 %     0.2 %       index     0.01 %     0.01 %       index     0.01 %     0.01 %	50 % of class     0.01 %     0.03 %       index     100 % of class     1.56 %     2.49 %       index     0.09 %     0.2 %       index     0.01 %     0.01 %					-0.05 % -0.06 % -0.05 %	0.02 % -0.05 % -0.05 %	
100 % of class     1.56 %     2.49 %       index     1.56 %     2.49 %       index     0.09 %     0.2 %       index     0.17 %     0.2 %       50 % of class     0.17 %     0.2 %       index     0.01 %     0.01 %	100 % of class     1.56 %     2.49 %       index     1.56 %     2.49 %       index     0.09 %     0.2 %       index     0.17 %     0.2 %       50 % of class     0.17 %     0.2 %       index     0.01 %     0.01 %	100 % of class     1.56 %     2.49 %       index     1.56 %     2.49 %       index     0.09 %     0.2 %       50 % of class     0.17 %     0.2 %       index     0.17 %     0.2 %       index     0.01 %     0.01 %       index     0.01 %     0.01 %	Variation due to auxiliary supply voltage	1	Aux. Voltage varied from 38.4 V to 57.6 V	50 % of class index	0.01 %	0.03 %	Complied
100 % of class         0.09 %         0.2 %           index         0.17 %         0.2 %           50 % of class         0.17 %         0.2 %           index         0.01 %         0.01 %	100 % of class         0.09 %         0.2 %           index         0.17 %         0.2 %           50 % of class         0.17 %         0.2 %           index         0.01 %         0.01 %	100 % of class     0.09 %     0.2 %       index     0.17 %     0.2 %       50 % of class     0.17 %     0.2 %       index     0.01 %     0.01 %	Variation due to ambient temp.	1	Auxiliary power supply : 48 V DC	100 % of class index	1.56%	2.49 %	Called customer, Dry solder at one joint found
100 % of class         0.09 %         0.2 %           index         0.17 %         0.2 %           50 % of class         0.17 %         0.2 %           index         0.01 %         0.01 %	100 % of class     0.09 %     0.2 %       index     0.17 %     0.2 %       50 % of class     0.17 %     0.2 %       index     0.01 %     0.01 %	100 % of class     0.09 %     0.2 %       index     0.17 %     0.2 %       50 % of class     0.17 %     0.2 %       index     0.01 %     0.01 %			Temp. varied from 0 deg. C to 45 deg. C				which was rectified and test repeated. The result
50 % of class         0.17 %         0.2 %           index         0.01 %         0.01 %	50 % of class 0.17 % 0.2 % index 0.01 % 0.01 % 0.01 %	50 % of class 0.17 % 0.2 % index 50 % of class 0.01 % 0.01 % 0.01 % 0.01 % 0.01 % 0.01 %	Retesting of Variation due to ambient temp.		Auxiliary power supply : 48 V DC Temp. varied from 0 deg. C to 45 deg. C	100 % of class index	% 60.0	0.2 %	of retest reported at Sr No. 2.3.1
50 % of class 0.01 % 0.01 % 0.01 %	50 % of class 0.01 % 0.01 % 0.01 %	50 % of class 0.01 % 0.01 %	Variation due to frequency of input quantities		Auxiliary power supply : 48 V DC Input frequency varied from 45 Hz to 55 Hz.	50 % of class index	0.17 %	0.2 %	Complied
			Variation due to output load		Auxiliary power supply : 48 V DC <b>Output 1:</b> Output load resistance varied from 0 ohm to 1000 ohm.	50 % of class index	0.01 %		Complied
	A Descent of the second of the	A CORV (N)			<b>Output 2:</b> Output load resistance varied from 0 ohm to 500 ohm.			0.01 %	

