



(Refer to the page 9 for details.)

**ABSOLUTE®**

Absolute System Patented by MITUTOYO

(Refer to the page 9 for details.)

### Technical Data

Accuracy: Refer to the list of specifications (excluding quantizing error)  
 Resolution: 0.001mm, .00005"/0.001mm or .0001"/0.001mm  
 Display: LCD  
 Length standard: ABSOLUTE electrostatic capacitance type linear encoder  
 Max. response speed: Unlimited  
 Measuring force: 2.0N or less  
 Stem dia.: 8mm (ISO/JIS type) or 3/8" (ANSI/AGD type)  
 Contact point: Carbide ball with M2.5x0.45 (ISO/JIS type) Carbide ball with #4-48UNF (ANSI/AGD type)  
 Power supply: DC 12 - 24V±10%  
 Dust/Water protection level: IP54

### Function

Data output (-NG/OK/NG signal, NPN open collector), Remote control (hold-preset, preset-recall, zero-set), Origin-set/Preset, Zeroset, GO/±NG judgment, Max/Min/Runout value holding, Counting direction switching, Power ON/OFF, inch/mm conversion (inch/mm models)  
 Alarm: Low voltage, Counting value composition error, Over-flow error, Tolerance limit setting error

### Optional Accessory

**902011:** Spindle lifting lever\* (ISO/JIS type)  
**902794:** Spindle lifting lever\* (ANSI/AGD type)  
**540774:** Spindle lifting cable\*  
**125317:** Rubber boot  
 \_\_\_\_\_: Backs (See page 266.)  
 \_\_\_\_\_: Contact points (See page 264.)

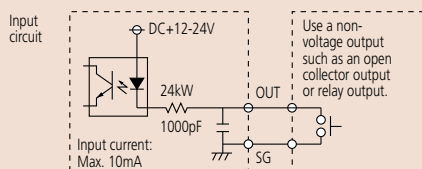
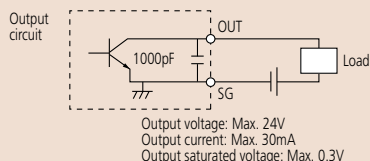
\*When using the spindle lifting lever/cable, IP54 is not guaranteed.

### Output pattern

Wire	-NG	OK	+NG	Composition error
Orange (-NG)	Low	High	High	High
Green (OK)	High	Low	High	High
Brown (+NG)	High	High	Low	High
LED	Red	Green	Red	Red (blinking)
LCD	<	0	>	"xxE" indication

### I/O Specifications

Wire	Signal	I/O	Description
Black	-V (GND)	—	Connected to minus (-) terminal
Red	+V (GND)	I	Power supply (12 - 24VDC)
Orange	-NG	O	Tolerance judgment result output: Only the terminal corresponding to a judgment result is set to the below level.
Green	OK	O	
Brown	+NG	O	
Yellow	PRESET_RECALL ZERO	I	External input terminal: If the relevant terminal is set to the low level, its signal becomes true.
Blue	HOLD_RESET	I	
Shield	FG	—	Connected to GND



# ABSOLUTE Digimatic Indicator ID-C

**SERIES 543 — with Green/Red LED and GO/NG Signal Output Function**

### FEATURES

- With the max./min. value holding function, the signal ID-C can output the signal of the GO/±NG judgment result against the peak values set. Substitute for the mechanical/electrical contact, the judgment is carried out by calculating the measurement data obtained. This provides high reliability with no deterioration of the contact point and volume adjustment.
- The signal can be output to an external device like a sequencer through the NPN open-collector.
- The GO/±NG judgment result is also indicated by the green/red LED and the "<, 0, >" signs on LCD.
- Employing the ABSOLUTE linear encoder, the Signal ID-C always displays the spindle "Absolute Position" from the origin at power-on. Also unlimited response speed eliminates over-speed errors.
- The Signal ID-C achieves the IP54 protection level to resist dust and contaminants for safe operation in harsh machine shop environments.



543-280

### SPECIFICATIONS

Metric	Order No. (w/ lug, flat-back)	Range	Accuracy	Measuring force	Remarks	
Resolution	<b>543-280</b>	<b>543-280B</b>	12.7mm	0.003mm	2.0N or less	—

Inch/Metric	Order No. (w/ lug, flat-back)	Range	Accuracy	Measuring force	Remarks	
Resolution	<b>543-281</b>	<b>543-281B</b>	.5"	.00012"	2.0N or less	—
Resolution	<b>543-282</b>	<b>543-282B</b>	.5"	.00012"	2.0N or less	—
Resolution	<b>543-283</b>	<b>543-283B</b>	.5"	.00012"	2.0N or less	—

### DIMENSION

