Mitutoyo

DIGIMATIC INDICATORS
ID-C Series

For Calculation, Peak-Value Hold and Bore Gage Applications

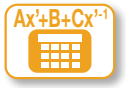
SMALL TOOL INSTRUMENTS
AND DATA MANAGEMENT

Bulletin No. 2179

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	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	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			
Resolution			
Analog bar display			
Functions	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	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			
Functions	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	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		ø9.52mm=.375"(3/8") DIA
	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 = $Ax'+B+Cx'^{-1}$ (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	
	330°					
	0.001/0.01 mm		.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	Flat	With lug	Flat	With lug	Flat
	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.

	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
	330°		
	0.001/0.01 mm	.00005/.0001/.0005" // 0.001/0.01 mm	
	±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.

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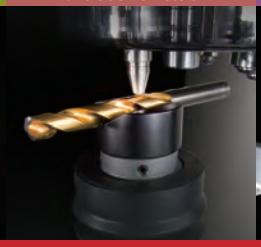
Vision Measuring Systems

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 measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.

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