

**Mitutoyo**
**Gauge block set Ceramic, tolerance class 1, Number of gauge blocks: 87**

**Order data**

Order number	481310 87
GTIN	4946368219240
Item class	44A

**Description**
**Version:**

Made of ultra-pure ceramic zirconium dioxide ( $ZrO_2$ ) manufactured in a sintering process.

- **Hardness:** With approx. 1350 HV about twice as hard as steel.
- **Tensile strength:** Up to approx. 70 % of the flexural strength of steel. Insensitive to shock and impact.
- **Wear resistance:** Lasts about 10 times longer than steel. No burr formation. No plastic deformation. Scratches and small defects have no influence on the measured result. The surface remains slip capable longer than steel.
- **Handling / care:** Highly resistant to alkalis, acids, oil, and grinding water. No need for time-intensive degreasing before use and re-greasing after use which is required for steel. Low weight is an advantage for large sizes.
- **Temperature characteristics:** Coefficient of expansion  $(9.5 \pm 1.0) 10^{-6} K^{-1}$  similar to that of steel. Low thermal conductivity.
- **Anti-magnetic:** Cannot be magnetised.
- **Slip capability:** The homogeneous, high density structure gives optimum holding, even to steel, and easy slip capability. Galling is excluded.
- **Test certificate:** Each gauge block is provided with its own unique identity number. The actual deviation from the nominal dimensions is recorded in the test certificate. The absolute actual dimension is therefore known. Manufacturer's test certificate traceable back to national standards.

**Application:**

**Tolerance class 1** as working and adjusting master for gauge checking. For inspection rooms.

**Content:**

1× each of size: 10; 20; 30; 40; 50; 60; 70; 80; 90; 100 mm

Graduation 0.001: 9 pcs. 1.001 – 1.009 mm

Graduation 0.01: 49 pcs. 1.01 – 1.49 mm

Graduation 0.5: 19 pcs. 0.5 – 9.5 mm

## Technical description

Number of gauge blocks	87
Standard	DIN EN ISO 3650
Tolerance class	1
Hardness	1350 HV
Material	Zirconium Oxide (ZrO <sub>2</sub> ) ceramic material
Test certificate	Manufacturer's test certificate
Packaging	sturdy box
Calibration	S17
Type of product	Parallel gauge block set

## Services

Calibration Gauge block set, steel / ceramic Set contents 87	018041 87
DAkkS calibration Gauge block set, steel Set contents 87	019670 87
Labelling laser-etched Type	018940
Calibration Gauge block set, steel / ceramic Set contents 87	020850 87
DAkkS calibration Gauge block set, steel Set contents 87	020860 87