

# Dial Indicator Applications

Comparison measuring instruments which ensure high quality, high accuracy and reliability.

## Thickness Gages SERIES 547, 7

**MeasurLink** ENABLED  
Data Management Software by Mitutoyo

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Data Management Software by Mitutoyo

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

### Standard Type



547-301



547-321

### High Accuracy Type



547-401

### Standard Type



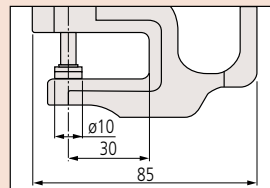
7301



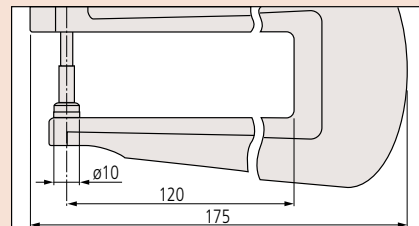
7321

## DIMENSIONS

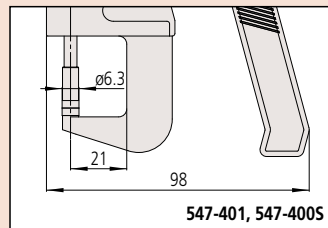
Unit: mm



7301, 7305, 7327, 547-301, 547-5265,  
547-300S, 547-500S, 547-320S, 547-520S



7321, 7323, 7322S, 547-321, 547-320S, 547-520S



547-401, 547-400S

## Technical Data

- Display: 6-digit LCD, sign
- Battery: SR44 (1 pc.), **938882** for initial operational checks (standard accessory)
- Battery life: Approx. 7,000 hours of continuous use
- Maximum response speed: Not restricted (except for scanning measurement)

## Functions

- Zero-setting (INC system)
- Presetting (ABS system)
- Direction switching
- Tolerance judgment
- Resolution switching (For 0.001 mm or 0.00005 inch resolution models)
- Calculation:  $f(x) = Ax$
- Function locking
- Data output
- Display value holding (when no external device is connected)
- 330° rotary display
- Low battery voltage alarm display
- Error alarm display

## Optional Accessories

- SPC Cable:
  - 905338** (1 m)
  - 905409** (2 m)
- USB Input Tool Direct (2 m): **06AFM380F**
- Connecting Cables for **U-WAVE-T** (160 mm):
  - 02AZD790F**
  - For foot switch: **02AZE140F**
  - Refer to page F-66 for details.
- Digimatic Mini-Processor **DP-1VA LOGGER**: **264-505**

## Lens thickness measurement

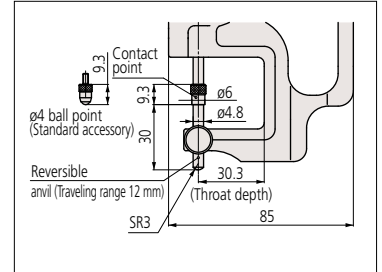
- Thickness of concave-convex lenses and surfaces can be measured. (Contact point, Anvil: hardened steel)
- Anvils and contact points are interchangeable to enable concave surfaces to be measured.



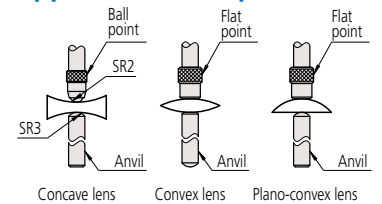
- Provided with a ball point as standard.

## DIMENSIONS

Unit: mm



## Application examples



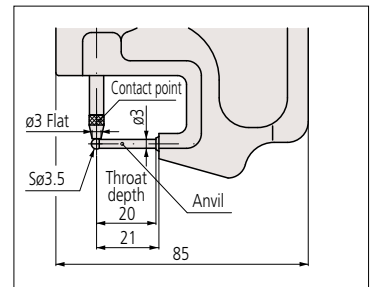
## Tube thickness measurement

- Pipe wall thickness, thickness of curved boards can be measured. (Contact point, Anvil: hardened steel)