Complied Complied Complied Remark Complied Complied ٩ PAGE 3 REPORT NO. ERTL (W)/2003 E&S 26 <u>0/p 2</u> 0.17 % 0.03 % 0.14 % 0.02 % 0.19 % Observation E.9 MAY 2003 DATE 0.17% 0.02 % 0.18% 0.0 1% 0.2 % 0/p 1 200 % of Class accuracy class Class index Requirement Continue to Class index Class index comply the index Auxiliary power supply : 48 V DC Auxiliary power supply : 48 V DC Auxiliary power supply: 48 V DC Auxiliary power supply: 48 V DC Auxiliary power supply : 48 V DC Wih 100 Vrms at 45 Hz to 65 Hz applied between either output terminal and earth. I/p with 20 % 3<sup>rd</sup> harmonics Magnetic field of 0.4 kA/m Test Condition Test duration: 35 min. Test duration: 6 h ELECTRONICS REGIONAL TEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY SUBJECT: TESTING OF AC VOLTAGE TRANSDUCER Variation due to self heating continuous operation Test/Parameter Variation due to magnetic field of distortion of input Variation due to Variation due to Variation due to common mode interference external origin quantities Reference Clause No. 6.10 6.16 6.14 6.15 6.11 Sr.No 2.6 2.8 2.9 2.5 2.7

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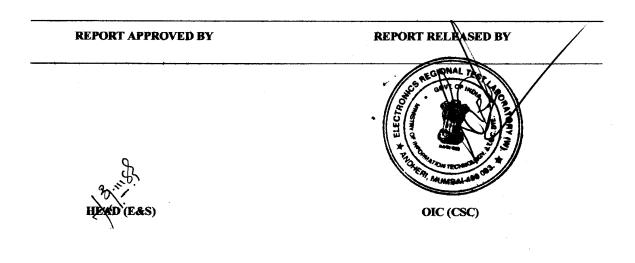
	E OF 7	Remark	Complied		Complied	Complied	Complied
W)/2003 E&S 20	PAGE 4	Observation O/p 2	0.01 %		Complied	Complied	
KEPOKT NO. ERTL (W//2003 E&S 26	9 MAY 2003	Obse 0/p 1	0.03 %		Complied	Complied	No breakdown et
<u> </u>		Requirement	Class index		Continue to comply the accuracy class after test	Continue to comply the accuracy class after test	No breakdown
TORY (WEST) OLOGY	NSDUCER	Test Condition	Auxiliary power supply : 48 V DC With 1 V rms at 45 Hz to 65 Hz applied in series with output signal		Auxiliary power supply : 48 V DC Apply 120 % of nominal upper value on aux. Supply, voltage inputs and current inputs.	<ul> <li>a) For voltage inputs: 200 % of the nominal value of the measured voltage applied for 1 s and repeated 10 times at 10 s interval.</li> <li>b) For current inputs: 20 times the nominal value of the measured current applied for 1 s and repeated 5 times at 300 s interval</li> </ul>	At 3 kV AC for 1 min. between a) Input & output b) Aux. & output c) Aux. & input
ELECTRONICS REGIONAL LEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY	SUBJECT: TESTING OF AC VOLTAGE TRANSDUCER	Test/Parameter	Variation due to series mode interference	Permissive excessive inputs	Continuous excessive inputs	Excessive inputs of short duration	Voltage test,
KONICS KEG	CT: TESTING	Reference Clause No.	6.17	6.18	6.18.1	6.18.2	6.20
DEPAR	SUBJEC	Sr.No.	2.10	2.11	2.11.1	2.11.2	2.12

ELECT DEPAR	RONICS REG	ELECTRONICS REGIONAL TEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY	DRATORY (WEST) CHNOLOGY	RE	REPORT NO. ERTL (W)/2003 E&S 26	V)/2003 E&S 26	
SUBJE	CT: TESTING	SUBJECT: TESTING OF AC VOLTAGE TRANSDUCER	TRANSDUCER		DATE	PAGE	, OF
					9 MAY 2003	с ———	<u>_</u>
Sr.No.	Reference	Test/Parameter	Test Condition	Requirement	Observation	/ation	Remark
	Clause No.				Output 1	Output 2	ľ
2.13	6.20	Impulse voltage tests	At peak test voltage of 5 kV in both positive and negative senses having the standardized impulse waveform of 1.2/50 us, applied between terminals of each circuit in turn and all other circuit connected together.	After completion of the test the DUT shall comply with the requirement appropriate to its class index.			Complied
2.13.1	4.2	Intrinsic error	Auxiliary power supply : 48 V DC a) Input voltage = 0 V AC b) Input voltage = 66 V AC c) Input voltage = 132 V AC	Class index (0.2 %)	-0.02 % -0.02 % 0.05 %	-0.01 % 0.06 % 0.02 %	Complied
