

Thickness Gages

SERIES 547, 7

Thickness Gages offer a quick and efficient means of inspection with their convenient grip handle, thumb trigger and spring-loaded spindle. The various models cover a wide range of applications.

FEATURES

- Wide range of applications with various types of measuring faces (on the spindle and anvil).

- The digital models incorporate Mitutoyo's popular ID-C and ID-S Series Digimatic Indicators to provide error-free LCD readings as well as data output for SPC analysis.
- **547-401 (547-400)** is ideally suited for measuring thicknesses of paper, film, wire, sheet metal and similar materials.

Standard Type / Digital



Deep Throat Type / Digital



Standard Type / Dial



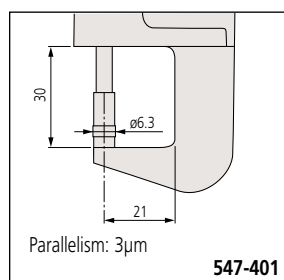
Deep Throat Type / Dial



High Accuracy Type / Digital



DIMENSIONS



SPC

ABSOLUTE®
Absolute System Patented by MITUTOYO

(Refer to page IX for details.)

Technical Data of Digital Models

Accuracy: Refer to the list of specifications (excluding quantizing error)

Resolution:

0.01mm type	0.01mm
0.001mm type	0.001mm/0.001mm
.0005"/0.01mm type	.0005"/0.01mm
.00005"/0.001mm type	.00005"/.0001"/.00005"/0.01mm/0.001mm

Display: LCD

Scale type: ABSOLUTE electrostatic linear encoder

Max. response speed: Unlimited

Measuring force: Refer to the list of specifications

Stem dia.: 8mm (ISO/JIS type) or 3/8" (ANSI/AGD type)

Contact point: Carbide ball with M2.5x0.45 (ISO/JIS type)
Carbide ball with #4-48UNF (ANSI/AGD type)

Battery: SR44 (1 pc.), 938882

Battery life: Approx. 7,000 hours under normal use

Dust/Water protection level: IP42 or IP53 (dust-proof type)

Functions of Digital Models

Origin-set/Preset, Zeroset, GO/±NG judgment, Counting direction switching, Power ON/OFF, Simplified calculation, Function lock, Data hold, Data output, inch/mm conversion (inch/mm models)

Alarm: Low voltage, Counting value composition error, Overflow error, Tolerance limit setting error

Optional Accessories

905338: SPC cable (1m) for digital models

905409: SPC cable (2m) for digital models

02AZD790F: SPC cable for U-WAVE (160mm)

902011: Spindle lifting lever (ISO/JIS type)*

902794: Spindle lifting lever (ANSI/AGD type)*

137693: Spindle lifting hook**

540774: Spindle lifting cable

125317: Spare rubber boot (for dust-proof type)

02ACA571: Auxiliary spindle spring for 25mm/1" models***

02ACA773: Auxiliary spindle spring for 50mm/2" models***

—: Backs (See page F-40.)

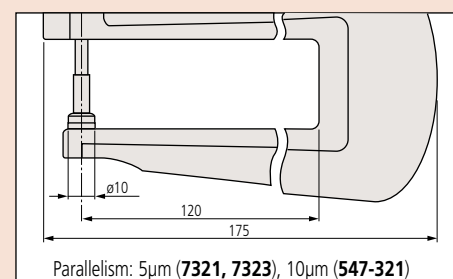
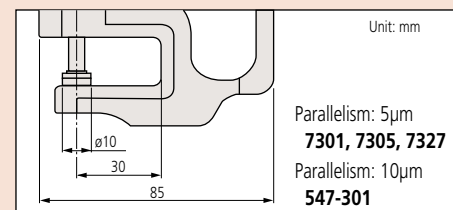
—: Contact points (See page F-36.)

*Can be used on 12mm/5" models only.

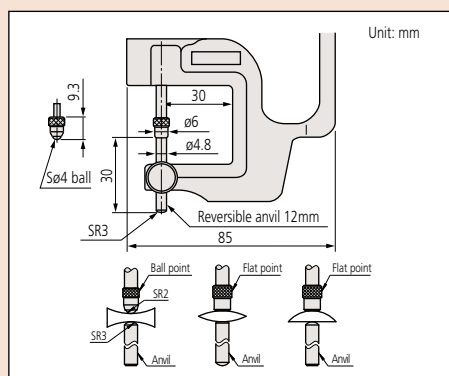
**Can be used on 25mm/1" or 50mm/2" models.

