

# Digimatic Indicators

## Digimatic Indicator ID-H SERIES 543 — High Accuracy and High Functionality Type

- A top-level digital indicator that supports high accuracy and multi-functional measurement.
- Take advantage of its high accuracy backed up by 0.0005 mm/0.00002 inch resolution, remote control functionality via a handheld controller (or an RS-232C interface) and easy runout measurements with the well-established analog bar display.
- Functionality meets the needs of diverse measurement applications.

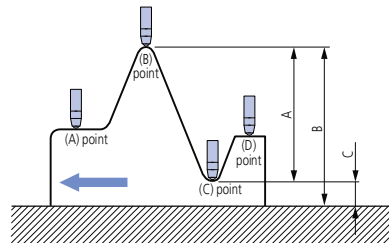
Tolerance judgment



- Measuring maximum value, minimum value and runout (MAX - MIN)



Example: Indicator traces between points <A> to <D>  
Difference (or Total Runout) is displayed as <A>. Dimensions <B> (maximum value) and <C> (minimum value) can be retrieved from memory with a simple key sequence or using the remote control (optional).



- With the optional remote controller, operations such as zero-setting and presetting can be made without touching the indicator body, thereby avoiding disturbance to the set-up.
- An advanced, remote control system can be implemented with the built-in RS-232C interface and a PC.
- Equipped with a data output port that enables incorporation into measurement networking and statistical process control systems. (Refer to page A-3)



Remote controller (optional)

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



### Technical Data

- Display: 7-digit LCD, sign, and analog bar with 2-color backlight
- Power supply: 5.9 V DC (via AC adapter) **06AGZ369\***
- \* To denote your AC power cable add the following suffixes to the order No.: **JA** 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
- Positional detection method: Photoelectric-type reflection linear encoder
- Maximum response speed: 1000 mm/s
- Lifting lever: **21EAA426** (standard accessory)

### Optional Accessories

- Remote controller: **21EZA099**
- Lifting  
Lifting cable: **21JZA295** (stroke 30 mm)  
Lifting knob: **21EZA101**
- SPC Cable:  
**936937** (1 m)  
**965014** (2 m)
- USB Input Tool Direct (2 m): **06AFM380D**
- Input Tool Series  
**IT-020U** (USB Keyboard Signal Conversion Type):  
**264-020**  
**IT-007R** (RS-232C Communication Conversion Type):  
**264-007**
- Connecting Cables for **U-WAVE-T** (160 mm):  
**02AZD790D**  
For foot switch: **02AZE140D**
- RS-232C Connecting cable (2 m): **21EAA131**
- Lug-on-center back:  
**101040** (ISO/JIS type)  
**101306** (ASME/ANSI/AGD type)
- Contact points for Mitutoyo's digimatic indicators (Refer to pages F-57 to F-60 for details.)
- Digimatic Mini-Processor **DP-1VA LOGGER**: **264-505**
- Granite comparator stands (Refer to page F-88 for details.)
- Comparator stands (Refer to page F-90 for details.)

Comparator stand  
**215-505-10**



## SPECIFICATIONS

Metric							
Order No.*1	Range (mm)	Resolution (mm)	Maximum permissible error (mm)			Measuring force MPL (N)	Net mass (g)
			MPE <sub>E</sub> *2	Hysteresis MPE <sub>H</sub>	Repeatability MPE <sub>R</sub>		
543-561	30.4	0.0005/ 0.001 (selectable)	0.0015	0.0015	0.001	2.0 or less	290
543-563	60.9		0.0025	0.0025		2.5 or less	305

Inch/Metric							
Order No.*1	Range	Resolution	Maximum permissible error			Measuring force MPL (N)	Net mass (g)
			MPE <sub>E</sub> *2	Hysteresis MPE <sub>H</sub>	Repeatability MPE <sub>R</sub>		
543-562	1.2 in /30.4 mm	0.00002/ 0.00005/ 0.0001 in, 0.0005/ 0.001 mm (selectable)	±0.00006 in/ 0.0015 mm	0.00006 in/ 0.0015 mm	0.00004 in/ 0.001 mm	2.0 or less	300
543-564	2.4 in /60.9 mm		±0.0001 in/ 0.0025 mm	0.0001 in/ 0.0025 mm		2.5 or less	

\*1 To denote your AC power cable add the following suffixes to the order No.: **A** for UL/CSA, **D** for CEE, **DC** for CCC, **E** for BS, **K** for KC, **No suffix** is required for JIS/100 V

\*2 Error of indication for the total measuring range

Note 1: The indicator can output SPC (Digimatic) data consisting of up to 6 digits in full. If the data consists of 7 digits the first digit is not output (example: 123.4565 mm is output as 23.4565 mm).

Note 2: Regarding origin setting, refer to "Origin Setting of Digimatic Indicators" on page F-25.

Note 3: The orientation for use can be from vertical (contact point pointing downward) to horizontal (spindle in horizontal orientation).

## DIMENSIONS

