

# ABS Coolantproof Digimatic Indicator ID-N/ID-B

Catalog No. E4302-543



World's highest water / dust proof IP66 over a 35mm-wide slim body\*. New-generation digital indicator provided with multiple functions.

\*Smallest in body width among display built-in digital indicators as of research, 2005 according to our company's research.

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# Absolute Coolant Proof Digimatic Indicator ID-N/ID-B

World's highest waterproof/dustproof rating (IP66) combined with a 35mm wide body



Slim type ID-N

Back Plunger type ID-B

## 1. Proven ABS (absolute) sensor

Mitutoyo's unique ABS (Absolute) sensor restores the last origin position automatically when the indicator is turned on.



This allows quick-start operation, which is especially useful in multipoint measurement. Also, INC (Incremental) measurements

can be made from any arbitrary position at the touch of a button, with restoration to ABS measurement mode being just as easy.

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



This indicator can be used satisfactorily even in adverse environments where it is subject to splashing by cutting fluid and coolant. Oil-resistant materials are used for external parts such as switches.



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## 3. Slim body design is advantageous for multi-point measurements

Slim design extends the application range to multipoint measurement and allows fixture downsizing.



## 4. Improvement in workability with the LCD readout-rotation function

The LCD readout can be switched 180° to allow easy reading in multipoint measurement situations where space is restricted.



## 5. Back plunger design: ID-B

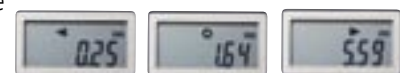


Mitutoyo has succeeded in digitalization of the back plunger type widely used for dial indicators. A 5mm-stroke plunger with a higher degree of accuracy has been implemented by adopting a direct reading scale for plunger displacement instead of the usual magnifying mechanism using gears.

## 6. Built-in tolerance judgment function

This 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.

If required, only the OK/NG judgment can be displayed and in this case the symbols are much larger.



Measuring value and tolerance judgement



Only tolerance judgement

## 7. Switchable resolution

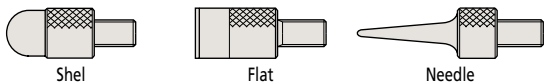
The 0.001mm (.00005") model can be switched to 0.01mm (.0005") resolution if required. Accuracy remains constant irrespective of the resolution setting.



## 8. Carbide contact points supplied as standard

Carbide contact points are standard on these indicators to provide outstanding durability. The full range of interchangeable Mitutoyo indicator contact points, spindle extension rods, etc., are also available to extend the range of application.

### Optional contact points



### Example:

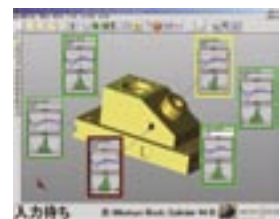


## 9. Waterproof data output connector

All models incorporate a data output connector that maintains the water resistance of the indicator. This output function enables you to develop an SPC measuring system based on the measurement data collected. The connector is provided with external zero-set and external preset recall terminals so you can not only perform zero-setting or preset recall remotely, but also batch zero-setting or preset recall for all indicators during multi-point measurement. This can improve measurement efficiency enormously.



264-504  
DP-1VR



MeasurLink

## 10. Built-in hold preset function

This function allows you to set a display value that has been held as a preset value. If a master workpiece is available, it is possible to set a preset value easily without entering it just by switch operation.



Full size



## SLIM BODY

Width: 35mm

Full size



Top Surface

Front panel

IP 66



• Staubdicht und wassergeschützt IP66

**ABSOLUTE**  
Absolute System Patented by MITUTOYO

Slim type  
ID-N

IP 66



• Staubdicht und wassergeschützt IP66

**ABSOLUTE**  
Absolute System Patented by MITUTOYO

Back plunger type  
ID-B

### Functions:

- Zero-setting function
- Presetting function
- Direction switching function
- Tolerance judgment function
- Data output function
- Display value hold function
- Low battery alarm function
- Error alarm function (display value overflow, tolerance setting error, sensor contamination error)

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## Specifications:

Model No.	ID-N	ID-B	ID-N	ID-B	ID-N	ID-B	ID-N	ID-B
Order No.	543-570	543-580	543-575	543-585	543-571	543-581	543-576	543-586
Measuring Range	12.7mm	5.08mm	12.7mm	5.08mm	12.7mm/.5"	5.08mm/.2"	12.7mm/.5"	5.08mm/.2"
Resolution	0.01mm		0.001mm/0.01mm		.0005"/0.01mm		.0005"/0.001mm	
Accuracy*1	0.002mm		0.003mm/0.01mm		0.02mm/.0008"		.0005"/0.01mm 0.001mm(.00012") 0.01mm(.0004")	
Stem	ø8mm				ø3/8" DIA (ø9.52mm)			
Contact point	Carbide (M2.5 x 0.45)				Carbide (#4-48UNF)			
Protection level	IP-66							
Measuring force	2.5N	2N	2.5N	2N	2.5N	2N	2.5N	2N
Plunger direction	Measures in both directions							
Power supply	SR44(938882) x 1pc							
Battery life	Approx. 7,000 hours in continuous use*2							
Scale	Electrostatic capacitance absolute linear encoder							
Quantizing error	1 count							
Operating temp.	0°C to 40°C							
Storage temp.	-10°C to 60°C							
Mass	130g							

