MeasurLink® ENABLED Data Management Software by Mitutoyo

ABSOLUTE™

IP66

PROPRIETARY INSPECTION CERTIFICATE

Dust- and Water-Protected TÜVRheinland CERTIFIED www.tuv.com ID 0000007161

Applicable models: **543-57X**

Dust- and Water-Protected TÜVRheinland CERTIFIED www.tuv.com ID 0000007162

Applicable models: **543-58X**

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

- Slim body design (body width: only 35 mm). Rated to IP66: Can be used satisfactorily even in adverse environments.
- 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.
- Back plunger design (**ID-B**) is widely used for dial indicators. 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.
- Equipped with a data output port that enables incorporation into measurement networking and statistical process control systems. (Refer to page 09-3)

* Refer to "Precautions for use" on page 07-2.

543-575 543-585

SPECIFICATIONS

Metric ISO/JIS Type

Code No.	Range (mm)	Resolution (mm)	Maximum permissible error (MPE)*1 (mm)				Maximum permissible limit (MPL)	Remarks
			Partial measuring range MPE_P	Total measuring range MPE_E	Hysteresis MPE_H	Repeatability MPE_R	Measuring force (N)	
543-570	12.7	0.01	0.02	0.02	0.02	0.01	2.5 or less	Slim type
543-580	5						2.0 or less	Back Plunger type
543-575	12.7	0.01/0.001 (selectable)	0.01/0.003	0.01/0.003	0.002	0.002	2.5 or less	Slim type
543-585	5						2.0 or less	Back Plunger type

Inch/Metric ASME/ANSI/AGD Type

Code No.	Range (in)	Resolution	Maximum permissible error (MPE)*1 (in)			Maximum permissible limit (MPL)	Remarks
			Overall*2	Hysteresis	Repeatability	Measuring force (N)	
543-571	0.5	0.0005 in/ 0.01 mm	±0.0010	0.0010	0.0005	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)	±0.00010	0.00010	0.00010	2.5 or less	Slim type
543-586	0.2					2.0 or less	Back Plunger type

- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)

*1 These values apply to normal measurements at 20 °C.
*2 Overall magnification and linearity

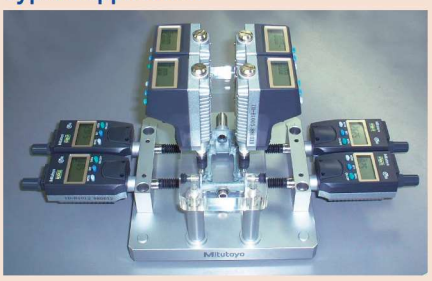
Bifurcated connection cable with zero-setting terminal (optional)

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.

SPC cable

Bifurcated connection cable with zero-setting terminal

Typical application



Functions

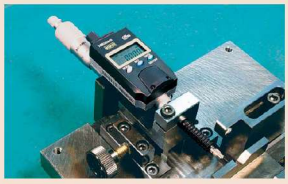
- Zero-setting (INC system)
- Presetting (ABS system)
- Measuring direction switching
- Tolerance judgment
- Display readout reversal
- Resolution switching (For 0.001 mm or 0.00005 in resolution type)
- Data output
- Display value holding (when no external device is connected)
- Low battery voltage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

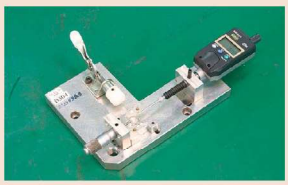
Optional Accessories

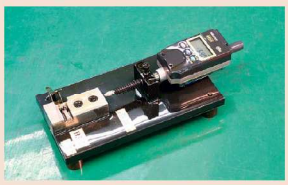
Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type **IT-020U**
21EAA194	G	Connection cable (1 m)
21EAA190	G	Connection cable (2 m)
06AFM380G	G	USB Input Tool Direct (2 m)
02AZD730G	IP67	**U-WAVE-T**
02AZD880G	Buzzer	**U-WAVE-T**
02AZD790G	G	Connection cable for **U-WAVE-T** (160 mm)
02AZE140G	G	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**
02AZF675	—	**U-WAVE-TM/TMB** mounting bracket: for Digimatic Indicators*

* Cannot be used with **ID-B** (Back Plunger Type) since it may apply stress to the cable.

