

## Functions

- Zero-setting (INC system)
- Presetting (ABS system)
- Direction switching
- Tolerance judgment
- LCD readout reversal
- Resolution switching  
(For 0.001 mm or 0.00005 in resolution models)
- Data output
- Display value holding  
(when no external device is connected)
- Low battery voltage alarm display
- Error alarm display

# Digimatic Indicators

Comparison measuring instruments which ensure high quality, high accuracy and reliability.

## ABSOLUTE Digimatic Indicator ID-N/B SERIES 543 — with Dust/Water Protection Conforming to IP66

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

- Our unique ABS scale restores the last origin position automatically when the indicator is turned on.
- The chance of overspeed errors has been eliminated thanks to the ABS scale.
- Rated to IP66: can be used satisfactorily even in adverse environments where the indicator is subject to splashing by cutting fluid or coolant.
- Slim body design (body width: only 35 mm) is advantageous in multipoint measurement situations where space is restricted. The LCD readout can also be rotated 180° to allow reading from the most convenient direction.
- Succeeded in digitalization of the Back Plunger type widely used for dial indicators for ID-B. A 5 mm-stroke plunger with a higher degree of accuracy has been implemented by adopting a direct reading scale for plunger displacement.
- Tolerance judgment can be performed by setting upper and lower tolerance limits. The judgment result (GO/NO-GO) can be displayed in full-size characters.
- Equipped with a data output port that enables incorporation into measurement networking and statistical process control systems. (Refer to page A-3)

543-575



543-585



Rated to IP66 water- and dust-proofing standard and oil resistance improved.



Body width 35 mm



LCD readout reversal function

## SPECIFICATIONS

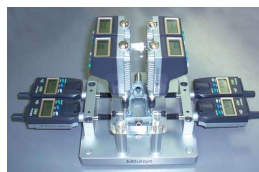
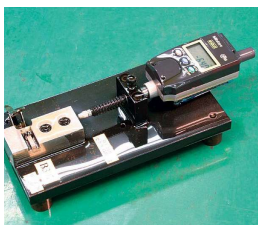
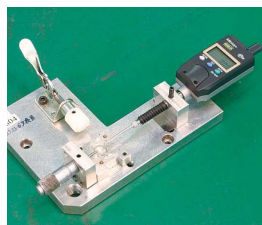
Metric							
Order No.	Range (mm)	Resolution (mm)	Maximum permissible error (mm)			Measuring force MPL (N)	Remarks
			MPE <sub>E</sub> *	Hysteresis MPE <sub>H</sub>	Repeatability MPE <sub>R</sub>		
543-570	12.7	0.01	0.02	0.02	0.01	2.5 or less	Slim type
543-580	5.0					2.0 or less	Back Plunger type
543-575	12.7	0.01/0.001 (selectable)	0.01/0.003	0.02	0.002	2.5 or less	Slim type
543-585	5.0					2.0 or less	Back Plunger type

Inch/Metric							
Order No.	Range (in)	Resolution	Maximum permissible error			Measuring force MPL (N)	Remarks
			MPE <sub>E</sub> *	Hysteresis MPE <sub>H</sub>	Repeatability MPE <sub>R</sub>		
543-571	0.5	0.0005 in/0.01 mm	±0.001 in/0.02 mm	0.001 in/0.02 mm	0.0005 in/0.01 mm	2.5 or less	Slim type
543-581	0.2					2.0 or less	Back Plunger type
543-576	0.5	0.00005/0.0005 in/0.001/0.01 mm (selectable)	±0.0001 in/0.003 mm	0.0001 in/0.002 mm	0.0001 in/0.002 mm	2.5 or less	Slim type
543-586	0.2					2.0 or less	Back Plunger type

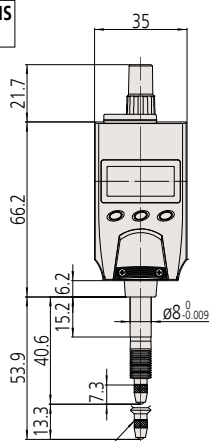
\* Error of indication for the total measuring range  
Note: One silver oxide button cell (SR44) for monitor included

Comparison measuring instruments which ensure high quality, high accuracy and reliability.

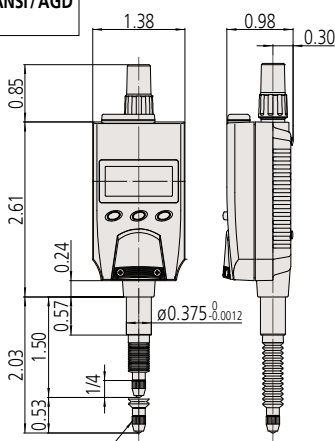
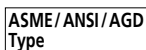
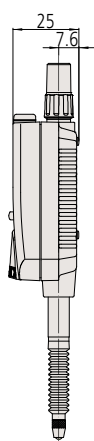


**Slim Type  
ID-N**

Unit: in

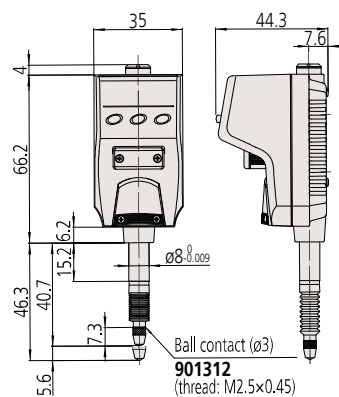
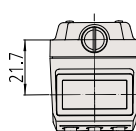


Ball contact (ø3)  
**901312**  
(thread: M2.5×0.45)

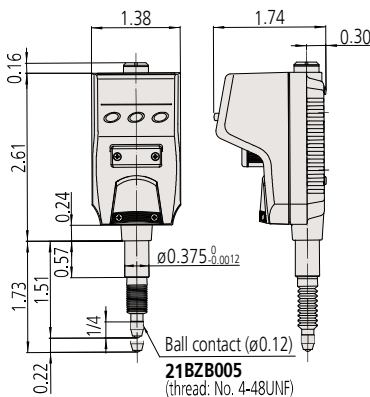
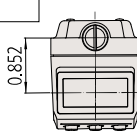


Ball contact (ø0.12)  
**21BZB005**  
 (thread: No. 4-48UNF)

Back plunger Type  
ID-B



**901312**  
(thread: M2.5×0.45)



**21BZB005**  
(thread: No. 4-48UNF)

- SPC cable:  
**21EAA194** (1 m)  
**21EAA190** (2 m)



SPC cable

Bifurcated connecting cable with zero-setting terminal

- USB Input Tool Direct (2 m): **06AFM380G**
- Input Tool Series
  - IT-016U** (USB Keyboard Signal Conversion Type): **264-016-10**
  - IT-007R** (RS-232C Communication Conversion Type): **264-007**  
(Refer to page A-14 for details.)
- Connecting Cables for **U-WAVE-T** (160 mm): **02AZD790G**  
For foot switch: **02AZE140G**  
(Refer to pages A-19 to A-21 for details.)
- DigiMatic Mini-Processor **DP-1VA LOGGER: 264-505**
- Bifurcated connecting cable with zero-setting terminal:  
**21EAA210** (1 m)  
**21EAA211** (2 m)  
Two of the wires inside the cable are separated for zero setting without touching the SET switch on the main body. Use these wires in combination with commercially available switches. Zero setting is performed by briefly connecting these two wires together (less than a second), and ABS preset & recall by connecting for a second or more.
- Contact points for Mitutoyo's dial indicators.  
(Refer to pages F-57 to F-60 for details.)