GAUGE BLOCK COMPARATOR

NANOCAL Series The best tool for ISO length calibration

GBC-NANOCAL Gauge Block Comparator is specially designed for the calibration or dimensional inspection of gauge blocks with nominal lengths ranging from 0.1 to 300mm.

GBC-NANOCAL The configuration, which consists of two high-precision inductive probes aligned opposite one another with 0.01 μm display. The measuring system provides full guarantee for an extra low uncertainty of measurement.

Although METROLOGY GBC-NANOCAL Gauge Block Comparator is mainly intended for manufacturers and end-users of gauge blocks, this comparator is also widely used in ISO/IEC 17025 national accredited calibration laboratories all over the world.

Length metrology standard--- The best and only choice for gauge blocks calibration

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Measuring Range</th>
<th>Resolution</th>
<th>Repeatability</th>
<th>Uncertainty of Measurement (um)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBC-P100</td>
<td>0.1~100mm</td>
<td>0.01um</td>
<td>≤0.025um</td>
<td>U95 ≤ ±(0.05+0.5L/1000) Reference Temperature 20 ± 1°C</td>
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<tr>
<td>GBC-P300</td>
<td>0.1~300mm</td>
<td>0.0000001”</td>
<td></td>
<td>U95 ≤ ±(0.03+0.3L/1000) Reference Temperature 20 ± 0.5°C</td>
</tr>
</tbody>
</table>
GAUGE BLOCK COMPARATOR

GBC-NANOCAL Measuring system combinations

- Measuring stand
  DIN 00 grade 300x200x75mm granite base stand, heavy construction with height toothed rack guide column plug two hand wheel for coarse and fine adjustment setting of the measuring arm

- Measuring table
  Made from hardened tool steel and fitted with 6 antimagnetic ceramic cylindrical pins for a safe positioning which provide high protection, and wear resistance to the gauge blocks over years.

- Single template system
  Used to shift the gauge blocks from a given point to another. With two interchangeable templates, one is for gauge blocks 9x30mm and another one is for gauge blocks 9x35mm

- Special template system
  For shifting the long gauge blocks from a given point to another. With one template and three support device for length >100mm long gauge blocks 9x35mm. (for GBC-P300)

- Measuring system
  Consisting of: Upper probe A. Measuring force to 1N and lower probe B. Measuring force to 0.63N, fitted with the tungsten carbide measuring insert with spherical measuring face R=20mm.
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GBC-NANOCAL Measuring system combinations

■ Heat protection shield
  Dimension: 250x380x6mm Screen
  material: Anti-Shatter fiber glass
  For blocking temperature influence caused from
  operator.

■ Electric vacuum pump with foot switch
  For retracting the measuring bolt of each probe.
  Power: 100-240 Vac, 50-60Hz

■ Pneumatic suction loader
  For safe, easy handling of small gauge blocks
  with nominal lengths up to 5mm. (optional)

■ Length measuring system
  Instrument TT 80 with RS232 interface and
  analogue output with 0.01μm resolution.
  Power: 100-240 Vac, 50-60Hz
  ■ 2 of probe inputs (Automatic conversion)
  ■ 9 of measuring ranges (Automatic conversion)
    Lowest Value: ± 0.5μm, Highest Value: ± 5000μm
  ■ Digital and analogue display (metric/inch unit system)
    Resolution : 0.01μm
GAUGE BLOCK COMPARATOR

GBC-NANOCAL P300 Standard equipment

- Dual probe measuring system
- Movement column and measuring arm
- Measuring table
- Digital and analogue display
- Measuring stand
- Heat protection shield
- Electric vacuum pump
- Foot switch
- Pneumatic suction loader (optional)

- Center setting gauge
- Gauge block tweezers
- 30x9mm Gauge block calibration
- 35x9mm Gauge block calibration
- Measuring table and position device
- Measuring diagram
- Special template and device for long gauge blocks
- Comparison calibration for long gauge blocks

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Patented Technology Award

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