ABSOLUTE Digimatic Indicator ID-C
SERIES 543 — With Green/Red LED and Go/No-go Signal Output Function

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.
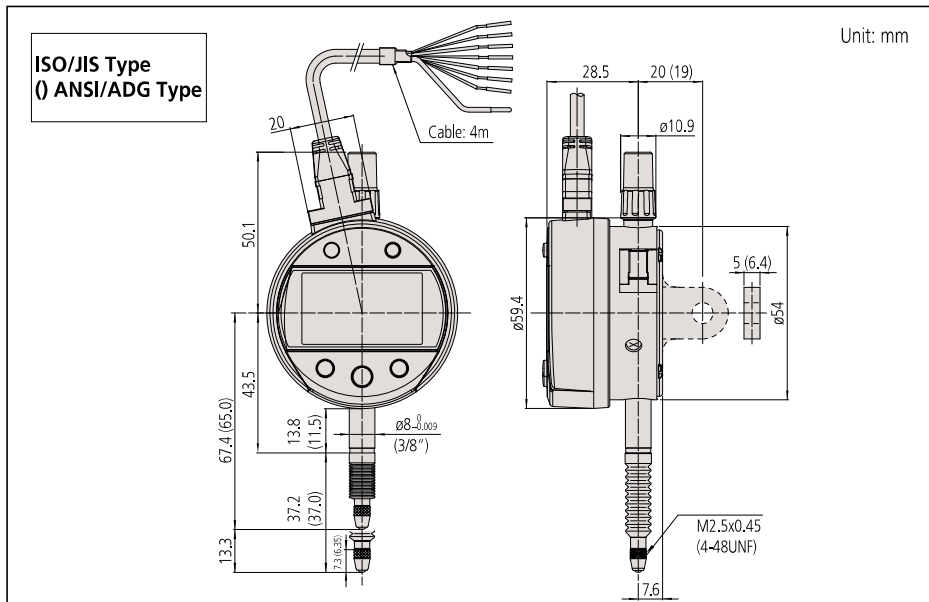- The high-speed detector measures 100 times per second.
- Analog Bar

IP54

543-350

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

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

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

DIMENSIONS

Unit: mm

ISO/JIS Type
() ANSI/ADG Type

Cable: 4m

20
50.1
43.5
67.4 (65.0)
13.8 (11.5)
37.2 (37.0)
13.3
7.3 (6.25)
ø8-0.009 (3/8")

28.5　20 (19)
ø10.9
ø59.4
5 (6.4)
ø54
M2.5x0.45 (4-48UNF)
7.6

Output circuit
OUT
GND
Load
External power
External power: 5 - 24DCV at 100mA max.

Input circuit
5 - 24DCV
1.2kΩ
IN
GND
Switch, etc.
Input current: Max. 20mA