

# 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

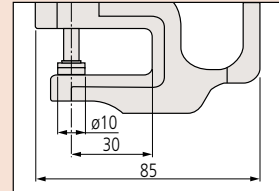
- Dial thickness gages can quickly measure the thickness of thin products such as paper and felt.
- Contact point and anvil are both made of ceramic: rust-free (547-401 is excluded.)
- Integrated molding of the bezel and crystal ensures protection against water and oil penetration via the front face.

**MeasurLink** ENABLED  
Data Management Software by Mitutoyo

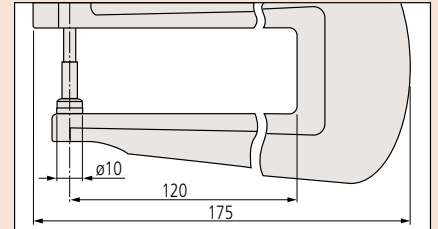
Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

## DIMENSIONS

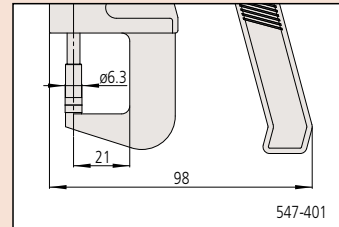
Unit: mm



7301, 7305, 547-301



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



547-401

### Standard Type



547-301



547-321

### High Accuracy Type



547-401

### Standard Type



7301

### Lightweight Type (integrated molding of the bezel)



7331S



7321

## 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-60 for details.
- Digimatic Mini-Processor DP-1VA LOGGER: **264-505**

## Lens thickness measurement

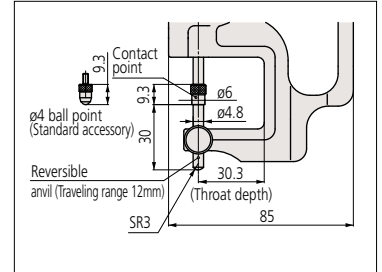
- Thickness of concave-convex lenses and surfaces can be measured.
- Anvils and contact points are interchangeable to enable concave surfaces to be measured.



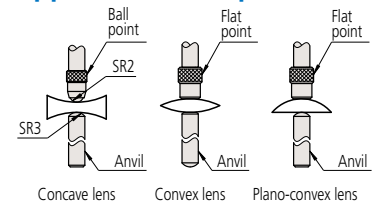
- Provided with a ball point as standard.

## DIMENSIONS

Unit: mm



## Application examples



Note: Parallelism between the flat point and anvil  
**547-313:** 10  $\mu$ m  
**7313:** 5  $\mu$ m

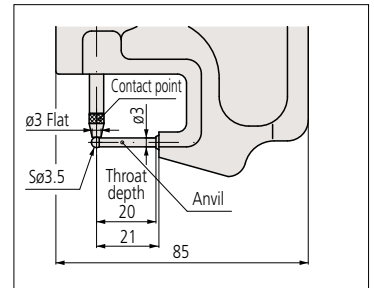
## Tube thickness measurement

- Pipe wall thickness, thickness of curved boards can be measured.



## DIMENSIONS

Unit: mm



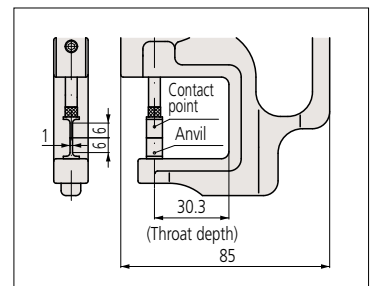
## Groove depth measurement

- Suitable for measuring narrow grooves.
- Measuring face of the contact point and anvil are blade-shaped (thickness: 1 mm).



## DIMENSIONS

Unit: mm



# Dial Indicator Applications

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

## Thickness Gages SERIES 547, 7

### SPECIFICATIONS

Metric					
Order No.	Range	Resolution	Accuracy	Measuring force	Remarks
547-401	0-12 mm	0.001 mm	±3 µm	3.5 N or less	High accuracy, carbide point anvil
547-301	0-10 mm	0.01 mm	±20 µm	1.5 N or less	Standard, ceramic point/anvil
547-321	0-10 mm	0.01 mm	±20 µm	1.5 N or less	Deep throat, ceramic point/anvil
547-313	0-10 mm	0.01 mm	±20 µm	1.5 N or less	Lens thickness
547-315	0-10 mm	0.01 mm	±20 µm	1.5 N or less	Groove depth
547-360	0-10 mm	0.01 mm	±20 µm	1.5 N or less	Tube thickness

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

\* using ID-SX Digimatic indicator.

Metric					
Order No.	Range	Graduation	Accuracy	Measuring force	Remarks
7327	0-1 mm	0.001 mm	±5 µm	1.4 N or less	Fine dial reading, ceramic point/anvil
7301	0-10 mm	0.01 mm	±15 µm	1.4 N or less	Standard, ceramic point/anvil
7305	0-20 mm	0.01 mm	±20 µm	2.0 N or less	Standard, ceramic point/anvil
7321	0-10 mm	0.01 mm	±15 µm	1.4 N or less	Deep throat, ceramic point/anvil
7323	0-20 mm	0.01 mm	±22 µm	2.0 N or less	Deep throat, ceramic point/anvil
7313	0-10 mm	0.01 mm	±15 µm	1.4 N or less	Lens thickness
7315	0-10 mm	0.01 mm	±15 µm	1.4 N or less	Groove depth
7360	0-10 mm	0.01 mm	±15 µm	1.4 N or less	Tube thickness
7331S (lightweight type)	0-10 mm	0.01 mm	±20 µm	1.4 N or less	Integrated molded bezel

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