MeasurLink® ENABLED Data Management Software by Mitutoyo

ABSOLUTE™

PROPRIETARY INSPECTION CERTIFICATE

ABSOLUTE Digimatic Indicator ID-CRX SERIES 543 — Calculation Type

- This expandable indicator incorporates an internal calculation function that operates from plunger displacement. Using dedicated fixtures and setting the calculation coefficients, you can read your measurements directly without the need for conversions.
- By using the parameter setup kit (optional) and the dedicated software, the functions and the parameters can be configured using a computer.
- Five buttons, status icons, and clear button indications allow easy operation and various functions.

543-342B-10

Typical application

Functions

- Calculation f (x') =Ax'+B+Cx'$^{-1}$ (x'=x+offset)
- Peak detection (MAX/MIN)
- Runout (MAX - MIN) Hold

Note: Peak detection
1) Sampling rate: 10 readings/s
2) Capturing speed: 10 µm/s (max.)

Settings can be changed to:
1) Sampling rate: 50 readings/s
2) Capturing speed: 50 µm/s (max.)

- Zero-setting (INC system)
- Preset (ABS system)
- Tolerance judgment (3 pairs of ABS, INC memory function)
- Analog bar resolution selectable
- Key lock
- Display hold (when no external device is connected)
- Data output
- External PC setting input
- Display rotation (330°)
- Low battery voltage alarm display
- Error alarm display
- Resolution switching*

Resolution (mm)		
0.0002	0.005	0.1
0.0005	0.01	0.2
0.001	0.02	0.5
0.002	0.05	1

Resolution (in)		
0.00001	0.0002	0.005
0.00002	0.0005	0.01
0.00005	0.001	0.02
0.0001	0.002	0.05

* Since the calculation resolution is one micrometer (0.001 mm), using sub-micrometer resolution settings may result in the 4th-place digit being unreliable, particularly when B is set to a very low value and C=0. It does not change at all with certain combinations of calculation coefficient (for example, A=1, B=C=0). The 3rd-place digit representing micrometers (if displayed) is always reliable.

Optional Accessories

Refer to page 07-13.

- Lifting
  Lifting lever **21EZA198** (12.7 mm/0.5 inch type)
  Lifting knob **21EZA105** (12.7 mm/0.5 inch type)
  21EZA197 (25.4 mm/1 inch type)
  21EZA200 (50.8 mm/2 inch type)
- Parameter setup kit (optional)
  Refer to page 07-13 for details.

SPECIFICATIONS

Metric ISO/JIS Type

Code No.	Range (mm)	Resolution (selectable)	Maximum permissible error (MPE)*1*2 (mm)				Maximum permissible limit (MPL)	Battery life (normal use)*4	Mass (g)
			Partial measuring range P_{MPE}	Total measuring range E_{MPE}	Hysteresis H_{MPE}	Repeatability R_{MPE}	Measuring force (N)		
543-340B-10	12.7	12 steps*4	0.003	0.003	0.003	0.002	1.5 or less	Approx. 1 year	170
543-590B-10	25.4						1.8 or less*3		190
543-595B-10	50.8		0.006	0.006			2.3 or less*3		260

Inch/Metric ISO/JIS Type

Code No.	Range	Resolution (selectable)	Maximum permissible error (MPE)*1*2 (mm)				Maximum permissible limit (MPL)	Battery life (normal use)*4	Mass (g)
			Partial measuring range P_{MPE}	Total measuring range E_{MPE}	Hysteresis H_{MPE}	Repeatability R_{MPE}	Measuring force (N)		
543-341B-10	0.5 in/ 12.7 mm	12 steps*4	0.003	0.003	0.003	0.002	1.5 or less	Approx. 1 year	170
543-591B-10	1 in/ 25.4 mm						1.8 or less*3		190
543-596B-10	2 in/ 50.8 mm		0.006	0.006			2.3 or less*3		260

Inch/Metric ASME/ANSI/AGD type

Code No.	Range	Resolution (selectable)	Maximum permissible error (MPE)*1*2 (in)			Maximum permissible limit (MPL)	Battery life (normal use)*4	Mass (g)
			Overall*5	Hysteresis	Repeatability	Measuring force (N)		
543-342B-10	0.5 in/ 12.7 mm	12 steps*4	±0.00010	0.00010	0.00010	1.5 or less	Approx. 1 year	170
543-592B-10	1 in/ 25.4 mm					1.8 or less*3		190
543-597B-10	2 in/ 50.8 mm		±0.00025			2.3 or less*3		260

- Power source: CR2032 battery (1 pc.), included as standard (for operational checks)

*1 These values apply to normal measurements at 20 °C.
*2 Valid for resolution set to 0.001 mm/0.00005 in and coefficients A=1, B=0 and C=0.
*3 Applies for a spindle orientation between the spindle pointing vertically downward to the spindle horizontal.
*4 Applies only if not connected to a data processor. Battery life depends on use of the indicator. Use the above value as a guide only.
*5 Overall magnification and linearity
Note: Flat-back type only.