

Ordering Information

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

FX	①	②	-	③	④
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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

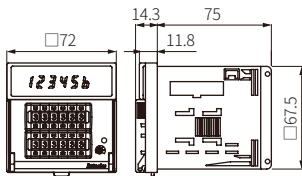
Specifications

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 ² (≈ 30 G) in each X, Y, Z direction for 3 times		
Shock (malfunction)	100 m/s ² (≈ 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)		

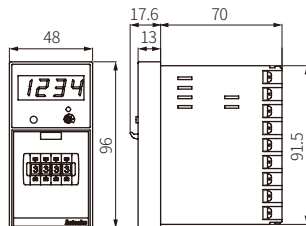
Dimensions

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

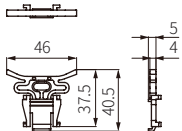
■ FXM



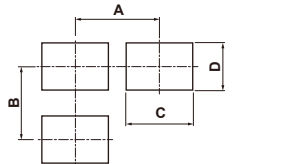
■ FXH



■ Bracket



■ Panel cut-out



Series	A	B	C	D
FXM	≥ 90	≥ 90	68 ^{±0.7}	68 ^{±0.7}
FXH	≥ 65	≥ 115	45 ^{±0.6}	92 ^{±0.6}