



An inspection certificate is supplied as standard. Refer to page IX for details.

Technical Data

Display: 6-digit LCD and sign
 Scale type: ABSOLUTE electrostatic linear encoder
 Usable orientation: All
 Power supply: SR44, part No. **938882** for initial operational checks (standard accessory)
 Maximum response speed: No limit (scan-type measurement is not supported)
 Operating temperature range: 0 to 40°C
 Storage temperature range: -10 to 60°C
 Contact point: Spherical tip SR = 1.5 mm (carbide tipped) part No. **901312** (for ISO/JIS/DIN Type), part No. **21BZB005** (for ASME/ANSI/AGD Type)

Functions

Origin set (zero-set) : The display can be zeroed at any chosen position.
 Direction switching : The measuring direction can be switched.

in/mm reading (inch/mm models only)
 Measurement data output: These indicators have a measurement data output socket, which makes it possible to output measurement to the DP-1VR mini processor or to a PC through an input tool. Furthermore, the U-WAVE measurement data wireless communication system can be used to wirelessly input measurement data to a PC.

Error warning

Optional accessories

- **Lifting**
 - Lifting lever **No.21EZA198** (ISO/JIS/DIN Type), **No.21EZA199** (ASME/ANSI/AGD Type)
 - Lifting knob **No.21EZA105** (ISO/JIS/DIN Type), **No.21EZA150** (ASME/ANSI/AGD Type)
 - Lifting cable (**No. 540774**)
- **SPC connecting cables** 1m (**No. 905338**) 2m (**No. 905409**)
- **Data processing products**
- **Contact points for Mitutoyo dial indicators**
- **Backs for Mitutoyo standard (2 series) dial indicators**
- **Stands**

IP53 dust/water protection level

Level 5: Dust protection

While complete protection against invasion of dust is not provided, protection is adequate to prevent dust amounts that would inhibit the prescribed operations and safety of the electronic equipment.

Level 3: Protection against spraying water

The product suffers no harmful effects when subjected to water sprayed at an angle of up to 60 degrees on both sides.

For details on the dust/water protection level test conditions, please refer to IEC 60529:2001 and JIS C 0920:2003.

IP code is the degree of protection against solid foreign objects and water.

Mitutoyo offers a lineup of coolant proof, ID-N/B indicators that have excellent resistance to oil, water and dust and so are suitable for use in environments that include splashing cutting fluid.



Refer to the ABS Digimatic Indicator ID-S Series brochure (**E12013**) for details.

ABSOLUTE Digimatic Indicator ID-SX SERIES 543

- **Cost-effective oriented design**
 ID-SX indicators use a button-type battery (SR44) and come with the minimum of functionality for ease of use. There is a choice of models in the lineup allowing selection of 0.01 mm, 0.001 mm or inch-based measurement resolutions.
- **IP53 dust/water protection level**
 The models listed below also provide IP53 dust/water protection level specifications:
543-794/94B/95/95B/96/96B

- **ABS (absolute) sensor**
 These Digimatic indicators employ Mitutoyo's proprietary ABS (absolute) sensor, which makes it possible to restore the origin point even if the power is turned off. This eliminates the need to perform origin restoration each time the power is turned on. Furthermore, this sensor ensures that overspeed errors do not occur, which improves reliability.
- **Long battery life**
 One button battery (SR44) provides approximately 20,000 hours of continuous use for .0005"/0.01mm resolution models.



