

DIN Size Electronic Counter

DC-M

Easy operation, clear display & easy preset

- All models provide increment/decrement counting and this counter can apply to wide range of application because of free voltage, 100 to 240VAC.



72×144mm type



72×72mm type

■ Specifications

72×72mm type

Type	Increment/decrement type total counter ^{note1)}	Increment/decrement type preset counter ^{note1)}
Model No.	DC-MA6-D	DC-MB6-D
Display	Red LED (changeover by green and orange LED) 7-segment LED (Height 10mm, width 5.7mm), Range: 999999 to -99999 (Zero-suppress) ^{note2)}	
Number of preset	_____	1
Control output	_____	Contact: 1a relay (250VAC 3A, DC30V 3A, $\cos \phi = 1$) Transistor: NPN open-collector (40V, 100mA)
Weight	Approx. 300g	

note1) Changeover for increment/decrement independence input and 90° phase-difference input.

note2) It shows "Full" if counting value is over 999999 and "-Full" if counting value is over -99999 and then, counting stops and it returns by reset.

72×144mm type

Type	Increment/decrement type total counter ^{note1)}	Increment/decrement type preset counter ^{note1)}	Increment/decrement type 2-preset counter ^{note1)}
Model No.	DC-MA6-E	DC-MB6-E	DC-MC6-E
Display	Red LED (changeover by green and orange LED) 7-segment LED (Height 15mm, width 8.8mm), Range: 999999 to -99999 (Zero-suppress) ^{note2)}		
Number of preset	_____	1	2
Control output	_____	Contact: 1C relay (250VAC 3A, DC30V 3A, $\cos \phi = 1$) Transistor: NPN open-collector (40V, 100mA)	
Weight	Approx. 530g		

note1) Changeover for increment/decrement independence input and 90° phase-difference input.

note2) It shows "Full" if counting value is over 999999 and "-Full" if counting value is over -99999 and then, counting stops and it returns by reset.

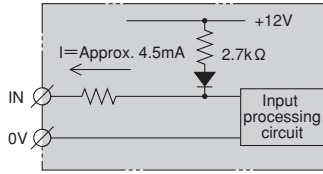
72×72mm type · 72×144mm type (Common specifications)

Power source	100 to 240VAC (50/60Hz)
Allowable voltage fluctuation range	-15 to +10%
Power consumption	Approx. 4.5VA (240VAC)
Numbers of digits	6-digit (Zero-suppress system)
Counting	Contact/transistor open-collector input: Counting when OFF→ON, voltage input: Counting when "L"→"H"
Counting speed	30Hz: Min. signal width 16.7msec, make-ratio 1:1 5kHz: Min. signal width 100 μsec, make-ratio 1:1 (Changeover by slide switch)
Preset method ^{note1)}	Digital switch for each digit
Reset	Reset button, external reset, automatic reset
Count prohibition	Prohibited when ON (H level in case of voltage input). Response time: 16msec or less (when 30Hz), 100 μsec or less (when 5kHz)
Input signal	Changeover by voltage/contact/open-collector input (by slide switch at back side)
Counting prohibited	Prohibited when ON ("H" level in case of voltage input) Response time: 16msec or less (when 30Hz), 100 μsec or less (when 5kHz)
Counting/reset/ counting prohibited input	Contact/transistor open-collector input Impedance (ZON): 1kΩ or less when ON (Short-circuit), Impedance (ZOFF): 5kΩ or more when OFF (Opened)
Control output operation ^{note1)}	Self-holding operation: It operates when preset value and returns by reset Single-shot operation: It operates when preset value and returns after specific time (200ms)
Power source for sensor	12VDC ±10% 100mA (Ripple 5% or less)
Ambient temperature/humidity	-10 to +45°C (-20 to +55°C when stored), 45 to 85%RH or less (not icing, not condensing)
Vibration resistance	Double amplitude 4mm, 16.7Hz, each 1 hour in X, Y and Z directions. Malfunction: Double amplitude 0.5mm, 10 to 55Hz, each 10 minutes in X, Y and Z directions
Impact resistance	300m/s ² , each 3 times in X, Y and Z directions. Malfunction: 100m/s ² , each 3 times
Starting time when power-ON	1sec or less
Memory time against power failure	Memory time /once: approx. 10 years, memory numbers: 0.1 million times
Case materials	Case: ABS resin, dust-proof cover: polycarbonate
Attachment	Dust-proof cover, fitting metal

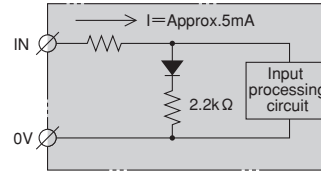
note1) Total counter doesn't provide it.

