

## DIGIMATIC INDICATORS ID-C Series

For Calculation, Peak-Value Hold and Bore Gage Applications

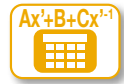


# Digimatic Indicators For Calculation Applications

## FEATURES



- Calculation function operates on spindle displacement.
- Entering the appropriate formula factors for a fixture dedicated to the application enables direct measurement readout, thereby eliminating the need for conversion tables previously needed for those applications where fixtures are typically used.
- Peak-Value TIR/MAX/MIN Hold enables GO/±NG judgment for peak value.
- Simple operation of many functions using five buttons and status icons.
- Wide LCD and new analog bar graph are now standard on all models.
- Performs sampling at 50 times per second and detects peak value more correctly.



# Digimatic Indicators For Peak-Value Hold Applications

## FEATURES



- Peak-Value TIR/MAX/MIN Hold enables GO/±NG judgment for peak value.
  - Simple operation of many functions using five buttons and status icons.
  - Wide LCD and new analog bar graph are now standard on all models.
- Performs sampling at 50 times per second and detects peak value more correctly.

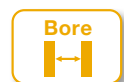


# Digimatic Indicators For Bore Gage Applications

## FEATURES



- Dedicated for inside measurement with minimum value hold and tolerance judgment function.
- Measurement data memory function (9 measurement results can be stored)
- Simple operation of many functions using five buttons and status icons.
- Wide LCD and new analog bar graph are now standard on all models.
- Performs sampling at 50 times per second and detects peak value more correctly.



## SPECIFICATIONS

| Type/Model<br>Order No.                  | Calculation   |                     |                         |          |                     |                         |          |                     |                         |  |
|--|---|---------------------|-------------------------|----------|---------------------|-------------------------|----------|---------------------|-------------------------|--|
|  | 543-340B  | 543-341B            | 543-342B                | 543-590B | 543-591B            | 543-592B                | 543-595B | 543-596B            | 543-597B                |  |
| Measuring range                          | 12.7 mm   | 5° = 12.7 mm        |                         | 25.4 mm  | 1° = 25.4 mm        |                         | 50.8 mm  | 2° = 50.8 mm        |                         |  |
| Magnification and linearity (overall) *1 | 0.003 mm  | ±.00010" / 0.003 mm |                         | 0.003 mm | ±.00010" / 0.003 mm |                         | 0.006 mm | ±.00025" / 0.006 mm |                         |  |
| Hysteresis *1                            | 0.002 mm  | .00010" / 0.002 mm  |                         | 0.002 mm | .00010" / 0.002 mm  |                         | 0.002 mm | .00010" / 0.002 mm  |                         |  |
| Repeatability *1                         | 0.002 mm  | .00010" / 0.002 mm  |                         | 0.002 mm | .00010" / 0.002 mm  |                         | 0.002 mm | .00010" / 0.002 mm  |                         |  |
| Stem diameter                            | ø8mm  |                     | ø9.52mm=.375"(3/8") DIA | ø8mm     |                     | ø9.52mm=.375"(3/8") DIA | ø8mm     |                     | ø9.52mm=.375"(3/8") DIA |  |
| Display rotate                           | 330°  |                     |                         |          |                     |                         |          |                     |                         |  |
| Resolution (selectable)                  | 12 steps  |                     |                         |          |                     |                         |          |                     |                         |  |
| Analog bar display                       | ±20 scales  |                     |                         |          |                     |                         |          |                     |                         |  |
| Functions                                | Three Preset values (P1, P2 and P3) can be set and stored.                      |                     |                         |          |                     |                         |          |                     |                         |  |
| Preset                                   | Four sets of upper and lower limits (P1, P2, P3 and INC) can be set and stored. |                     |                         |          |                     |                         |          |                     |                         |  |
| Tolerance judgment                       | TIR, Max, Min   |                     |                         |          |                     |                         |          |                     |                         |  |
| Peak detection                           | Displayed value = Ax'+B+Cx'' (x' = plunger displacement + offset)               |                     |                         |          |                     |                         |          |                     |                         |  |
| Calculation                              | Display value HOLD  |                     |                         |          |                     |                         |          |                     |                         |  |
| Others                                   | Digimatic   |                     |                         |          |                     |                         |          |                     |                         |  |
| Data output                              | Yes   |                     |                         |          |                     |                         |          |                     |                         |  |
| Input from PC (Dedicated I/F)            | Yes   |                     |                         |          |                     |                         |          |                     |                         |  |
| Key lock (set from instrument or PC)     | Yes   |                     |                         |          |                     |                         |          |                     |                         |  |
| Parameter lock (set from PC)             | Yes   |                     |                         |          |                     |                         |          |                     |                         |  |
| Detection method                         | Capacitance-type absolute-linear-encoder  |                     |                         |          |                     |                         |          |                     |                         |  |
| Response speed                           | infinite  |                     |                         |          |                     |                         |          |                     |                         |  |
| Measurement frequency                    | Normal mode   |                     | 10 times/sec            |          |                     |                         |          |                     | FAST mode OFF           |  |
|  | Peak detection mode   |                     | 50 times/sec            |          |                     |                         |          |                     | FAST mode ON            |  |
| Power supply                             | CR2032 x 1 pc.  |                     |                         |          |                     |                         |          |                     |                         |  |
| Battery life (normal use) *2             | Approx. 1 year  |                     |                         |          |                     |                         |          |                     |                         |  |
| Type of back                             | Flat  |                     |                         |          |                     |                         |          |                     |                         |  |
| Net weight                               | 170 g   |                     |                         | 190 g    |                     |                         | 260 g    |                     |                         |  |

\*1 Does not include quantizing error (±1 count). Valid for resolution set to 0.001mm/.00005" and coefficients A=1, B=0 and C=0.