2.14	6.21	High frequency disturbance test	2.5 kV peak between independent circuits. 1kV peak between terminals of the same circuit.	The variation due to the effect of disturbance shall not be twice of class index.	Complied	Complied	Complied
2.14.1	4.2	Intrinsic error	Auxiliary power supply : 48 V DC c) Input voltage = 0 V AC d) Input voltage = 66 V AC c) Input voltage = 132 V AC	Class index (0.2 %)	-0.03 % 0.01 % 0.03 %	-0.01 % 0.01 % 0.02 %	Complied
2.15	6.22	Test for temp. rise	Current circuit loaded at 110 % for 2 h Voltage circuit loaded at 120 % for 2 h	For input circuits: 60 k For exterior surface: 25 k	Not discernible	Not discernible	Complied
					( c) ( mt decase ★ (		
					MARKEN		

BUBECT: TESTING OF AC VOLTAGE TRANSDUCER     DATE     OF       SUBJECT: TESTING OF AC VOLTAGE TRANSDUCER     Test Candition     Test Condition     PAGE     OF       SNo.     Reference     Test/Parameter     Test Candition     Requirement     Observation     Remark       2.16     6.23     Vibration     5 systes: 10 - 53 vibration     Conditioned     On part 1       2.16     4.2     Intrinsic error     9 ingui vigue = 0V AC     (0.2%)     0.03 %     -0.01 %     Compliad       2.17.1     4.2     Intrinsic error     9 ingui vigue = 0V AC     (0.2%)     0.03 %     -0.01 %     Compliad       2.17.1     4.2     Intrinsic error     9 ingui vigue = 6V AC     (0.2%)     0.03 %     -0.01 %     Compliad       2.17.1     4.2     Intrinsic error     9 ingui vigue = 6V AC     (0.2%)     0.03 %     -0.01 %     Compliad       2.17.1     4.2     Intrinsic error     9 ingui vigue = 6V AC     (0.2%)     0.03 %     -0.01 %     Compliad       2.17.1     4.2     Intrinsic error     9 ingui vigue = 6V AC     (0.2%)     0.03 %     -0.01 %     Compliad       2.17.1     4.2     Intrinsic error     9 ingui vigue = 6V AC     (0.2%)     0.03 %     -0.01 %     Compliad       2.18.1     4.2	ELECT	RONICS REG TMENT OF I	ELECTRONICS REGIONAL TEST LABORAT DEPARTMENT OF INFORMATION TECHNO	ELECTRONICS REGIONAL TEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY	REPOR	REPORT NO. ERTL (W)/2003 E&S 26	03 E&S 26	
2.6     SEP     2003       ifference     Test/Parameter     Test/Parameter       1     Intrinsic error     0 reportation       0.33     Vibration     5 rego       0.33     Vibration     5 rego       1.3     Intrinsic error     0 reportation       0.33     Stroke     1 rest       0.33     Stroke     1 rest       0.33     Stroke     1 rest       0.33     Stroke     1 rest       0.34     1 rest     1 rest       0.35     Stroke     1 rest       0.34     1 rest     1 rest       0.35     Stroke     1 rest       0.35     Response time     1 rest       0.34     1 rest     1 rest       0.35     Response time     1 rest       0.34     1 rest     1 rest       0.34     1 rest     1 rest       0.35     1 rest     1 rest       0.35     1 rest     1 rest       0.35     1 rest     1 rest       0.34     1 rest     1 rest	SUBJE	CT: TESTING	OF AC VOLT	AGE TRANSDUCER		DATE	PAGE	OF
Records         Test/Parameter         Test Condition         Requirement         Observation           6.23         Vubration         Fast/Parameter         Test Condition         Observation           6.23         Vubration         Fast (1 - St - 10 Hz, Amplitude: 015 mm.         Conditioned         Observation           6.23         Vubration         Fast (1 - St - 10 Hz, Amplitude: 015 mm.         Conditioned         Observation           6.23         Vubration         Fast (1 - St - 10 Hz, Amplitude: 015 mm.         Conditioned         Observation           6.23         Stocks         0 mput voltage = 66 VAC         (0.2 %)         0.03 %         -001 %           6.23         Btock         1 mput voltage = 67 VAC         (0.2 %)         0.03 %         -001 %           6.23         Btock         0 mput voltage = 67 VAC         (0.2 %)         0.03 %         -001 %           6.23         Btock         0 mput voltage = 67 VAC         (0.2 %)         0.03 %         -001 %           6.23         Dtop & topple bound extenses         (1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -					-0	SEP 2003	9	2
