Autonics

DIGITAL TIMER FSE SERIES



Thank you very much for selecting Autonics products.

For your safety, please read the following before using.

Caution for your safety

**Please keep "Caution for your safety" to avoid accidents or damages as using it correctly.

*The meaning of 'Warning' and 'Caution' is as follows:

▲ Warning In case a serious injury or dead may be occurred.

▲ Caution In case a little injury or a damage of this unit may be occurred.

*The meaning of the mark on the product and manual is as follows; ▲ is a caution mark for danger in special condition

⚠ Warning

1. Please use it with double safety devices when it is used at the equipments which may cause damages to human life or assets(Ex: Nuclear power control, Medical equipment, Vehicle, Train, Air plane, Combustion apparatus, Entertainment or Safety device etc.)

It may cause a fire, human life or assets. 2. This unit must be mounted on Panel.

It may give an electric shock.

3. Do not repair or checkup when power on.

It may give an electric shock.

4. Do not disassemble and modify this unit, when it requires. If needs, please contact us.

It may give an electric shock and cause a fire.

⚠ Caution

1. This unit shall not be used outdoors.

It might shorten the life cycle of the product or give an electric shock

2. Please observe specification rating.

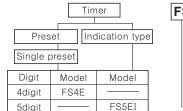
It might shorten the life cycle of the product and cause a fire

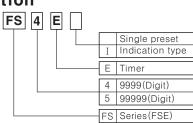
3. Do not use the load beyond rated switching capacity of Relay contact. It may cause insulation failure, contact melt, contact failure, relay broken

4. In cleaning the unit, do not use water or an organic solvents.

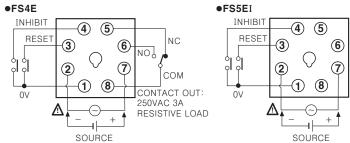
It might cause an electric shock or fire that will result in damage to the product.

Ordering information





Connections



*The above specification are changeable without notice anytime

Specifications

RESET input

Model		F54E	L99EI
Digit		4	5
Power supply	AC power	100-240VAC 50/60Hz	
	AC/DC power	12-24VAC 50/60Hz, 12-24VDC	
Allowable voltage range		90 to 110% of rated voltage	
Power	AC power	Indication:Approx. 3.5VA, Single preset:Approx. 4.5VA(240VAC 50/60Hz)	
consum -ption	AC/DC power	Indication:Approx. 3.4VA, Single preset:Approx. 4.3VA(2 Indication:Approx. 2.2W, Single	
Return time		Min. 500ms	
Min. input		ADDIOX. ZUIIS	
signal widt	h INHIBIT input		

l			INF	IBIT input	• Impedance at open:N	Min. 100kΩ
ı	One-shot output time		ut time	0.05 to 5sec.		
ı	Control	Со	n- Type		Time-limit:SPDT(1c)	
ı	output	tact	t	Capacity	250VAC 3A resistive load	
ı	Memory retention		on	10 years(EEPROM)		
ı	Ambient temperature		rature	-10 to 55℃ (at non-freezing status)		
ı	Storage temperature		ature	-25 to 65℃(at non-freezing status)		
ı	Ambient humidity		ity	35 to 85%RH		
4	Repeat error					
ı	Set error Voltage erroer			$\pm 0.01\%$ $\pm 0.05 sec$		
ı						

No-voltage input

• Inpedance at short-circuit:Max. 470Ω

100m/s2 (10G) 3 times at X, Y, Z direction

Min 10 000 000 times

Min. 100,000 times (250VAC 3A resisitive load)

Temperature error Min. 100M Ω (at 500VDC) nsulation resistance 2000VAC 50/60Hz for 1 minute Dielectric strength ±2kV the square wave noise(pulse width:1//s) AC power by the noise simulator Noise ±500V the square wave noise(pulse width:1 us) AC/DC power by the noise simulator 0.75mm amplitude at frequency of 10 to 55Hz Mechanical in each of X. Y. Z directions for 1 hour

Vibratio 0.5mm amplitude at frequency of 10 to 55Hz Malfunction in each of X, Y, Z directions for 10 minutes Mechanical 300m/s² (30G) 3 times at X, Y, Z direction

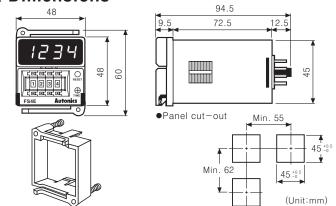
Malfunction

Mechanical

Dimensions

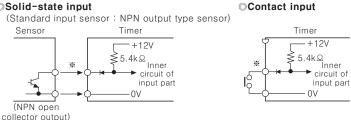
life cycle | Electrical

Weight



Input connections

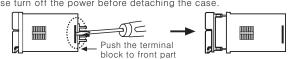
○Solid-state input



Case detachment

※INHIBIT, RESET input part

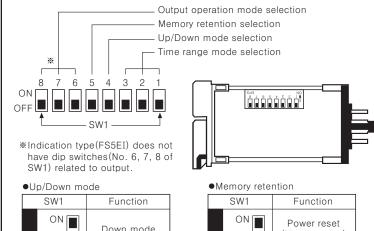
Please turn off the power before detaching the case



Widen the both side of lock devices with a driver, and push the terminal block to the direction of front part.

