

EV Counter – Multi-function, Multiple Input Type

Series 542 — Processor (Optional Display), Multi-function/output

- Up to six gages can be connected to one unit, extendable up to 10 units (60 gages at maximum) using the RS Link function* to facilitate the configuration of a multi-point measurement system.

* Refer to "Quick Guide to Precision Measuring Instruments" on page G-32 for details of the RS link.

- A range of output modes to choose from: I/O output for tolerance judgment and segment output, BCD data output and RS-232C output are available.
- Other than normal measurement, peak measurement or differential measurement between gages are available.



542-063



542-067



542-064

Function

- External Control (Zero-set, Preset etc.)
- Direction switch
- Error display
- Tolerance judgment output
- Diverse data output (RS-232C, BCD, Segment)
- Peak measurement

Maximum value, minimum value, runout, and differential measurement between two gages
Addition, averaging, maximum value, minimum value, and maximum width

Optional Accessories

- D-EV External display unit: **No.02ADD400**
 - SPC cable (0.5m): **No.02ADD950**
 - SPC cable (1m): **No.936937**
 - SPC cable (2m): **No.965014**
 - AC adapter: **No.357651** *
 - AC cable (USA): **02ZAA010** *
 - Terminal connecting cable: **No.02ADD930** *
- * Included in package Order No.

SPECIFICATIONS

| Order No. | 542-063 | 542-067 | 542-064 |
|--|--|--|---|
| Pkg No.(counter w/AC adapter) | 64PKA137A | 64PKA139A | 64PKA138A |
| Applicable gage head | LGE, LGF, LGK, LGB, LGM, LG not compatible with reference point mark, sine wave output type or 0.1μm resolution models. | LGF with reference point mark (LGF-Z) | LGD, LGS |
| Number of input channels | 6 | | |
| Maximum input frequency | 1.25MHz (2-phase square wave), response speed depends on gage specification. Max. counting speed: 5MHz | 1.25MHz (2-phase square wave), response speed depends on gage specification. Max. counting speed: 5MHz | Response speed depends on gage specification. |
| Quantizing error | ±1 count | | |
| Resolution | 10μm (±999999.99mm) / .0005* (±9999.9995*) 5μm (±999999.995mm) / .00005* (±999.99995*) 0.5μm (±9999.9995mm) / .000005* (±.99.999995*)*1 [Parameter set] | 10μm (±999999.99mm) / .0005* (±9999.9995*) 5μm (±999999.995mm) / .00005* (±999.99995*) 1μm (±99999.999mm) / .00005* (±999.99995*) 0.5μm (±9999.9995mm) / .000005* (±.99.999995*) [Parameter set] | Depends on gage specification. |
| LED display | 8 digits for parameter display (displays settings), 1 for error display | | |
| Error message | Overspeed, gage error etc. | | |
| External display | Dedicated external display unit D-EV (optional) can be connected. | | |
| Number of input switches | 4 | | |
| Function of input switches | Measurement mode switching, parameter setting | | |
| Input/output | Tolerance judgment output | 1 to 6 channels (L1, L2, L3), open-collector | |
| | BCD output | Parallel BCD output (positive/negative-true logic), open-collector | |
| | Segment output | Function to set on only the terminals corresponding to the counting values, open-collector | |
| | Control output | Normal operation signal (NOM), open-collector | |
| Control input | Output channel designation (segment, in the BCD mode), presetting, peak value clear, range changeover (at segment output), holding counting value open-collector or no-voltage contact signal (with/without contact point) | | |
| Interface | RS-232C | Measurement data output and control input EIA RS-232C-compatible Use cross cables for home position, DTE (terminal definition). | |
| | RS link | Max. connecting unit: 10 (6 when using EF counter) Connecting cable length: Max. 10m (sum of link cable length) Data transfer time: 1sec./60ch (when transmission rate is 19200bps) | |
| Rating | Power supply voltage | 12 - 24V DC, terminal block (M3 screw) | |
| | Power consumption | 8.4W or less (700mA max.) Ensure at least 1A is available per unit. | |
| Operating temperature (humidity) range | 0 to 40°C (RH 20 to 80%, no condensation) | | |
| Storage temperature (humidity) range | -10 to 50°C (RH 20 to 80%, no condensation) | | |
| External dimensions | 144 (W) × 72 (H) × 139 (D) mm | | |
| Mass | Approx. 910g | Approx. 910g | Approx. 830g |
| Standard accessories | Fixing foot (4), connecting bracket (4), fixing screw M4×12 (8) | | |
| Applicable input | Differential square-wave | | Digimatic code (SPC) |

*1: Available when using D-EV.

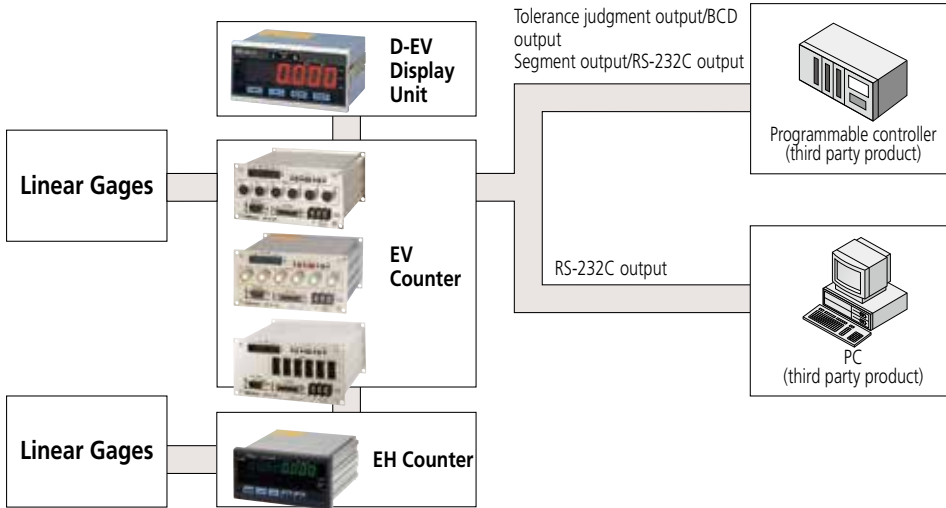
*2: D-EV is required when selecting 0.1μm resolution.

EV Counter System Configuration

Series 542 — Processor (Optional Display), Multi-function/output

System Configuration

A counter system performs output and display for connected Mitutoyo linear gages.



DIMENSIONS

Unit: mm

