

# Digimatic Indicators

MeasurLink<sup>®</sup> ENABLED  
Data Management Software by Mitutoyo

ABSOLUTE<sup>™</sup>



DIGIMATIC S1

## High-performance ABS Digimatic Indicator ID-FNX (Digimatic S1 supported) SERIES 543 — with Back-lit LCD Screen

- ID-F Series is a next-generation indicator with various new functions, including bidirectional communication support. With the addition of the appropriate data cable and software, remote zero setting and gage setting can all be implemented from a connected PC, thereby improving your work efficiency.
- This series adopts an external power supply to operate a bright backlit display. The display color helps you make tolerance judgment at a glance.

Green indication for GO judgment    Red indication for  $\pm$ NG judgment



- The next calibration due date can be set with an alarm to improve instrument management.
  - The ABS (ABSOLUTE) scale restores the last origin position\* automatically when the indicator is turned on, and realizes high reliability by eliminating over-speed errors.
- \* Refer to "Precautions for use" on page 07-2.



### Functions

- Peak detection (MAX/MIN)
  - Runout range measurement (MAX - MIN)
- Note: Peak detection
- 1) Sampling rate:
    - Resolution 0.0005 mm    50 readings/s
    - Resolution 0.001 mm, 0.01 mm    500 readings/s
  - 2) Capturing speed:
    - Resolution 0.0005 mm    50  $\mu$ m/s
    - Resolution 0.001 mm, 0.01 mm    500  $\mu$ m/s
- Zero-setting (INC system)
  - Presetting (ABS system)
  - Measuring direction switching
  - Tolerance judgment
  - Resolution switching
  - Simple calculation  $f(x) = Ax$
  - Analog resolution selection
  - Data hold (when not connected to an external device)
  - Function Lock
  - Calibration schedule warning
  - Data output
  - Display rotation (330°)
  - Error alarm display

### SPECIFICATIONS

Metric		ISO/JIS Type							
Code No. <sup>*3</sup>	Range (mm)	Resolution (mm)	Maximum permissible error (MPE)* <sup>1</sup> (mm)				Maximum permissible limit (MPL)	Power source	Mass (g)
			Partial measuring range $P_{MPE}$	Total measuring range $E_{MPE}$	Hysteresis $H_{MPE}$	Repeatability $R_{MPE}$	Measuring force (N)		
543-855	12.7	0.0005/ 0.001/0.01 (selectable)	0.0025	0.0025	0.002	0.002	1.5 or less	AC adapter (5.9 V)	180
543-855B (flat back)									170
543-851	25.4						1.8 or less		240
543-853	50.8		0.004	0.004			2.3 or less		330
543-857			0.003	0.003					

Inch/Metric		ASME/ANSI/AGD Type						
Code No. <sup>*3</sup>	Range	Resolution	Maximum permissible error (MPE)* <sup>1</sup> (in)			Maximum permissible limit (MPL)	Power source	Mass (g)
			Overall* <sup>2</sup>	Hysteresis	Repeatability	Measuring force (N)		
543-856	0.5 in/ 12.7 mm	0.00002/ 0.00005/ 0.0001/ 0.0005/ 0.001 in, 0.005/ 0.001/ 0.01 mm (selectable)	$\pm 0.00010$	0.00008	0.00008	1.5 or less	AC adapter (5.9 V)	200
543-856B (flat back)								170
543-852	1 in/ 25.4 mm					1.8 or less		240
543-854	2 in/ 50.8 mm		$\pm 0.00016$			2.3 or less		330
543-858			$\pm 0.00012$					

- Display: 7-digit display, sign, and analog bar with 2-color backlight
- Response speed: Unlimited

\*1 These values apply to normal measurements at 20 °C.

\*2 Overall magnification and linearity

\*3 To denote your AC power cable add the following suffixes to the code No.: **A** for UL/CSA and PSE, **D** for CEE, **DC** for CCC, **E** for BS, **K** for KC, **No suffix** is required for JIS/100 V.

