

|                               |  |                    |                   |
|-------------------------------|--|--------------------|-------------------|
| <b>Laboratory</b>             | <b>WIKA Instruments India Pvt. Ltd., Plot No. 40, Gat No. 94+100,<br/>Hi-Cliff Industrial Estate, Kesnand, Pune, Maharashtra</b> |                    |                   |
| <b>Accreditation Standard</b> | <b>ISO/IEC 17025: 2005</b>   |                    |                   |
| <b>Discipline</b>             | <b>Mechanical Calibration</b>  | <b>Issue Date</b>  | <b>10.02.2016</b> |
| <b>Certificate Number</b>     | <b>C-0133</b>  | <b>Valid Until</b> | <b>09.02.2018</b> |
| <b>Last Amended on</b>        | <b>-</b>   | <b>Page</b>        | <b>1 of 3</b>     |

| Quantity Measured/<br>Instrument   | Range / Frequency  | *Calibration Measurement<br>Capability ( $\pm$ )  | Remarks   |
|--|--|---|---|
| <b>I. PRESSURE &amp; VACUUM</b>  |  |   |   |
| 1. <b>Pressure <sup>§</sup><br/>(Pneumatic)<br/>Characterization of Dead<br/>Weight Tester</b>   | 0.17 bar to 1.7 bar<br>0.7 bar to 7 bar<br>7 bar to 70 bar<br>10 bar to 100 bar                          | 0.004 % of Rdg.<br>0.004 % of Rdg.<br>0.004 % of Rdg.<br>0.009 % of Rdg.                    | Using Cross Float method<br>as per<br>EAL/4 -cg-3 & NABL 122-12 |
| 2. <b>Pressure <sup>§</sup><br/>(Hydraulic)<br/>Characterization of Dead<br/>Weight Tester</b>   | 6 bar to 60 bar<br>10 bar to 100 bar<br>40 bar to 400 bar<br>100 bar to 1200 bar<br>500 bar to 5000 bar  | 0.009 % of Rdg.<br>0.009 % of Rdg.<br>0.009 % of Rdg.<br>0.009 % of Rdg.<br>0.021 % of Rdg. | Using Cross Float method<br>as per<br>EAL/4 -cg-3 & NABL 122-12 |
| 3. <b>Vacuum <sup>§</sup><br/>Characterization of Dead<br/>Weight Tester</b>   | -0.03 bar to -1.0 bar  | 0.01 % of Rdg.  | Using Cross Float method<br>as per<br>EAL/4 -cg-3 & NABL 122-12 |
| 4. <b>Pressure <sup>§</sup><br/>(Pneumatic)<br/>For Dial Pressure Gauges,<br/>Digital Pressure Gauges &amp;<br/>Pressure Transmitters,<br/>Pressure Switches,<br/>Diff. Pr. Indicators<br/>(at atmospheric<br/>pressure)</b> | 0.015 bar to 0.15 bar<br>0.15 bar to 1.7 bar<br>1.7 bar to 7 bar<br>7 bar to 70 bar<br>40 bar to 400 bar | 0.04 % of Rdg<br>0.006 % of Rdg<br>0.003 % of Rdg<br>0.003 % of Rdg<br>0.009 % of Rdg       | By Direct method Based on<br>DKD-R-6-1 & NABL 122-13            |
| 5. <b>Pressure <sup>§</sup><br/>(Hydraulic)<br/>For Dial Pressure Gauges,<br/>Digital Pressure Gauges &amp;<br/>Pressure Transmitters,<br/>Diff. Pr. Indicators<br/>(at atmospheric pressure)<br/>Indicators</b>             | 6 bar to 60 bar<br>10 bar to 100 bar<br>40 bar to 400 bar<br>100 bar to 1200 bar                         | 0.01 % of Rdg<br>0.01 % of Rdg<br>0.009 % of Rdg<br>0.01 % of Rdg                           | By Direct method Based on<br>DKD-R-6-1<br>& NABL 122-13         |

**Srikanth R.  
Convenor**

**Avijit Das  
Program Manager**

**Laboratory** WIKA Instruments India Pvt. Ltd., Plot No. 40, Gat No. 94+100,  
Hi-Cliff Industrial Estate, Kesnand, Pune, Maharashtra

