



**National Accreditation Board for
Testing and Calibration Laboratories**

(A Constituent Board of Quality Council of India)



CERTIFICATE OF ACCREDITATION

ACTION ENGINEERS

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

GIDC - VADSAR ROAD, MAKARPURA, VADODARA, GUJARAT, INDIA

in the field of

CALIBRATION

Certificate Number: CC-2419

Issue Date: 05/12/2019

Valid Until: 04/12/2021

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL



N. Venkateswaran
Chief Executive Officer



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SCOPE OF ACCREDITATION

Laboratory Name ACTION ENGINEERS, GIDC - VADSAR ROAD, MAKARPURA, VADODARA, GUJARAT , INDIA

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Validity 05/12/2019 to 04/12/2021 Last Amended on -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
Permanent Facility					
1	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC ACTIVE ENERGY1 PHASE - 2 WIRE / 3 PHASE - 4 WIRE(50 Hz,110 V TO 240 V, 1 A TO 5 A(55 Wh-3.6 kWh),0.5 PF TO UPF	55 Wh to 3600 Wh	0.63 % to 0.28%	USING ENERGY METER BY COMPARISON METHOD
2	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC ACTIVE POWER1 PHASE - 2 WIRE / 3 PHASE - 4 WIRE(50 Hz, 110 V TO 240 V, 1 A TO 5 A (55W - 3.6 kW,0.5 PF TO UPF)	55 W to 3600 W	0.33 % to 0.34 %	USING ENERGY METER BY COMPARISON METHOD
3	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC CURRENT	10 A to 1000 A	0.52 % to 0.55 %	USING 6 1/2 DIGITAL MULTI-METER & CT BY DIRECT/COMPARISON METHOD
4	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC CURRENT	100 µA to 100 mA (50Hz)	0.5 % to 0.2 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
5	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC CURRENT	100 mA to 10 A (50Hz)	0.2 % to 0.3 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD



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6	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC CURRENT RATIO	1 to 1000 (50 Hz)	4.74 % to 0.8 %	USING 6 1/2 DIGITAL MULTIMETER & CT BY DIRECT/COMPARISON METHOD
7	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC VOLTAGE	1 kV to 50 kV (50Hz)	2.33 %	USING HIGH VOLTAGE DIVIDER BY DIRECT
8	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC VOLTAGE	1 mV to 1 V (50Hz)	4.8 % to 0.12 %	USING 6 1/2 MULTIMETER BY DIRECT/COMPARISON METHOD
9	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC VOLTAGE	1 V to 1000 V (50Hz)	0.12%	USING 6 1/2 MULTIMETER BY DIRECT/COMPARISON METHOD
10	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC VOLTAGE RATIO	1 (50 Hz) to 2000 (50 Hz)	0.51 % to 0.6 %	USING 6 1/2 DIGITAL MULTIMETER & STANDARD RATIO TRANSFORMER BY DIRECT/COMPARISON METHOD



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11	ELECTRO-TECHNICAL- ALTERNATING CURRENT (< 1 GHZ) (Source)	CAPACITOR (1 kHz)	1 nF to 10 μ F	2.31 % to 2.38 %	USING CAPACITANCE BOX BY DIRECT METHOD
12	ELECTRO-TECHNICAL- ALTERNATING CURRENT (< 1 GHZ) (Source)	INDUCTOR (1 kHz)	100 μ H to 10 H	2.4 % to 2.32 %	USING INDUCTOR BOX BY DIRECT METHOD
13	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	CAPACITOR	1 nF to 1 mF	5.5 % to 2.2 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
14	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	1 A to 10 A	0.1 % to 0.2 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
15	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	10 μ A to 100 μ A	0.36 % to 0.1 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
16	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	10 A to 100 A	1.0 % to 0.69 %	USING 6 1/2 DIGITAL MULTIMETER & DC SHUNT BY DIRECT/COMPARISON METHOD



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17	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	100 μ A to 1 A	0.1%	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
18	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	100 A to 1000 A	0.69 % to 0.84 %	USING 6 1/2 DIGITAL MULTIMETER & DC SHUNT BY DIRECT/COMPARISON METHOD
19	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC VOLTAGE	1 mV to 100 mV	0.45 % to 0.01 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
20	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC VOLTAGE	100 mV to 1000 V	0.01 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
21	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC VOLTAGE	1kV - 15kV, to 15kV - 70 kV	1.84 % to 1.79 %	USING HIGH VOLTAGE DIVIDER BY DIRECT /COMPARISON METHOD
22	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	LOW RESISTANCE (4 WIRE)	0.1 mOhm to 20 Ohm	0.45 % to 0.1 %	USING 6 1/2 DIGITAL MULTIMETER, DC SHUNT(VI METHOD) & LOW RESISTANCE BOX BY DIRECT/COMPARISON METHOD



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23	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	RESISTANCE (2 WIRE)	1 ohm to 100 ohm	0.7 % to 0.02 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
24	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	RESISTANCE (2 WIRE)	10 M ohm to 100 M ohm	0.05 % to 1.0 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
25	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	RESISTANCE (2 WIRE)	100 M ohm to 1 G ohm	1.0 % to 3.0 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
26	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	RESISTANCE (2 WIRE)	100 ohm to 10 M ohm	0.02 % to 0.05 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
27	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	RESISTANCE (FOR INSULATION TESTER)	1 M ohm to 1 T ohm	6.22 % to 1.49 %	USING RESISTANCE BOX (DISCRETE VALUES) BY DIRECT METHOD
28	ELECTRO-TECHNICAL- TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) B-TYPE THERMOCOUPLE	300 °C to 1600 °C	0.8 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD



