

Digimatic Indicators

SERIES 543 – ABSOLUTE Digimatic Indicator ID-CX

- Employing the ABSOLUTE Linear Encoder, the ID-CX indicator always displays the absolute position of the plunger from the origin at power-on.
- Thanks to the ABSOLUTE Linear Encoder, reliability has been increased due to elimination of over-speed errors.
- Tolerance-judging measurement is available by setting upper and lower limit values. The tolerance judgement result can be enlarged.
- Equipped with a data output port that enables incorporation into measurement networking and statistical process control systems.

MeasurLink[®] ENABLED
Data Management Software by Mitutoyo

ABSOLUTE



Technical Data

Display: 6-digit LCD and sign
 Scale type: ABSOLUTE electrostatic linear encoder
 Max. response speed: Unlimited (scanning measurement is not supported)
 Stem diameter: 8 mm
 Standard contact point: **901312**
 Battery: SR44 (1 pc.), **938882**
 Battery life: Approx. 7,000 hours under normal use

Functions

Preset, zero-set, GO/±NG judgement, counting direction switching, Power ON/OFF, simplified calculation, function lock, data hold, data output, inch/mm reading
 Alarm: Low voltage, counting value composition error, overflow error, tolerance limit setting error

Setting Measuring Force on Low Measuring Force Model

Plunger orientation	Spring	Weight (approx. 0.1 N)	Max. measuring force
Pointing vertically downward	Yes	Yes	0.7 N or less
	Yes	No	0.6 N or less
	No	Yes	0.4 N or less
	No	No	Not guaranteed
Horizontal	Not guaranteed		

Note: Operation using configurations other than shown above is not guaranteed.

Specifications

Inch/Metric

Code No.	Range	Accuracy* ¹	Repeatability* ¹	Measuring force	Remarks
Resolution: .0005" / .0001" / .00005" / 0.01 mm / 0.001 mm					
543-391B	.5" / 12.7 mm	.0001" / 0.003 mm	.0001" / 0.002 mm	1.5 N or less	—
543-395B	.5" / 12.7 mm			0.4 N - 0.7 N	Low measuring force
543-471B	1" / 25.4 mm			1.8 N or less* ²	—
543-491B	2" / 50.8 mm	.0002" / 0.005 mm		2.3 N or less* ²	—
Resolution: .0005" / 0.01 mm					
543-401B	.5" / 12.7 mm	.001" / 0.02 mm	.0005" / 0.02 mm	0.9 N or less	—
543-475B	1" / 25.4 mm			1.8 N or less* ²	—

*¹ Quantizing error of ±1 count is excluded.

*² Applies up to a horizontal plunger orientation.

Optional Accessories

Code No.	Description
540774	Plunger lifting cable (12.7 mm and 25.4 mm)
905338	SPC data cable (1 m)
905409	SPC data cable (2 m)
02ACA571	Auxiliary plunger spring (25.4 mm / 1" type)*4
02ACA773	Auxiliary plunger spring (50.8 mm / 2" type)*4
02AZD790F	U-WAVE-T data cable (160 mm)
02AZE140F	U-WAVE-T data cable with footswitch connection (160/500 mm)
06AFM380F	USB input tool direct USB-ITN-F (2 m)
21EZA105	Plunger lifting knob (12.7 mm / .5" type)*3
21EZA197	Plunger lifting knob (25.4 mm / 1" type)
21EZA198	Plunger lifting lever (12.7 mm / .5" type)*3
21EZA200	Plunger lifting knob (50.8 mm / 2" type)

Contact points for Mitutoyo's dial indicators refer to pages F-37 to F-40 for details.

