



Technical Data

Accuracy: Refer to the list of specifications
 Resolution*: .0005"/0.01mm or 0.001mm, 0.01mm,
 .00005"/0.001mm
 Dial reading**: .001" or 0.01mm
 Flatness of base face: 5µm
 Contact point: Carbide-tipped ball point or needle point
 (7210, 7222)
 Measuring force: 1.4N, 1.5N (digital model), 2.5N
 (7213, 7214, 7217S, 7218S)
 Display*: LCD
 Battery*: SR44 (1 pc.), 938882
 Battery life*: Approx. 3.5 years under normal use
 *Digital models **Dial models

Technical Data of Dial Mode

Accuracy: Refer to the list of specifications
 Dial reading: .001" or 0.01mm
 Flatness of base face: 5µm or 2µm
 Contact point: Carbide-tipped ball point
 (needle point: 7210, 7222)
 Measuring force: 1.4N (2.5N: 7213, 7214, 7217S, 7218S)

Function of Digimatic Model

Origin-set, Zero-setting, Data hold, Data output,
 inch/mm conversion (on inch/metric models only)
 Alarm: Low voltage, Counting value composition error

Optional Accessories

905338: SPC cable (40" / 1m)
 905409: SPC cable (80" / 2m)
 139167: .5" Extension Rod
 301655: 1" Extension Rod
 301657: 2" Extension Rod
 301659: 4" Extension Rod
 303611: 10mm Extension Rod
 303612: 20mm Extension Rod
 303613: 30mm Extension Rod
 303614: 100mm Extension Rod

Base Only (3/8" dia. hole)

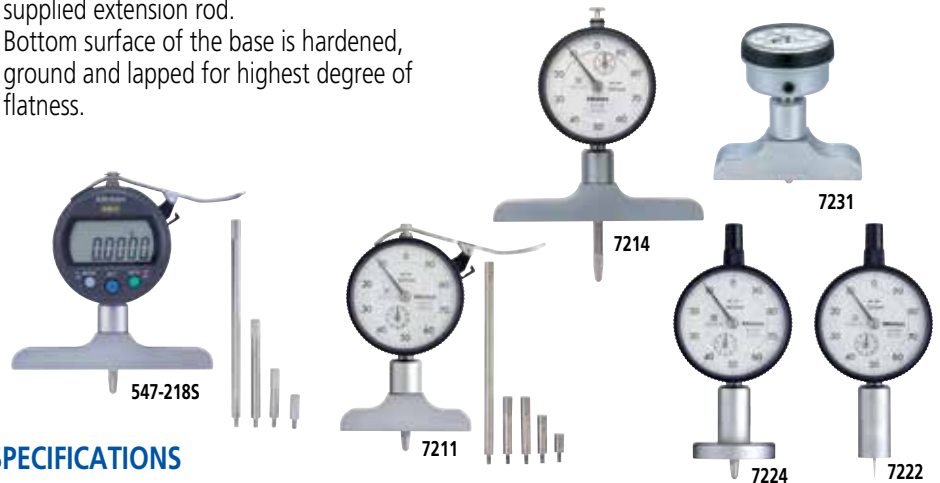
Part No.	length	remark
902164:	2.5"	7217S, 7237, 547-217S, 547-257S
902165:	4"	7218S, 7238, 547-218S, 547-258S

ABSOLUTE Digimatic/Dial Depth Gage

SERIES 547, 7

FEATURES

- ABSOLUTE Digimatic Depth Gage can keep track of the origin point, once set, for the life of the battery. (Series 547)
- Wide probing range is available with the supplied extension rod.
- Bottom surface of the base is hardened, ground and lapped for highest degree of flatness.
- Designed with a back-plunger type dial indicator for upward facing readings. (7231, 7237, 7238)
- With SPC data output. (Series 547)