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29	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) E-TYPE THERMOCOUPLE	(-200) °C to 1000 °C	0.2 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
30	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) J-TYPE THERMOCOUPLE	(-)100 °C to 900 °C	0.2 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
31	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) K-TYPE THERMOCOUPLE	(-100) °C to 1300 °C	0.2 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
32	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) N-TYPE THERMOCOUPLE	(-) 200 °C to 1300 °C	0.2 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
33	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) RTD	(-)100 °C to 600 °C	0.4 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD



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34	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) R-TYPE THERMOCOUPLE	0 °C to 1600 °C	1.1 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
35	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) S-TYPE THERMOCOUPLE	0 °C to 1600 °C	1.1 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
36	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) T-TYPE THERMOCOUPLE	(-)-200 °C to 400 °C	0.8 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
37	ELECTRO-TECHNICAL- TIME & FREQUENCY (Measure)	FREQUENCY	10 Hz to 1 MHz	0.07 % to 0.02 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
38	ELECTRO-TECHNICAL- TIME & FREQUENCY (Measure)	TIME INTERVAL METER/ STOP WATCH	1 ms to 2 hr	0.13 ms to 4.2 s	USING TIME INTERVAL METER BY DIRECT/COMPARISON METHOD



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39	MECHANICAL-ACCELERATION AND SPEED	RPM METER / TACHOMETER (CONTACT/NON CONTACT TYPE)/ rpm generator	10 rpm to 3000 rpm	3 rpm to 19 rpm	Using Tachometer and rotational tachometer generator.
40	MECHANICAL-ACOUSTICS	SOUND LEVEL METER (1 kHz)	94 dB and 114 dB	0.55 dB	USING SOUND LEVEL CALIBRATOR
41	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	BEVEL PROTRACTOR L.C. 5 Minutes of Arc	to 0° - 90° - 0°	3.13min of arc	USING ANGLE GAUGE BLOCK SET
42	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	BORE GAUGE (2-POINT, TRANSMISSION ACCURACY ONLY)	up to 2 mm	8.4µm	USING DIAL GAUGE TESTER
43	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	CALIPERS (DIGITAL/DIAL/VERNIER) L.C. 10 µm	Up to 1000 mm	11.6µm	USING CALIPER CHECKER & GAUGE BLOCK SET
44	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	COATING THICKNESS GAUGE L.C. 0.1 µm	Up to 100 µm	3.4µm	USING STANDARD FOILS



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45	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	COATING THICKNESS GAUGEL.C. 1 µm	100 µm to 1500 µm	4.6µm	USING STANDARD FOILS
46	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	COATING THICKNESS GAUGEL.C. 10 µm	1 mm to 12 mm	13.6µm	USING STANDARD FOILS
47	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	COMBINATION SET / ANGLE PROTRACTORL.C. 1 Degree	0° to 180°	35min of arc.	USING ANGLE GAUGE BLOCK SET
48	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	DEPTH GAUGES (DIGITAL/DIAL/VERNIER)L.C. 10 µm	Up to 450 mm	19.7µm	USING CALIPER CHECKER & GAUGE BLOCK SET
49	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	DEPTH MICROMETERL.C. 1 µm	>100 mm to 300 mm	9.5µm	USING GAUGE BLOCK SET & ACCESSOREIS



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50	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	DEPTH MICROMETERL.C. 1 µm	up to 100 mm	7.5µm	USING GAUGE BLOCK SET & ACCESSORIES
51	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	DIAL GAUGE CALIBRATOR L.C. 1 µm	Up to 25 mm	2.1µm	USING ELECTRONIC COMPARATOR & GAUGE BLOCK SET
52	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	DIAL/DIGITAL INDICATOR (PLUNGER TYPE)L.C. 1 µm	Up to 25 mm	1.2µm	USING DIAL GAUGE TESTER,GAUGE BLOCK SET & COMPARATOR STAND
53	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	DIAL/DIGITAL INDICATOR (PLUNGER TYPE)L.C. 10 µm	Up to 50 mm	10.2µm	USING DIAL GAUGE TESTER,GAUGE BLOCK SET & COMPARATOR STAND
54	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	DIGITAL / DIAL THICKNESS GAUGEL.C. 1 µm	Up to 12 mm	1.2µm	USING GAUGE BLOCK SET



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55	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	DIGITAL / DIAL THICKNESS GAUGEL.C. 10 µm	Up to 25 mm	7.0µm	USING GAUGE BLOCK SET
56	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	ELECTRONIC COMPARATORL.C. 0.1 µm	UP TO 200 µm	1.3µm	USING GAUGE BLOCK SET & COMPARATOR STAND
57	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	ELECTRONIC COMPARATORL.C. 1 µm	UP TO 2000 µm	1.4µm	USING GAUGE BLOCK SET & COMPARATOR STAND
58	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	EXTERNAL MICROMETER (ALL TYPES) L.C. 1 µm	>100 mm to 1000 mm	9.7µm	USING MICROMETER CHECKER & GAUGE BLOCK SET
59	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	EXTERNAL MICROMETER (ALL TYPES) L.C. 1 µm	>25 mm to 100 mm	2.6µm	USING MICROMETER CHECKER & GAUGE BLOCK SET



