

Gauge Blocks

Gauge Blocks with a Calibrated Coefficient of Thermal Expansion

- The products are the highest-quality gauge blocks exceeding Grade K and are provided with highly accurate thermal expansion coefficient data. They help minimize thermal correction and therefore are suitable for highly accurate calibration. (Uncertainty of thermal expansion coefficient: $0.035 \times 10^{-6}/K$ (k=2))
- The thermal expansion coefficient is measured with a highly accurate double-faced interferometer (DFI), and the dimensional accuracy is guaranteed with gauge block interferometer (GBI).
- Useful in highly accurate calibration of CMMs.
- A mark "Coefficient of Thermal Expansion" is engraved on the surface. They are available in the nominal sizes (100 to 500 mm) of steel and ceramic rectangular gauge blocks.



SPECIFICATIONS

Metric Blocks with CTE

Code No. (steel)*1	Code No. (CERA)*1	Length (mm)
611681	613681	100
611802	613802	125
611803	613803	150
611804	613804	175
611682	613682	200
611805	613805	250
611683	613683	300
611684	613684	400
611685	613685	500

Inch Blocks with CTE

Code No. (steel)*1	Code No. (CERA)*1	Length (in)
611204	613204	4
611205	613205	5
611206	613206	6
611207	613207	7
611208	613208	8
611222	613222	10
611223	613223	12
611224	613224	16
611225	613225	20

Grade

K class in JIS/ISO, ASME

Uncertainty of thermal expansion coefficient

 $0.035 \times 10^{-6}/K$ (k=2)

Uncertainty of length measurement

30 nm (k=2), for 100 mm block

Note: An inspection certificate and a JCSS calibration certificate are supplied as standard.

A calibration report and a calibration certificate for the thermal expansion coefficient are also supplied as standard.



*1: Suffix No. (-■■■) for Selecting Standard Required

ISO/JIS

Prefix	Grade	Inspection Certificate	Calibration Certificate
-01B	K	✓	✓

ASME

Prefix	Grade	Inspection Certificate	Calibration Certificate
-51B	K	✓	✓

BS

Prefix	Grade	Inspection Certificate	Calibration Certificate
-11B	K	✓	✓

Note: Only for 100 mm type



Inspection Certificate