EJ-102N/NE Counter, Interface Unit: CC-Link, PROFINET, EtherNet/IP, EtherCAT, USB
SERIES 542 — Linear Gage Counter

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- A small, high-speed, space-saving counter for linear gage suitable for in-line and in-laboratory use. It brings visibility into the production site, improves productivity, and enables data accumulation.
- Up to 8 compact counters (**EJ** counters) can be linked providing the capacity to connect up to 16 gages.
- On a DIN rail, each unit can be connected directly without using cables, so it takes up minimal space. All linked units and gages can be driven by a single power source.
- Data can be output through an industrial interface (CC-Link) by linking a compact counter (**EJ** counter) with an interface unit. Constant data monitoring and positional management are performed. A USB interface is also provided for easy connection with a computer.
- Enables sum difference operations between 2 gages connected to the same counter.

Optional Accessories

- AC adapter: **357651**
- AC cable*: **02ZAA000** (Japan)
  02ZAA010 (USA)
  02ZAA020 (EU)
  02ZAA030 (UK)
  02ZAA040 (China)
  02ZAA050 (Korea)
- DC connector with bar terminal: **21HZA209***

* Required when using AC adapter.

Counter unit

EJ-102N/NE

Interface unit

CC-Link

PROFINET

EtherNet/IP

EtherCAT

USB

Image of mounting

SPECIFICATIONS

Order No.		542-080	542-081
Model		EJ-102N	EJ-102NE
Unit		mm	inch/mm
Resolution		0.005, 0.001, 0.0005, 0.0001 (mm)	0.0002, 0.00005, 0.00002, 0.000005 (inch)/ 0.005, 0.001, 0.0005, 0.0001 (mm)
Number of linear gage connection ports		2	
Supported gage signal		Differential square wave, differential square wave with reference point mark	
Maximum input frequency		5 MHz	
User Interface	Display	Negative sign + 8 digits and indicator (1 gage value displayed, manually switchable)	
External I/O	Number of I/O ports	Input: 4 ports (Ch switch, peak clear, data hold, preset) Output: 4 ports (Err/ALLGO, Tolerance judgment)	
	Compatible communication standards	CC-Link, USB (Supported with optional interface units)	
Max. number of linked units		EJ Counter 8 units + 1 (optional) interface unit (Max. number of linear gage connections: 16)	
Power supply	Input voltage	10 V to 27 V DC	
	Power consumption	1 unit only: 3 W or less (Includes 2 linear gages) Max. number of links: 30 W or less (Interface unit and 16 linear gages included)	
Operating temperature (humidity) ranges		0 to 50 °C (RH 20 to 80%, non-condensing)	
Storage temperature (humidity) ranges		-10 to 60 °C (RH 20 to 80%, non-condensing)	
Mass		Approx. 120 g	

Connectable linear gage Series	Conversion cable (optional)
LG100/LG200*	Not necessary
LGF-Z	Necessary (**21HZA194**)
LGF*/LGK*/LGB*/LG*	Necessary (**21HZA193**)

* The origin point detection function is disabled.

Order No.		21HZA186
Model		Interface unit CC-Link
Applicable interface		USB 2.0 Full Speed
		CC-Link Ver. 1.10
		CC-Link Ver. 2.00
User Interface	Display	POWER (green), RUN (green), ERROR (red), EJ-CONNECT (green)
	Switch	Rotary switch×3 (Exchange number settings×2, communication speed settings×1)
Functions		Common protocols for USB and CC-Link, Readout of current value*, Current value hold (software hold), Parameter setting on **EJ** counter, Tolerance judgment value settings, Preset value settings, preset/zero-set clear, peak clear, error clear * For CC-Link, Ver. 1.10 allows for transition only while Ver. 2.00 allows for both cyclic communication and transition.
Power supply		Power is supplied from **EJ-102N/NE** (**542-080/542-081**) (Cannot be charged via USB)
Operating temperature (humidity) ranges		0 to 50 °C (RH 20 to 80%, non-condensing)
Storage temperature (humidity) ranges		-10 to 60 °C (RH 20 to 80%, non-condensing)

Order No.	21HZA187
Model	Interface unit PROFINET
Applicable interface	PROFINET RT (RT Class1)/USB 2.0 Full Speed
User Interface	POWER (green), NETWORK (green/red), MODULE (green/red), LINK PORT1 (green), LINK PORT2 (green), EJ-CONNECT (green)
Functions	Common protocols for USB and PROFINET, Readout of current value, Current value hold (software hold), Parameter setting on **EJ** counter, Tolerance judgment value settings, Preset value settings, preset/zero-set clear, peak clear, error clear
Power supply	Power is supplied from **EJ-102N/NE** (**542-080/542-081**) (Cannot be charged via USB)
Operating temperature (humidity) ranges	0 to 50 °C (RH 20 to 80%, non-condensing)
Storage temperature (humidity) ranges	-10 to 60 °C (RH 20 to 80%, non-condensing)

