

Micrometer

The origin of Mitutoyo's trustworthy brand of small tool instruments

QUICKmini SERIES 700

- Lightweight, compact, palm-sized device.
 - Measurement of small, thin workpieces is possible by only a single operation.
 - Electromagnetic induction type ABSOLUTE encoder is adopted.
 - Built-in ABS (absolute) scale requires no zero-set every time the power is turned on. In addition, reliability has improved by eliminating overspeed errors.
 - 18,000 hours of continuous operation is achieved thanks to adoption of the absolute scale.
- Applications:**
- Measurement of small workpieces: Pearl, jewel, engine tappet shim, screws.
 - Measurement of thin workpieces: Printing paper, polyethylene bags, sheet material, noodles and other food products, medium substrate, foil, thin plate, filter cloth and other medical supplies.
 - Measurement of thin lines and bars: Fishing line, dental reamers, spaghetti, drill for PCBs, wiring.



700-119-30

SPECIFICATIONS

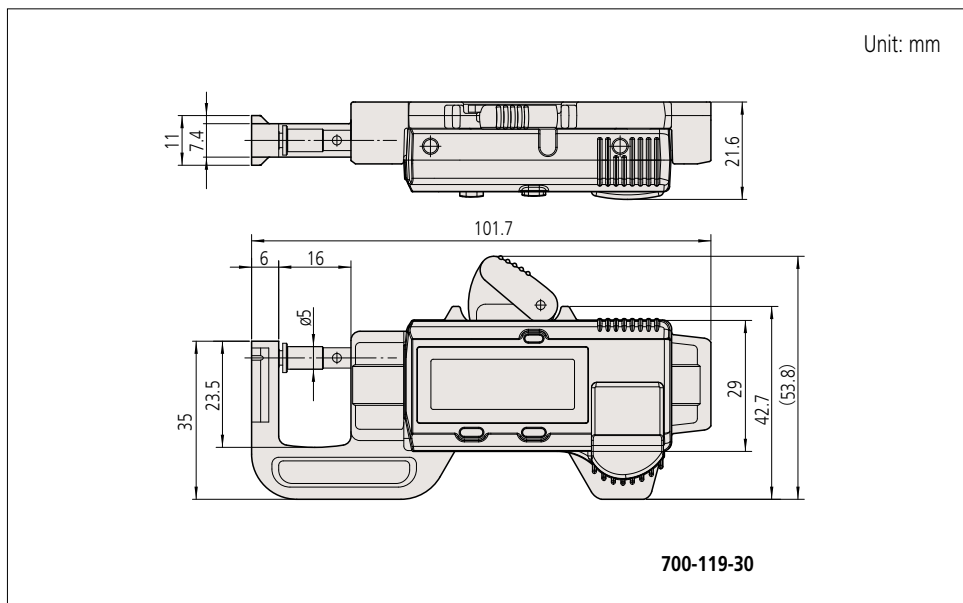
Metric				
Order No.	Range	Resolution	Accuracy*	Mass
700-119-30	0 - 12 mm	0.01 mm	±0.02	100 g

* Excluding quantizing error of ±1 count

Inch/Metric				
Order No.	Range	Resolution	Accuracy*	Mass
700-118-30	0 - 5 in/ 0 - 12 mm	0.0005 in/0.01 mm	±0.001 in	100 g

* Excluding quantizing error of ±1 count

DIMENSIONS



700-119-30



Technical Data

SR44 (1 pc), 938882, for initial operational checks (standard accessory)

Silver oxide button cell battery SR44 (938882), 1 pc. for monitor (standard accessory)

Functions

ABS measurement function: after a data is displayed, next measurement can be performed without zero-setting. Also, the ABS origin point can be changed with ORIGIN switch.

INC measurement function: clears the displayed data at any point. The comparative measurement can be easily performed.

Low battery alarm: notifies that the battery is worn with "B" mark before becoming immeasurable. Thus, the timing for battery replacement can be confirmed in advance.

Dial Indicator Applications

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

Thickness Gages SERIES 547, 7

- 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.

Standard Type



547-301



547-321

High Accuracy Type



547-401

Standard Type



7301

Lightweight Type (integrated molding of the bezel)



7331S



7321

Usage examples

Measuring paper thickness

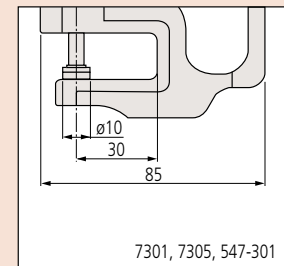


Measuring thickness of a human hair

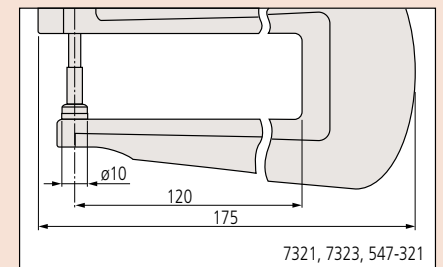


DIMENSIONS

Unit: mm



7301, 7305, 547-301



7321, 7323, 547-321

Optional Accessories

905338: SPC cable (1m) for digital models

905409: SPC cable (2m) for digital models

02AZD790F: SPC cable for U-WAVE (160mm)

Digimatic Mini-Processor DP-1VR

Refer to page A-13 for details.