SPECIFICATIONS

Metric Digimatic model

Range	Order No.	Resolution	Stroke	Accuracy	Extension rod	Base (WxT)	Flatness
0 - 200mm	547-211	0.01mm	12mm	±0.02mm	5 pcs. (10, 20, 30, 30, 100mm)	63.5x16mm	5µm
0 - 200mm	547-212	0.01mm	12mm	±0.02mm	5 pcs. (10, 20, 30, 30, 100mm)	101.6x16mm	5µm
0 - 200mm	547-251	0.001mm	12mm	±0.005mm	5 pcs. (10, 20, 30, 30, 100mm)	63.5x16mm	2µm
0 - 200mm	547-252	0.001mm	12mm	±0.005mm	5 pcs. (10, 20, 30, 30, 100mm)	101.6x16mm	2µm

0.01mm graduation 0.001mm graduation

Inch/Metric Digimatic model

Range	Order No.	Resolution	Stroke	Accuracy	Extension rod	Base (WxT)	Flatness
0 - 8" / 0-200mm	547-217S	.0005" / 0.01mm	.5"	±.001"	4 pcs. (.5", 1", 2", 4")	2.5"x.63"	.0002"
0 - 8" / 0-200mm	547-218S	.0005" / 0.01mm	.5"	±.001"	4 pcs. (.5", 1", 2", 4")	4"x.63"	.0002"
0 - 8" / 0-200mm	547-257S	.00005" / 0.001mm	.5"	±.0003"	4 pcs. (.5", 1", 2", 4")	2.5"x.63"	.00008"
0 - 8" / 0-200mm	547-258S	.00005" / 0.001mm	.5"	±.0003"	4 pcs. (.5", 1", 2", 4")	4"x.63"	.00008"

.0005"/0.01mm graduation .00005"/0.001mm graduation

Metric Dial Type

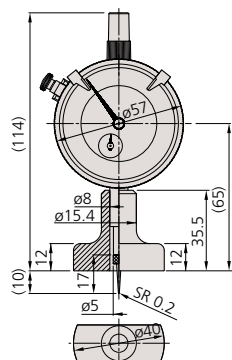
Range	Order No.	Graduation	Stroke	Accuracy	Extension rod	Base (WxT)	Flatness
0 - 10mm	7210*	0.01mm	10mm	±0.015mm	—	40x16mm	5µm
0 - 200mm	7211	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	63.5x16mm	5µm
0 - 200mm	7212	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	101.6x16mm	5µm
0 - 210mm	7213	0.01mm	30mm	±0.03mm	3 pcs. (30, 60, 90mm)	63.5x16mm	5µm
0 - 210mm	7214	0.01mm	30mm	±0.03mm	3 pcs. (30, 60, 90mm)	101.6x16mm	5µm
0 - 200mm	7220	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	100x18mm	5µm
0 - 200mm	7221	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	150x18mm	5µm
0 - 10mm	7222*	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	ø16mm	5µm
0 - 10mm	7223	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	ø25mm	5µm
0 - 10mm	7224	0.01mm	10mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	ø40mm	5µm
0 - 200mm	7231	0.01mm	5mm	±0.015mm	5 pcs. (10, 20, 30, 30, 100mm)	63.5x16mm	5µm

*with needle probe

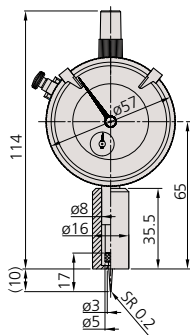
Inch Dial Type

Range	Order No.	Graduation	Stroke	Accuracy	Extension rod	Base (WxT)	Flatness
0 - 8"	7217S	.001"	1"	±.002"	4 pcs. (.5", 1", 2", 4")	2.5"x.63"	.0002"
0 - 8"	7218S	.001"	1"	±.002"	4 pcs. (.5", 1", 2", 4")	4"x.63"	.0002"
0 - 8"	7237T	.001"	.2"	±.002"	4 pcs. (.5", 1", 2", 4")	2.5"x.63"	.0002"
0 - 8"	7238T	.001"	.2"	±.002"	4 pcs. (.5", 1", 2", 4")	4"x.63"	.0002"

