

# 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

- Our unique ABS sensor restores the last origin position automatically when the indicator is turned on.
- The chance of overspeed errors has been eliminated thanks to the ABS sensor.
- 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 35mm) 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 5mm-stroke plunger with a higher degree of accuracy has been implemented by adopting a direct reading scale for plunger displacement.
- Built-in tolerance judgment function provides OK, +NG, or -NG judgment of measurement with respect to the preset upper and lower limit values, indicating the status of a measurement with the appropriate symbol. The symbols can be displayed much larger.
- Equipped with a data output port that enables incorporation into measurement networking and statistical process control systems.
- There is a choice of convenient Interface Input Tools which enable the conversion of measurement data to keyboard signals and directly input them to cells in off-the-shelf spreadsheet software such as Excel.

543-575



IP66



543-585



IP66



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



Body width 35mm



LCD readout reversal function

ABSOLUTE™ (Refer to page X for details.)

### Technical Data

Display: 6-digit LCD and sign  
Scale type: ABSOLUTE electrostatic linear encoder  
Max. response speed: Unlimited (Measurement by scanning cannot be performed)  
Measuring force: 2.5N or less (ID-N)  
2.0N or less (ID-B)  
Stem dia: 8mm (ISO/JIS type) or 3/8" (ANSI/AGD type)  
Standard contact point: **901312** (ISO/JIS type)  
**21BZB005** (ANSI/AGD type)  
Battery SR44 (1pc.) : **938882** for initial operational checks (standard accessory)  
Battery life: Approx. 7,000 hours of continuous use

### Functions

Zero-setting, Presetting, Direction switching, Tolerance judgment, Display hold, Data output, inch/mm conversion (inch/mm models), LCD readout reversal  
Alarm: Low voltage, Counting value composition error, Overflow error, Tolerance limit setting error

### Optional accessories

- Lifting knob (only for ID-N)  
**No.21EZA105** (ISO/JIS type)\*  
**No.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

Using the lifting knob



- Lug  
**No.21EZA145** (ISO/JIS type)  
**No.21EZA146** (ASME/ANSI/AGD type)
- Arm for ID-B (mode-to-order)
- Rubber boot  
For oil resistance (NBR) **No.02ACA376** (for ID-N)  
**No.125317** (for ID-B)  
For durability (silicon) **No.238774** (for ID-N)  
**No.21EAA212** (for ID-B)

- SPC cable:  
**No.21EAA194** (1m)  
**No.21EAA190** (2m)
- USB Input Tool Direct (2m): **No.06ADV380G**
- Connecting Cables for U-WAVE-T (160mm)  
: **No.02AZD790G**  
For footswitch: **No.02AZE140G**  
Refer to page F-60 for details.
- Bifurcated connecting cable with zero-setting terminal:  
**No.21EAA210** (1m)  
**No.21EAA211** (2m)  
Two of the wires inside the cable are separated for zero setting without touching the SET switch on the main body. Use these cables 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-51 to F-54 for details.)

## SPECIFICATIONS

Metric		ISO/JIS type		ASME/ANSI/AGD type	
Order No.	Range	Resolution	Accuracy*	Remarks	
543-570	12.7mm	0.01mm	0.02mm	Slim type ID-N	
543-580	5.0mm			Back plunger type ID-B	
543-575	12.7mm	0.01mm / 0.001mm	0.01mm / 0.003mm	Slim type ID-N	
543-585	5.0mm			Back plunger type ID-B	

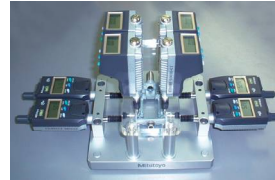
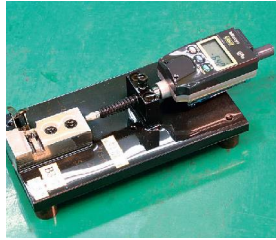
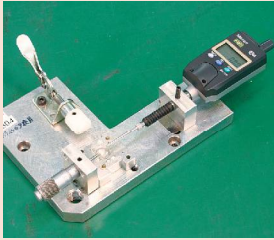
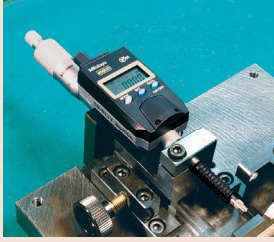
  

Inch/Metric		ISO/JIS type		ASME/ANSI/AGD type	
Order No.	Range	Resolution	Accuracy*	Remarks	
543-571	.5"	.0005", 0.01mm	.001"	Slim type ID-N	
543-581	.2"			Back plunger type ID-B	
543-576	.5"	0.01mm / 0.001mm .0005" / .00005"	.00012"	Slim type ID-N	
543-586	.2"			Back plunger type ID-B	