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60	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	EXTERNAL MICROMETER (ALL TYPES) L.C. 1 µm	up to 25 mm	0.9µm	USING MICROMETER CHECKER & GAUGE BLOCK SET
61	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	FEELER GAUGE	0.03 mm to 1 mm	2.0µm	USING ELECTRONIC COMPARATOR & GAUGE BLOCK SET
62	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	GLASS SCALE	up to 10 mm	6.4µm	USING VISION MEASURING MACHINE
63	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	HEIGHT GAUGES (DIGITAL/DIAL/VERNIER)L.C. 10 µm	UP to 1000 mm	11.1µm	USING CALIPER CHECKER & GAUGE BLOCK SET
64	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	INDUSTRIAL GAUGE & TEMPLATE (WELD FILLET GAUGE, WELD HI-LO GAUGE, BRIDGE CAM WELD GAUGE, UNIVERSAL WELD GAUGE, PLAIN WORK PIECE) ANGULAR	0 degree to 180 degree	3.46min of arc	USING VISION MEASURING MACHINE, ANGLE GAUGE SET & GAUGE BLOCK SET



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65	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	INDUSTRIAL GAUGE & TEMPLATE (WELD FILLET GAUGE, WELD HI-LO GAUGE, BRIDGE CAM WELD GAUGE, UNIVERSAL WELD GAUGE, PLAIN WORK PIECE) LINEAR X,Y AXIS	up to TO 300 mm	6.8µm	USING VISION MEASURING MACHINE, ANGLE GAUGE SET & GAUGE BLOCK SET
66	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	INSIDE DIAL CALIPER L.C. 10 µm	Up to 75 mm	7.3µm	GAUGE BLOCK SET & ACCESSORIES
67	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	INTERNAL MICROMETER (2 POINTS) L.C. 10 µm	>500 mm to 1000 mm	11.0µm	USING GAUGE BLOCK SET & ACCESSORIES
68	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	INTERNAL MICROMETER (2 POINTS) L.C. 10 µm	up to 500 mm	8.6µm	USING GAUGE BLOCK SET & ACCESSORIES
69	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	LEVER TYPE DIAL GAUGE L.C. 1 µm	Up to 0.2 mm	1.1µm	USING DIAL GAUGE TESTER, GAUGE BLOCK SET & COMPARATOR STAND



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70	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	LEVER TYPE DIAL GAUGEL.C. 10 µm	Up to 1.0 mm	10.0µm	USING DIAL GAUGE TESTER, GAUGE BLOCK SET & COMPARATOR STAND
71	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	MASTER FOIL OF COATING THICKNESS GAUGE	Up to 12 mm	3.0µm	USING ELECTRONIC COMPARATOR & GAUGE BLOCK SET
72	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	MEASURING TAPE	Up to 100 meters	40.1 * SQRT(L/1000) µm, Lin mm	USING SCALE & TAPE MEASURING EQUIPMENT
73	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	MICROMETER HEADL.C. 1 µm	Up to 25 mm	1.2µm	USING GAUGE BLOCK SET & COMPARATOR STAND
74	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	MICROMETER SETTING ROD / STANDARD THICKNESS BLOCK	>100 mm to 300mm	7.0µm	USING ELECTRONIC COMPARATOR, GAUGE BLOCK SET



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75	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	MICROMETER SETTING ROD / STANDARD THICKNESS BLOCK	>300 mm to 600 mm	8.5µm	USING ELECTRONIC COMPARATOR & GAUGE BLOCK SET
76	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	MICROMETER SETTING ROD / STANDARD THICKNESS BLOCK	>600 mm to 1000 mm	11.5µm	USING ELECTRONIC COMPARATOR & GAUGE BLOCK SET
77	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	MICROMETER SETTING ROD / STANDARD THICKNESS BLOCK	Up to 100 mm	3.6µm	USING ELECTRONIC COMPARATOR, GAUGE BLOCK SET
78	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	PIE TAPE	UP TO 10 m	40 * Sqrt(L/1000) µm, L in mm	USING SCALE & TAPE MEASURING EQUIPMENT
79	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	PIN GAUGE	1 mm to 10 mm	2.0µm	USING ELECTRONIC COMPARATOR & GAUGE BLOCK SET



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80	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	PISTOL CALIPER / OUTSIDE DIAL CALIPERL.C. 10 µm	up to 50 mm	9.1µm	USING GAUGE BLOCK SET & ACCESSORIES
81	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	PLAIN PLUG GAUGE	up to 150 mm	6.3µm	USING ELECTRONIC COMPARATOR & GAUGE BLOCK SET
82	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	PLAIN RING GAUGE	Up to 150 mm	4.4µm	USING ELECTRONIC COMPARATOR , GAUGE BLOCK SET & 3 POINT MECHANICAL COMPARATOR
83	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	PLAIN SNAP GAUGE	3 mm to 100 mm	3.6µm	USING GAUGE BLOCK SET
84	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	RADIUS GAUGE	Up to to 40 mm	11.4µm	USING VISION MEASURING MACHINE



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85	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	SCALE & MEASURING TAPE CALIBRATOR	0 mm to 1000 mm	10µm	USING GAUGE BLOCK SET
86	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	STEEL SCALE L.C. 0.5 mm	Up to 1000 mm	40µm	USING SCALE & TAPE MEASURING EQUIPMENT
87	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	SWG WIRE GAUGE	up to 7.62 mm	12µm	USING VISION MEASURING MACHINE
88	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	TAPER BORE GAUGE (SCALE TYPE) L.C. 0.1 mm	Up to 25 mm	3.0µm	USING DIGITAL OUTSIDE MICROMETER
89	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	TEST SIEVE	37 µm to 5 mm	6.4µm	USING VISION MEASURING MACHINE & DIGITAL CALIPER



