

Dial Caliper

Dial Caliper

User's Manual

No. 99MAC003A
Date of publication: July 1, 2021 (1)

Safety Precautions

To ensure operator safety, use this product in conformance with the directions, functions and specifications given in this User's Manual. Use under other conditions may compromise safety.

⚠ CAUTION Shows risks that could result in minor or moderate injury.

- The outside and inside measuring jaws of this caliper have sharp edges. Handle it with great care to avoid injury.
- Do not measure the workpiece if it is rotating. There is a risk of injury due to being caught in the machine, etc.

■ Conventions and wording indicating prohibited and mandatory actions



Indicates concrete information about prohibited actions.



Indicates concrete information about mandatory actions.

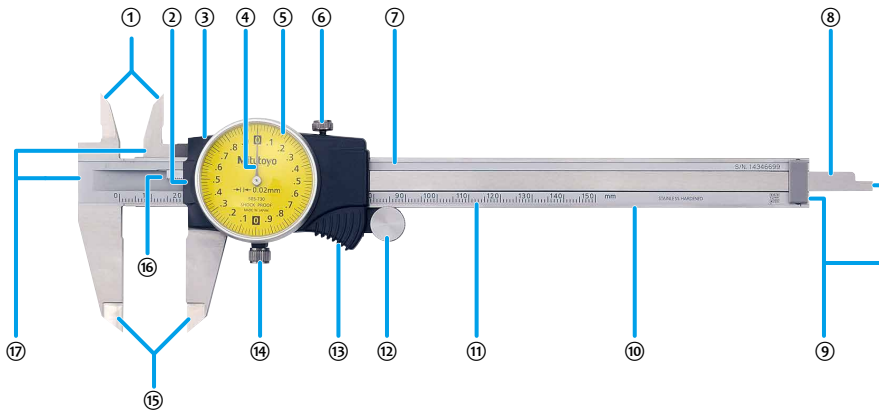
Contents

1	Code Number	2
2	Names of Components	2
3	Product Applications	2
4	Precautions before Use	2
5	Basic Usage	3
6	Confirmation before Measurement	3
7	Measurement Method	4
8	Reading Measurements	6
9	Zero Point Adjustment of Pointer	7
10	Precautions after Use	7
11	Maximum Permissible Error of Indicated Values	7

1 Code Number

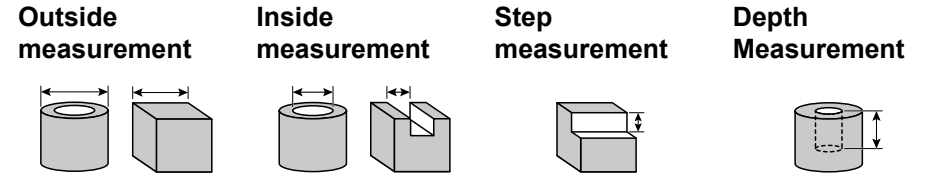
505-730	505-731	505-732	505-733	505-734	505-735
505-736	505-737	505-738	505-739	505-740J	505-741J
505-742J	505-742-51J	505-742-52J	505-742-53J	505-742-54J	505-742-55J
505-742-56J	505-743J	505-744	505-745	505-746	505-747
505-748	505-749	505-750			

2 Names of Components



- | | |
|---------------------------|---------------------------------------|
| ① Inside measuring jaws | ⑩ Sliding surface (reference surface) |
| ② Main scale reading edge | ⑪ Main scale |
| ③ Slider | ⑫ Thumb roller |
| ④ Pointer | ⑬ Finger rest |
| ⑤ Dial graduation | ⑭ Bezel clamp screw |
| ⑥ Slider clamp screw | ⑮ Outside measuring jaws |
| ⑦ Beam | ⑯ Rack |
| ⑧ Depth bar | ⑰ Step measuring faces |
| ⑨ Depth measuring faces | |

3 Product Applications



4 Precautions before Use

- Before using this product for the first time, wipe the rust preventive oil from the product with a soft cloth soaked with cleaning oil. If the rust preventive oil is left on the product, it will dry on and the motion may become stiff. In this case, wipe the sliding surface (reference surface) with a cloth to improve the motion further.
- If cutting chips or debris adhere to the beam, measuring faces, or graduations, wipe them off with chamois or gauze, etc.
- Apply clean oil to the beam, especially the sliding surface. This protects the sliding surface and improves the slider motion.
- Do not perform the adjustment at sites where the temperature will change abruptly. Thermally stabilize the instrument sufficiently at room temperature.
- Be careful not to allow cutting chips or dust to enter the rack. Chips or particles can damage the rack, degrading accuracy or causing the pointer to skip and the zero point to deviate.

MPE ($EMPE$, $SMPE$)

505 Sereis

0.02 mm: 505-730, 505-731, 505-734, 505-735, 505-745

*L (mm)	$EMPE$ (mm)	$SMPE$ (mm)
$0 \leq L \leq 50$	± 0.02	± 0.04
$50 < L \leq 200$	± 0.03	± 0.05
$200 < L \leq 300$	± 0.04	± 0.06

0.01 mm: 505-732, 505-735

*L (mm)	$EMPE$ (mm)	$SMPE$ (mm)
$0 \leq L \leq 150$	± 0.02	± 0.04
$150 < L \leq 200$	± 0.03	± 0.05

0.001 in: 505-742J, 505-743J, 505-736, 505-737, 505-738, 505-739, 505-746, 505-747, 505-748, 505-742-51J, 505-742-52J, 505-742-53J, 505-742-54J, 505-742-55J

*L (inch)	$EMPE$ (inch)	$SMPE$ (inch)
$0 \leq L \leq 6$	± 0.0010	± 0.0020
$6 < L \leq 12$	± 0.0020	± 0.0025

*L

jp	測定長さ	sv	Måtlängd	zh-CN	实测长度
en	Measured length	pt	Comprimento medido	zh-TW	實測長度
de	Messlänge	cs	Měřená délka	th	ความยาวที่วัดได้
es	Longitud medida	pl	Długość pomiaru	vi	Chiều dài đo được
fr	Longueur mesurée	ru	Длина измерения	ms	Panjang yang diukur
nl	Gemeten lengte	tr	Ölçme uzunluğu	id	Panjang terukur
it	Lunghezza misurata	ko	측정 된 길이		