

**Ordering Information**

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

<b>FX</b>	<b>①</b>	<b>②</b>	-	<b>③</b>	<b>④</b>
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**① Display digits**

- 4: 4-digit
- 6: 6-digit
- 8: 8-digit

**② Size**

- M: DIN W 72 × H 72 mm
- H: DIN W 48 × H 96 mm

**③ Output**

- 1P: 1-stage setting
- 2P: 2-stage setting
- I: Indicator

**Product Components**

- Product (+ bracket)
- Instruction manual

# Digital Counters / Timers



## FXM / FXH Series

### CATALOG

**For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.**

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

**Features**

- Counting speeds: 1 cps / 30 cps / 2 kcps / 5 kcps
- Switch between counter and timer operation using DIP switch
- No-voltage input (NPN) using DIP switch
- Operation modes: count-up, count-down, count-up / down
- Set decimal point, hr / min / sec display with RESET key

**[Counter]**

- 20 input modes, 18 output modes

**[Timer]**

- Various output modes (16 output modes)
- Various time setting ranges:
  - 8-digit models: 0.01 sec to 99999 hr 59.9 min
  - 6-digit models: 0.1 sec to 99999.9 hr
  - 4-digit models: 0.01 sec to 9999 hr
- Output model types: single preset, dual preset, indicator only
- Power supply: 100 - 240 VAC ~ 50 / 60 Hz

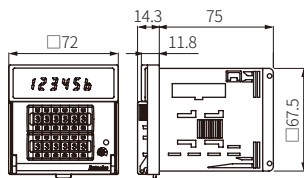
## Specifications

Model	FX4□-□4	FX6M-□4	FX8M-□4
Display digits	4-digit	6-digit	8-digit
Character size	W 6 × H 10 mm	W 4 × H 8 mm	W 3.8 × H 7.6 mm
Max. counting speed	1 / 30 / 2 k / 5 k cps		
Return time	≤ 500 ms		
Min. signal width	INHIBIT, RESET: ≈ 20 ms		
Input logic	Voltage input (PNP) - input impedance: ≤ 10.8 kΩ, [H]: 5 - 30 VDC≐, [L]: 0 - 2 VDC≐ No-voltage input (NPN) - short-circuit impedance: ≤ 470 Ω, short-circuit residual voltage: ≤ 1 VDC≐ open-circuit impedance: ≥ 100 kΩ		
One-shot output time	Dependent on the output		
1-stage setting	0.05 to 5 sec		
2-stage setting	OUT1: 0.5 sec fixed, OUT2: 0.05 to 5 sec		
Error	Repeat / SET / voltage / Temp.: ≤ ± 0.01 % ± 0.05 s		
Contact control output	Relay		
Type (1-stage)	Instantaneous SPDT (1c) × 1		
Type (2-stage)	Instantaneous SPDT (1c) × 2		
Capacity	250 VAC ~ 3 A, 30 VDC≐ 3 A resistive load		
Solid-state control output	NPN open collector		
Type (1-stage)	× 1		
Type (2-stage)	× 2		
Capacity	≤ 30 VDC≐, 100 mA, residual voltage: ≤ 1 VDC≐		
Unit weight (packaged)	1-stage setting: ≈ 180 g (≈ 245 g) 2-stage setting: ≈ 200 g (≈ 265 g) Indicator: ≈ 160 g (≈ 225 g)		
Approval	CE, RoHS, REACH		
Power supply	100 - 240 VAC ~ ± 10 % 50 / 60 Hz		
Power consumption	Dependent on the output		
1-stage setting	≤ 4.6 VA		
2-stage setting	≤ 5.8 VA		
Indicator	≤ 3.8 VA		
External supply power	≤ 12 VDC≐ ± 10 % 50 mA		
Memory retention	≈ 10 years (non-volatile semiconductor memory type)		
Insulation resistance	≥ 100 MΩ (500 VDC≐ megger)		
Dielectric strength	Between all terminals and case: 2,000 VAC ~ 50 / 60 Hz for 1 min		
Noise immunity	± 2 kV square wave noise (pulse width: 1 μs) by the noise simulator		
Vibration	0.75 mm double amplitude at frequency of 10 to 55 Hz (for 1 minute) in each X, Y, Z direction for 1 hour		
Vibration (malfunction)	0.5 mm double amplitude at frequency of 10 to 55 Hz (for 1 minute) in each X, Y, Z direction for 10 minute		
Shock	300 m/s <sup>2</sup> (≈ 30 G) in each X, Y, Z direction for 3 times		
Shock (malfunction)	100 m/s <sup>2</sup> (≈ 10 G) in each X, Y, Z direction for 3 times		
Relay life cycle	Mechanical: ≥ 10,000,000 operations Electrical: ≥ 100,000 operations (250 VAC ~ 3 A resistive load)		
Ambient temperature	-10 to 55 °C, storage: -25 to 65 °C (no freezing or condensation)		
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)		
Protection rating	IP20 (front part, IEC standard)		

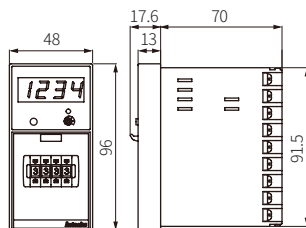
## Dimensions

• Unit: mm, For the detailed drawings, follow the Autonics website.

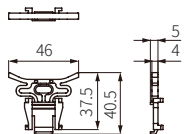
### ■ FXM



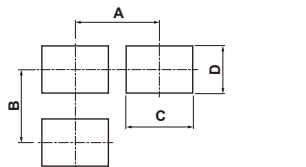
### ■ FXH



### ■ Bracket



### ■ Panel cut-out



Series	A	B	C	D
FXM	≥ 90	≥ 90	68 <sup>±0.7</sup>	68 <sup>±0.7</sup>
FXH	≥ 65	≥ 115	45 <sup>±0.6</sup>	92 <sup>±0.6</sup>