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90	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	TEST SIEVE	5 mm to 20 mm	20µm	USING VISION MEASURING MACHINE & DIGITAL CALIPER
91	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	THREAD PITCH GAUGE	Up to 7 mm	8.4µm	USING VISION MEASURING MACHINE
92	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	ULTRASONIC THICKNESS GAUGE	UPTO 300 mm	46.7µm	USING GAUGE BLOCK / STANDARD THICKNESS BLOCK
93	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	WET FILM THICKNESS GAUGE	Up to 3000 µm	6.5µm	USING VISION MEASURING MACHINE
94	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 1 bar	0.004bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP



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95	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 100 bar	0.065bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP
96	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 1000 bar	4.59bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP
97	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 350 bar	0.21bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP



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98	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 40 bar	0.028bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP
99	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 7 bar	0.005bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP
100	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 700 bar	0.43bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP



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101	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 1 bar	0.004bar	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP
102	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 100 mbar	2.350mbar	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP
103	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 240 Pa	2.9pa	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP



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104	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 340 mbar	7.03mbar	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP
105	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 7 bar	0.005bar	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP
106	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 pa to 1000 pa	18.5pa	USING DIGITAL MANOMETER,PRESSURE GAUGES, PNEUMATIC PUMP



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107	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	(-)100 mbar to 0 mbar	2.35mbar	USING DIGITAL MANOMETER, VACUUM GAUGE & PNEUMATIC PUMP
108	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	(-)1000 pa to 0 pa	17.6pa	USING DIGITAL MANOMETER, VACUUM GAUGE & PNEUMATIC PUMP
109	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	(-)340 mbar to 0 mbar	7.11mbar	USING DIGITAL MANOMETER, VACUUM GAUGE & PNEUMATIC PUMP



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110	MECHANICAL-PRESSURE INDICATING DEVICES	VACUUMDIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	-1 bar to 0 bar	0.005bar	USING DIGITAL MANOMETER, VACUUM GAUGES & PNEUMATIC PUMP
111	MECHANICAL-PRESSURE INDICATING DEVICES	VACUUMDIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	-240 Pa to 0 Pa	2pa	USING DIGITAL MANOMETER, VACUUM GAUGES & PNEUMATIC PUMP
112	MECHANICAL-TORQUE MEASURING DEVICES	TORQUE WRENCH (Type I- Class B & C / Type II - Class A & B)	2 Nm to 20 Nm	2.49 %	USING DIGITAL TORQUE CALIBRATION SYSTEM WITH TRANSDUCERS, BASED ON ISO 6789-2:2017 IN CLOCKWISE DIRECTION ONLY.



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113	MECHANICAL-TORQUE MEASURING DEVICES	TORQUE WRENCH (Type I- Class B & C / Type II - Class A & B)	20 Nm to 200 Nm	1.56 %	USING DIGITAL TORQUE CALIBRATION SYSTEM WITH TRANSDUCERS, BASED ON ISO 6789-2:2017 IN CLOCKWISE DIRECTION ONLY.
114	MECHANICAL-TORQUE MEASURING DEVICES	TORQUE WRENCH (Type I- Class B & C / Type II - Class A & B)	200 Nm to 2000 Nm	1.03 %	USING DIGITAL TORQUE CALIBRATION SYSTEM WITH TRANSDUCERS BASED ON ISO 6789-2:2017 IN CLOCKWISE DIRECTION ONLY.
115	MECHANICAL-VOLUME	GLASS PIPETTE (GRADUATED / NON GRADUATED) / GLASS BURETTE	1 ml to 50 ml	10ul	USING DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg & DISTILLED WATER OF KNOWN DENSITY BY GRAVIMETRIC METHOD



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116	MECHANICAL-VOLUME	MEASURING CYLINDER / VOLUMETRIC FLASK / CONICAL FLASK / BEAKER	>50ml to 100 ml	10ul	USING DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg & DISTILLED WATER OF KNOWN DENSITY BY GRAVIMETRIC METHOD
117	MECHANICAL-VOLUME	MICROPIPETTE (PISTON TYPE)	>100 µl to 5000 µl	0.6ul	USING DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg & DISTILLED WATER OF KNOWN DENSITY BY GRAVIMETRIC METHOD
118	MECHANICAL-VOLUME	MICROPIPETTE (PISTON TYPE)	10 µl to 100 µl	0.20 µl	USING DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg & DISTILLED WATER OF KNOWN DENSITY BY GRAVIMETRIC METHOD



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119	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	1 g	0.028 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
120	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	1 mg	0.02 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
121	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	10 g	0.03 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1



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122	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	10 mg	0.02 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
123	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	100 g	0.10 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
124	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	100 mg	0.02 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1



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125	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	2 mg	0.02 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
126	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	20 g	0.03mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
127	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	20 mg	0.02 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1



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128	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	200 g	0.1 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
129	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	200 mg	0.02 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
130	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	2g	0.028 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1



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131	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	5 g	0.03 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
132	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	50 g	0.036mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
133	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	50 mg	0.02mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1



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134	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	500mg	0.02mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
135	MECHANICAL-WEIGHTS	WEIGHTSACCURACY CLASS F2 & COARSER	5mg	0.02 mg	USING WEIGHT OF ACCURACY CLASS E2 & DIGITAL BALANCE UP TO 80/200 g READABILITY 0.01/0.1 mg BY ABBA WEIGHING CYCLES AS PER OIML R 111-1
136	THERMAL- SPECIFIC HEAT & HUMIDITY	Indicator of HUMIDITY CHAMBER / GENERATOR / Environmental Chamber @ 25°C	30 % RH to 90 % RH	2.64 %RH	USING Humidity indicator with sensor by comparison method.