\*2 When data processors are not connected. Battery life depends on use of the indicator. Use the above value as a guide only. (TIP) Battery life with Peak detection mode and FAST mode ON is about 10 months.

## SPECIFICATIONS

| Type/Model<br>Order No.                  | Peak-value hold   |          |                                      |          |          |          |
|--|---|----------|--------------------------------------|----------|----------|----------|
|  | 543-300   | 543-300B | 543-301                              | 543-301B | 543-302  | 543-302B |
| Measuring range                          | 12.7 mm   |          | 5° = 12.7 mm                         |          |          |          |
| Magnification and linearity (overall) *1 | 0.003 mm  |          | ±.00010" / 0.003 mm                  |          |          |          |
| Hysteresis *1                            | 0.002 mm  |          | .00010" / 0.002 mm                   |          |          |          |
| Repeatability *1                         | 0.002 mm  |          | .00010" / 0.002 mm                   |          |          |          |
| Stem diameter                            | ø8mm  |          | ø9.52mm=.375"(3/8") DIA              |          |          |          |
| Display rotate                           | 330°  |          |                                      |          |          |          |
| Resolution                               | 0.001/0.01 mm   |          | .00005/.0001/.0005" // 0.001/0.01 mm |          |          |          |
| Analog bar display                       | ±20 scales  |          |                                      |          |          |          |
| Functions                                | Three Preset values (P1, P2 and P3) can be set and stored.                      |          |                                      |          |          |          |
| Preset                                   | Four sets of upper and lower limits (P1, P2, P3 and INC) can be set and stored. |          |                                      |          |          |          |
| Tolerance judgment                       | TIR, Max, Min   |          |                                      |          |          |          |
| Peak detection                           | Ax  |          |                                      |          |          |          |
| Calculation                              | Display value HOLD  |          |                                      |          |          |          |
| Others                                   | Digimatic   |          |                                      |          |          |          |
| Data output                              | Yes   |          |                                      |          |          |          |
| Input from PC (Dedicated I/F)            | Yes   |          |                                      |          |          |          |
| Key lock (set from instrument or PC)     | Yes   |          |                                      |          |          |          |
| Parameter lock (set from PC)             | Yes   |          |                                      |          |          |          |
| Detection method                         | Capacitance-type absolute-linear-encoder  |          |                                      |          |          |          |
| Response speed                           | infinite  |          |                                      |          |          |          |
| Measurement frequency                    | Normal mode   |          | 10 times/sec                         |          |          |          |
|  | Peak detection mode   |          | 50 times/sec                         |          |          |          |
|  | FAST mode OFF   |          | FAST mode ON                         |          |          |          |
| Power supply                             | CR2032 x 1 pc.  |          |                                      |          |          |          |
| Battery life (normal use) *2             | Approx. 1 year  |          |                                      |          |          |          |
| Type of back                             | With lug  | Flat     | With lug                             | Flat     | With lug | Flat     |
| Net weight                               | 180 g   | 170 g    | 180 g                                | 170 g    | 195 g    | 170 g    |

\*1 Does not include quantizing error (±1 count). Valid for resolution set to 0.001mm/.00005" and coefficient A=1.

\*2 When data processors are not connected. Battery life depends on use of the indicator. Use the above value as a guide only. (TIP) Battery life with Peak detection mode and FAST mode ON is about 4.5 months.

## SPECIFICATIONS

| Type/Model<br>Order No.                  | Bore gage   |          |              |
|--|---|----------|--------------|
|  | 543-310B  | 543-311B | 543-312B     |
| Measuring range                          | 12.7 mm   |          |              |
| Magnification and linearity (overall) *1 | 0.003 mm  |          |              |
| Hysteresis *1                            | 0.002 mm  |          |              |
| Repeatability *1                         | 0.002 mm  |          |              |
| Stem diameter                            | ø8mm  |          |              |
| Display rotate                           | 330°  |          |              |
| Resolution                               | 0.001/0.01 mm   |          |              |
| Analog bar display                       | ±20 scales  |          |              |
| Functions                                | Three Preset values (P1, P2 and P3) can be set and stored.                        |          |              |
| Preset                                   | Three sets of upper and lower limits (P1, P2 and P3) can be set and stored.       |          |              |
| Tolerance judgment                       | Min   |          |              |
| Peak detection                           | —   |          |              |
| Calculation                              | Measurement data memory (9 measurement results can be stored), Display value HOLD |          |              |
| Others                                   | Digimatic   |          |              |
| Data output                              | Yes   |          |              |
| Input from PC (Dedicated I/F)            | Yes   |          |              |
| Key lock (set from instrument or PC)     | Yes   |          |              |
| Parameter lock (set from PC)             | Yes   |          |              |
| Detection method                         | Capacitance-type absolute-linear-encoder  |          |              |
| Response speed                           | infinite  |          |              |
| Measurement frequency                    | Normal mode   |          | 10 times/sec |
|  | Peak detection mode   |          | 50 times/sec |
|  | FAST mode OFF   |          | FAST mode ON |
| Power supply                             | CR2032 x 1 pc.  |          |              |
| Battery life (normal use) *2             | Approx. 1 year  |          |              |
| Type of back                             | Flat  |          |              |
| Net weight                               | 170 g   |          |              |

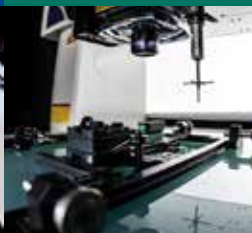
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\*2 When data processors are not connected. Battery life depends on use of the indicator. Use the above value as a guide only. (TIP) Battery life with Peak detection mode and FAST mode ON is about 4.5 months.

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