**Accreditation Standard** ISO/IEC 17025: 2005

**Discipline** Mechanical Calibration **Issue Date** 10.02.2016

**Certificate Number** C-0133 **Valid Until** 09.02.2018

**Last Amended on** - **Page** 2 of 3

| Quantity Measured/<br>Instrument   | Range / Frequency   | *Calibration Measurement<br>Capability ( $\pm$ )                                  | Remarks   |
|--|---|---|---|
| 6. Pressure <sup>\$</sup><br>(Hydraulic)<br>For Dial Pressure Gauges,<br>Digital Pressure Gauges &<br>Pressure Transmitters,<br>Pressure Switches,<br>Diff. Pr. Indicators <sup>\$</sup><br>(at atmospheric<br>pressure) | 400 bar to 5000 bar   | 0.021 % of Rdg  | By Direct method Based on<br>DKD-R-6-1<br>& NABL 122-13     |
| 7. Vacuum <sup>\$</sup><br>For Dial Vacuum Gauges,<br>Digital Vacuum Gauges &<br>Vacuum Transmitters,<br>Switches, Diff. Indicators  | -0.015 bar to -0.1 bar<br>-0.1 bar to -0.95 bar   | 0.06 % of Rdg<br>0.005 % of Rdg   | By Direct method Based on<br>DKD-R-6-2 & NABL 122-13        |
| 8. Absolute Pressure <sup>\$</sup><br>For Dial Pressure Gauges,<br>Digital Pressure Gauges &<br>Pressure Transmitters,<br>Barometers,<br>Pressure Switches,<br>Diff. Pr. Indicators<br>(at atmospheric pressure)         | 0.015 bar to 0.17 bar<br>0.17 bar to 1.7 bar<br>1.7 bar to 7 bar<br>7 bar to 70 bar<br>0.0001 bar to 1 mbar (abs) | 0.04 % of Rdg<br>0.006 % of Rdg<br>0.007 % of Rdg<br>0.003 % of Rdg<br>0.008 mbar | By Direct method Based on<br>DKD-R-6-1 & NABL 122-13        |
| 9. Low Pressure <sup>\$</sup><br>(Pneumatic)<br>For Dial Pressure Gauges,<br>Digital Pressure Gauges &<br>Pressure Transmitters,<br>Pressure Switches Diff.<br>Pr. Indicators<br>(at atmospheric<br>pressure)            | 0 to 1 mbar<br>0 to 10 mbar   | 0.0008 mbar<br>0.008 mbar   | By Comparison method<br>Based on<br>DKD-R-6-1 & NABL 122-13 |

Srikanth R.  
Convenor

Avijit Das  
Program Manager

**Laboratory** WIKA Instruments India Pvt. Ltd., Plot No. 40, Gat No. 94+100,  
Hi-Cliff Industrial Estate, Kesnand, Pune, Maharashtra

**Accreditation Standard** ISO/IEC 17025: 2005

**Discipline** Mechanical Calibration **Issue Date** 10.02.2016

**Certificate Number** C-0133 **Valid Until** 09.02.2018

**Last Amended on** - **Page** 3 of 3

| Quantity Measured/<br>Instrument   | Range / Frequency | *Calibration Measurement<br>Capability ( $\pm$ ) | Remarks  |  |
|--|-------------------|--|--|--|
| <b>II. MASS</b>  |                   |  |  |  |
| <b>1 Mass <sup>§</sup><br/>(weights)<br/>Calibration of E2 class<br/>weights and coarser</b> | 1 mg              | 0.002 mg   | Using Mass Comparator<br>having L.C-0.000001g<br>E1 class 1mg – 10 kg weights<br>Method used is as per<br>OIML-R 111 |  |
|  | 2 mg              | 0.002 mg   |  |  |
|  | 5 mg              | 0.002 mg   |  |  |
|  | 10 mg             | 0.002 mg   |  |  |
|  | 20 mg             | 0.002 mg   |  |  |
|  | 50 mg             | 0.003 mg   |  |  |
|  | 100 mg            | 0.003 mg   |  |  |
|  | 200 mg            | 0.003 mg   |  |  |
|  | 500 mg            | 0.005 mg   |  |  |
|  | 1 g               | 0.005 mg   |  |  |
|  | 2 g               | 0.005 mg   |  |  |
|  | 5 g               | 0.006 mg   |  |  |
|  | 10 g              | 0.007 mg   |  |  |
|  | 20 g              | 0.01 mg  |  |  |
| <b>Calibration of F1 class<br/>weights and coarser</b>                                       | 50 g              | 0.02 mg  | Using Mass Comparator<br>having L.C - 0.00001g<br>E1 class 1mg – 10 kg weights                                       |  |
|  | 100 g             | 0.02 mg  |  |  |
|  | 200 g             | 0.06 mg  |  |  |
|  | 500 g             | 0.09 mg  |  |  |
|  | 1 kg              | 1 mg   |  |  |
|  | 2 kg              | 1 mg   |  |  |
|  | 5 kg              | 8.23 mg  |  | Using Mass Comparator<br>having L.C - 0.01g<br>E1 class 1mg – 10 kg weights<br>Method used is as per OIML<br>R-111 |
|  |                   | 10 mg  |  |  |
|  |                   | 10 kg  |  |  |

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

§ Only in Permanent Laboratory

Srikanth R.  
Convenor

Avijit Das  
Program Manager