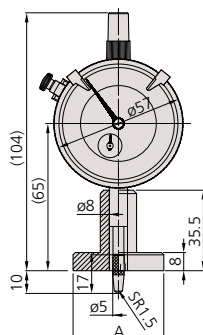
Unit: mm



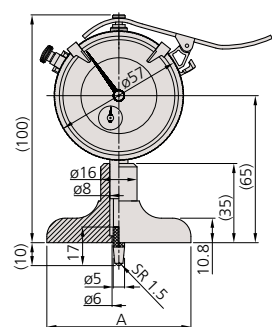
7210



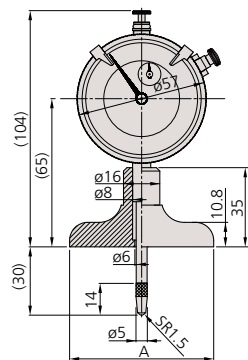
7222



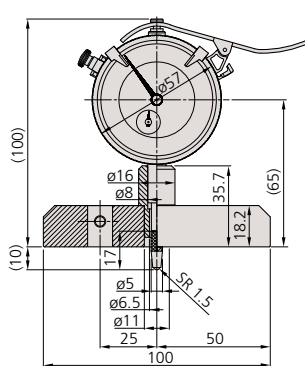
7223 A= 25mm
7224 A= 40mm



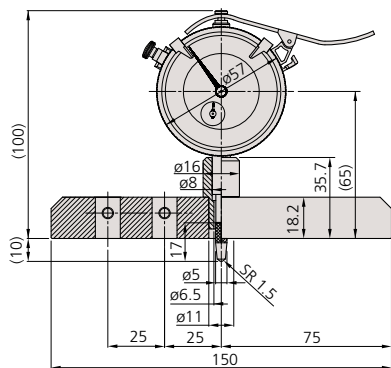
7211 A= 63.5mm
7212 A= 101.6mm



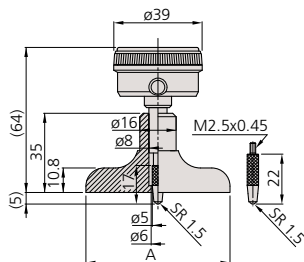
7213, 7217S A= 63.5mm
7214, 7218S A= 101.6mm



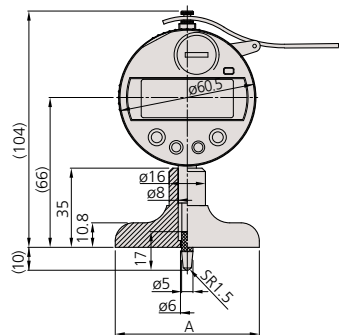
7220



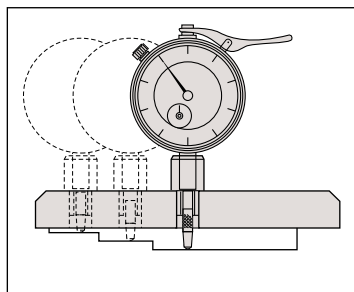
7221



7237T, 7231 A=63.5mm
7238T A=101.6mm



547-211, 547-251, 547-217S, 547-257S A= 63.5mm
547-212, 547-252, 547-218S, 547-258S A= 101.6mm



Thickness Gages

SERIES 547, 7

Thickness Gages offer a quick and efficient means of inspection with a convenient grip handle, thumb trigger and spring-loaded spindle. The various models cover a range of applications.

FEATURES

- Wide range of applications with various types of measuring faces (on the spindle and anvil).

Flat-Anvil Type

Standard Type / Digital



Deep-Throat Type / Digital



Deep-Throat Type / Dial

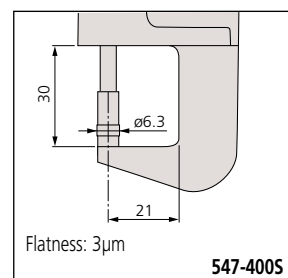


High-Accuracy Type / Digital



- 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.
- **547-400S** is ideally suited for measuring thicknesses of paper, film, wire, sheet metal and similar materials.

