

Laboratory Electronics and Quality Development Centre, C1-641/ 648, GIDC Industrial Estate, Makarpura, Vadodara, Gujarat

Accreditation Standard ISO/IEC 17025:2005

Discipline Mechanical Calibration Issue Date 14.07.2014

Certificate Number C-0419 Valid Until 13.07.2016

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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
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I. DIMENSION^s

1. External Micrometer L.C. 0.001 mm	0 to 25 mm 25 to 50 mm 50 to 75 mm 75 to 100 mm	1.36 μ m 1.5 μ m 1.7 μ m 2.2 μ m	Using Ceramic Slip Gauge Set by Comparison method as per IS 2967
2. External Micrometer L.C. 0.01 mm	0 to 300 mm	8.83 μ m	Using Ceramic Slip Gauge Set by Comparison method as per IS 2967
3. Internal Micrometer L.C. 0.001 mm	0 to 50 mm	1.51 μ m	Using Ceramic Slip Gauge Set & Slip Gauge Accessories Set by Comparison method as per IS 2966
4. Depth Micrometer L.C. 0.001 mm	0 to 150 mm	5.22 μ m	Using Depth Micrometer Checker by Comparison method as per JIS B 7541
5. Vernier Calipers L.C. 0.01 mm L.C. 0.02 mm	0 to 300 mm 0 to 600 mm	15 μ m 20 μ m	Using Caliper Checker by Comparison method as per IS 3651

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6. Vernier Height Gauge L.C. 0.01 mm	0 to 600 mm	18 μ m	Using Caliper Checker by Comparison method as per IS 2921
7. Dial Gauge L.C. 0.01 mm	0 to 30 mm	6.63 μ m	Using Ceramic Slip Gauge Set by Comparison method as per IS 2092
<u>II. PRESSURE & VACUUM</u>			
1. Pressure (Hydraulic) ^{\$} • Dead Weight Tester	23 psi to 500 psi 500 psi to 10200 psi	0.129 % of rdg 0.021 % of rdg	Using Hydraulic Dead Weight Tester M 2200/3P by Cross Float Method
2. Pressure (Hydraulic) ^{\$} • Pressure Gauge, • Pressure Calibrator, • Pressure Transmitter, • Pressure Recorders	23 psi to 500 psi 500 psi to 10200 psi	0.136 % of rdg 0.027 % of rdg	Using Hydraulic Dead Weight Tester M 2200/3P by Comparison method
3. Pressure (Pneumatic) ^{\$} • Pressure Gauge, • Pressure Calibrator, • Pressure Transmitter, • Pressure Recorders	1 psi to 20 psi	0.025 % of rdg	Using Pneumatic Dead Weight Tester T 3550/3 VPS by Comparison method

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4. Pressure (Pneumatic) § <ul style="list-style-type: none">• Pressure Gauge,• Pressure Calibrator,• Pressure Transmitter,• Pressure Recorders	1 kg/cm ² to 70.8 kg/cm ²	0.021 % of rdg	Using Pneumatic Dead Weight Tester T 2700-2 by Comparison method
5. Pressure/ Vacuum* <ul style="list-style-type: none">• Analog & Digital Pressure Gauge• Analog & Digital Vacuum Pressure Gauge• Pressure Calibrator• Pressure Transmitter• Pressure Recorder• Dead Weight Tester	-0.95 bar to 0.0 bar 0 to 20.0 bar	0.0022 bar 0.0068 bar	Using Digital Pressure Indicator Druck/DPI 150 by Comparison method
6. Pressure (Hydraulic) * <ul style="list-style-type: none">• Pressure Gauge,• Pressure Calibrator,• Pressure Transmitter,• Pressure Recorders• Dead Weight Tester	0 to 700 bar	0.21 bar	Comparison method using Digital Pressure Indicator Ruska/7230

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7. Pressure (Pneumatic) *			
• Pressure & Vacuum Gauge Pressure Gauge	-350.0 mbar to 0.0 mbar 0 to 350.0 mbar	0.28 mbar 0.25 mbar	Using Digital Pressure Indicator with Ext. Transducer Druck by Comparison method
• Pressure Calibrator			
• Pressure Transmitter			
• Pressure Recorder			
8. Vacuum	-13.5 psi to -0.5 psi	0.046% of rdg	
III. ACCELERATION & SPEED			
1. RPM Non Contact Type*	60 RPM to 100 RPM 100 RPM to 1000 RPM 1000 RPM to 9999 RPM 9999 RPM to 90000 RPM	0.21 % 0.058 % 0.058 % 0.0024 %	Using Multifunction Calibrator 9100 & Digital Tachometer KusamMECO KM 2234 BL by Direct Method
	60 RPM to 99,999 RPM	2% to 0.4%	Using Function Generator – Agilent /33120A by Direct Method

* Measurement Capability is expressed as an uncertainty (\pm) at a confidence probability of 95%

\$Only in Permanent Laboratory

*Only for Site Calibration

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