Base No.         Output 1         Output 1         Output 1         Output 1           6.23         Vibration         Frog: 10 - 55 - 1014; Amplitude: 015 mm.         Conditioned         -003 %         -0019 %	Sr.No.	Reference	Test/Parameter	Test Condition	Requirement	Observ	ation	Remark
6.23     Vibration     Froq. : 10.55 - 1012, Amplitude: 0.15 mm.     Conditioned       4.1     Intrinsic error     a) Input voltage = 6V AC     0.03 %     -0.01 %       6.23     Shock     b) input voltage = 6V AC     (0.2 %)     0.02 %     -0.01 %       6.23     Shock     15gu fst.     Calasis index.     -0.03 %     -0.01 %       6.23     Shock     15gu fst.     0.02 %     -0.01 %     -0.03 %       6.23     Shock     15gu fst.     0.03 %     -0.01 %     -0.03 %       6.23     Shock     15gu fst.     0.01 %     -0.01 %     -0.01 %       6.23     Shock     10gu tvoltage = 6V AC     (0.2 %)     0.03 %     -0.01 %       6.23     Drop & toppic     0 input voltage = 6V AC     (0.2 %)     0.03 %     -0.01 %       6.23     Drop & toppica     0 input voltage = 6V AC     (0.2 %)     0.03 %     -0.01 %       6.23     Drop & toppica     0 input voltage = 6V AC     (0.2 %)     0.03 %     -0.01 %       6.23     Drop & toppica     0 input voltage = 6V AC     (0.2 %)     0.03 %     -0.01 %       6.23     Drop & toppica     0 input voltage = 6V AC     (0.2 %)     0.03 %     -0.01 %       6.23     Drop & toppica     0 input voltage = 1.22 VAC     0.04 %		Clause No.			•	Output 1	Output 2	
4.2     Intrinsic error     e) Input voltage = 0 V AC     Class index     003 %     001 %     003 %       6.23     Stock     15 stock     (0.2 %)     0.004 %     0.004 %     0.004 %       4.2     Intrinsic error     e) Input voltage = 132 VAC     (0.2 %)     0.004 %     0.003 %     0.001 %       4.3     Intrinsic error     e) Input voltage = 132 VAC     (0.2 %)     0.004 %     0.003 %     0.001 %       6.23     Drop & topple     Drop & topple     Drop woltage = 132 VAC     (0.2 %)     0.013 %     0.013 %     0.013 %       6.23     Drop & topple     Drop & topple     Drop woltage = 132 VAC     (0.2 %)     0.003 %     0.004 %       6.23     Drop & topple     Drop woltage = 132 VAC     (0.2 %)     0.003 %     0.013 %       6.23     Drop & topple     Drop woltage = 132 VAC     (0.2 %)     0.003 %     0.013 %       6.23     Drop & topple     Drop woltage = 132 VAC     (0.2 %)     0.003 %     0.013 %       6.23     Drop & topple     Drop woltage = 132 VAC     0.012 %     0.013 %       6.23     Open circait     Auroliary power supply: 48 VDC     1.134 V     1.4.43 V       5.13     Open circait     Auroliary power supply: 48 VDC     0.024 %     0.034 %     0.034 % <td< td=""><td>2.16</td><td>6.23</td><td>Vibration</td><td><u> </u></td><td></td><td>Conditioned</td><td></td><td>1</td></td<>	2.16	6.23	Vibration	<u> </u>		Conditioned		1