DIMENSIONS



SPC

ABSOLUTE
Absolute System Patented by MITUTOYO

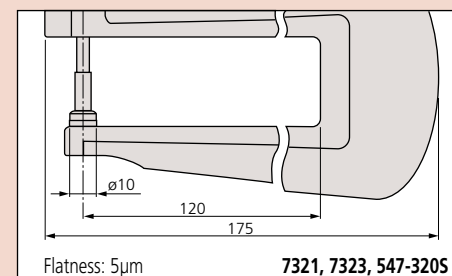
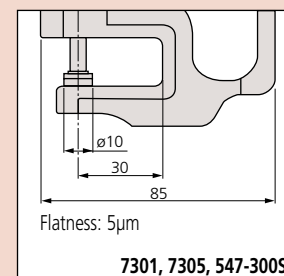
Technical Data Function of Digital Models

- IDS Types
- ON/OFF
 - Inch / mm Conversion
 - Origin
 - $\pm$ Direction Changeover
 - SPC Output
 - Battery Life: 20,000 hrs
 - Power Supply: Silver Oxide Cell (SR-44 1pc.)

- IDC Types
- ON/OFF
 - Inch / mm Conversion
 - Zero / ABS
 - $\pm$ Direction Changeover
 - SPC Output
 - Battery Life: 5,000 hrs
 - Power Supply: Silver Oxide Cell (SR-44 1pc.)
 - Preset
 - Provides go/no-go judgment
 - Face Rotates 330°

DIMENSIONS

Unit: mm



Thickness Gages

SERIES 547, 7

Optional Accessories

- 905338:** SPC cable (40" / 1m) for digital type
905409: SPC cable (80" / 2m) for digital type
902794: Spindle lifting lever for IDS digimatic type (stroke .5" / 12.7mm)

Standard Accessories

- 21AZB149:** Spindle lifting lever for digimatic and dial thickness gage (stroke .5" / 12.7mm)
21AZB150: Spindle lifting lever for dial indicator (stroke 1" / 25.4mm)

Flat Anvil

SPECIFICATIONS

Inch/Metric		Digital Type				
Range	Order No.	Resolution	Accuracy	Measuring Force	Indicator	Spindle/Anvil Material
0 - .47" / 0 - 12mm	547-500S	.0005"/0.01mm	±.001"	1.5N or less	Digimatic IDS	Ceramic
0 - .47" / 0 - 12mm	547-520S	.0005"/0.01mm	±.001"	1.5N or less	Digimatic IDS	Ceramic
0 - .47" / 0 - 12mm	547-526S	.0001"/0.001mm	±.0002"	1.5N or less	Digimatic IDS	Ceramic
0 - .4" / 0 - 10mm	547-300S	.0005"/0.01mm	±.001"	1.5N or less	Digimatic IDC	Ceramic
0 - .4" / 0 - 10mm	547-320S	.0005"/0.01mm	±.001"	1.5N or less	Digimatic IDC	Ceramic
0 - .47" / 0 - 12mm	547-400S	.00005"/0.001mm	±.00015"	3.5N or less	Digimatic IDC	Carbide

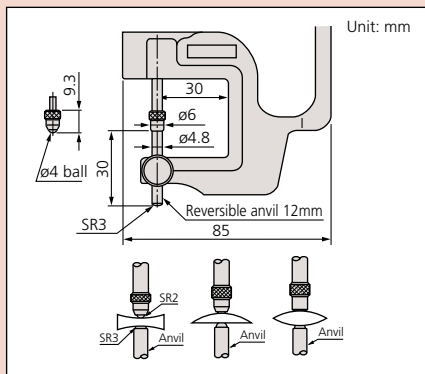
Inch

		Dial Type				
Range	Order No.	Graduation	Accuracy	Measuring Force	Remarks	
0 - .05"	7326S	.0001"	±.0002"	1.4N or less	Fine dial reading, ceramic spindle/anvil	
0 - .5"	7300S	.001"	±.001"	1.4N or less	Standard, ceramic spindle/anvil	
0 - 1"	7304S	.001"	±.002"	2.0N or less	Standard, ceramic spindle/anvil	
0 - 1"	7322S	.001"	±.002"	2.0N or less	Deep throat, ceramic spindle/anvil	