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137	THERMAL- SPECIFIC HEAT & HUMIDITY	THERMO-HYGROMETER / HUMIDITY SENSOR WITH INDICATOR and CONTROLLER, TRANSMITTER / DATA LOGGER / RECORDER @ 25°C	30 % RH to 90 % RH	2.64 % RH	USING DIGITAL HUMIDITY INDICATOR WITH PROBE & HUMIDITY CHAMBER - BY COMPARISON METHOD
138	THERMAL- TEMPERATURE	Environmental chamber/Humidity chamber	30 %RH to 90 %RH @ 25°C	4.2 %RH	USING Humidity data logger (minimum 9 No's) by mapping method.
139	THERMAL- TEMPERATURE	INFRARED THERMOMETER / PYROMETER / THERMAL IMAGE CAMERA	50 °C to 500 °C	1.5 °C	USING IR thermometer and BLACK BODY SOURCE - BY COMPARISON METHOD
140	THERMAL- TEMPERATURE	LIQUID IN GLASS THERMOMETER/ Dial temperature gauge	(-)35°C to 250°C	0.84°C	USING RTD-PT100 WITH INDICATOR & LIQUID BATH BY COMPARISON METHOD



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141	THERMAL-TEMPERATURE	TEMPERATURE INDICATOR OF LIQUID BATH / FREEZER / OVEN / DRY BLOCK TEMPERATURE CALIBRATOR / INCUBATOR / FURNACE / TEMPERATURE CHAMBER	(-)-80 °C to 400 °C	0.81 °C	USING R-THERMOCOUPLE RTD-PT 100 WITH INDICATOR - BY DIRECT METHOD
142	THERMAL-TEMPERATURE	TEMPERATURE INDICATOR OF LIQUID BATH / FREEZER / OVEN / DRY BLOCK TEMPERATURE CALIBRATOR / INCUBATOR / FURNACE / TEMPERATURE CHAMBER	400 °C to 1000 °C	1.83 °C	USING R-THERMOCOUPLE WITH INDICATOR, RTD-PT100 BY DIRECT METHOD



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143	THERMAL-TEMPERATURE	TEMPERATURE SENSOR WITH OR WITHOUT INDICATOR / CONTROLLER / SCANNER / TRANSMITTER / DATA LOGGER / TEMPERATURE SWITCH / DIAL THERMOMETER / DIGITAL THERMOMETER / DIAL TEMPERATURE GAUGE / RECORDER	50°C to 250°C	0.6°C	USING RTD-PT 100 WITH INDICATOR, LIQUID BATH & DRY BLOCK FURNACE - BY COMPARISON METHOD
144	THERMAL-TEMPERATURE	TEMPERATURE SENSOR WITH OR WITHOUT INDICATOR / CONTROLLER / SCANNER / TRANSMITTER / DATA LOGGER / TEMPERATURE SWITCH / DIAL THERMOMETER / DIGITAL THERMOMETER / DIAL TEMPERATURE GAUGE / RECORDER	(-) 35 °C to 50 °C	0.27 °C	USING RTD-PT 100 WITH INDICATOR, LIQUID BATH & DRY BLOCK FURNACE - BY COMPARISON METHOD



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145	THERMAL-TEMPERATURE	TEMPERATURE SENSOR WITH OR WITHOUT INDICATOR / CONTROLLER / SCANNER / TRANSMITTER / DATA LOGGER / TEMPERATURE SWITCH / DIAL THERMOMETER / DIGITAL THERMOMETER / DIAL TEMPERATURE GAUGE / RECORDER	250 °C to 600 °C	1.8°C	USING R-THERMOCOUPLE WITH INDICATOR, RTD-PT100, LIQUID BATH AND DRY BLOCK FURNACE BY COMPARISON METHOD
146	THERMAL-TEMPERATURE	TEMPERATURE SENSOR WITH OR WITHOUT INDICATOR / CONTROLLER / SCANNER / TRANSMITTER / DATA LOGGER / TEMPERATURE SWITCH / DIAL THERMOMETER / DIGITAL THERMOMETER / DIAL TEMPERATURE GAUGE / RECORDER	600°C to 1000°C	2.33°C	USING R-THERMOCOUPLE RTD-PT 100 WITH INDICATOR, LIQUID BATH & DRY BLOCK FURNACE - BY COMPARISON METHOD



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147	THERMAL-TEMPERATURE	THERMO-HYGROMETER / TEMPERATURE SENSOR WITH INDICATOR / CONTROLLER / TRANSMITTER / DATA LOGGER / RECORDER @ 50 % RH	10 °C to 50 °C	0.82 °C	USING DIGITAL TEMPERATURE INDICATOR WITH PROBE & HUMIDITY CHAMBER - BY COMPARISON METHOD



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Site Facility					
1	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC ACTIVE ENERGY1 PHASE - 2 WIRE / 3 PHASE - 4 WIRE(50 Hz,110 V TO 240 V, 1 A TO 5 A(55 Wh-3.6 kWh),0.5 PF TO UPF	55 Wh to 3600 Wh	0.63 % to 0.28%	USING ENERGY METER BY COMPARISON METHOD
2	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC ACTIVE POWER1 PHASE - 2 WIRE / 3 PHASE - 4 WIRE(50 Hz, 110 V TO 240 V, 1 A TO 5 A (55W - 3.6 kW,0.5 PF TO UPF)	55 W to 3600 W	0.33 % to 0.34 %	USING ENERGY METER BY COMPARISON METHOD
3	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC CURRENT	10 A to 1000 A	0.52 % to 0.55 %	USING 6 1/2 DIGITAL MULTI-METER & CT BY DIRECT/COMPARISON METHOD
4	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC CURRENT	100 µA to 100 mA (50Hz)	0.5 % to 0.2 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
5	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC CURRENT	100 mA to 10 A (50Hz)	0.2 % to 0.3 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD



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6	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC CURRENT RATIO	1 to 1000 (50 Hz)	4.74 % to 0.8 %	USING 6 1/2 DIGITAL MULTIMETER & CT BY DIRECT/COMPARISON METHOD
7	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC VOLTAGE	1 mV to 1 V (50Hz)	4.8 % to 0.12 %	USING 6 1/2 MULTIMETER BY DIRECT/COMPARISON METHOD
8	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC VOLTAGE	1 V to 1000 V (50Hz)	0.12%	USING 6 1/2 MULTIMETER BY DIRECT/COMPARISON METHOD
9	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC VOLTAGE	1kV - 15kV (50 Hz) to 15kV - 150 kV (50Hz)	2.43 % to 2.37 %	USING HIGH VOLTAGE DIVIDER BY DIRECT METHOD
10	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC VOLTAGE RATIO	1 (50 Hz) to 2000 (50 Hz)	0.51 % to 0.6 %	USING 6 1/2 DIGITAL MULTIMETER & STANDARD RATIO TRANSFORMER BY DIRECT/COMPARISON METHOD



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11	ELECTRO-TECHNICAL- ALTERNATING CURRENT (< 1 GHZ) (Source)	CAPACITOR (1 kHz)	1 nF to 10 μ F	2.31 % to 2.38 %	USING CAPACITANCE BOX BY DIRECT METHOD
12	ELECTRO-TECHNICAL- ALTERNATING CURRENT (< 1 GHZ) (Source)	INDUCTOR (1 kHz)	100 μ H to 10 H	2.4 % to 2.32 %	USING INDUCTOR BOX BY DIRECT METHOD
13	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	CAPACITOR	1 nF to 1 mF	5.5 % to 2.2 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
14	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	1 A to 10 A	0.1 % to 0.2 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
15	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	10 μ A to 100 μ A	0.36 % to 0.1 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
16	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	10 A to 100 A	1.0 % to 0.69 %	USING 6 1/2 DIGITAL MULTIMETER & DC SHUNT BY DIRECT/COMPARISON METHOD



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17	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	100 μ A to 1 A	0.1%	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
18	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC CURRENT	100 A to 1000 A	0.69 % to 0.84 %	USING 6 1/2 DIGITAL MULTIMETER & DC SHUNT BY DIRECT/COMPARISON METHOD
19	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC VOLTAGE	1 kV to 100 kV	2.2% to 1.8%	USING HIGH VOLTAGE DIVIDER BY DIRECT
20	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC VOLTAGE	1 mV to 100 mV	0.45 % to 0.01 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
21	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC VOLTAGE	100 mV to 1000 V	0.01 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
22	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	LOW RESISTANCE (4 WIRE)	0.1 mOhm to 20 Ohm	0.45 % to 0.1 %	USING 6 1/2 DIGITAL MULTIMETER, DC SHUNT(VI METHOD) & LOW RESISTANCE BOX BY DIRECT/COMPARISON METHOD



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23	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	RESISTANCE (2 WIRE)	1 ohm to 100 ohm	0.7 % to 0.02 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
24	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	RESISTANCE (2 WIRE)	10 M ohm to 100 M ohm	0.05 % to 1.0 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
25	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	RESISTANCE (2 WIRE)	100 M ohm to 1 G ohm	1.0 % to 3.0 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
26	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	RESISTANCE (2 WIRE)	100 ohm to 10 M ohm	0.02 % to 0.05 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
27	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	RESISTANCE (FOR INSULATION TESTER)	1 M ohm to 1 T ohm	6.22 % to 1.49 %	USING RESISTANCE BOX (DISCRETE VALUES) BY DIRECT METHOD
28	ELECTRO-TECHNICAL- TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) B-TYPE THERMOCOUPLE	300 °C to 1600 °C	0.8 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD



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29	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) E-TYPE THERMOCOUPLE	(-200) °C to 1000 °C	0.2 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
30	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) J-TYPE THERMOCOUPLE	(-)100 °C to 900 °C	0.2 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
31	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) K-TYPE THERMOCOUPLE	(-100) °C to 1300 °C	0.2 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
32	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) N-TYPE THERMOCOUPLE	(-) 200 °C to 1300 °C	0.2 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
33	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) RTD	(-)100 °C to 600 °C	0.4 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD



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34	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) R-TYPE THERMOCOUPLE	0 °C to 1600 °C	1.1 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
35	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) S-TYPE THERMOCOUPLE	0 °C to 1600 °C	1.1 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
36	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	(TEMPERATURE INDICATOR/CONTROLLER/RECORDER/CALIBRATOR/SCANNER/LOGGER) T-TYPE THERMOCOUPLE	(-)200 °C to 400 °C	0.8 °C	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
37	ELECTRO-TECHNICAL- TIME & FREQUENCY (Measure)	FREQUENCY	10 Hz to 1 MHz	0.07 % to 0.02 %	USING 6 1/2 DIGITAL MULTIMETER BY DIRECT/COMPARISON METHOD
38	ELECTRO-TECHNICAL- TIME & FREQUENCY (Measure)	TIME INTERVAL METER/ STOP WATCH	1 ms to 2 hr	0.13 ms to 4.2 s	USING TIME INTERVAL METER BY DIRECT/COMPARISON METHOD