42     b) input voltage = 56 V AC     (0.2 %)     0.06 %     0.06 %     0.00 %       6.23     Shock     1% sinc, III     3.3 shocks on each sense.     Conditioned     0.00 %     0.00 %       6.23     Bhock     1% sinc, III     3.3 shocks on each sense.     Conditioned     0.00 %     0.00 %       4.2     Intrinsic error     b) Input voltage = 66 V AC     (0.2 %)     0.01 %     0.01 %     0.01 %       5.3     Drop & toppic     b) Input voltage = 66 V AC     (0.2 %)     0.01 %     0.01 %     0.01 %       6.1     b) Input voltage = 66 V AC     (0.2 %)     0.01 %     0.01 %     0.01 %       6.23     Drop & toppic     Drop & toppic     0.01 %     0.01 %     0.01 %       6.23     Drop & toppic     Drop of toppic     0.01 %     0.01 %     0.01 %       6.3     Drop & toppic     Drop of toppic     0.01 %     0.01 %     0.01 %       7.3     Open circuit     Auntilary power supply : 48 V DC     0.12 %)     0.01 %     0.31 %     0.33 %       5.4     Ripple     Input voltage = 132 V AC     5.13 V AC     0.12 %)     0.34 %     0.33 %     1.14 3 V       5.3     Noben circuit     Auntiliary power supply : 48 V DC     Not eaceel twice of class index     0.34 %     0.33 % <td< td=""><td>2.16.1</td><td>4.2</td><td>Intrinsic error</td><td>a) Input voltage = 0 V AC</td><td>Class index</td><td>-0.03 %</td><td>-0.01 %</td><td>Complied</td></td<>	2.16.1	4.2	Intrinsic error	a) Input voltage = 0 V AC	Class index	-0.03 %	-0.01 %	Complied
6.23     Shock     15g. ¼ sine, 11 ms, 3 shocks on each sense.     Conditioned       4.1     Intrinsic entry     a) Input voltage = 0 V AC     -0.04 %     -0.03 %     -0.03 %       4.2     Intrinsic entry     b) Input voltage = 60 V AC     (0.2 %)     -0.01 %     -0.01 %       6.23     Drop & topple     Drop k topple     Drop k topple     -0.01 %     -0.01 %       6.13     Drop & topple     Drop k topple     Drop k topple     -0.01 %     -0.01 %       6.13     Drop & topple     Drop k topple     Drop k topple     -0.01 %     -0.01 %       6.13     Drop & topple     Drop k topple     Drop k topple     -0.01 %     -0.01 %       6.13     Drop & topple     Drop k topple     Drop k topple     -0.01 %     -0.01 %       6.13     Drop & topple     Drop net supply     48 V DC     -0.2 %     -0.01 %       5.1     Ripple     Input voltage = 132 V AC     -0.12 %     0.13 %     0.03 %       5.3     Ripple     Input voltage = 132 V AC     -0.12 %     0.34 %     0.33 %       5.3     Ripple     Input voltage = 132 V AC     -0.13 %     0.33 %     0.33 %       5.4     Ripple     Input voltage = 132 V AC     -0.13 %     0.34 %     0.33 %       5.3     Rosponse time <td></td> <td></td> <td></td> <td>b) input voltage = 66 V AC c) Input voltage = 132 V AC</td> <td>(0.2 %)</td> <td>-0.08 % 0.02 %</td> <td>-0.04 % 0.02 %</td> <td>~~~~</td>				b) input voltage = 66 V AC c) Input voltage = 132 V AC	(0.2 %)	-0.08 % 0.02 %	-0.04 % 0.02 %	~~~~
4.2     Intrinsic error     a) Input voltage = 0 V AC     Class index     -0.04 %     -0.02 %     -0.01 %       5.13     Drop & topple     Drop bright 25 mm, one drop about each of four bottom edges.     (0.2 %)     0.01 %     -0.01 %     -0.01 %       4.2     Intrinsic error     a) input voltage = 0 V AC     (0.2 %)     0.01 %     -0.01 %     -0.01 %       4.2     Intrinsic error     a) input voltage = 0 V AC     (0.2 %)     0.01 %     -0.01 %     -0.01 %       5.3     Open circuit     Anuilary power supply: 48 V DC     (0.2 %)     0.03 %     0.03 %     0.06 %       5.3     Voltage     Bipptu voltage = 132 V AC     (0.2 %)     0.34 %     0.33 %     0.06 %       5.3     Response time     Anuilary power supply: 48 V DC     -     -     0.34 %     0.33 %     0.33 %       5.3     Response time     Anuilary power supply: 48 V DC     -     -     0.34 %     0.33 %     0.06 %       5.3     Response time     Anuilary power supply: 48 V DC     -     -     0.34 %     0.33 %     0.33 %       5.3     Response time     Anuilary power supply: 48 V DC     -     -     0.34 %     0.33 %     -       5.3     Response time     Anuilary power supply: 48 V DC     -     -     -     -<	2.17	6.23	Shock	15g. ½ sine, 11 ms, 3 shocks on each sense. Total 18 shocks.		Conditioned		1