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SPECIFICATIONS

Order No.	21HZA188
Model	Interface unit EtherNet/IP
Applicable interface	EtherNet/IP
User Interface	POWER (green), NETWORK (green/red), MODULE (green/red), LINK PORT1 (green/amber), LINK PORT2 (green/amber), EJ-CONNECT (green)
Functions	Common protocols for USB and EtherNet/IP Readout of current value, Current value hold (software hold), Parameter setting on **EJ** counter, Tolerance judgment value settings, Preset valuesettings, preset/zero-set clear, peak clear, error clear
Power supply	Power is supplied from **EJ-102N / NE** (**542-080**/**542-081**) (Cannot be charged via USB)
Operating temperature (humidity) ranges	0 to 50 °C (RH 20 to 80%, non-condensing)
Storage temperature (humidity) ranges	-10 to 60 °C (RH 20 to 80%, non-condensing)

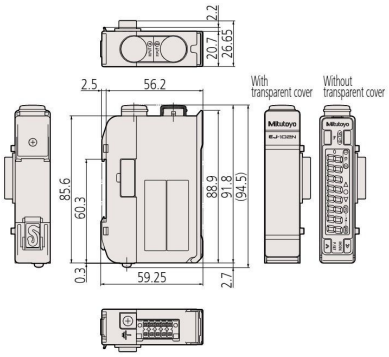
Order No.	21HZA149
Model	Interface unit USB
Applicable interface	USB 2.0 Full Speed
User Interface	POWER (green)
Functions	Readout of current value, Current value hold (software hold), Parameter setting on **EJ** counter, Tolerance judgment value settings, Preset value settings, preset/zero-set clear, peak clear, error clear
Power supply	Power is supplied from **EJ-102N / NE** (**542-080**/**542-081**) (Cannot be charged via USB)
Operating temperature (humidity) ranges	0 to 50 °C (RH 20 to 80%, non-condensing)
Storage temperature (humidity) ranges	-10 to 60 °C (RH 20 to 80%, non-condensing)

Order No.	21HZA264
Model	Interface unit EtherCAT
Applicable interface	EtherCAT
User Interface	POWER (green), RUN (green), ERROR (red), L/A IN (green), L/A OUT (red), EJ-CONNECT (green)
Functions	Common protocols for USB and EtherCAT Readout of current value, Current value hold (software hold), Parameter setting on **EJ** counter, Tolerance judgment value settings, Preset valuesettings, preset/zero-set clear, peak clear, error clear
Power supply	Power is supplied from **EJ-102N / NE** (**542-080**/**542-081**) (Cannot be charged via USB)
Operating temperature (humidity) ranges	0 to 50 °C (RH 20 to 80%, non-condensing)
Storage temperature (humidity) ranges	-10 to 60 °C (RH 20 to 80%, non-condensing)

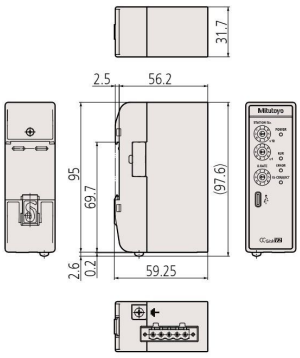
DIMENSIONS

Unit: mm

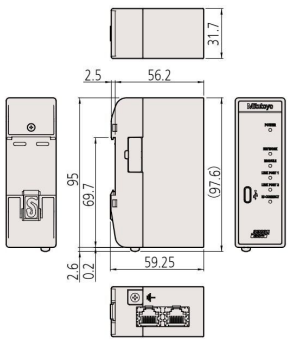
EJ-102N / NE



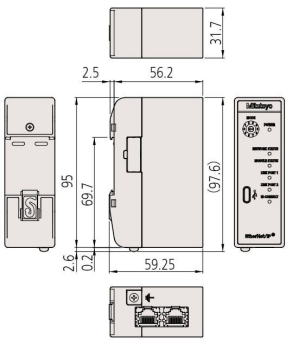
Interface unit CC-Link



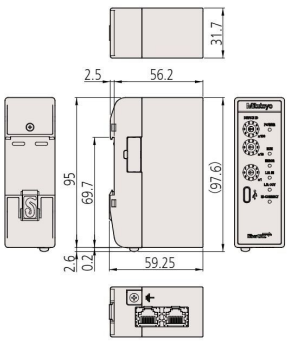
Interface unit PROFINET



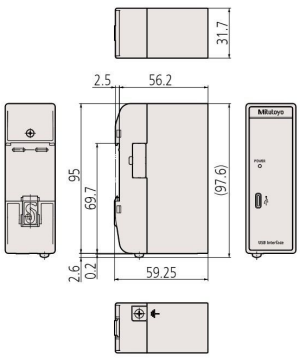
Interface unit EtherNet/IP



Interface unit EtherCAT



Interface unit USB



Note: Can be mounted on DIN rail. Case material: PC, POM

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