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39	MECHANICAL-ACCELERATION AND SPEED	RPM METER / TACHOMETER (CONTACT/NON CONTACT TYPE)/ rpm generator	10 rpm to 3000 rpm	3 rpm to 19 rpm	Using Tachometer and rotational tachometer generator.
40	MECHANICAL-ACOUSTICS	SOUND LEVEL METER (1 kHz)	94 dB and 114 dB	0.55 dB	USING SOUND LEVEL CALIBRATOR
41	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	PROFILE PROJECTOR / VISION MEASURING MACHINE / MEASURING MICROSCOPE(ANGULAR)	0° to 180°	1min of arc	USING GLASS SCALE, GAUGE BLOCK,ANGLE GAUGE & DIGITAL CALIPER
42	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	PROFILE PROJECTOR / VISION MEASURING MACHINE / MEASURING MICROSCOPE(LINEAR X,Y AXIS)	Up to 300 mm	8.45µm	USING GLASS SCALE, GAUGE BLOCK, ANGLE GAUGE & DIGITAL CALIPER
43	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	PROFILE PROJECTOR / VISION MEASURING MACHINE / MEASURING MICROSCOPE(MAGNIFICATION)	Up to 100 X	1%	USING GLASS SCALE, GAUGE BLOCK, ANGLE GAUGE & DIGITAL CALIPER



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S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
44	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 1 bar	0.004bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP
45	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 100 bar	0.065bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP
46	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 1000 bar	4.59bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP



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47	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 350 bar	0.21bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP
48	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 40 bar	0.028bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP
49	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 7 bar	0.005bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP



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50	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (HYDRAULIC)	0 to 700 bar	0.43bar	USING DIGITAL MANOMETER,PRESSURE GAUGES, HYDRAULIC PUMP
51	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 1 bar	0.004bar	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP
52	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 100 mbar	2.350mbar	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP



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53	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 240 Pa	2.9pa	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP
54	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 340 mbar	7.03mbar	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP
55	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 to 7 bar	0.005bar	USING DIGITAL MANOMETER,PRESSURE GAUGES,PNEUMATIC PUMP



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56	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL PRESSURE GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	0 pa to 1000 pa	18.5pa	USING DIGITAL MANOMETER,PRESSURE GAUGES, PNEUMATIC PUMP
57	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	(-)-100 mbar to 0 mbar	2.35mbar	USING DIGITAL MANOMETER, VACUUM GAUGE & PNEUMATIC PUMP
58	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	(-)-1000 pa to 0 pa	17.6pa	USING DIGITAL MANOMETER, VACUUM GAUGE & PNEUMATIC PUMP



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59	MECHANICAL-PRESSURE INDICATING DEVICES	DIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	(-)-340 mbar to 0 mbar	7.11mbar	USING DIGITAL MANOMETER, VACUUM GAUGE & PNEUMATIC PUMP
60	MECHANICAL-PRESSURE INDICATING DEVICES	VACUUM DIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	-1 bar to 0 bar	0.005bar	USING DIGITAL MANOMETER, VACUUM GAUGES & PNEUMATIC PUMP
61	MECHANICAL-PRESSURE INDICATING DEVICES	VACUUM DIAL/DIGITAL VACUUM GAUGE / TRANSMITTER / SWITCH / RECORDER / MAGNEHELIC GAUGE / MANOMETER (PNEUMATIC)	-240 Pa to 0 Pa	2pa	USING DIGITAL MANOMETER, VACUUM GAUGES & PNEUMATIC PUMP



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62	MECHANICAL-WEIGHING SCALE AND BALANCE	WEIGHING BALANCEELECTRONIC BALANCE OF CLASS I AND COARSER d=0.01 mg AND COARSER	0 to 80 g	0.032mg	USING STANDARD WEIGHTS OF ACCURACY CLASS E2 AS PER OIML R-76-1
63	MECHANICAL-WEIGHING SCALE AND BALANCE	WEIGHING BALANCEELECTRONIC BALANCE OF CLASS I AND COARSER d=0.1 mg AND COARSER	>80 to 220 g	0.084mg	USING STANDARD WEIGHTS OF ACCURACY CLASS E2 AS PER OIML R-76-1
64	MECHANICAL-WEIGHING SCALE AND BALANCE	WEIGHING BALANCEELECTRONIC BALANCE OF CLASS II AND COARSER d=0.1 g AND COARSER	>600 g to 3 kg	0.3g	USING STANDARD WEIGHTS OF ACCURACY CLASS E2&F2 AS PER OIML R-76-1
65	MECHANICAL-WEIGHING SCALE AND BALANCE	WEIGHING BALANCEELECTRONIC BALANCE OF CLASS II AND COARSER d=0.5 g AND COARSER	>3 Kg to 6 kg	0.6g	USING STANDARD WEIGHTS OF ACCURACY CLASS E2&F2 AS PER OIML R-76-1



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66	MECHANICAL-WEIGHING SCALE AND BALANCE	WEIGHING BALANCEELECTRONIC BALANCE OF CLASS II AND COARSER d=1 g AND COARSER	>6 kg to 30 kg	1.2g	USING STANDARD WEIGHTS OF ACCURACY CLASS E2&F2 AS PER OIML R-76-1
67	MECHANICAL-WEIGHING SCALE AND BALANCE	WEIGHING BALANCEELECTRONIC BALANCE OF CLASS II AND COARSER d=10 mg AND COARSER	>200 to 600 g	10 mg	USING STANDARD WEIGHTS OF ACCURACY CLASS E2&F2 AS PER OIML R-76-1
68	MECHANICAL-WEIGHING SCALE AND BALANCE	WEIGHING BALANCEELECTRONIC BALANCE OF CLASS II AND COARSER d=5 g AND COARSER	> 30 kg to 60 kg	3.5g to 3.5 g	USING STANDARD WEIGHTS OF ACCURACY CLASS E2&F2 AS PER OIML R-76-1
69	MECHANICAL-WEIGHING SCALE AND BALANCE	WEIGHING BALANCEELECTRONIC BALANCE OF CLASS III AND COARSER d=10 g AND COARSER	>60 kg to 100 kg	5.7g to 5.7 g	USING STANDARD WEIGHTS OF ACCURACY CLASS E2&F2 AS PER OIML R-76-1
70	THERMAL- SPECIFIC HEAT & HUMIDITY	Indicator of HUMIDITY CHAMBER / GENERATOR / Environmental Chamber @ 25°C	30 % RH to 90 % RH	2.64 %RH	USING Humidity indicator with sensor by comparison method.



