

# Thickness Gage

## SERIES 547, 7

The 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



547-301

### Deep Throat Type / Digital



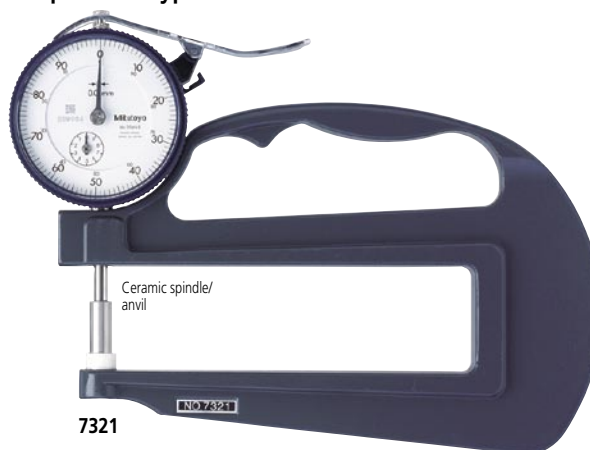
547-321

### Standard Type / Dial



7301

### Deep Throat Type / Dial



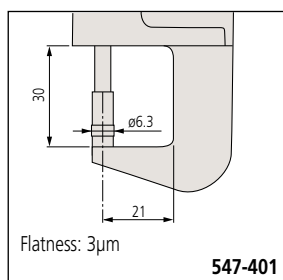
7321

### High Accuracy Type / Digital



547-401

### DIMENSION



547-401

SPC

ABSOLUTE<sup>®</sup>  
Absolute System Patented by MITUTOYO

(Refer to the page 9 for details.)

### Technical Data of Digital Models

Accuracy: Refer to the list of specifications (excluding quantizing error)  
Resolution: 0.01mm, 0.001mm, .0005"/0.01mm, .0001"/0.001mm or .00005"/0.001mm  
Display: LCD  
Length standard: ABSOLUTE electrostatic capacitance type 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. 5,000 hours under normal use  
Dust/Water protection level: IP42 or IP53 (dust-proof type)

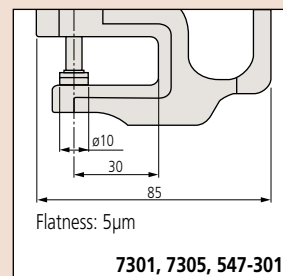
### Function of Digital Models

Origin-set/Preset, Zeroset, GO/±NG judgment, Counting direction switching, Power ON/OFF, Data output, inch/mm conversion (inch/mm models)  
Alarm: Low voltage, Counting value composition error, Over-flow error, Tolerance limit setting error

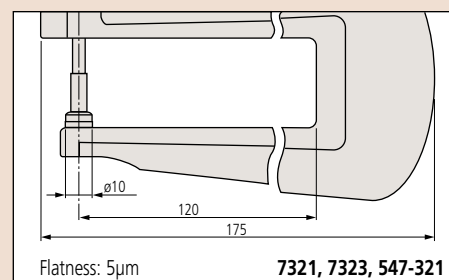
### Optional Accessory

- 905338:** SPC cable (1m) for digital models
  - 905409:** SPC cable (2m) for digital models
  - 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 266.)
  - : Contact points (See page 264.)
- \*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.

