

# Digimatic Indicators

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

## ABSOLUTE Solar-Powered Digimatic Indicator ID-SS SERIES 543

- Solar powered, this series consists of environmentally friendly measuring instruments that do not require batteries, eliminating the need for battery replacement. Their minimum operating luminance is 40 lux (lx), lower than that inside a warehouse.
- The large-capacity built-in reservoir capacitor allows you to use the indicator for long periods of time under lighting conditions below the minimum level.
- All functions can be accessed by using the two or three large buttons on the front of the indicator.
- Origin recorded even if display disappears. The indicator includes an ABS (absolute) scale that allows the previously set origin to be restored even if the display disappears due to insufficient lighting, making it easy to resume measurement. This feature makes ID-SS ideal for long-time or multi-point measurement.
- Three types of accessories (optional) are available to enable spindle lifting in various measurement settings.
- Equipped with a data output port that enables incorporation into measurement networking and statistical process control systems. (Refer to page A-3)

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



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**ABSOLUTE<sup>™</sup>**



Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

An inspection certificate is supplied as standard. Refer to page U-11 for details.

### Technical Data

- Display: 6-digit LCD, sign
- Usable orientations: All
- Power supply: Solar battery (for indoor use)
- Minimum Operating illumination: 40 lux (lx)
- Note: Rechargeable; can be used for approximately 3.5 hours when fully charged. Charging time is approximately 1.5 hours under 500 lux (lx) lighting conditions.
- Maximum response speed: No limit (scan-type measurement is not supported)

### Functions

- Origin set (Zero-setting)
- Direction switching
- Data output
- Error alarm display

## SPECIFICATIONS

Metric			ISO/JIS type			ASME/ANSI/AGD type			
Order No.	Range (mm)	Resolution (mm)	Maximum permissible error*1 (mm)			Measuring force MPL (N)	Back type	Net mass (g)	
			MPE <sub>E</sub> *2	Hysteresis MPE <sub>H</sub>	Repeatability MPE <sub>R</sub>				
543-500	12.7	0.001	0.003	0.002	0.002	1.5 or less	With lug	150	
543-500B							Flat	140	
543-505		0.01	0.02	0.02	0.01		With lug	150	
543-505B							Flat	140	
Inch / Metric									
Order No.	Range	Resolution	Maximum permissible error*1			Measuring force MPL (N)	Back type	Net mass (g)	
			MPE <sub>E</sub> *2	Hysteresis MPE <sub>H</sub>	Repeatability MPE <sub>R</sub>				
543-501	0.5 in/12.7 mm	0.00005 in / 0.001 mm	±0.0001 in / 0.003 mm	0.0001 in / 0.002 mm	0.0001 in / 0.002 mm	1.5 or less	With lug	150	
543-501B							Flat	140	
543-502							With lug	165	
543-502B							Flat	140	
543-506		0.0005 in / 0.01 mm	±0.0010 in / 0.02 mm	0.0010 in / 0.02 mm	0.0005 in / 0.01 mm		With lug	150	
543-506B							Flat	140	
543-507							With lug	165	
543-507B							Flat	140	

\*1 These values apply at 20 °C.

\*2 Error of indication for the total measuring range

Note: Regarding origin setting, refer to "Origin Setting of Digimatic Indicators" on page F-25.

## Optional Accessories

Lifting lever

Lifting knob



Lifting cable



- Lifting
    - Lifting lever **21EZA198** (ISO/JIS Type),  
**21EZA199** (ASME/ANSI/AGD Type)
    - Lifting knob **21EZA105** (ISO/JIS Type),  
**21EZA150** (ASME/ANSI/AGD Type)
    - Lifting cable **21JZA295**
  - SPC Cable:
    - 905338** (1 m)
    - 905409** (2 m)
    - (Refer to pages A-27 to A-29 for details.)
  - USB Input Tool Direct (2 m): **06AFM380F**
- Note: Please separately purchase **USB-ITPAK** since there is no data output switch on the measurement instrument. Refer to pages A-13, A-22 to A-24 for details.
- 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):  
**02AZD790F**
  - For foot switch: **02AZE140F**
  - (Refer to pages A-19 to A-21 for details.)
  - Digimatic Mini-Processor **DP-1VA LOGGER: 264-505**
  - Contact points for Mitutoyo's dial indicators  
(Refer to pages F-57 to F-60 for details.)
  - Interchangeable backs for 2 series  
(Refer to page F-61 for details.)
  - Measuring stands  
(Refer to pages F-84 to F-91 for details.)
  - **ID-SS** can be used in standard work environments.  
The following is excerpted from JIS Z9110: 2010 General rules of recommended lighting levels; 5.4 Factories:

Luminance (lux)	Settings and procedures
1500	Very detailed visual work
750	Detailed visual work; design and drawing work
500	Regular visual work such as work carried out in a factory; monitoring work such as using instrument panels and control panels
300	Administrative work carried out in a warehouse
200	Control rooms, bathrooms, and places where manual light work is carried out
150	Work such as loading, unloading, and shifting loads
100	Hallways, corridors, entrances and exits, and warehouses
50	Indoor emergency staircases

## Dimensions