*Be careful in order not to be wounded

Selection by DIP switches



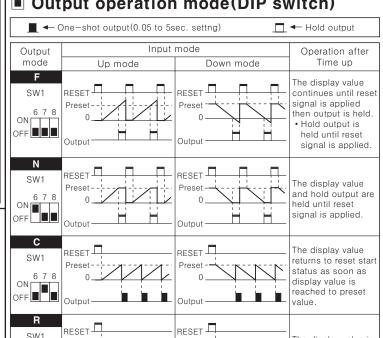
SW1	Function	
ON OFF	Down mode	
ON OFF	Up mode	

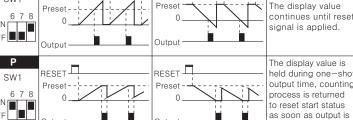
SW1

SW1

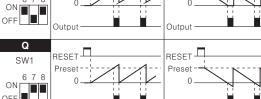
	SW1	Function
5	ON OFF	Power reset (Non memory)
J	ON OFF	Memory

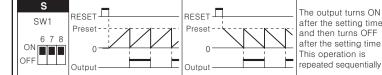
Output operation mode(DIP switch)



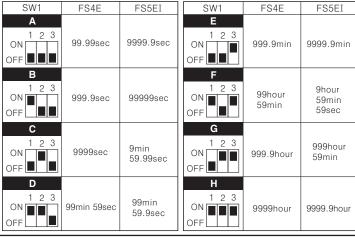


ESET





Time range mode



Indication model operation(FS5EI)

●Up input mode Down input mode RESET-RESET I +Max. display-+Max. display

Caution for using

DIP switch setting

Please be sure to turn power OFF before changing Timer DIP switches setting. If DIP switches setting is changed in power OFF, Timer must be reset by manual reset or external reset after power ON

Error display	Error contents	Return method
Err0	Zero setting value status	Change setting value which is not zero

*Output is OFF when error is displayed. ※No Error display is appeared in indication type

(1) The inner circuit voltage starts to rise up for the first 100ms after power on, the input may not work at this time. And also the inner circuit voltage drops down for the last 500ms after power off, the input may not work at this time.



2) Please use the power within rating power and apply or cut the power at once to prevent from chattering



4. Input signal line

The display value is

held until output is

OFF then returns to

reset start status.

The display value

continues during

one-shot output

①Shorten the cable distance between the sensor and this product

②Shielded wire for input signal needed to be long.

3Please wire input signal line separated from power line

5. When test dielectric voltage and insulation resistance of the control panel with this unit installed 1) Please isolate this unit from the circuit of control panel

@Please make all terminals of this unit short-circuited.

6. Do not use this unit at below places.

①Place where there are severe vibration or impact. ②Place where strong alkalis or acids are used.

3)Place where there are direct ray of the sun

Place where strong magnetic field or electric noise are generated.

. Installation environment

(1) It shall be used indoor

②Altitude Max. 2000m

③Pollution Degree 2 (4) Installation Category II

*It may cause malfunction if above instructions are not followed.

Main products ■ COUNTER

■ TIMER

■ TEMPERATURE CONTROLLER ■ PANEL METER

■ TACHO/LINE SPEED/PULSE METER

DISPLAY UNIT ■ PROXIMITY SENSOR

■ PHOTOELECTRIC SENSOR ■ FIBER OPTIC SENSOR

■ PRESSURE SENSOR

■ ROTARY ENCODER

■ SENSOR CONTROLLER ■ POWER CONTROLLER

■ STEPPING MOTOR & DRIVER & CONTROLLER

■ LASER MARKING SYSTEM(CO₂, Nd:YAG)

Autonics Corporation http://www.autonics.com

Satisfiable Partner For Factory Automation ■HEADQUARTERS

■INTERNATIONAL SALES
Bldg. 402 3rd Fl., Bucheon

INTERNATIONAL SALES: Bldg. 402 3rd Fl., Bucheon Techno Park, 193, Yakdae-dong, Wonmi-gu, Bucheon-si, Gyeonggi-do, 420-734, Korea TEL:82-32-610-2730 / FAX:82-32-329-0728

EP-KE-02-025J