### DIMENSION



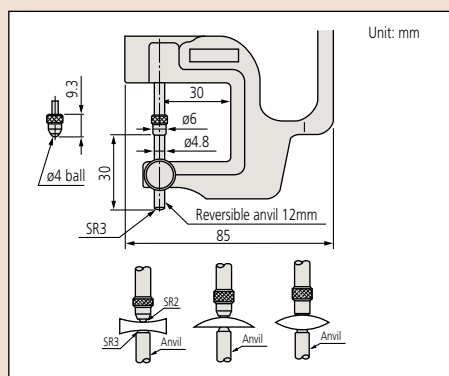
7301, 7305, 547-301



7321, 7323, 547-321

Unit: mm

## DIMENSION



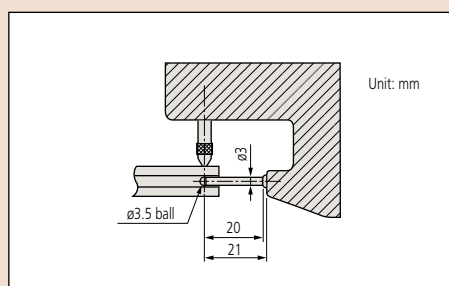
## Lens thickness measurement



SPC  
ABSOLUTE  
Absolute System Patented by MITUTOYO



## DIMENSION



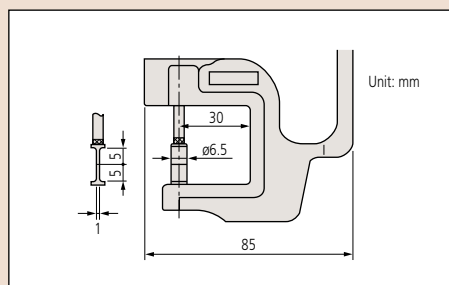
## Tube thickness measurement



SPC  
ABSOLUTE  
Absolute System Patented by MITUTOYO



## DIMENSION



## Groove thickness measurement



SPC  
ABSOLUTE  
Absolute System Patented by MITUTOYO



## SPECIFICATIONS

Metric Digital Type			Inch/Metric Digital Type					
Range	Order No.	Resolution	Range	Order No.	Resolution	Accuracy	Measuring force	Remarks
0 - 12mm	547-401	0.001mm	0 - .47"	547-400 /	.00005"/0.001mm	±3μm	3.5N or less	High accuracy, carbide spindle/anvil
0 - 10mm	547-301	0.01mm	0 - .4" / 0 - .47"*	547-300 / 547-500*	.0005"/0.01mm	±20μm	1.5N or less	Standard, ceramic spindle/anvil
0 - 10mm	547-321	0.01mm	0 - .4" / 0 - .47"*	547-320 / 547-520*	.0005"/0.01mm	±20μm	1.5N or less	Deep throat, ceramic spindle/anvil
0 - 10mm	547-313	0.01mm	0 - .4" / 0 - .47"*	547-312 / 547-512*	.0005"/0.01mm	±20μm	1.5N or less	Lens thickness
0 - 10mm	547-315	0.01mm	0 - .4" / 0 - .47"*	547-316 / 547-516*	.0005"/0.01mm	±20μm	1.5N or less	Groove thickness
0 - 10mm	547-360	0.01mm	0 - .4" / 0 - .47"*	547-361 / 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			Inch Dial Type					
Range	Order No.	Dial reading	Range	Order No.	Dial reading	Accuracy	Measuring force	Remarks
0 - 1mm	7327	0.001mm	0 - .05"	7326S	.00005"	±5μm	1.4N or less	Fine dial reading, ceramic spindle/anvil
0 - 10mm	7301	0.01mm	0 - .5"	7300S	.001"	±15μm	1.4N or less	Standard, ceramic spindle/anvil
0 - 20mm	7305	0.01mm	0 - 1"	7304S	.001"	±20μm	2.0N or less	Standard, ceramic spindle/anvil
0 - 10mm	7321	0.01mm	—	—	—	±15μm	1.4N or less	Deep throat, ceramic spindle/anvil
0 - 20mm	7323	0.01mm	0 - 1"	7322S	.001"	±22μm	2.0N or less	Deep throat, ceramic spindle/anvil
0 - 10mm	7313	0.01mm	0 - .5"	7312S	.001"	±15μm	1.4N or less	Lens thickness
0 - 10mm	7315	0.01mm	0 - .5"	7316S	.001"	±15μm	1.4N or less	Groove thickness
0 - 10mm	7360	0.01mm	0 - .5"	7361S	.001"	±15μm	1.4N or less	Tube thickness

# Light-Weight Dial Thickness Gage

## SERIES 7



Ceramic spindle/  
anvil

7331S

### Application

Measuring paper thickness



Measuring thickness of a human hair

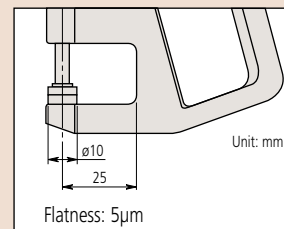


### SPECIFICATIONS

#### Metric

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

### DIMENSION



Flatness: 5μm

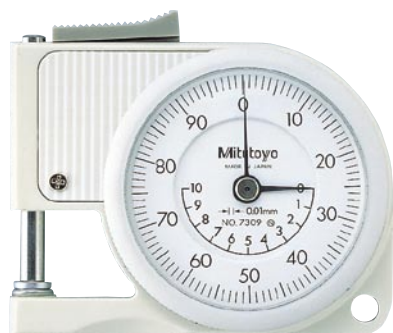
# Pocket Thickness Gage

## 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 adjustment for zero point.



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"

### DIMENSION

