

# 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.



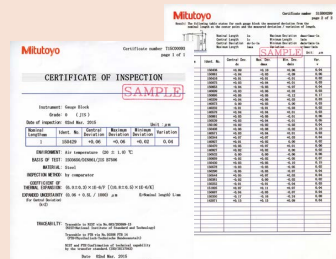
### \*1: Suffix No. ( - ■■■■ ) for Selecting Standard Required

ISO / JIS			
Suffix No.	Grade	Inspection Certificate	Calibration Certificate
-01B	K	✓	JCSS ✓

ASME			
Suffix No.	Grade	Inspection Certificate	Calibration Certificate
-51B	K	✓	JCSS ✓

BS			
Suffix No.	Grade	Inspection Certificate	Calibration Certificate
-11B	K	✓	JCSS ✓

Note: Only for 100 mm type



Inspection Certificate

## SPECIFICATIONS

Metric Blocks with CTE			Inch Blocks with CTE		
Code No. (steel)*1	Code No. (CERA)*1	Length (mm)	Code No. (steel)*1	Code No. (CERA)*1	Length (in)
611681	613681	100	611204	613204	4
611802	613802	125	611205	613205	5
611803	613803	150	611206	613206	6
611804	613804	175	611207	613207	7
611682	613682	200	611208	613208	8
611805	613805	250	611222	613222	10
611683	613683	300	611223	613223	12
611684	613684	400	611224	613224	16
611685	613685	500	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.