6.23     Drop & topple     b) Input voltage = 6.5 VAC     (0.2 %)     -0.03 %     -0.01 %       6.13     Drop & topple     Drop input voltage = 1.32 VAC     0.013 %     -0.01 %       7     Drop & topple     Drop input voltage = 1.32 VAC     Conditioned     -0.01 %       7     Drop & topple     Drop input voltage = 1.32 VAC     -0.01 %     -0.01 %       7     Drop & topple     Drop input voltage = 0.7 AC     (0.2 %)     -0.01 %       6.13     Not bottom cacho     Diput voltage = 1.32 VAC     0.09 %     -0.01 %       5.3     Notage     Diput voltage = 1.32 VAC     0.12 %)     0.09 %     -0.01 %       5.4     Ripple     Input voltage = 1.32 VAC     -0.13 % KOC     0.34 %     0.35 %       5.4     Ripple     Input voltage = 1.32 VAC     -0.13 % KOC     0.34 %     0.35 %       5.5     Response time     Auxiliary power supply : 48 VDC     Inmut voltage = 1.32 VAC     0.34 %     0.33 %       5.5     Response time     Input voltage = 1.32 VAC     0.134 %     0.34 %     0.35 %       5.5     Response time     Auxiliary power supply : 48 VDC     0.132 VAC     0.34 %     0.35 %       5.5     Response time     Input voltage = 1.32 VAC     0.01 % of tope tofe     0.34 %     0.35 %	2.17.1	4.2	Intrinsic error	a) Input voltage = $0 \text{ V AC}$	Class index	-0.04 %	-0.02 %	Complied
6.23     Drop & topple     Drop beight: 25 mm, one drop about each of four bottom edges.     Conditioned       4.2     Intrinsic error     6) Input voltage = 0 V AC     (12.9%)     -0.02%     -0.01%       4.2     Intrinsic error     8) Input voltage = 0 V AC     (0.2%)     -0.01%     -0.01%       5.3.3     Open circuit     Amount voltage = 132 V AC     -0.02%     -0.04%     -0.04%       5.4     Ripple     Amount voltage = 132 V AC     -     -     13.47 V     14.43 V       5.4     Ripple     Amount voltage = 132 V AC     -     -     0.34%     0.35%       5.5     Response time     Amount voltage = 132 V AC     -     -     -     -       5.5     Response time     Amount voltage = 132 V AC     -     -     -     -       5.5     Response time     Amount voltage = 132 V AC     -     -     -     -       5.5     Response time     Amount voltage = 132 V AC     -     -     -     -       5.5     Response time     Amount voltage = 132 V AC     -     -     -     -       5.6     Input voltage switched from 0 to 132 V AC     four of voltage     0.34%     0.35%     -       5.6     Input voltage switched from 0 to voltage switched from 0 voltage switched from 0 voltage sw				b) Input voltage = 66 V AC c) Inveit voltage = 132 V AC	(0.2 %)	-0.03 %	-0.01 %	
0.23     Ltop & topple     Drop act top	0.0	~~~~					2 222	