\*Quantizing error of ±1 count is excluded

Mitutoyo

## Usage examples

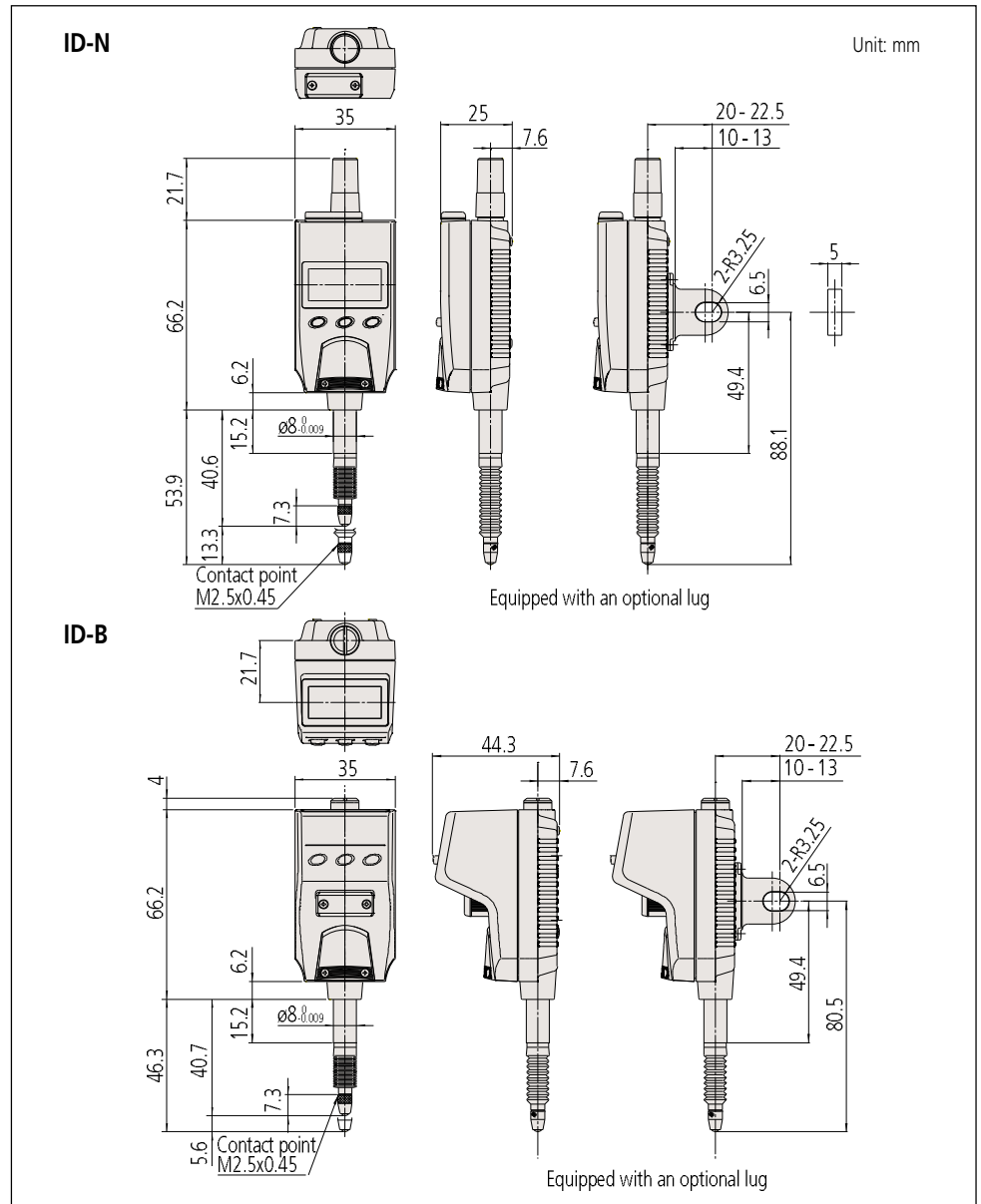


## DIMENSIONS



SPC cable

Bifurcated connecting cable with zero-setting terminal



Refer to the ABS Coolantproof Digimatic Indicator ID-N/ID-B brochure (E4302-543) for details.

Note 1: Dimensions of the inch (ANSI/AGD Type) dial indicator partly differ from those of the metric (ISO/JIS Type) indicator.

Note 2: Inch (ANSI/AGD Type) dial indicators are provided with a stem of 3/8" dia. and #4-48UNF thread mount for the contact point.