

Functions

- Signal output (-NG/OK/+NG, N-ch open drain, logical invert is available)
- Remote control (peak start preset/zero-set)
- Peak detection (MAX/MIN)
- Runout range measurement (MAX - MIN)
- Zero-setting (INC system)
- Presetting (ABS system)
- Measuring direction switching
- Tolerance judgment (3 pairs of ABS, INC memory function)
- Resolution switching
- Simple calculation: $f(x) = Ax$
- Key lock
- Calibration mode (Signal output in Digimatic code format)
- Error alarm display

Optional Accessories

- Lifting*
Lifting lever **21EZA198**
Lifting knob **21EZA105**
- * Dust-water protection is not guaranteed.
- Digimatic power supply unit: **21EZA345A**
Used in the calibration mode when executing automatic inspection using i-Checker **IC2000**.
In such a case, purchase connection cable **21EAA194** (1 m), or **21EAA190** (2 m).
Note: It can't be used as a power source when using in the normal mode.
- Contact points for Mitutoyo's Digimatic indicators (optional)
Refer to pages F-63 to F-68 for details.
- Interchangeable back covers (optional)
Refer to pages F-69 to F-70 for details.

Output signals and display

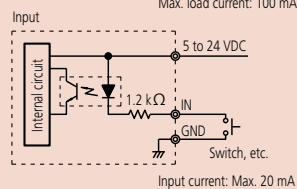
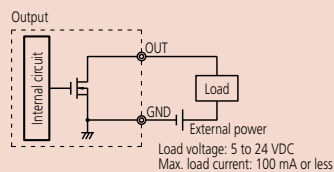
| Wire | - NG | OK | + NG | ABS data composition error |
|---------------|------|-------|------|----------------------------|
| Orange (- NG) | Low | High | High | High |
| Green (OK) | High | Low | High | High |
| Brown (+ NG) | High | High | Low | High |
| LED | Red | Green | Red | Red flashing |
| Display | ◀ | ○ | ▶ | "x.xxE" indication |

Note: Logical invert is available.

I/O Specifications

| Wire | Signal | I/O | Description |
|--------|--------------------|-----|---|
| Black | - V (GND) | — | Connected to minus (-) terminal |
| Red | + V | — | Power supply (5 to 24 VDC) |
| Orange | - NG | 0 | Tolerance judgment result output: Only the terminal corresponding to a judgment result is set to the low level. |
| Green | OK | 0 | |
| Brown | + NG | 0 | |
| Yellow | PRESET/RECALL ZERO | I | External input terminal: If the relevant terminal is set to the low level, its signal becomes true. |
| Blue | PEAK_START | I | |
| Shield | FG | — | Connected to GND (Earth) |

Note: Measurement data cannot be output.



ABSOLUTE Digimatic Indicator ID-CJX SERIES 543 — Signal Output Function Type

- Powered by external devices / machines.
See optional accessories for Mitutoyo power supply options.
- Enables the Go/No-go judgment result to be output to external equipment. Output is enabled by directly connecting to an external device such as a sequencer, contributing to automation of measurement processes. It also supports logical invert of signal output.
- The Go/No-go judgment result is also indicated by the green/red LED and the signs on display.
- A peak detection function is equipped for measuring and judging peak values such as MAX, MIN, or Runout.
- 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.

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



543-350-10

SPECIFICATIONS

Inch / Metric ASME/ANSI /AGD type

| Order No. | Range | Resolution | Accuracy (in) | Hysteresis | Repeatability | Measuring force (N) | Mass (g) |
|-------------------------|------------------|--|---------------|------------|---------------|---------------------|----------|
| 543-352-10 | 0.5 in / 12.7 mm | 0.00005 / 0.0001 / 0.0005 in, 0.001 / 0.01 mm (selectable) | ±0.00010 | 0.00010 | 0.00010 | 2.5 or less | 295 |
| 543-352B-10 (flat back) | | 285 | | | | | |

Inch / Metric ISO/JIS Type

| Order No. | Range | Resolution | Accuracy (mm) | Hysteresis H_{MPE} | Repeatability R_{MPE} | Measuring force (N) | Mass (g) |
|-------------------------|------------------|--|---------------|----------------------|-------------------------|---------------------|----------|
| 543-351-10 | 0.5 in / 12.7 mm | 0.00005 / 0.0001 / 0.0005 in, 0.001 / 0.01 mm (selectable) | 0.003 | 0.003 | 0.002 | 2.5 or less | 295 |
| 543-351B-10 (flat back) | | 285 | | | | | |

Metric ISO/JIS Type

| Order No. | Range (mm) | Resolution (mm) | Accuracy (mm) | Hysteresis H_{MPE} | Repeatability R_{MPE} | Measuring force (N) | Mass (g) |
|-------------------------|------------|---------------------------|---------------|----------------------|-------------------------|---------------------|----------|
| 543-350-10 | 12.7 | 0.001 / 0.01 (selectable) | 0.003 | 0.003 | 0.002 | 2.5 or less | 295 |
| 543-350B-10 (flat back) | | | | | | | 285 |

Note 1: Display readout does not rotate.