4.2     Intrinsic error     a) Input voltage = 0 V AC     Class index     -0.02 %     -0.01 %       5.1     0) Input voltage = 6 V AC     (0.2 %)     -0.04 %     -0.04 %     -0.04 %       5.2.3     Open circuit     Auxiliary power supply : 8 V DC     -     -     -     -       5.2.3     Open circuit     Auxiliary power supply : 48 V DC     -     -     -     -     -       5.4     Ripple     Auxiliary power supply : 48 V DC     -     -     -     -     -     -       5.3     Response time     Auxiliary power supply : 48 V DC     -     -     -     -     -     -       5.5     Response time     Auxiliary power supply : 48 V DC     Intervoltage = 132 V AC     0.34 %     0.34 %     0.35 %       5.5     Response time     Auxiliary power supply : 48 V DC     Intervoltage = 132 V AC     0.14 %     0.34 %     0.35 %       5.5     Response time     Auxiliary power supply : 48 V DC     Intervoltage = 132 V AC     0.14 %     0.34 %     0.35 %       5.5     Response time     Auxiliary power supply : 48 V DC     Intervoltage = 132 V AC     0.14 %     0.34 %     0.35 %       5.5     Response time     Auxiliary power supply : 48 V DC     Intervoltage = 132 V AC     Intervoltage = 132 V AC     0.01 %	2.18	0.23	Lirop & topple	Drop height: 25 minn, one drop about each of four bottom edges. One topple about each of four bottom edges.		Conditioned		I
5.2.3     Open circuit     b) Input voltage = 65 V AC     (0.2 %)     -0.04 %     -0.04 %     -0.04 %       5.2.3     Open circuit     Auxiliary power supply: 48 V DC     -     13.47 V     14.43 V       5.4     Ripple     Auxiliary power supply: 48 V DC     -     0.03 %     0.03 %     0.05 %       5.5     Response time     Auxiliary power supply: 48 V DC     Imput voltage = 132 V AC     0.31 %     0.33 %       5.5     Response time     Auxiliary power supply: 48 V DC     Imput voltage = 132 V AC     0.31 %     0.33 %       5.5     Response time     Auxiliary power supply: 48 V DC     Imput voltage = 132 V AC     0.132 V AC     0.34 %     0.33 %       5.5     Response time     Auxiliary power supply: 48 V DC     Imput voltage = 132 V AC     0.132 V AC     0.34 %       6     Input voltage switched from 0 to 132 V AC     Imput voltage switched from 0 to 132 V AC     0.04 %     0.34 %       6     Input voltage switched from 0 to 132 V AC     Imput voltage switched from 0 to 132 V AC     0.04 %     0.05 %       6     Input voltage switched from 0 to 132 V AC     Imput voltage switched from 0 to 132 V AC     0.04 %     0.04 %	2.18.1	4.2	Intrinsic error	a) Input voltage = 0 V AC	Class index	-0.02 %	-0.01 %	Complied
5.2.3     Open circuit     Auxiliary power supply: 48 V DC      13.47 V     14.43 V       5.4     Ripple     Input voltage     132 V AC     Not exceed twice of class index     0.34 %     0.35 %       5.5     Risponse time     Auxiliary power supply: 48 V DC     Time required for output signal     137 ms     135 ms       5.5     Response time     Auxiliary power supply: 48 V DC     Time required for output signal     137 ms     135 ms       5.5     Response time     Auxiliary power supply: 48 V DC     Inducid transle     60 of fiducid transle     0.34 %     0.35 %       5.5     Response time     Auxiliary power supply: 48 V DC     Inducid transle     137 ms     135 ms       5.5     Response time     Auxiliary power supply: 48 V DC     Inducid transle     0.34 %     0.35 %       5.5     Response time     Auxiliary power supply: 48 V DC     Inducid transle     137 ms     135 ms       6     Input voltage switched from 0 to 132 V AC     Inducid transle     Inducid transle     137 ms     135 ms       6     Input voltage switched from 0 to 132 V AC     Inducid transle     Inducid transle     Inducid transle     137 ms       6     Input voltage switched from 0 to 132 V AC     Inducid transle     Interested     Interested     Interested				b) Input voltage = 66 V AC c) Input voltage = 132 V AC	(0.2 %)	-0.04 % 0.09 %	-0.04 % 0.06 %	