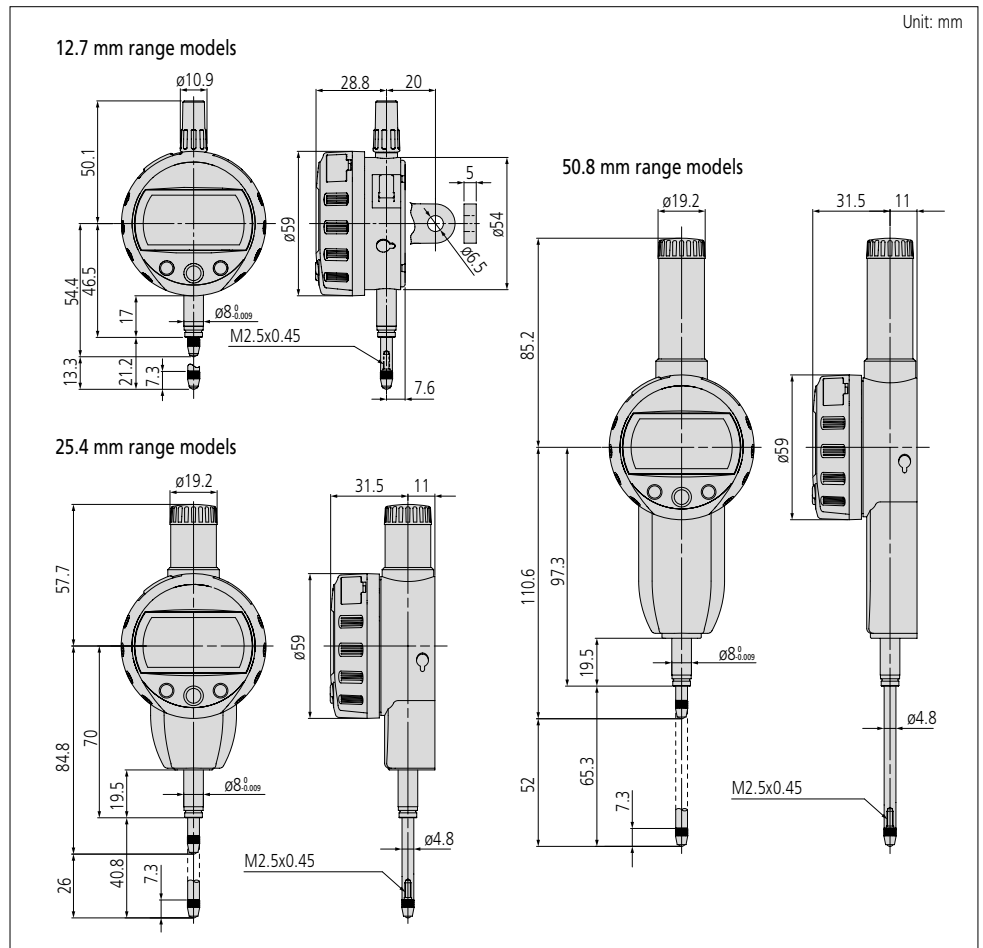
Interchangeable backs refer to page F-41 for details.

Measuring stands refer to pages F-67 to F-72 for details.

*3 Not available for low measuring force models.

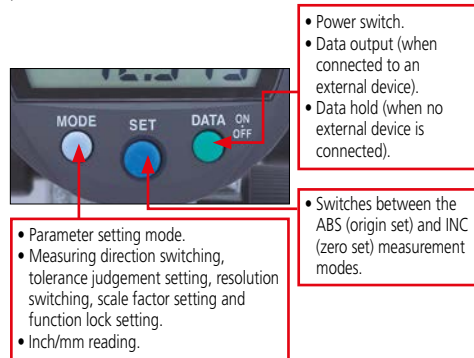
*4 Required when orienting the indicator upside down.

Dimensions



Three large buttons

The popular three-large-button design, which is used in products such as the ABSOLUTE Coolant Proof Digimatic Indicators ID-N/ID-B, makes buttons easier to press and operations easier to perform.



Large LCD

The large LCD incorporates 11 mm characters giving 1.5 times the character area of existing products (which display 8.5 mm characters) making measurement values much easier to read.



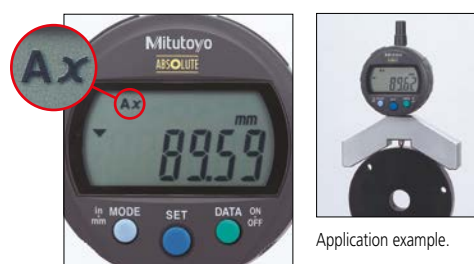
330° rotary display

The display can be rotated 330°, allowing use at a position where you can easily read the measurement value.



Calculation: $f(x) = Ax$

Mounting the ID-C on a measuring jig and setting the multiplying factor 'A' (to any value) allows direct measurement without using a conversion table and improves measurement efficiency.



Function locking

Ensures reliability of measurement by locking the settings to prevent preset function settings from being changed by mistake.