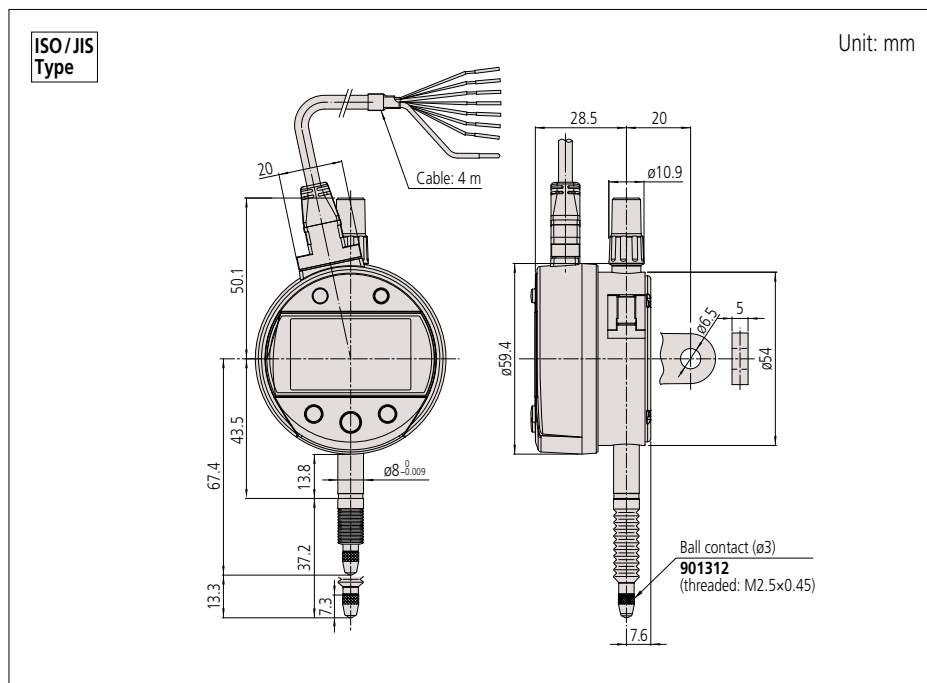
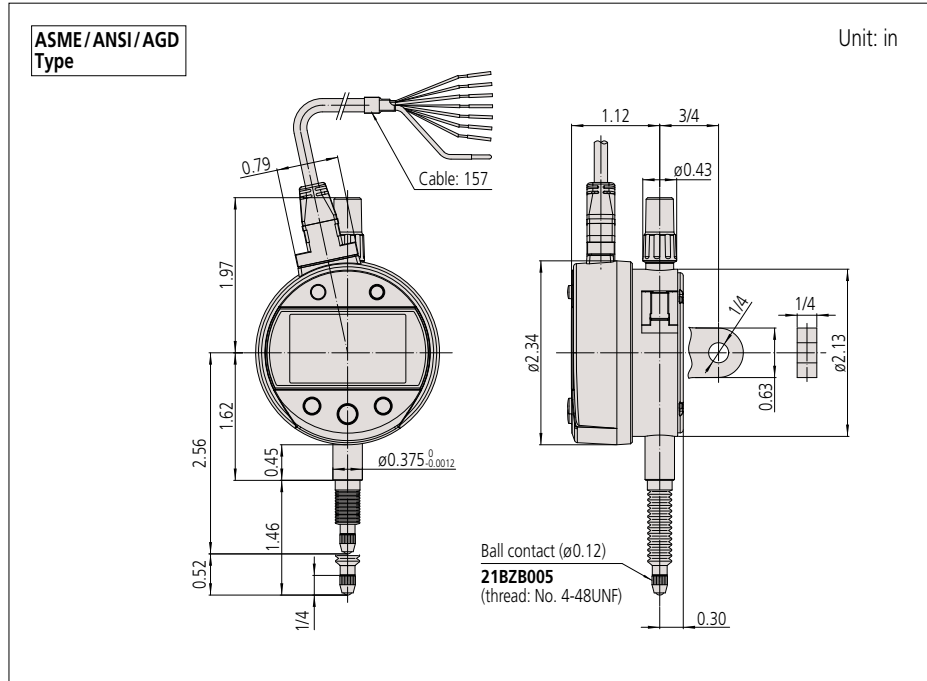
Note 2: MAX/MIN holding: sample rate is 100 readings/s; max. rate of change of reading is 100 μ m/s or less.

Note 3: Standard contact point: **901312** (ISO/JIS type), **21BZB005** (ANSI/AGD type)

Indicators

ABSOLUTE Digimatic Indicator ID-CJX SERIES 543 — Signal Output Function Type

DIMENSIONS



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