

DIGIMATIC INDICATORS ID-C Series

For Calculation, Peak-Value Hold and Bore Gage Applications

SMALL TOOL INSTRUMENTS
AND DATA MANAGEMENT



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	<input type="checkbox"/> Preset <input type="checkbox"/> Tolerance judgment <input type="checkbox"/> Peak detection <input type="checkbox"/> Calculation <input type="checkbox"/> 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	FAST mode OFF
	Peak detection mode	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	<input type="checkbox"/> Preset <input type="checkbox"/> Tolerance judgment <input type="checkbox"/> Peak detection <input type="checkbox"/> Calculation <input type="checkbox"/> 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	FAST mode OFF
	Peak detection mode	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	<input type="checkbox"/> Preset <input type="checkbox"/> Tolerance judgment <input type="checkbox"/> Peak detection <input type="checkbox"/> Calculation <input type="checkbox"/> 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	FAST mode OFF
	Peak detection mode	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/.0005" 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°						
.0005/.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/.0005" 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°		
.0005/.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/.0005".

*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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