\*1 : 20°C, excluding quantizing error

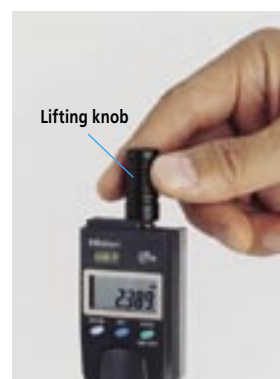
\*2 : The battery life is reduced when this instrument is connected to an external device (e.g. a counter).

## Optional accessories:

- **No. 21EZA105:** Lifting knob (for ISO/JIS model)
- **No. 21EZA150:** Lifting knob (for AGD model)
- **No. 21EZA145:** Lug (for JIS/ISO model)
- **No. 21EZA146:** Lug (for AGD model)
- **No. 02ACA376:** Rubber boot (for ID-N, NBR)
- **No. 238774:** Rubber boot (for ID-N, silicon)
- **No. 125317:** Rubber boot (for ID-B, NBR)
- **No. 21EAA212:** Rubber boot (for ID-B, silicon)
- **No. 21EAA194:** Connecting cable (1m)
- **No. 21EAA190:** Connecting cable (2m)
- **No. 21EAA210:** Bifurcated connecting cable with zero-setting terminal (1m)
- **No. 21EAA211:** Bifurcated connecting cable with zero-setting terminal (2m)

## Standard accessories:

- User's manual
- Power supply: SR44 (938882) x 1pc
- Screwdriver (05CZA619)



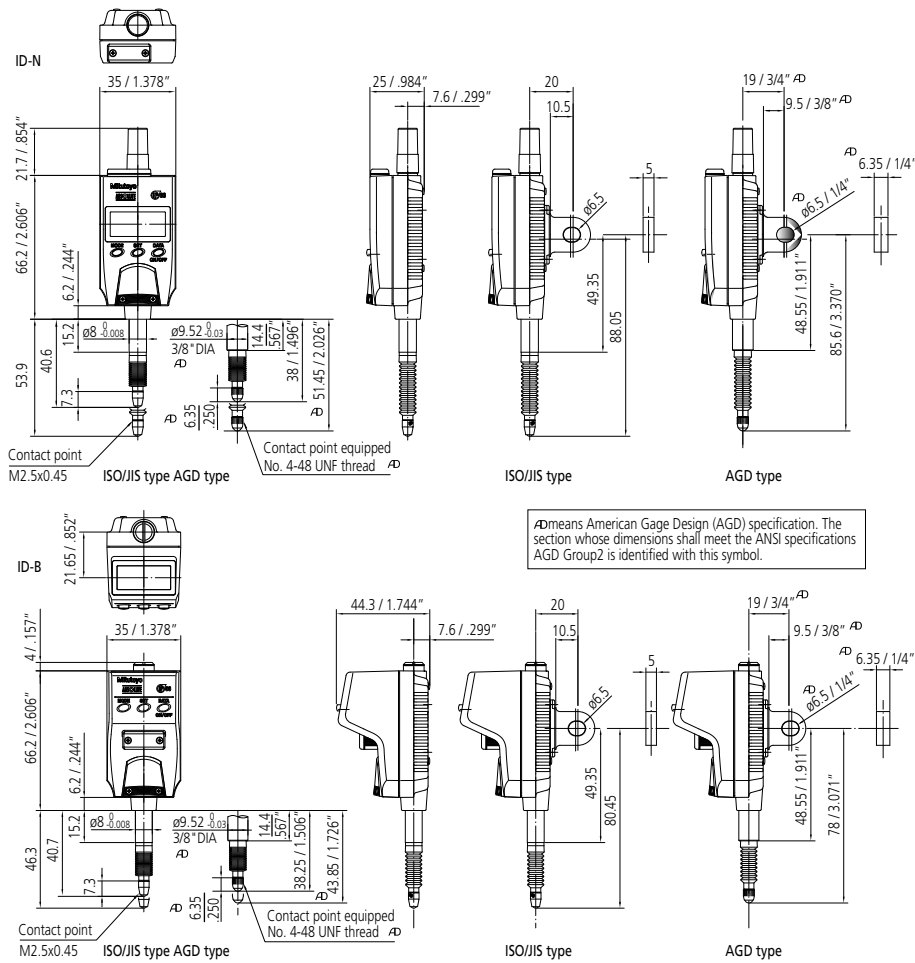
Bifurcated connecting cable with zero-setting terminal

Lug

Connecting cable

Rubber boot

## Dimensions:



- Coordinate Measuring Machines
- Vision Measuring Systems
- Form Measurement
- Optical Measuring
- Sensor Systems
- Test Equipment and Seismometer
- Digital Scale and DRO Systems
- Small Tool Instruments and Data Management

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