

# ABSOLUTE Solar Digimatic Indicator ID-S

## 543 Series – With Simple Design

### FEATURES

- Mitutoyo's unique ABSOLUTE sensor automatically restores the last origin position when the indicator is turned on. This allows quick-start operation, which is especially useful in multipoint measurement.
- Measurement tool with a solar power source. Ready for use from 40 lux illumination.
- As compact as Series 2 dial indicators.
- SPC Output provided
- Two large buttons (three on inch/mm models) improve functionality



### SPECIFICATIONS

**Inch/Metric** with 3/8" dia. Stem, #4-48UNF Thread

Order	Model	Range	Resolution	Accuracy	Stem Diameter	Measuring Force	Back Type
543-502	ID-S112ES	.5"/12.7mm	.00005"/0.001mm	.0001"/0.003mm	3/8" (ANSI/AGD)	1.5N or less	Lug Back
543-502B	ID-S112ESB	.5"/12.7mm	.00005"/0.001mm	.0001"/0.003mm	3/8" (ANSI/AGD)	1.5N or less	Flat Back
543-507	ID-S1012ES	.5"/12.7mm	.0005"/0.01mm	.001"/0.02mm	3/8" (ANSI/AGD)	1.5N or less	Lug Back
543-507B	ID-S1012ESB	.5"/12.7mm	.0005"/0.01mm	.001"/0.02mm	3/8" (ANSI/AGD)	1.5N or less	Flat Back

**Metric** with 8mm dia. Stem, M2.5x.45 Thread

Order	Model	Range	Resolution	Accuracy	Stem Diameter	Measuring Force	Back Type
543-500	ID-S112S	12.7mm	0.001mm	0.003mm	8mm (ISO)	1.5N or less	Lug Back
543-500B	ID-S112SB	12.7mm	0.001mm	0.003mm	8mm (ISO)	1.5N or less	Flat Back
543-505	ID-S1012S	12.7mm	0.01mm	0.02mm	8mm (ISO)	1.5N or less	Lug Back
543-505B	ID-S1012SB	12.7mm	0.01mm	0.02mm	8mm (ISO)	1.5N or less	Flat Back

**Inch/Metric** with 8mm dia. Stem, M2.5x.45 Thread

Order	Model	Range	Resolution	Accuracy	Stem Diameter	Measuring Force	Back Type
543-501	ID-S112MS	.5"/12.7mm	.00005"/0.001mm	.0001"/0.003mm	8mm (ISO)	1.5N or less	Lug Back
543-501B	ID-S112MSB	.5"/12.7mm	.00005"/0.001mm	.0001"/0.003mm	8mm (ISO)	1.5N or less	Flat Back
543-506	ID-S1012MS	.5"/12.7mm	.0005"/0.01mm	.001"/0.02mm	8mm (ISO)	1.5N or less	Lug Back
543-506B	ID-S1012MSB	.5"/12.7mm	.0005"/0.01mm	.001"/0.02mm	8mm (ISO)	1.5N or less	Flat Back

### Technical Data

Accuracy: Refer to the list of specifications  
 Resolution: 0.01mm, 0.001mm, .00005"/0.001mm, or .0005"/0.01mm  
 Display: LCD  
 Length Standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. Response Speed: Unlimited  
 Measuring Force: Refer to the list of specifications  
 Battery: Solar Battery\*  
 Dust/Water Protection Level: IP42  
 \*can be used continuously above 40 lux

### Function

Origin Set, Counting Direction Switching, in/mm conversion

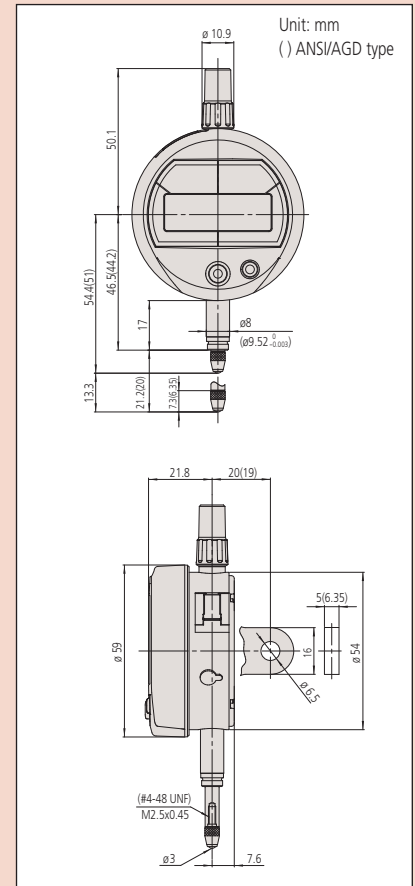
### Optional Accessories

- 21EZA198 Lifting lever (mm)
  - 21EZA199 Lifting lever (inch)
  - 540774 Lifting cable
  - 21EZA105 Lifting knob (mm)
  - 21EZA150 Lifting knob (inch)
  - 905338 SPC cable (1m)
  - 905409 SPC cable (2m)
- All Mitutoyo Series 2 standard backs

### About the charge function:

Reserve capacity allows a fully charged ID-S Solar to be used for about 3.5 hours under light conditions below the minimum level. The charging time differs depending on the environment, but it usually takes about 1.5 hours for a fully discharged ID-S Solar to fully recharge under light conditions of 500 lux.

