

# 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 (547-400S)** 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



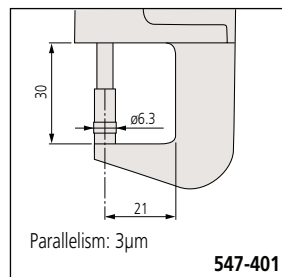
### Deep Throat Type / Dial



### High Accuracy Type / Digital



### DIMENSIONS



SPC

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

(Refer to page VIII 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)

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)

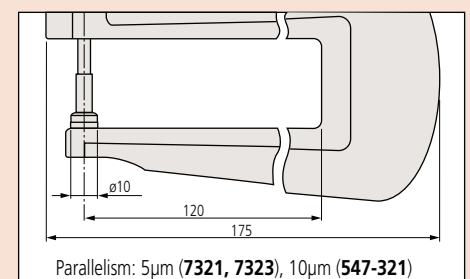
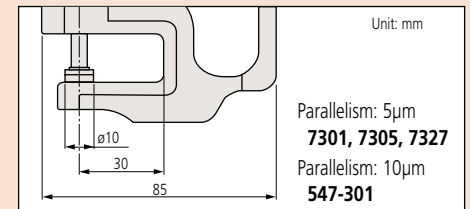
Alarm: Low voltage, Counting value composition error, Overflow error, Tolerance limit setting error

### Optional Accessories

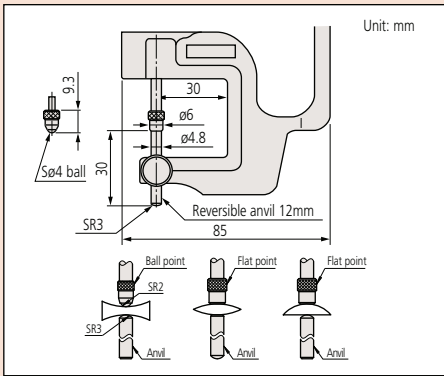
- 905338:** SPC cable (1m) for digital models
  - 905409:** SPC cable (2m) for digital models
  - 02AZD790F:** SPC cable for U-WAVE (160mm)
  - 902011:** Spindle lifting lever (ISO/JIS type)\*
  - 902794:** Spindle lifting lever (ANSI/AGD type)\*
  - 137693:** Spindle lifting hook\*\*
  - 540774:** Spindle 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



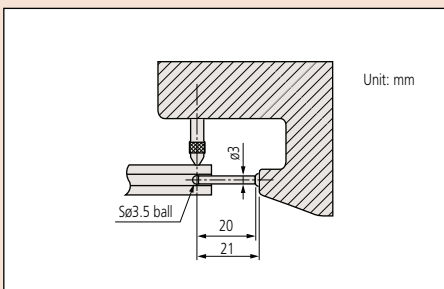
## DIMENSIONS



## Lens thickness measurement



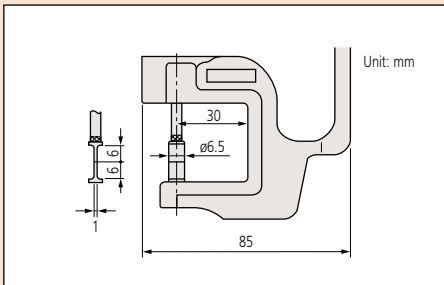
## DIMENSIONS



## Tube thickness measurement



## DIMENSIONS



## Groove depth measurement



## SPECIFICATIONS

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

Inch/Metric	Digital Type	Accuracy	Measuring force	Remarks
Range	Order No. Resolution			
0 - .47"	<b>547-400S /</b> .00005"/0.001mm	±3µm	3.5N or less	High accuracy, carbide spindle/anvil
0 - .4" / 0 - .47"*	<b>547-300S / 547-500*</b> .0005"/0.01mm	±20µm	1.5N or less	Standard, ceramic spindle/anvil
0 - .4" / 0 - .47"*	<b>547-320S / 547-520*</b> .0005"/0.01mm	±20µm	1.5N or less	Deep throat, ceramic spindle/anvil
0 - .4" / 0 - .47"*	<b>547-312S / 547-512*</b> .0005"/0.01mm	±20µm	1.5N or less	Lens thickness
0 - .4" / 0 - .47"*	<b>547-316S / 547-516*</b> .0005"/0.01mm	±20µm	1.5N or less	Groove depth
0 - .4" / 0 - .47"*	<b>547-361S / 547-561*</b> .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	<b>7327</b> 0.001mm
0 - 10mm	<b>7301</b> 0.01mm
0 - 20mm	<b>7305</b> 0.01mm
0 - 10mm	<b>7321</b> 0.01mm
0 - 20mm	<b>7323</b> 0.01mm
0 - 10mm	<b>7313</b> 0.01mm
0 - 10mm	<b>7315</b> 0.01mm
0 - 10mm	<b>7360</b> 0.01mm

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