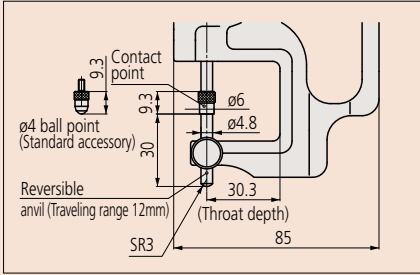
Input Tool

Convenient Interface Input Tools which enable the conversion of measurement data to keyboard signals and directly input them to cells in off-the-shelf spreadsheet software such as Excel.

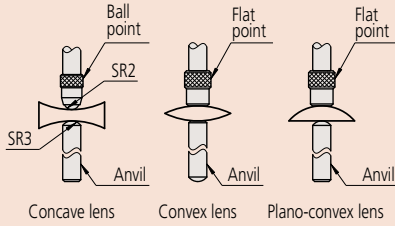
(Refer to pages A-5 to A-6 for details.)

DIMENSIONS

Unit: mm



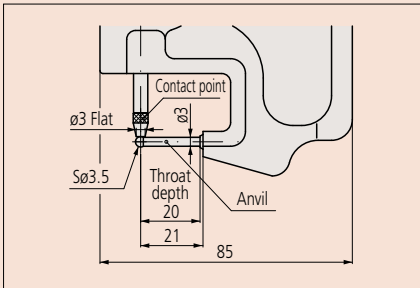
Application examples



Note: Parallelism between the flat point and anvil
547-313: 10 μ m
7313: 5 μ m

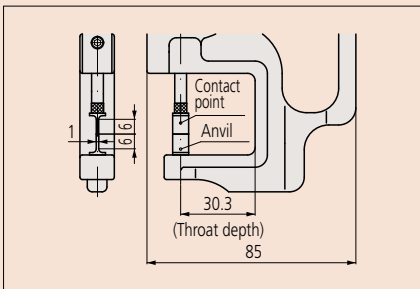
DIMENSIONS

Unit: mm



DIMENSIONS

Unit: mm



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.



547-313



7313

Tube thickness measurement

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



547-360



7360

Groove depth measurement

- Suitable for measuring narrow grooves.

- Measuring face of the contact point and anvil are blade-shaped (thickness: 1mm).



547-315



7315

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	0-12mm	0.001mm	±3µm	3.5N or less	High accuracy, carbide point anvil
547-301	0-10mm	0.01mm	±20µm	1.5N or less	Standard, ceramic point/anvil
547-321	0-10mm	0.01mm	±20µm	1.5N or less	Deep throat, ceramic point/anvil
547-313	0-10mm	0.01mm	±20µm	1.5N or less	Lens thickness
547-315	0-10mm	0.01mm	±20µm	1.5N or less	Groove depth
547-360	0-10mm	0.01mm	±20µm	1.5N or less	Tube thickness

Inch/Metric					
Order No.	Range	Resolution	Accuracy	Measuring force	Remarks
547-400S/ -	0-.47"	.00005"/0.001mm	±.0001"/±3µm	3.5N or less	High accuracy, carbide point anvil
- / 547-526S*	0-.47"	.0001"/0.001mm	±.0002"/±5µm	1.5N or less	Standard, ceramic point/anvil
547-300S / 547-500S*	0-.4"/0-.47"*	.0005"/0.01mm	±.001"/±20µm	1.5N or less	Standard, ceramic point/anvil
547-320S / 547-520S*	0-.4"/0-.47"*	.0005"/0.01mm	±.001"/±20µm	1.5N or less	Deep throat, ceramic point/anvil
547-312S / 547-512S*	0-.4"/0-.47"*	.0005"/0.01mm	±.001"/±20µm	1.5N or less	Lens thickness
547-316S / 547-516S*	0-.4"/0-.47"*	.0005"/0.01mm	±.001"/±20µm	1.5N or less	Groove depth
547-361S / 547-561S*	0-.4"/0-.47"*	.0005"/0.01mm	±.001"/±20µm	1.5N or less	Tube thickness

* using ID-SX Digimatic indicator.

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

Inch					
Order No.	Range	Graduation	Accuracy	Measuring force	Remarks
7326S	0-.05"	.0001"	±.0002"	1.4N or less	Fine dial reading, ceramic point/anvil
7300S	0-.5"	.001"	±.001"	1.4N or less	Standard, ceramic point/anvil
7304S	0-1"	.001"	±.002"	2.0N or less	Standard, ceramic point/anvil
7322S	0-1"	.001"	±.002"	2.0N or less	Deep throat, ceramic point/anvil
7312S	0-.5"	.001"	±.001"	1.4N or less	Lens thickness
7316S	0-.5"	.001"	±.001"	1.4N or less	Groove depth
7361S	0-.5"	.001"	±.001"	1.4N or less	Tube thickness