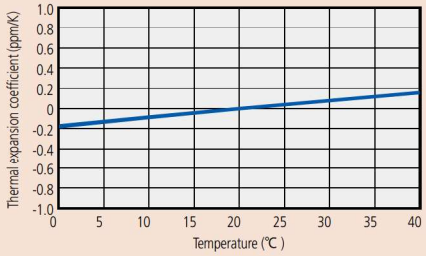
PROPRIETARY INSPECTION CERTIFICATE

Thermal expansion coefficient–Temperature characteristic



Comparison of maximum errors at 23 °C (500 mm size)

Temperature compensation error of typical ISO/JIS-certified product: ±1.5 µm
Temperature compensation error of Mitutoyo standard gauge blocks: ±0.75 µm
Temperature compensation error of gauge blocks with thermal expansion coefficient: ±0.075 µm
Maximum thermal expansion of ZERO CERA Blocks: +0.03 µm
Thermal expansion of steel gauge blocks: +16.2 µm
Thermal expansion of CERA Blocks: +13.95 µm

ZERO CERA Blocks (Ultra-low Thermal Expansion)

- ZERO CERA Blocks are next-generation gauge blocks made of special lightweight ceramic materials that have extremely low thermal expansion. They are easy to handle, and slow in aging (thermal expansion coefficient: $0\pm0.02\times10^{-6}$/K (20 °C), specific gravity 2.4 kg/cm^3). Many research institutions and academic institutions rely on ZERO CERA Blocks in various applications, including the study of methods of calibrating CMM.
- Each block is marked with "ZERO CERA BLOCK" logo.
- Available in the nominal sizes (30 to 1,000 mm) of rectangular gauge blocks.

SPECIFICATIONS

Metric Blocks

Code No.			Length (mm)
JIS/ISO/DIN	BS	ASME	
617673-016	**617673-116**	**617673-516**	30
617675-016	**617675-116**	**617675-516**	50
617681-016	**617681-116**	**617681-516**	100
617682-016	**617682-116**	**617682-516**	200
617683-016	**617683-116**	**617683-516**	300
617684-016	**617684-116**	**617684-516**	400
617685-016	**617685-116**	**617685-516**	500
617840-016	**617840-116**	**617840-516**	600
617841-016	**617841-116**	**617841-516**	700
617843-016	**617843-116**	**617843-516**	800
617844-016	**617844-116**	**617844-516**	900
617845-016	**617845-116**	**617845-516**	1000
516-771-60	**516-771-61**	**516-771-66**	Above set

Mitutoyo