Typical application







Optional Accessories

- Lug
  21EZA145 (ISO/JIS type)
  21EZA146 (ASME/ANSI/AGD type)
- Contact points for Mitutoyo's Digimatic indicators (optional)
  Refer to pages 07-63 to 07-68 for details.
- Lifting knob (only for **ID-N**)
  21EZA105 (ISO/JIS type)
  21EZA150 (ASME/ANSI/AGD type)
  Spindle can be manually lifted. Remove the spindle cap for **ID-N** and attach the lifting knob to the spindle. Note that water resistance is not maintained in this configuration.

Typical application using the lifting knob

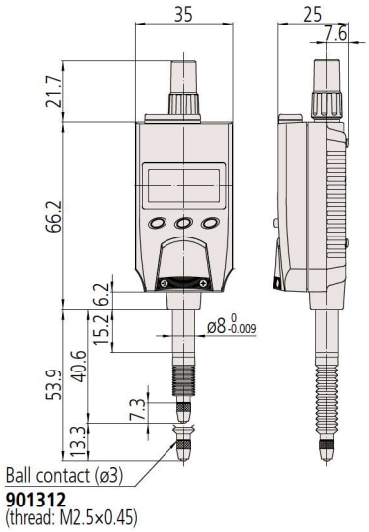
- Rubber boot
  For oil resistance (NBR) **21EAA423** (for **ID-N**)
  21AAB562 (for **ID-B**)
  For durability (silicone) **238774** (for **ID-N**)
  21EAA212 (for **ID-B**)

DIMENSIONS

Slim Type
ID-N

Unit: mm

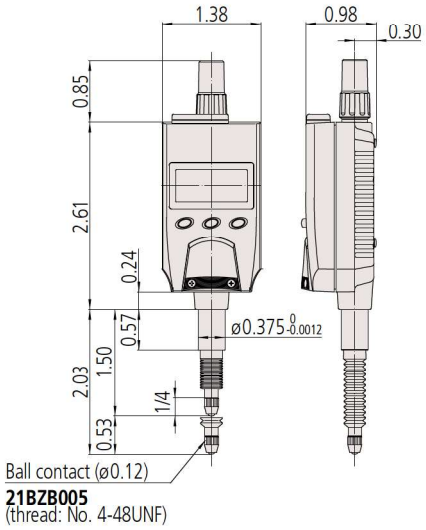
ISO/JIS Type



901312
(thread: M2.5×0.45)

Unit: in

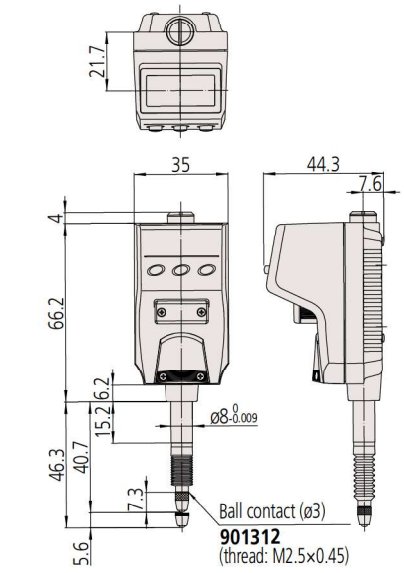
ASME/ANSI/AGD Type



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

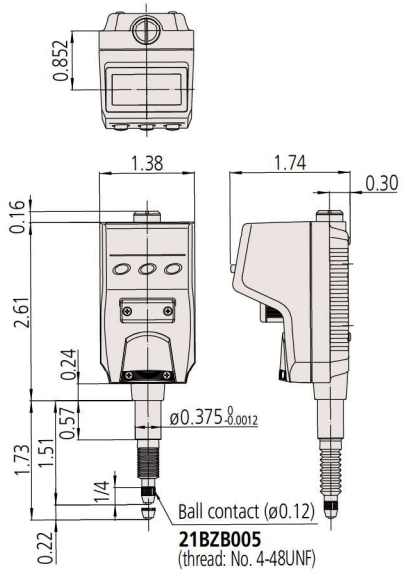
Back plunger Type
ID-B

ISO/JIS Type



901312
(thread: M2.5×0.45)

ASME/ANSI/AGD Type



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