

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



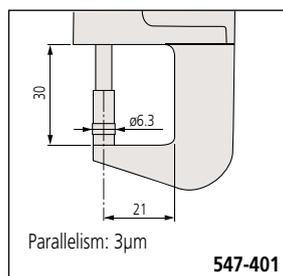
Deep Throat Type / Dial



High Accuracy Type / Digital



DIMENSIONS



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	.0005"/.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

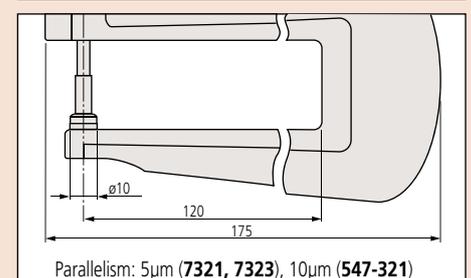
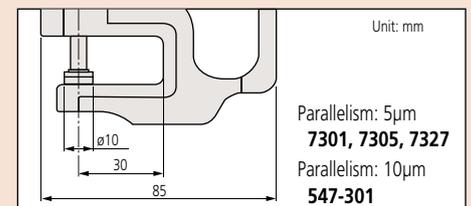
Optional Accessories

- 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***

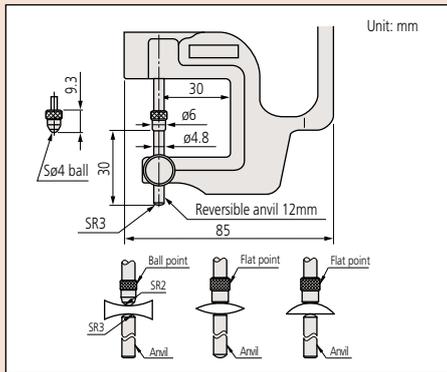
—: Backs (See page F-40.)
—: Contact points (See page F-36.)

*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



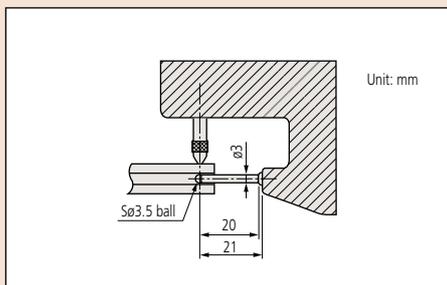
DIMENSIONS



Lens thickness measurement



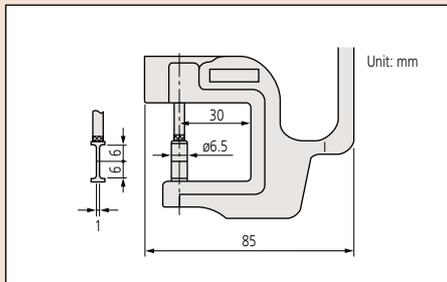
DIMENSIONS



Tube thickness measurement



DIMENSIONS



Groove depth measurement



SPECIFICATIONS

Metric	Digital Type
Range	Order No. Resolution
0 - 12mm	547-401 0.001mm
0 - 10mm	547-301 0.01mm
0 - 10mm	547-321 0.01mm
0 - 10mm	547-313 0.01mm
0 - 10mm	547-315 0.01mm
0 - 10mm	547-360 0.01mm

Inch/Metric	Digital Type
Range	Order No. Resolution Accuracy Measuring force Remarks
0 - .47"	547-400S / .00005"/0.001mm ±3µm 3.5N or less High accuracy, carbide spindle/anvil
0 - .4" / 0 - .47"*	547-300S / 547-500* .0005"/0.01mm ±20µm 1.5N or less Standard, ceramic spindle/anvil
0 - .4" / 0 - .47"*	547-320S / 547-520* .0005"/0.01mm ±20µm 1.5N or less Deep throat, ceramic spindle/anvil
0 - .4" / 0 - .47"*	547-312S / 547-512* .0005"/0.01mm ±20µm 1.5N or less Lens thickness
0 - .4" / 0 - .47"*	547-316S / 547-516* .0005"/0.01mm ±20µm 1.5N or less Groove depth
0 - .4" / 0 - .47"*	547-361S / 547-561* .0005"/0.01mm ±20µm 1.5N or less Tube thickness

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

Metric	Dial Type
Range	Order No. Dial reading
0 - 1mm	7327 0.001mm
0 - 10mm	7301 0.01mm
0 - 20mm	7305 0.01mm
0 - 10mm	7321 0.01mm
0 - 20mm	7323 0.01mm
0 - 10mm	7313 0.01mm
0 - 10mm	7315 0.01mm
0 - 10mm	7360 0.01mm

Inch	Dial Type
Range	Order No. Dial reading Accuracy Measuring force Remarks
0 - .05"	7326S .00005" ±5µm 1.4N or less Fine dial reading, ceramic spindle/anvil
0 - .5"	7300S .001" ±15µm 1.4N or less Standard, ceramic spindle/anvil
0 - 1"	7304S .001" ±20µm 2.0N or less Standard, ceramic spindle/anvil
—	— ±15µm 1.4N or less Deep throat, ceramic spindle/anvil
0 - 1"	7322S .001" ±22µm 2.0N or less Deep throat, ceramic spindle/anvil
0 - .5"	7312S .001" ±15µm 1.4N or less Lens thickness
0 - .5"	7316S .001" ±15µm 1.4N or less Groove depth
0 - .5"	7361S .001" ±15µm 1.4N or less Tube thickness

Lightweight Dial Thickness Gage

SERIES 7



Ceramic spindle/
anvil

7331S

Application

Measuring paper thickness



Measuring thickness of a human hair

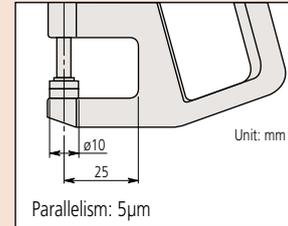


SPECIFICATIONS

Metric

Range	Order No.	Dial reading	Accuracy	Measuring force
0 - 10mm	7331S	0.01mm	±20µm	1.4N or less

DIMENSIONS



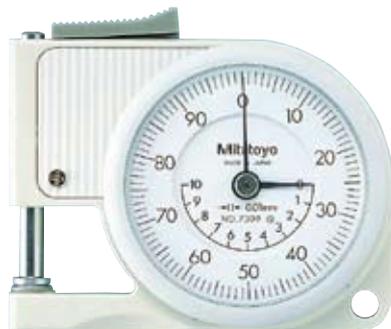
Pocket Thickness Gage

SERIES 7

A very compact thickness gage is designed for carrying convenience and is ideally suited for quick inspection of paper, leather, wire, plastic, sheet metal and similar materials. The spindle is pre-loaded to provide a constant measuring force (2N or less).

FEATURES

- Measuring faces are hardened, ground and lapped for accuracy.
- Easy zero-point adjustment.



7309

SPECIFICATIONS

Metric

Range	Order No.	Dial reading	Accuracy
0 - 10mm	7309	0.01mm	±20µm

Inch

Range	Order No.	Dial reading	Accuracy
0 - .4"	7308	.001"	±.001"

DIMENSIONS

