

Ordering Information

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

FM ① **M** - ② **4**

① **Display digits**

4: 4-digit
6: 6-digit

② **Output**

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

Product Components

- Product (+ bracket)
- Instruction manual

Digital Measure Counters



FM 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

- Measure counting: multiply-mode / divide-mode
- Operation modes: count-up, count-down, count-up / down
- Counting speeds: 1 cps / 30 cps / 300 cps / 2 kcps / 5 kcps
- Parameter configuration settings:
input / output operation mode, max. counting speed, decimal point location, OUT1 / OUT2 output time (0.01 to 99.99 sec), no-voltage (NPN) / voltage (PNP) input selection, multiply-mode / divide-mode selection
- 10 year memory protection (using non-volatile semiconductor)
- Power supply: 100 - 240 VAC ~ 50 / 60 Hz

Specifications

Model	FM4M-□4	FM6M-□4
Display digits	4-digit	6-digit
Character size	W 6 × H 10 mm	W 4 × H 8 mm
Max. counting speed	1 / 30 / 300 / 2 k / 5 k cps	
Return time	≤ 500 ms	
Min. signal width	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	0.01 to 99.99 s	
Contact control output	Relay	
Type (1-stage)	Instantaneous SPDT (1c) × 1	
Type (2-stage)	Instantaneous SPST (1a) × 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    	
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: ≥ 5,000,000 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.