Specifications

Order No.	Range	Resolution	Accuracy*1			Back type	Measuring force	Battery life*3 (continuous use)	Dust/Water protection level*4
			Overall*2	Hysteresis	Repeatability				
543-790	12.7 mm	0.001 mm	0.003 mm	0.002 mm	0.002 mm	With Lug	1.5N or less	18,000 hours	IP42
543-790B						Flat			
543-794		0.001 mm	0.003 mm	0.002 mm	0.002 mm	With Lug	2.5N or less	18,000 hours	IP53
543-794B	Flat								
543-781	0.01 mm	0.02 mm	0.02 mm	0.01 mm	With Lug	1.5N or less	20,000 hours	IP42	
543-781B					Flat				

Inch/Metric

Order No.	Range	Resolution	Accuracy*1			Back type	Measuring force	Battery life*3	Dust/Water protection level*4
			Overall*2	Hysteresis	Repeatability				
543-791	.5"/12.7 mm	.00005"/0.001mm	±.0001"/0.003mm	.0001"/0.002mm	.0001"/0.002mm	With Lug	1.5N or less	18,000 hours	IP42
543-791B						Flat			
543-792		.00005"/0.001mm	±.0001"/0.003mm	.0001"/0.002mm	.0001"/0.002mm	With Lug	1.5N or less	18,000 hours	IP42
543-792B						Flat			
543-793		.0001"/0.001mm	±.0001"/0.003mm	.0001"/0.002mm	.0001"/0.002mm	With Lug	1.5N or less	18,000 hours	IP42
543-793B						Flat			
543-795		.00005"/0.001mm	±.0001"/0.003mm	.0001"/0.002mm	.0001"/0.002mm	With Lug	2.5N or less	18,000 hours	IP53
543-795B						Flat			
543-796		.00005"/0.001mm	±.0001"/0.003mm	.0001"/0.002mm	.0001"/0.002mm	With Lug	2.5N or less	18,000 hours	IP53
543-796B						Flat			
543-782		.0005"/0.01mm	±.0010"/0.02mm	.0010"/0.02mm	.0005"/0.01mm	With Lug	1.5N or less	20,000 hours	IP42
543-782B						Flat			
543-783	.0005"/0.01mm	±.0010"/0.02mm	.0010"/0.02mm	.0005"/0.01mm	With Lug	1.5N or less	20,000 hours	IP42	
543-783B					Flat				

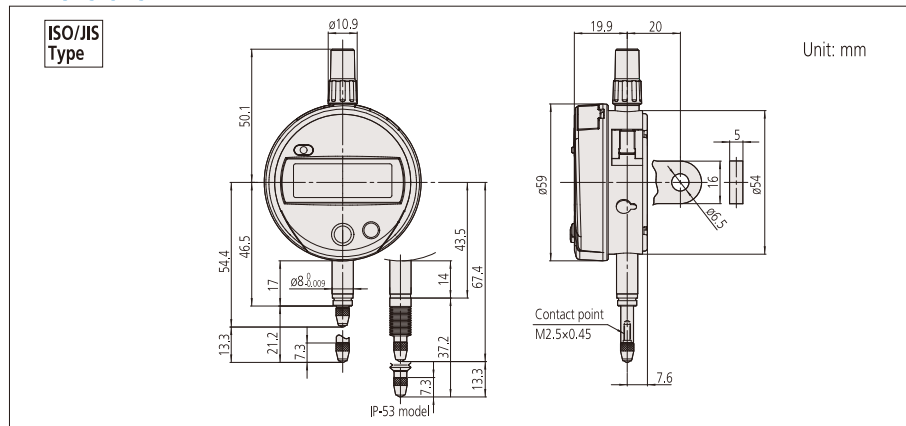
*1 These values apply at 20°C, and do not include ±1 count allowance for quantization error.

*2 Overall magnification and linearity.

*3 The battery life varies, depending on the number of times the Digimatic indicators are used as well as the way it is used. The values listed above are approximations.

*4 This is only valid when the data socket cover is in place. Does not apply if the cover is removed, a lifting accessory is attached, or a connecting cable is attached.

Dimensions



Note 1: Dimensions of the inch (ANSI/AGD Type) dial indicator partly differ from those of the metric (ISO/JIS Type) indicator.

Note 2: Inch (ANSI/AGD Type) dial indicators are provided with a stem of 3/8" dia. and #4-48UNF thread mount for the contact point.