

# Mitutoyo



Mitutoyo Corporation  
80th Anniversary  
Since 1934

## DIGIMATIC INDICATORS ID-C Series

For Calculation, Peak-Value Hold and Bore Gage Applications

SMALL TOOL INSTRUMENTS  
AND DATA MANAGEMENT



Catalog No.E12025(2)

## 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 any need for the conversion tables previously needed for those applications where fixtures are typically used.
- Peak-Value TIR/MAX/MIN Hold enables GO/±NG judgement for peak value.
- Simple operation of many functions with five buttons and status icons.
- Wide LCD and new analog bar graph are now standard on all models.
- It performs sampling in fifty times per second and it enables to detect peak value more correctly.



### SPECIFICATIONS

Type/Model											
Order No.											
Measuring range											
Magnification and linearity (overall) *1											
Hysteresis *1											
Repeatability *1											
Stem diameter											
Display rotate											
Resolution (selectable)											
Analog bar display											
Functions	<table border="1"> <tr><td>Preset</td><td></td></tr> <tr><td>Tolerance judgment</td><td></td></tr> <tr><td>Peak detection</td><td></td></tr> <tr><td>Calculation</td><td></td></tr> <tr><td>Others</td><td></td></tr> </table>	Preset		Tolerance judgment		Peak detection		Calculation		Others	
Preset											
Tolerance judgment											
Peak detection											
Calculation											
Others											
Data output											
Input from PC (Dedicated I/F)											
Key lock (set from instrument or PC)											
Parameter lock (set from PC)											
Detection method											
Response speed											
Measurement frequency	<table border="1"> <tr><td>Normal mode</td><td></td></tr> <tr><td>Peak detection mode</td><td></td></tr> <tr><td>FAST mode OFF</td><td></td></tr> <tr><td>FAST mode ON</td><td></td></tr> </table>	Normal mode		Peak detection mode		FAST mode OFF		FAST mode ON			
Normal mode											
Peak detection mode											
FAST mode OFF											
FAST mode ON											
Power supply											
Battery life (normal use) *2											
Type of back											
Net weight											

## Digimatic Indicators For Peak-Value Hold Applications

### FEATURES

- Peak-Value TIR/MAX/MIN Hold enables GO/±NG judgement for peak value.
- Simple operation of many functions with five buttons and status icons.
- Wide LCD and new analog bar graph are now standard on all models.
- It performs sampling in fifty times per second and it enables to detect peak value more correctly.



### SPECIFICATIONS

Type/Model											
Order No.											
Measuring range											
Magnification and linearity (overall) *1											
Hysteresis *1											
Repeatability *1											
Stem diameter											
Display rotate											
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Normal mode											
Peak detection mode											
FAST mode OFF											
FAST mode ON											
Power supply											
Battery life (normal use) *2											
Type of back											
Net weight											

## Digimatic Indicators For Bore Gage Applications

### FEATURES

- Dedicated for inside measurement with minimum value hold and tolerance judgement function.
- Measurement data memory function (9 measurement results can be stored)
- Simple operation of many functions with five buttons and status icons.
- Wide LCD and new analog bar graph are now standard on all models.
- It performs sampling in fifty times per second and it enables to detect peak value more correctly.



### SPECIFICATIONS

Type/Model											
Order No.											
Measuring range											
Magnification and linearity (overall) *1											
Hysteresis *1											
Repeatability *1											
Stem diameter											
Display rotate											
Resolution											
Analog bar display											
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Normal mode											
Peak detection mode											
FAST mode OFF											
FAST mode ON											
Power supply											
Battery life (normal use) *2											
Type of back											
Net weight											

Calculation									
543-340B	543-341B	543-342B	543-590B	543-591B	543-592B	543-595B	543-596B	543-597B	
12.7 mm	.5" = 12.7 mm		25.4 mm	1" = 25.4 mm		50.8 mm	2" = 50.8 mm		
0.003 mm	±.00010" / 0.003 mm		0.003 mm	±.00010" / 0.003 mm		0.006 mm	±.00025" / 0.006 mm		
0.002 mm	.00010" / 0.002 mm		0.002 mm	.00010" / 0.002 mm		0.002 mm	.00010" / 0.002 mm		
0.002 mm	.00010" / 0.002 mm		0.002 mm	.00010" / 0.002 mm		0.002 mm	.00010" / 0.002 mm		
ø8mm		ø9.52mm=.375"(3/8") DIA		ø8mm		ø9.52mm=.375"(3/8") DIA		ø8mm	
330°									
12 steps									
±20 scales									
Three Preset values (P1, P2 and P3) can be set and stored.									
Four sets of upper and lower limits (P1, P2, P3 and INC) can be set and stored.									
TIR, Max, Min									
Displayed value = Ax'+B+Cx <sup>-1</sup> (x' = plunger displacement + offset)									
Display value HOLD									
Digimatic									
Yes									
Yes									
Yes									
Capacitance-type absolute-linear-encoder									
infinite									
10 times/sec									
50 times/sec									
CR2032 x 1 pc.									
Approx. 1 year									
Flat									
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.

Peak-value hold						
543-300	543-300B	543-301	543-301B	543-302	543-302B	
12.7 mm			.5" = 12.7 mm			
0.003 mm			±.00010" / 0.003 mm			
0.002 mm			.00010" / 0.002 mm			
0.002 mm			.00010" / 0.002 mm			
		ø8mm		ø9.52mm=.375"(3/8") DIA		
0.001/0.01 mm		330°		.00005/.0001/.0005" // 0.001/0.01 mm		
±20 scales						
Three Preset values (P1, P2 and P3) can be set and stored.						
Four sets of upper and lower limits (P1, P2, P3 and INC) can be set and stored.						
TIR, Max, Min						
Ax						
Display value HOLD						
Digimatic						
Yes						
Yes						
Yes						
Capacitance-type absolute-linear-encoder						
infinite						
10 times/sec						
50 times/sec						
CR2032 x 1 pc.						
Approx. 1 year						
With lug 180 g		Flat 170 g		With lug 195 g		Flat 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.

Bore gage		
543-310B	543-311B	543-312B
12.7 mm	.5" = 12.7 mm	
0.003 mm	±.00010" / 0.003 mm	
0.002 mm	.00010" / 0.002 mm	
0.002 mm	.00010" / 0.002 mm	
ø8mm		ø9.52mm=.375"(3/8") DIA
0.001/0.01 mm		.00005/.0001/.0005" // 0.001/0.01 mm
330°		
±20 scales		
Three Preset values (P1, P2 and P3) can be set and stored.		
Three sets of upper and lower limits (P1, P2 and P3) can be set and stored.		
Min		
—		
Measurement data memory (9 measurement results can be stored), Display value HOLD		
Digimatic		
Yes		
Yes		
Yes		
Capacitance-type absolute-linear-encoder		
infinite		
10 times/sec		
50 times/sec		
CR2032 x 1 pc.		
Approx. 1 year		
Flat		
170 g		

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

\*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.

Coordinate Measuring Machines



Vision Measuring Systems



Form Measurement



Optical Measuring



Sensor Systems

Test Equipment  
and Seismometers

Digital Scale and DRO Systems

Small Tool Instruments  
and Date Management

## 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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