## DIMENSIONS

Unit: mm

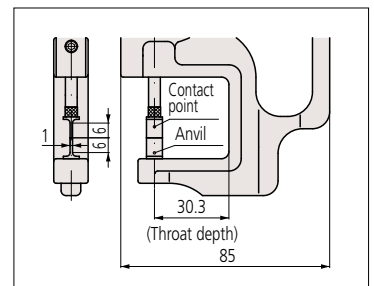


## Groove depth measurement



## DIMENSIONS

Unit: mm



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### SPECIFICATIONS

Metric					
Order No.	Range (mm)	Resolution (mm)	Accuracy ( $\mu\text{m}$ )	Measuring force (N)	Remarks
547-401	0-12	0.001	$\pm 3$	3.5 or less	High accuracy, carbide point anvil
547-301	0-10	0.01	$\pm 20$	1.5 or less	Standard, ceramic point/anvil
547-321	0-10	0.01	$\pm 20$	1.5 or less	Deep throat, ceramic point/anvil
547-313	0-10	0.01	$\pm 20$	1.5 or less	Lens thickness
547-315	0-10	0.01	$\pm 20$	1.5 or less	Groove depth
547-360	0-10	0.01	$\pm 20$	1.5 or less	Tube thickness

Inch/Metric					
Order No.	Range (in)	Resolution	Accuracy	Measuring force (N)	Remarks
547-400S/ —	0-0.47	0.00005 in/0.001 mm	$\pm 0.0001$ in/ $\pm 3$ $\mu\text{m}$	3.5 or less	High accuracy, carbide point anvil
— /547-526S*	0-0.47	0.0001 in/0.001 mm	$\pm 0.0002$ in/ $\pm 5$ $\mu\text{m}$	1.5 or less	Standard, ceramic point/anvil
547-300S / 547-500S*	0-0.4/0-0.47*	0.0005 in/0.01 mm	$\pm 0.001$ in/ $\pm 20$ $\mu\text{m}$	1.5 or less	Standard, ceramic point/anvil
547-320S / 547-520S*	0-0.4/0-0.47*	0.0005 in/0.01 mm	$\pm 0.001$ in/ $\pm 20$ $\mu\text{m}$	1.5 or less	Deep throat, ceramic point/anvil
547-312S / 547-512S*	0-0.4/0-0.47*	0.0005 in/0.01 mm	$\pm 0.001$ in/ $\pm 20$ $\mu\text{m}$	1.5 or less	Lens thickness
547-316S / 547-516S*	0-0.4/0-0.47*	0.0005 in/0.01 mm	$\pm 0.001$ in/ $\pm 20$ $\mu\text{m}$	1.5 or less	Groove depth
547-361S / 547-561S*	0-0.4/0-0.47*	0.0005 in/0.01 mm	$\pm 0.001$ in/ $\pm 20$ $\mu\text{m}$	1.5 or less	Tube thickness

\* Using ID-SX Digimatic indicator.

Metric					
Order No.	Range (mm)	Graduation (mm)	Accuracy ( $\mu\text{m}$ )	Measuring force (N)	Remarks
7327	0-1	0.001	$\pm 5$	1.4 or less	Fine dial reading, ceramic point/anvil
7301	0-10	0.01	$\pm 15$	1.4 or less	Standard, ceramic point/anvil
7305	0-20	0.01	$\pm 20$	2.0 or less	Standard, ceramic point/anvil
7321	0-10	0.01	$\pm 15$	1.4 or less	Deep throat, ceramic point/anvil
7323	0-20	0.01	$\pm 22$	2.0 or less	Deep throat, ceramic point/anvil
7313	0-10	0.01	$\pm 15$	1.4 or less	Lens thickness
7315	0-10	0.01	$\pm 15$	1.4 or less	Groove depth
7360	0-10	0.01	$\pm 15$	1.4 or less	Tube thickness

Inch					
Order No.	Range (in)	Graduation (in)	Accuracy (in)	Measuring force (N)	Remarks
7326S	0-0.05	0.0001	$\pm 0.0002$	1.4 or less	Fine dial reading, ceramic point/anvil
7300S	0-0.5	0.001	$\pm 0.001$	1.4 or less	Standard, ceramic point/anvil
7304S	0-1	0.001	$\pm 0.002$	2.0 or less	Standard, ceramic point/anvil
7322S	0-1	0.001	$\pm 0.002$	2.0 or less	Deep throat, ceramic point/anvil
7312S	0-0.5	0.001	$\pm 0.001$	1.4 or less	Lens thickness
7316S	0-0.5	0.001	$\pm 0.001$	1.4 or less	Groove depth
7361S	0-0.5	0.001	$\pm 0.001$	1.4 or less	Tube thickness

Note 1: The dial indicator needs to be reset when replacing a contact point is replaced.

Note 2: The stated accuracy of Digimatic indicators does not include an allowance for quantizing error ( $\pm 1$  count).