Digital Counters / Timers

FXS 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 speed: 1 cps / 30 cps / 2 kcps / 5 kcps
- Selectable voltage input (PNP) or no-voltage input (NPN)
- Input mode: Up, Down, Up / Down
- Dot for Decimal Point, Hour / Min / Second by RESET key
- Wide range of input power supply
  : 100 - 240 VAC⁓ 50 / 60 Hz, 24 VAC⁓ 50 / 60 Hz, 24 - 48 VDC⎓ universal
- Selectable Counter / Timer by DIP switch

[Counter]

- 20 input modes / 18 output modes

[Timer]

- 16 output modes
- Various time setting range
  - 5-digit model: 0.01 sec to 9999.9 hour
  - 4-digit model: 0.01 sec to 9999 hour
- Output: indicator, 1-stage setting

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	❶	S	-	❷	❸

❶ Display digits
4: 4-digit
5: 5-digit

❷ Output
1P: 1-stage setting (4-digit)
I: indicator (5-digit)

❸ Power supply
2: 24 VAC⁓ ± 10 % 50 / 60 Hz,
24 - 48 VDC⎓ ± 10 %
4: 100 - 240 VAC⁓ ± 10 % 50 / 60 Hz

Product Components

- Product (+ bracket)
- Instruction manual

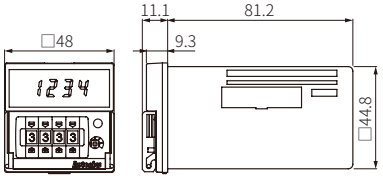
Specifications

Model	FX4S-1P□	FX5S-I□
Display digits	4-digit	5-digit
Character size	W 3.8 × H 7.6 mm	W 4 × H 8 mm
Max. counting speed	1 / 30 / 2 k / 5 kcps	
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	0.05 to 5 sec	
Error	Repeat / SET / voltage / Temp.: ≤ ± 0.01 % ± 0.05 s	
Contact control output	Relay	-
Type	Instantaneous SPDT (1c) × 1	-
Capacity	250 VAC~ 3 A, 30 VDC⎓ 3 A resistive load	-
Solid-state control output	NPN open collector × 1	-
Capacity	≤ 30 VDC⎓, 100 mA	-
Unit weight (packaged)	≈ 110 g (≈ 171 g)	≈ 95 g (≈ 156 g)
Approval	CE cULus EAC	

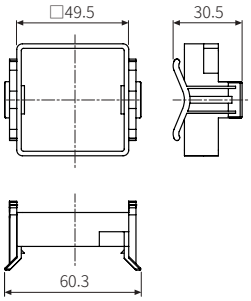
Voltage type	AC voltage	AC / DC voltage
Power supply	100 - 240 VAC~ ± 10 % 50 / 60 Hz	24 VAC~ ± 10 % 50 / 60 Hz, 24 - 48 VDC⎓ ± 10 %
Power consumption (FX4S-1P□)	≤ 4.6 VA	AC: ≤ 3.5 VA DC: ≤ 2.3 W
Power consumption (FX5S-I□)	≤ 3.8 VA	AC: ≤ 3 VA DC: ≤ 1.8 W
External supply power	≤ 12 VDC⎓ ± 10 % 50 mA	
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 minute	
Noise immunity	± 2 kV square wave noise (pulse width: 1 μs) by the noise simulator	± 500 V 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 min	
Shock	300 m/s² (≈ 30 G) in each X, Y, Z direction for 3 times	
Shock (malfunction)	100 m/s² (≈ 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

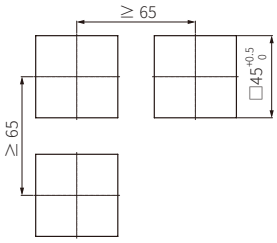
• Unit: mm, For the detailed drawings, follow the Autonics website.



■ Bracket



■ Panel cut-out



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