

Linear Gages

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

- 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.



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)

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 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)

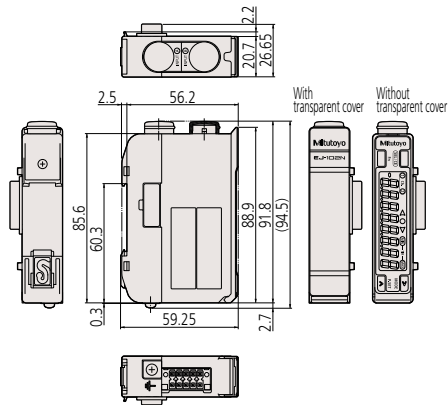
Order No.	21HZA149
Model	Interface unit USB
Applicable interface	USB 2.0 Full Speed
User Interface	POWER (green)
Functions	Readout of current value, Current value hold (software hold), Parameter setting on EJ counter, Tolerance judgment value settings, Preset value settings, preset/zero-set clear, peak 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 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)

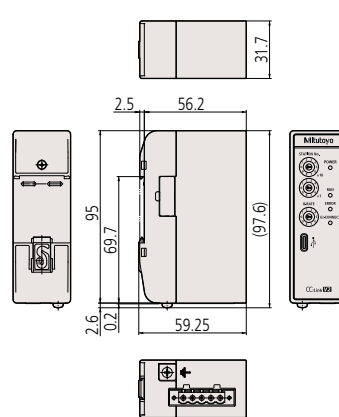
DIMENSIONS

Unit: mm

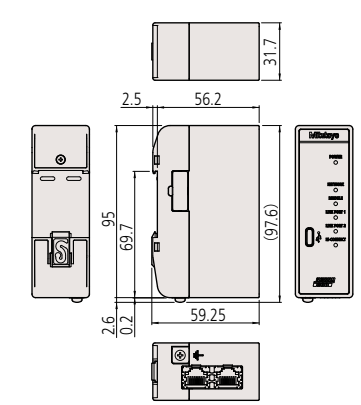
EJ-102N/NE



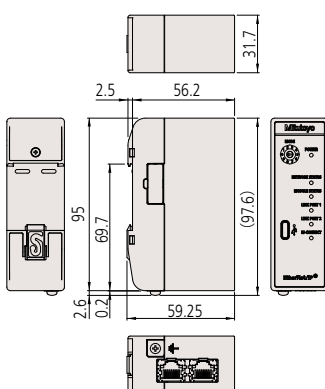
Interface unit CC-Link



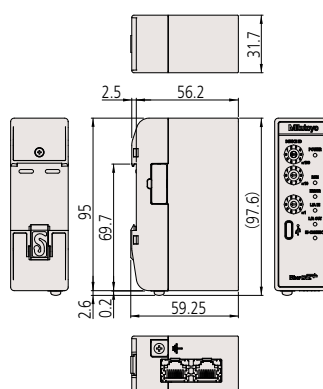
Interface unit PROFINET



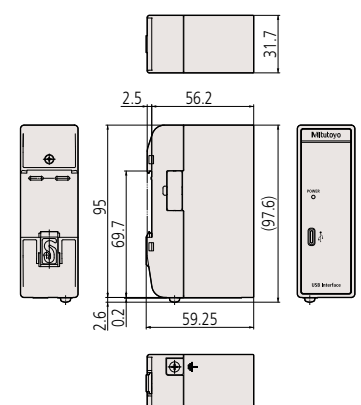
Interface unit EtherNet/IP



Interface unit EtherCAT



Interface unit USB



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