***Required when orienting the indicator upside down.

DIMENSIONS



DIMENSIONS



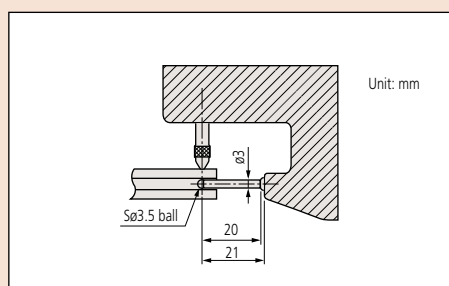
Lens thickness measurement



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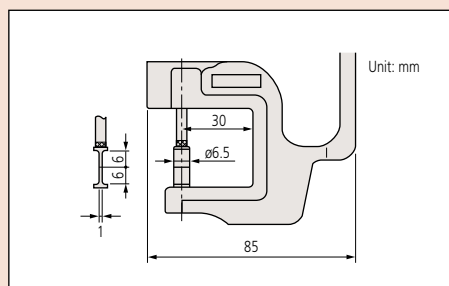
Tube thickness measurement



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DIMENSIONS



Groove depth measurement



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SPECIFICATIONS

Metric	Digital Type
Range	Order No.
0 - 12mm	547-401
0 - 10mm	547-301
0 - 10mm	547-321
0 - 10mm	547-313
0 - 10mm	547-315
0 - 10mm	547-360

Inch/Metric	Digital Type
Range	Order No.
0 - .47"	547-400S /
0 - .4" / 0 - .47"*	547-300S / 547-500*
0 - .4" / 0 - .47"*	547-320S / 547-520*
0 - .4" / 0 - .47"*	547-312S / 547-512*
0 - .4" / 0 - .47"*	547-316S / 547-516*
0 - .4" / 0 - .47"*	547-361S / 547-561*

*using ID-S Digimatic indicator, Standard model with .0001"/0.001mm resolution ID-S is available (547-526).

Metric	Dial Type
Range	Order No.
0 - 1mm	7327
0 - 10mm	7301
0 - 20mm	7305
0 - 10mm	7321
0 - 20mm	7323
0 - 10mm	7313
0 - 10mm	7315
0 - 10mm	7360

Inch	Dial Type
Range	Order No.
0 - .05"	7326S
0 - .5"	7300S
0 - 1"	7304S
—	—
0 - 1"	7322S
0 - .5"	7312S
0 - .5"	7316S
0 - .5"	7361S

Contact Force Gage

SERIES 546

FEATURES

- Measures small forces applied to the end of its measuring lever in units of newtons (N).
- Contact Force Gages are widely used to determine the measuring force applied by an instrument to a workpiece, as well as contact forces of electrical relays, micro-switches, valves and precision springs.
- Convenient peak-hold type gages are also available.



SPECIFICATIONS

Standard		
Minimum reading	Order No.	Range
2mN	546-112	6mN - 50mN
5mN	546-113	10mN - 100mN
10mN	546-114	30mN - 300mN
0.02N	546-115	0.06N - 0.5N
0.05N	546-116	0.1N - 1N
0.05N	546-117	0.15N - 1.5N
0.1N	546-118	0.3N - 3N
0.2N	546-119	0.6N - 5N

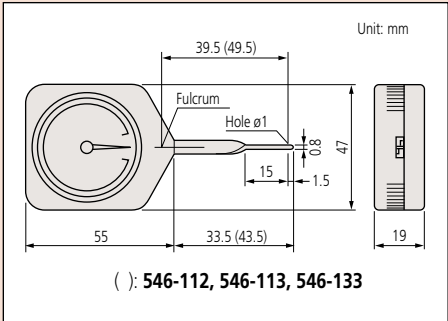
Peak hold		
Graduation	Order No.	Range
5mN	546-133	10mN - 100mN
10mN	546-134	30mN - 300mN
0.02N	546-135	0.06N - 0.5N
0.05N	546-136	0.1N - 1N
0.05N	546-137	0.15N - 1.5N
0.1N	546-138	0.3N - 3N
0.2N	546-139	0.6N - 5N

Application

Measuring contact force of a relay



DIMENSIONS

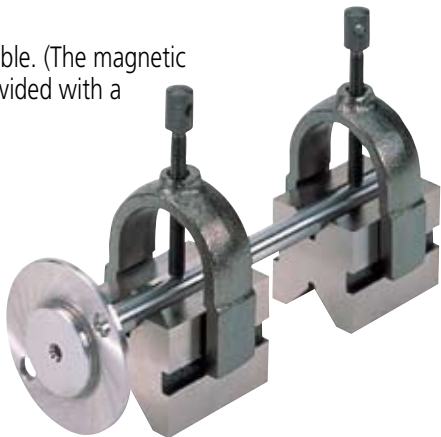


V-Block Set

SERIES 181

FEATURES

- Two V-blocks per set.
- Magnetic type is available. (The magnetic type V-block is not provided with a workpiece clamp.)



SPECIFICATIONS

Metric		
Max. workpiece dia.	Order No.	Remarks
25mm	181-902	With clamp

Inch		
Max. workpiece dia.	Order No.	Remarks
1"	181-901	With clamp

DIMENSIONS