5.4     Ripple     Auxiliary power supply: 48 V DC     Not exceed twice of class index     0.34 %     0.35 %       5.5     Response time     Input voltage = 132 V AC     Time required for output signal     137 ms     135 ms       5.5     Response time     Auxiliary power supply: 48 V DC     Input voltage switched from 0 to 132 V AC     Time required for output signal     137 ms     135 ms       pproved by     Input voltage switched from 0 to 132 V AC     Addwint Feetometed     Imput voltage switched from 0 to 132 V AC     Addwint Feetometed     137 ms     135 ms       endum version of Page No. 06 of 07 of Report No. ERTL (W)/2003E&S26 is the man and the momented     Imput voltage scicled from 0 to ERTL (W)/2003E&S26 is the man and the momented     Imput voltage scicled from 0 to ERTL (W)/2003E&S26 is the man and the momented     Imput voltage voltage scicled from 0 to ERTL (W)/2003E&S26 is the man and the momented     Imput voltage voltage voltage voltage     Imput voltage voltage voltage voltage     Imput voltage vol	2.19	5.2.3	Open circuit voltage	Auxiliary power supply : 48 V DC Input voltage = 132 V AC		13.47 V	14.43 V	1
5.5     Response time     Auxiliary power supply: 48 V DC     Time required for output signal     137 ms       input voltage switched from 0 to 132 V AC     to reach 99 % from 0 % of fiducial usine required for output signal     137 ms       opproved by     fiducial usine required for output signal     137 ms       endum     version of Page No. 06 of 07 of Report No. ERTL (W)2003E&S26 is the main and the reported main and the restored main and the restored main and the report No. ERTL (W)2003E&S26 is the main and the main an	2.20	5.4	Ripple	Auxiliary power supply : 48 V DC Input voltage = 132 V AC	Not exceed twice of class ind		0.35 %	Complie
pproved by Adda Sec. 2014 For the second by Contract of the second secon	2.21	5.5	Response time	power supply : 48 V DC age switched from 0 to 132 V AC	Time required for output sign to reach 99 % from 0 % of fiducial value shall be report		135 ms	1
bendum version of Page No. 06 of 07 of Report No. ERTL (W//2003E&S26 is	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				COUNT TEST			
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ELECTRONICS REGIONAL TEST LABORATORY (WEST) MINISTRY OF INFORMATION TECHNOLOGY	REPORT NO. ERTL (W	)/2003 E&	:S 26
SUBJECT: TESTING OF AC VOLTAGE TRANSDUCER	DATE	PAGE	OF
	9 MAY 2003	7	7

#### 3.0 General Remarks : Nil.



### **OUR ACCREDITATION STATUS**

ERTL (W) set up under the STQC Directorate, Ministry of Communications & Information Technology, Govt. of India has been accreditated under number of national / international systems as follows :

SYSTEM	AREA	STATUS
IECQ (International Electro-technical Commission on Quality Assessment System for Electronic Components)	Component Testing • Resistors (Fixed) • Capacitors (Fixed)	Accreditated as ITL (Independent Test Laboratory)
NABL (C), India National Accreditational Board for Test & Calibration laboratories (Calibration System)	Calibration • Electro-technical discipline • Thermal discipline • Mechanical discipline	Accreditated Calibration Laboratory
<b>NABL(T), India</b> National Accreditational Board for Test & Calibration laboratories (Testing System)	Electronic & Electrical Testing	Accreditated Test Laboratory
IECEE-CE-Scheme	<ul> <li>Mains Operated Electronic Consumer Products</li> </ul>	Approved as a CB test Laboratory
Other recognisation		Recognised by CSPO of State Govt., DOT, Naval Docyard, LCSO etc.