

ABS Coolant-proof Digimatic Indicator **ID-N/ID-B**

World's highest water/dust proof IP66. A 35mm wide slim body* design offers multipoint measurement.

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



IP66

ABSOLUTE™



- Staubdicht und wassergeschützt IP66

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

World's highest water-proof/dust-proof rating (IP66) combined with a 35mm body width



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.



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.



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.



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.



0.01mm

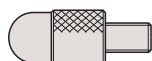


0.001mm

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



Shell



Flat



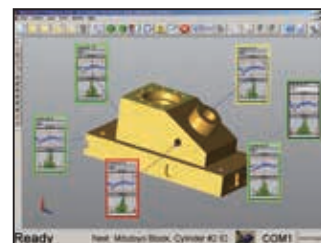
Needle

9. Water-proof 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

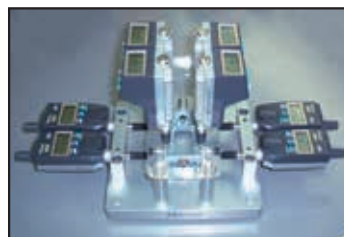
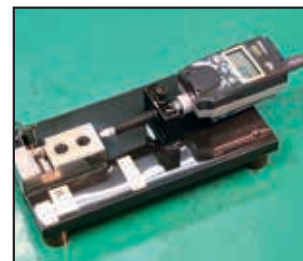


MeasurLink

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.

Example:



Full size



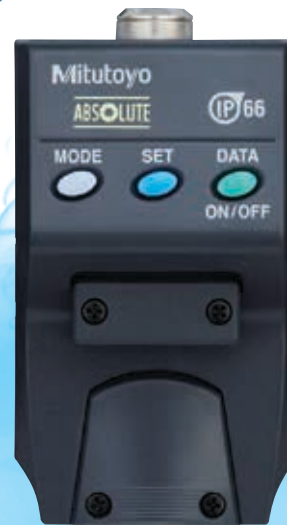
Full size



Top Surface

SLIM BODY

Width: 35mm



Front panel

IP66



• Staubdicht und wassergeschützt IP66

ABSOLUTE™

Slim type
ID-N

IP66



• Staubdicht und wassergeschützt IP66

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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)

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 | .5"(12.7mm) | .2"(5.08mm) | 5"(12.7mm) | .2"(5.08mm) |
| Resolution | 0.01mm | | 0.001mm/0.01mm | | .0005"/0.01mm | | .00005"/.0005" 0.001mm/0.01mm | |
| Accuracy*1 | 0.02mm | | 0.003mm/0.01mm | | .0008"/0.02mm | | .00012"/.0004" 0.003mm/0.01mm | |
| Stem | ø8mm | | | | 3/8" 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 | | | | | | | |
| Battery | 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).

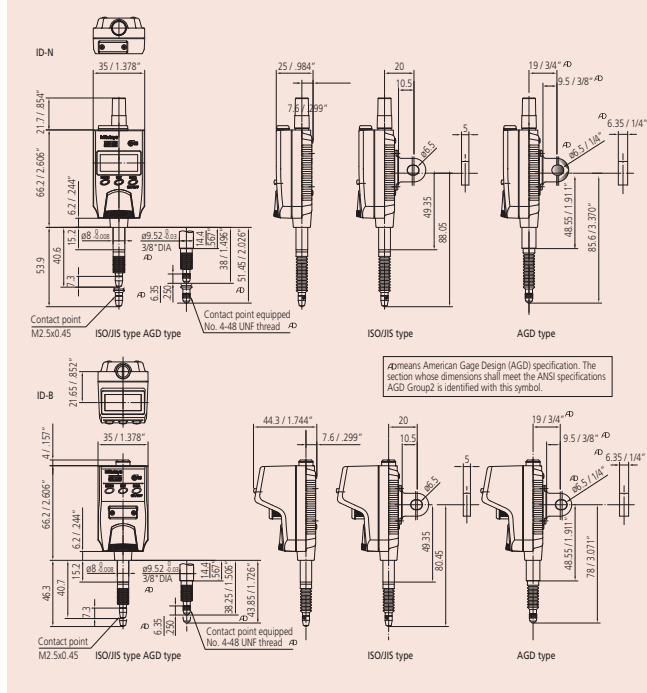
Optional accessories:

- **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)

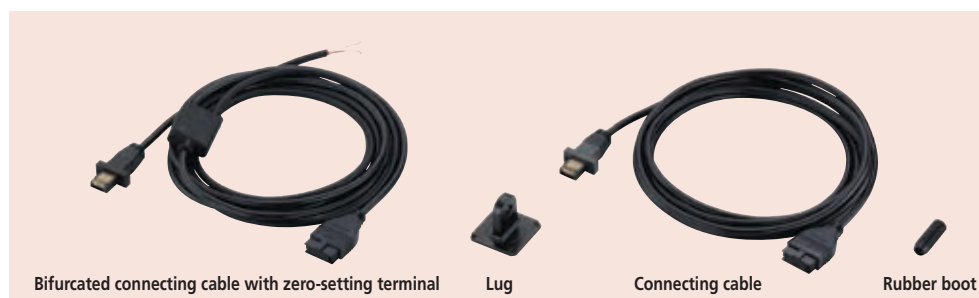
Standard accessories:

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

Dimensions:



Specifications are subject to change without notice.





Whatever your challenges are, Mitutoyo supports you from start to finish.

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver bespoke measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.

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