ABSOLUTE Digimatic Indicator ID-C

SERIES 543 — With Green/Red LED and Go/No-go Signal Output Function

ABSOLUTE®
Absolute System Patented by MITUTOYO

Mitutoyo guarantees the product quality. PROPRIETARY INSPECTION CERTIFICATE

FEATURES

- With the max./min. value holding function, the signal ID-C can output the go/no-go 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 such as a sequencer through the NPN open-collector.
- The go/no-go judgment result is also indicated by the green/red LED and the "<, O, >" signs on LCD.
- Employing the ABSOLUTE linear encoder, the Signal ID-C always displays the spindle Absolute Position from the origin when powered up.
- The Signal ID-C achieves the IP54 protection level to resist dust and contaminants for safe operation in harsh machine shop environments.
- The high-speed detector measures 100 times per second.
- Analog Bar

SPECIFICATIONS

Inch/Metric Stem dia. 3/8" #4-48 UNF Thread — ISO/JIS type — ANSI/AGD type

Resolution	Range	Order No. (w/ lug, flat-back)		Model	Accuracy	Measuring force
.00005/.0001/.0005" 0.001/0.01mm	.5" / 12.7mm	**543-352**	**543-352B**	ID-C112JEX(B)	±.00010/0.003mm	2.5N or less

Inch/Metric Stem ø 8mm, M2.5 x 0.45 Thread

Resolution	Range	Order No. (w/ lug, flat-back)		Model	Accuracy	Measuring force
.00005/.0001/.0005" 0.001/0.01mm	.5" / 12.7mm	**543-351**	**543-351B**	ID-C112JMX(B)	±.00010/0.003mm	2.5N or less

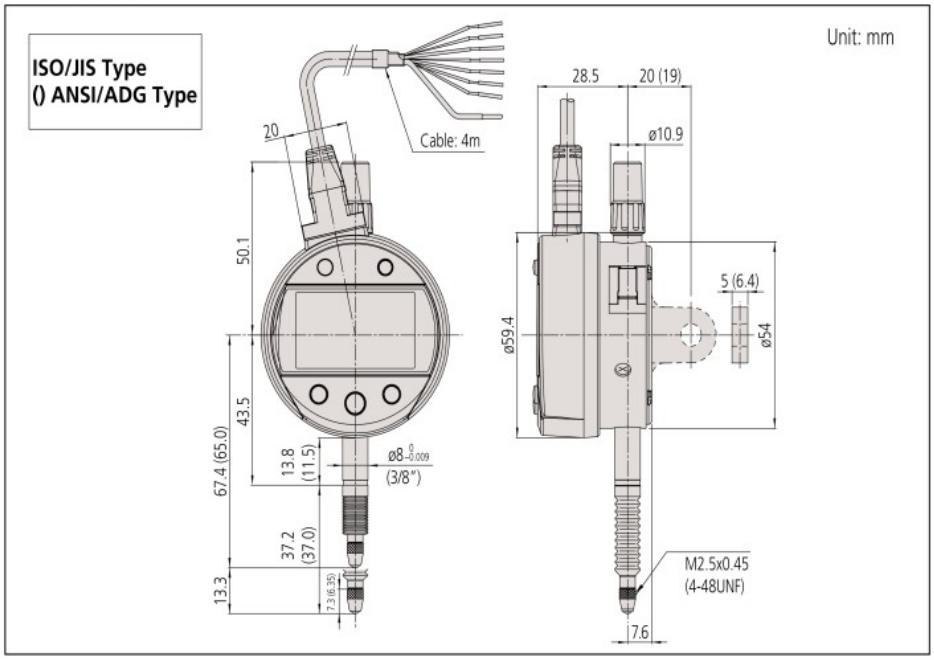
Metric Stem ø 8mm, M2. x 0.45 Thread

Resolution	Range	Order No. (w/ lug, flat-back)		Model	Accuracy	Measuring force
0.001/0.01mm	12.7mm	**543-350**	**543-350B**	ID-C112JX(B)	0.003mm	2.5N or less

DIMENSIONS

Unit: mm

ISO/JIS Type
() ANSI/ADG Type



Technical Data

Accuracy: Refer to the list of specifications
Resolution: 0.001mm, .00005"/0.001mm
Display: LCD
Length standard: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed: Unlimited
Measuring force: 2.5N or less
Power supply: DC 5-24V±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 (up to 3 values), Zero-Set, Analog-Bar, go/no-go judgment, Max/Min/Runout value holding, Counting direction switching, Power ON/OFF, inch/mm conversion (on inch/metric models only), calibration mode

Internal calculations using the simple formula of [F(x) = Ax] are available.

Alarm: Low voltage, Counting value composition error, Overflow error, Tolerance limit setting error

Optional Accessories

902011: Spindle lifting lever* (ISO/JIS type)
902794: Spindle lifting lever* (ANSI/AGD type)
540774: Spindle lifting cable* (Stroke: .4" / 10mm)
125317: Rubber boot
———: Backs (See page F-33.)
———: Contact points (See page F-34.)
21EAA194: Connecting Cable (1m)**
21EAA190: Connecting Cable (2m)**
21EZA345A: Digimatic Power Supply Unit**

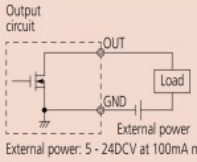
*When using the spindle lifting lever/cable, IP54 is not guaranteed.
** Used only for calibration mode and for automated testing with an i-Checker

Output pattern

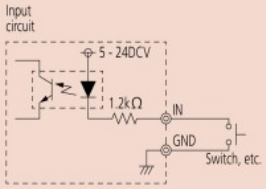
Wire	– NG	OK	+ NG	Composition error
Orange (– NG)	Low	High	High	High
Green (OK)	High	Low	High	High
Brown (+ NG)	High	High	Low	High
LED	Red	Green	Red	Red (blinking)
LCD	<	O	>	"x.xxE" indication

I/O Specifications

Wire	Signal	I/O	Description
Black	– V (GND)	—	Connected to minus (-) terminal
Red	+ V (GND)	I	Power supply (5-24VDC)
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	PEAK_START	I	
Shield	FG	—	Connected to GND



External power: 5 - 24DCV at 100mA max.



Input current: Max. 20mA