

Mitutoyo

DIGIMATIC INDICATORS ID-C Series

For Calculation, Peak-Value Hold and Bore Gage Applications

SMALL TOOL INSTRUMENTS
AND DATA MANAGEMENT



1.888.610.7664



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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.



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SPECIFICATIONS

Type/Model		Calculation							
Order No.	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	Preset				Three Preset values (P1, P2 and P3) can be set and stored.				
Tolerance judgment					Four sets of upper and lower limits (P1, P2, P3 and INC) can be set and stored.				
Peak detection					TIR, Max, Min				
Calculation					Displayed value = Ax'+B+Cx ⁻¹ (x = plunger displacement + offset)				
Others					Display value HOLD				
Data output					Digital				
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	Normal mode								
frequency	Peak detection mode	FAST mode OFF							
Power supply		FAST mode ON							
Battery life (normal use) *2									
Type of back									
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		Peak-value hold						
Order No.	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/.0001/0.0005" // 0.001/0.01 mm				
Analog bar display				±20 scales				
Functions	Preset			Three Preset values (P1, P2 and P3) can be set and stored.				
Tolerance judgment				Four sets of upper and lower limits (P1, P2, P3 and INC) can be set and stored.				
Peak detection				TIR, Max, Min				
Calculation				Ax				
Others				Display value HOLD				
Data output				Digital				
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	Normal mode				10 times/sec			
frequency	Peak detection mode	FAST mode OFF			50 times/sec			
Power supply		FAST mode ON			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		Bore gage						
Order No.	543-310B	543-311B	543-312B					
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/.0001/0.0005" // 0.001/0.01 mm						
Analog bar display		±20 scales						
Functions	Preset	Three Preset values (P1, P2 and P3) can be set and stored.						
Tolerance judgment		Three sets of upper and lower limits (P1, P2 and P3) can be set and stored.						
Peak detection		Min						
Calculation		—						
Others		Measurement data memory (9 measurement results can be stored), Display value HOLD						
Data output		Digital						
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	Normal mode			10 times/sec				
frequency	Peak detection mode	FAST mode OFF		50 times/sec				
Power supply		FAST mode ON		CR2032 x 1 pc.				
Battery life (normal use) *2				Approx. 1 year				
Type of back				Flat				
Net weight				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.



**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 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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