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71	THERMAL- SPECIFIC HEAT & HUMIDITY	THERMO-HYGROMETER / HUMIDITY SENSOR WITH INDICATOR and CONTROLLER, TRANSMITTER / DATA LOGGER / RECORDER @ 25°C	30 % RH to 90 % RH	2.64 % RH	USING DIGITAL HUMIDITY INDICATOR WITH PROBE & HUMIDITY CHAMBER - BY COMPARISON METHOD
72	THERMAL- TEMPERATURE	CALIBRATION OF FREEZER/ OVEN/ TEMPERATURE CHAMBER	(-) 80 °C to 300 °C	2.0°C	USING RTD-PT100 WITH TEMPERATURE SCANNER (Nine numbers) . BY mapping method as per DKD - R5-7
73	THERMAL- TEMPERATURE	Environmental chamber/Humidity chamber	30 %RH to 90 %RH @ 25°C	4.2 %RH	USING Humidity data logger (minimum 9 No's) by mapping method.
74	THERMAL- TEMPERATURE	INFRARED THERMOMETER / PYROMETER / THERMAL IMAGE CAMERA	50 °C to 500 °C	1.5 °C	USING IR thermometer and BLACK BODY SOURCE - BY COMPARISON METHOD
75	THERMAL- TEMPERATURE	LIQUID IN GLASS THERMOMETER/ Dial temperature gauge	(-)35°C to 250°C	0.84°C	USING RTD-PT100 WITH INDICATOR & LIQUID BATH BY COMPARISON METHOD



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76	THERMAL-TEMPERATURE	TEMPERATURE INDICATOR OF LIQUID BATH / FREEZER / OVEN / DRY BLOCK TEMPERATURE CALIBRATOR / INCUBATOR / FURNACE / TEMPERATURE CHAMBER	(-)-80 °C to 400 °C	0.81 °C	USING R-THERMOCOUPLE RTD-PT 100 WITH INDICATOR - BY DIRECT METHOD
77	THERMAL-TEMPERATURE	TEMPERATURE INDICATOR OF LIQUID BATH / FREEZER / OVEN / DRY BLOCK TEMPERATURE CALIBRATOR / INCUBATOR / FURNACE / TEMPERATURE CHAMBER	400 °C to 1000 °C	1.83 °C	USING R-THERMOCOUPLE WITH INDICATOR, RTD-PT100 BY DIRECT METHOD



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78	THERMAL-TEMPERATURE	TEMPERATURE SENSOR WITH OR WITHOUT INDICATOR / CONTROLLER / SCANNER / TRANSMITTER / DATA LOGGER / TEMPERATURE SWITCH / DIAL THERMOMETER / DIGITAL THERMOMETER / DIAL TEMPERATURE GAUGE / RECORDER	50°C to 250°C	0.6°C	USING RTD-PT 100 WITH INDICATOR, LIQUID BATH & DRY BLOCK FURNACE - BY COMPARISON METHOD
79	THERMAL-TEMPERATURE	TEMPERATURE SENSOR WITH OR WITHOUT INDICATOR / CONTROLLER / SCANNER / TRANSMITTER / DATA LOGGER / TEMPERATURE SWITCH / DIAL THERMOMETER / DIGITAL THERMOMETER / DIAL TEMPERATURE GAUGE / RECORDER	(-) 35 °C to 50 °C	0.27 °C	USING RTD-PT 100 WITH INDICATOR, LIQUID BATH & DRY BLOCK FURNACE - BY COMPARISON METHOD



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80	THERMAL-TEMPERATURE	TEMPERATURE SENSOR WITH OR WITHOUT INDICATOR / CONTROLLER / SCANNER / TRANSMITTER / DATA LOGGER / TEMPERATURE SWITCH / DIAL THERMOMETER / DIGITAL THERMOMETER / DIAL TEMPERATURE GAUGE / RECORDER	250 °C to 600 °C	1.8°C	USING R-THERMOCOUPLE WITH INDICATOR, RTD-PT100, LIQUID BATH AND DRY BLOCK FURNACE BY COMPARISON METHOD
81	THERMAL-TEMPERATURE	TEMPERATURE SENSOR WITH OR WITHOUT INDICATOR / CONTROLLER / SCANNER / TRANSMITTER / DATA LOGGER / TEMPERATURE SWITCH / DIAL THERMOMETER / DIGITAL THERMOMETER / DIAL TEMPERATURE GAUGE / RECORDER	600°C to 1000°C	2.33°C	USING R-THERMOCOUPLE RTD-PT 100 WITH INDICATOR, LIQUID BATH & DRY BLOCK FURNACE - BY COMPARISON METHOD



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82	THERMAL-TEMPERATURE	THERMO-HYGROMETER / TEMPERATURE SENSOR WITH INDICATOR / CONTROLLER / TRANSMITTER / DATA LOGGER / RECORDER @ 50 % RH	10 °C to 50 °C	0.82 °C	USING DIGITAL TEMPERATURE INDICATOR WITH PROBE & HUMIDITY CHAMBER - BY COMPARISON METHOD