Input/transistor output

Contact/transistor open-collector input



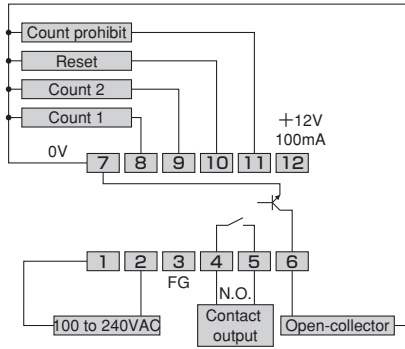
Voltage input



Connection

72 X 72mm type

● Contact/Open-collector input



Note) Count 1 terminal [8] is increment, Count 2 terminal [9] is decrement. In case of 90° phase-difference input, when Count 1 is shifted by 90°, it is increment counting, and when Count 2 is shifted by 90°, it is decrement counting.

Note) In case of Total counter, [4][5][6] terminals are not used.

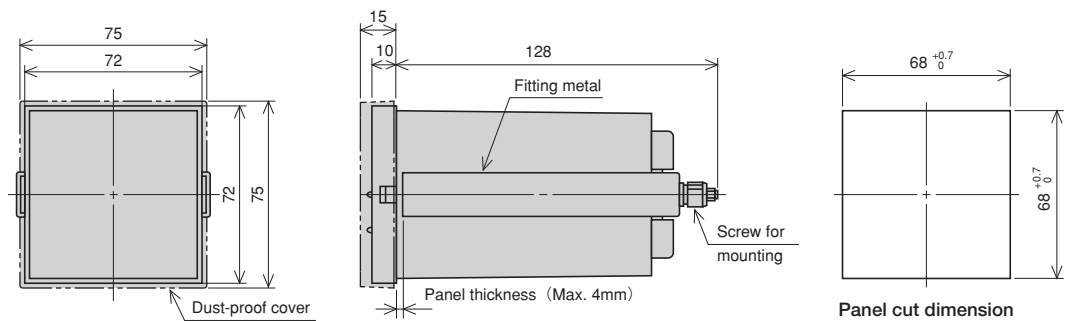
Note) FG [3] terminals should be grounded.

(Caution)

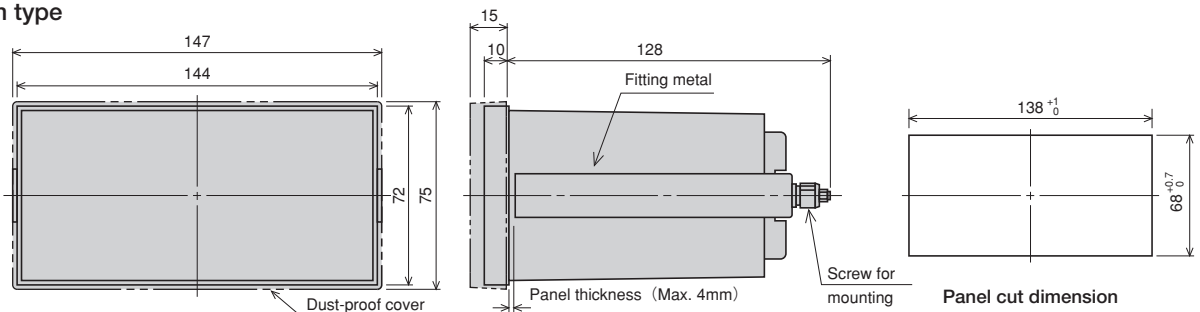
- Do not use unused terminal as relay terminal.
- Each input to counting, reset and count prohibition is common use for contact and open-collector. Wire to each input and output terminal with 2-core shield wire or metal conduit tube as short as possible. Do not lay the wires close to or parallel to line cable, power cable or high voltage line.
- For connection, use M3 pressure connection terminals.

External dimensions

72 X 72mm type

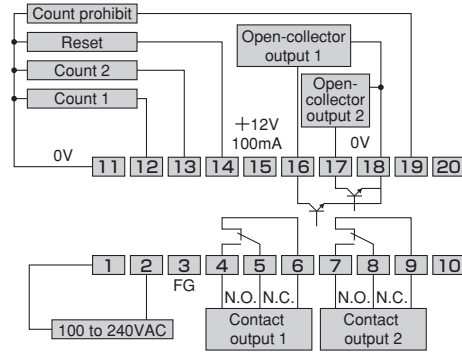


72 X 144mm type



72 X 144mm type

● Contact/Open-collector input



Note) Terminals [11] and [18] are connected inside.

Note) Count 1 [12] is increment counting and Count 2 [13] is decrement counting. In case of 90° phase-difference input, when Count 1 is shifted by 90°, it is increment counting, and when Count 2 is shifted by 90°, it is decrement counting.

Note) counting.

Note) In case of total counter, [4][5][6][7][8][9][16][17] terminals are not used.

Note) In case of preset counter (1 preset type), [4][5][6][16] terminals are not used. FG [3] terminal) should be grounded.