

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, supporting bidirectional communication. 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.

SPECIFICATIONS

Metric		ISO/JIS Type							
Code No. *3	Range (mm)	Resolution (mm)	Maximum permissible error (MPE)*1 (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)							1.8 or less		170
543-851	25.4		0.004	0.004			2.3 or less		240
543-853	50.8		0.003	0.003			2.3 or less		330
543-857									

Inch / Metric		ASME/ANSI/AGD Type							
Code No.*3	Range	Resolution	Maximum permissible error (MPE)*1 (in)			Maximum permissible limit (MPL)	Power source	Mass (g)	
			Overall*2	Hysteresis	Repeatability	Measuring force (N)			
543-856	0.5 in/ 12.7 mm	0.00002/ 0.00005/ 0.0001/ 0.0005/ 0.001 in,	±0.00010	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	0.0005/ 0.001 in,						1.8 or less	240
543-854	2 in/ 50.8 mm	0.005/ 0.001/ 0.01 mm (selectable)	±0.00016						2.3 or less
543-858			±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.

MeasurLink[®] ENABLED
Data Management Software by Mitutoyo

ABSOLUTE[™]



DIGIMATIC S1

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 μ m/s
Resolution 0.001 mm, 0.01 mm 500 μ 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

Product catalog
E12049



Video



Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type IT-020U
06AGL011	SF	Connection cable (1 m)
06AGL021	SF	Connection cable (2 m)
06AGQ001F	SF	USB Input Tool Direct (2 m)
02AZG011	SF	Connection cable for U-WAVE-T (160 mm)
02AZG021	SF	Connection cable for U-WAVE-T For foot switch
264-622	IP67	U-WAVE-TM
264-623	Buzzer	U-WAVE-TM
02AZD810D	—	U-WAVE-R
264-626	IP67	U-WAVE-TMB
264-627	Buzzer	U-WAVE-TMB
02AZF700	—	Connecting unit for U-WAVE-TM/TMB (for ID-F/ID-C Series 12.7 mm/0.5 inch type only)
02AZF670	—	U-WAVE-TM/TMB mounting bracket: for Digimatic Indicators

- Lifting
Lifting lever:
21EZA198 (12.7 mm/0.5 inch type)
Lifting cable:
21JZA295 Stroke 12.7 mm: 12.7 mm/0.5 inch type
With auto-stop function:
21JZA301 (overall length 300 mm) 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)
Lifting lever: **21EAA426**
(supplied with 25.4 mm and 50.8 mm models as standard.)
- Auxiliary spindle spring:
02ACA571 (25.4 mm/1 inch type)
02ACA773 (50.8 mm/2 inch type)
- Measurement data collection software
USB-ITPAK V3.0: 06AGR543
- Contact points for Mitutoyo's Digimatic indicators (optional)
Refer to pages 07-63 to 07-68 for details.
- Interchangeable back covers (optional)
Refer to pages 07-69 to 07-70 for details.
- Measuring stands (optional)
Refer to pages 07-97 to 07-103 for details.

DIMENSIONS