### DIMENSIONS





# ABSOLUTE Digimatic Indicator ID-S

## SERIES 543 — with Simple Design

### FEATURES

- As compact as standard Series 2 dial indicators.
- After the initial zero-setting with the ORIGIN button, the repeated absolute positioning is no longer necessary over the entire battery life.
- Employing the ABSOLUTE linear encoder, the ID-S always displays the spindle "Absolute Position" from the origin at power-on. Also unlimited response speed eliminates over-speed errors.
- SPC data output.

### Technical Data

Accuracy: Refer to the list of specifications  
 Resolution: 0.01mm, 0.001mm, .0005"/0.01mm, .0001"/0.001mm or .00005"/0.001mm  
 Display: LCD  
 Length standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed: Unlimited  
 Measuring force: Refer to the list of specifications  
 Battery: SR44 (1 pc.), **938882**  
 Battery life: Approx. 20,000 hours under normal use  
 Dust/Water protection level: IP42 (IP53: **543-694, 543-695, 543-696**)

### Function

Origin-set, Zerose, Counting direction switching, Power ON/OFF, Data output, inch/mm conversion (on inch/metric models only)  
 Alarm: Low voltage, Counting value composition error, Over-flow error

### Optional Accessories

- 905338:** SPC cable (40" / 1m)
- 905409:** SPC cable (80" / 2m)
- 903424:** Spindle lifting lever (ISO/JIS type)
- 903425:** Spindle lifting lever (ANSI/AGD type)
- 540774:** Spindle lifting cable (stroke: 4" / 10mm)
- 125317:** Spare rubber boot (for dust-proof type)
- 02ACB420:** Lug-on-center back for ISO/JIS type
- 02ACB430:** Lug-on-center back for AGD type
- 02ACB440:** Flat back
- 02ACB610:** Back with post
- 02ACB620:** Adjustable back for AGD type
- 02ACB630:** Adjustable back (ISO/JIS type)
- 02ACB640:** Back with offset lug
- 02ACB650:** Magnetic back
- 02ACB660:** Back with screw mount for AGD type
- 02ACB670:** Back with screw mount (ISO/JIS type)
- 02ACB680:** Back with adjustable bracket
- : Contact points (See page F-34.)



543-683B



543-690



### SPECIFICATIONS

Resolution	Range	Order No.		Model	Accuracy	Measuring force	Remarks
		w/ lug back	w/ flat-back				
.00005"/0.001mm	.5" / 12.7mm	<b>543-692</b>	<b>543-692B</b>	ID-S112E	.00012"	2.0N	—
.00005"/0.001mm	.5" / 12.7mm	<b>543-696</b>	<b>543-696B</b>	ID-S112PE	.00012"	2.5N	Dust-proof
.0001"/0.001mm	.5" / 12.7mm	<b>543-693</b>	<b>543-693B</b>	ID-S112T	.00012"	2.0N	—
.0005"/0.01mm	.5" / 12.7mm	<b>543-683</b>	<b>543-683B</b>	ID-S1012E	.0008"	2.0N	—

Resolution	Range	Order No.		Model	Accuracy	Measuring force	Remarks
		w/ lug back	w/ flat-back				
.00005"/0.001mm	.5" / 12.7mm	<b>543-691</b>	<b>543-691B</b>	ID-S112M	.00012"	2.0N or less	—
.00005"/0.001mm	.5" / 12.7mm	<b>543-695</b>	<b>543-695B</b>	ID-S112PM	.00012"	2.5N or less	Dust-proof
.0005"/0.01mm	.5" / 12.7mm	<b>543-682</b>	<b>543-682B</b>	ID-S1012M	.0008"	2.0N or less	—

Resolution	Range	Order No.		Model	Accuracy	Measuring force	Remarks
		w/ lug back	w/ flat-back				
0.001mm	12.7mm	<b>543-690</b>	<b>543-690B</b>	ID-S112	0.003mm	2.0N or less	—
0.001mm	12.7mm	<b>543-694</b>	<b>543-694B</b>	ID-S112P	0.003mm	2.5N or less	Dust-proof
0.01mm	12.7mm	<b>543-681</b>	<b>543-681B</b>	ID-S1012	0.02mm	2.0N or less	—

### DIMENSIONS