Metric

		Dial Type				
Range	Order No.	Graduation	Accuracy	Measuring Force	Remarks	
0 - 1mm	7327	0.001mm	±5μm	1.4N or less	Fine dial reading, ceramic spindle/anvil	
0 - 10mm	7301	0.01mm	±15μm	1.4N or less	Standard, ceramic spindle/anvil	
0 - 20mm	7305	0.01mm	±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	±22μm	2.0N or less	Deep throat, ceramic spindle/anvil	

DIMENSIONS



Lens thickness measurement (reverse anvil)



SPECIFICATIONS

Inch/Metric		Digital Type				
Range	Order No.	Resolution	Accuracy	Measuring Force	Indicator	
0 - .47" / 0 - 12mm	547-512S	.0005"/0.01mm	±.001"	1.5N or less	Digimatic IDS	
0 - .4" / 0 - 10mm	547-312S	.0005"/0.01mm	±.001"	1.5N or less	Digimatic IDC	

Inch

		Dial Type				
Range	Order No.	Graduation	Accuracy	Measuring Force	Remarks	
0 - .5"	7312S	.001"	±.001"	1.4N or less	Lens thickness	

Metric

		Dial Type				
Range	Order No.	Graduation	Accuracy	Measuring Force	Remarks	
0 - 10mm	7313	0.01mm	±15μm	1.4N or less	Lens thickness	

Thickness Gages

SERIES 547, 7

Tube thickness measurement



SPECIFICATIONS

Inch/Metric Digital Type

Range	Order No.	Resolution	Accuracy	Measuring Force	Indicator
0 - .47" / 0 - 12mm	547-561S	.0005" / 0.01mm	±.001"	1.5N or less	Digimatic IDS
0 - .4" / 0 - 12mm	547-361S	.0005" / 0.01mm	±.001"	1.5N or less	Digimatic IDC

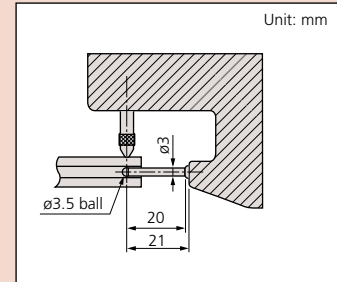
Inch Dial Type

Range	Order No.	Graduation	Accuracy	Measuring Force	Remarks
0 - .5"	7361S	.001"	±.001"	1.4N or less	Tube thickness

Metric Dial Type

Range	Order No.	Graduation	Accuracy	Measuring Force	Remarks
0 - 10mm	7360	0.01mm	±15µm	1.4N or less	Tube thickness

DIMENSIONS



Optional Accessories

- 905338:** SPC cable (40" / 1m) for digital type
905409: SPC cable (80" / 2m) for digital type
902794: Spindle lifting lever for IDS digimatic type (stroke .5" / 12.7mm)

Standard Accessories

- 21AZB149:** Spindle lifting lever for digimatic and dial thickness gage (stroke .5" / 12.7mm)
21AZB150: Spindle lifting lever for dial indicator (stroke 1" / 25.4mm)

Groove thickness measurement (Blade anvil)



SPECIFICATIONS

Inch/Metric Digital Type

Range	Order No.	Resolution	Accuracy	Measuring Force	Indicator
0 - .47" / 0 - 12mm	547-516S	.0005" / 0.01mm	±.001"	1.5N or less	Digimatic IDS
0 - .47" / 0 - 10mm	547-316S	.0005" / 0.01mm	±.001"	1.5N or less	Digimatic IDC

Inch Dial Type

Range	Order No.	Graduation	Accuracy	Measuring Force	Remarks
0 - .5"	7316S	.001"	±.001"	1.4N or less	Groove thickness

Metric Dial Type

Range	Order No.	Graduation	Accuracy	Measuring Force	Remarks
0 - 10mm	7315	0.01mm	±15µm	1.4N or less	Groove thickness

DIMENSIONS

