

Micrometer

The origin of Mitutoyo's trustworthy brand of small tool instruments

ABSOLUTE Digimatic Micrometers SERIES 227 — with Adjustable Measuring Force

- Digimatic micrometer dedicated to applications requiring a constant/low measuring force such as measuring wire, paper, and plastic/rubber parts.
- Ratchet mechanism in the thimble applies constant force to workpiece.
- Compact and easy to handle.
- Measuring force is adjustable (in steps) to suit various kinds of workpiece.
- High-accuracy measurement can be performed even by unskilled operators due to the repeatability of the automatically applied measuring force.
- Non-rotating spindle.
- Measuring faces: Carbide



227-201

SPECIFICATIONS

Metric								
Order No.	Range	Measuring force	Resolution	Accuracy*	Measuring force	Accuracy of the selected measuring force* ¹	Repeatability of measuring force* ¹	Mass
227-201	0 - 15mm	0.5N - 2.5N	0.001mm	±2μm	0.5, 1.0, 1.5, 2.0, 2.5 N	± (0.1+ the selected measuring force/10) N	within 0.1 N	300g
227-203	15 - 30mm							380g
227-205	0 - 10mm	2N - 10N	0.001mm	±2μm	2, 4, 6, 8, 10 N	± (0.4+ the selected measuring force/10) N	within 0.4 N	340g
227-206	10 - 20mm							425g
227-207	20 - 30mm							415g

* Excluding quantizing error

Inch/Metric								
Order No.	Range	Measuring force	Resolution	Accuracy*	Measuring force	Accuracy of the selected measuring force* ¹	Repeatability of measuring force* ¹	Mass
227-211	0 - .6"	0.5N - 2.5N	.00005"/0.001mm	±.0001"	0.5, 1.0, 1.5, 2.0, 2.5 N	± (0.1+ the selected measuring force/10) N	within 0.1 N	300g
227-213	.6" - 1.2"							380g

* Excluding quantizing error

* 1: These values are guaranteed used in a horizontal orientation (within ±3 degrees)

ABSOLUTE™ Absolute Encoder

Technical Data

Flatness: 0.3μm/.000012"
 Parallelism: 2μm/.00008"
 Measurement posture: horizontal orientation only
 (Recommended spindle inclination: within ±3°)
SR44 (1 pc), **938882**, for initial operational checks (standard accessory)
 Battery life: Approx. 3 years under normal use
 (1 year for No.227-203, 206, 207, 213, 216, 217)
 Length standard: Electrostatic capacity absolute sensor
 Standard accessories: Reference bar, 1 pc
 (except for measuring range 0-15mm (0-6") / 0-10mm (0-.4") models)
 Screwdriver (210183), 1 pc

Functions

Adjustable measuring force mechanism
 Hold
 Origin point setting
 ABS measurement system
 Low voltage alarm
 Data output
 Presetting (No.227-203, 206, 207, 213, 216, 217)

Optional accessories

Connecting cables
 1m: **937387**
 2m: **965013**
USB Input Tool Direct
USB-ITN-E (2m): **06ADV380E**
 Connecting cables for **U-WAVE-T**
02AZD790E 160mm
 For foot switch: **02AZE140E**
 Refer to page B-46 for details.

Adjustable measuring force

To preset the measuring force, adjust the measuring force setting scale on the thimble with the screwdriver supplied.

