

## Features

### Slim timed sockets for 34 series, 6.2 mm wide

- Timer adjustment via top mounted rotary knob accessible after assembly
- Control signal terminal
- DIP-switch for selection of 4 time scales and 8 functions
- Output with fuse module option
- EMR and SSR: 12 to 24 V AC/DC supply
- Screw terminal and push-in terminal

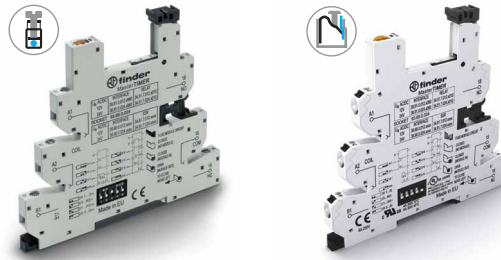
93.68  
Screw terminal



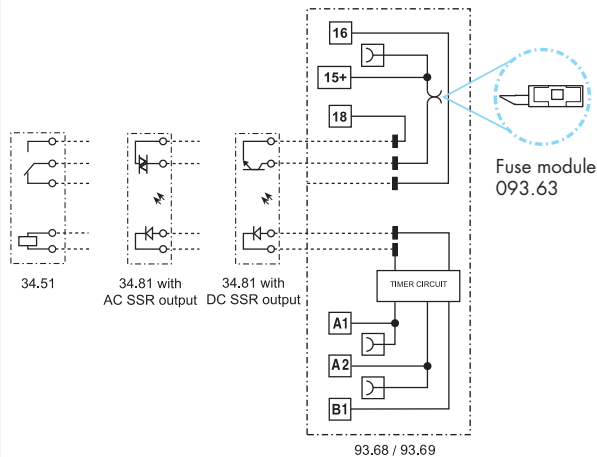
93.69  
Push-in terminal



**NEW** 93.68/93.69



- Time scale: from 0.1 s to 6h
- Multi-function
- For use with 34.51 (EMR) and 34.81 (SSR) relays
- Screw terminal and push-in terminal



- A1:** On-delay  
**DI:** Interval  
**GI:** Pulse (0.5 s) delayed  
**SW:** Symmetrical flasher (starting pulse on)  
**BE:** Off-delay with control signal  
**CE:** On- and off-delay with control signal  
**DE:** Interval with control signal on  
**EE:** Interval with control signal off

For outline drawing see page 3

Contact specification	
Contact configuration	
Rated current/Maximum peak current	A
Rated voltage/Maximum switching voltage V AC	
Rated load AC1	VA
Rated load AC15 (230 V AC)	VA
Single phase motor rating (230 V AC)	kW
Breaking capacity DC1: 30/110/220 V	A
Minimum switching load	mW (V/mA)
Standard contact material	
Supply specification	
Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)/DC 12...24
Rated power AC/DC	VA/W See coils specifications page 2
Operating range	V AC (50/60 Hz)/DC 9.6...26.4
Technical data	
Specified time range	(0.1...3)s, (3...60)s, (1...20)min, (0.3...6)h
Repeatability	% ± 1
Recovery time	ms ≤ 50
Setting accuracy – full range	% 5
Electrical life at rated load in AC1	cycles See 34.51 (EMR) and 34.81 (SSR) relays
Ambient temperature range	°C -20...+50
Protection category	IP 20
<b>Approvals</b> (according to type)	

See 34.51 and 34.81 relays

## Ordering information

Example: type 93.68.0.024 multi-function timer module for 34 series relay, screw terminals, (12...24)V AC/DC supply voltage.

9 3 . 6 8 . 0 . 0 2 4

**Series** \_\_\_\_\_  
**Type** \_\_\_\_\_  
 6 = Multi-function (AI, DI, GI, SW, BE, CE, DE, EE)  
**No. of poles** \_\_\_\_\_  
 8 = 1 CO (EMR type 34.51), screw terminals  
 8 = 1 NO (SSR type 34.81), screw terminals  
 9 = 1 CO (EMR type 34.51), push-in terminals  
 9 = 1 NO (SSR type 34.81), push-in terminals

**Supply voltage**  
 024 = (12...24)V AC/DC  
**Supply version**  
 0 = AC (50/60 Hz)/DC

## Combinations

Output	Supply voltage	Type of relay	Type of socket, screw terminals
1 pole 6 A, electromechanical relay	12 V AC/DC	34.51.7.012.0010	93.68.0.024
1 pole 6 A, electromechanical relay	24 V AC/DC	34.51.7.024.0010	93.68.0.024
1 output 2 A 24 V DC, solid state relay	12 V AC/DC	34.81.7.012.9024	93.68.0.024
1 output 2 A 240 V AC, solid state relay	12 V AC/DC	34.81.7.012.8240	93.68.0.024
1 output 2 A 24 V DC, solid state relay	24 V AC/DC	34.81.7.024.9024	93.68.0.024
1 output 2 A 240 V AC, solid state relay	24 V AC/DC	34.81.7.024.8240	93.68.0.024
Output	Supply voltage	Type of relay	Type of socket, push-in terminals
1 pole 6 A, electromechanical relay	12 V AC/DC	34.51.7.012.0010	93.69.0.024
1 pole 6 A, electromechanical relay	24 V AC/DC	34.51.7.024.0010	93.69.0.024
1 output 2 A 24 V DC, solid state relay	12 V AC/DC	34.81.7.012.9024	93.69.0.024
1 output 2 A 240 V AC, solid state relay	12 V AC/DC	34.81.7.012.8240	93.69.0.024
1 output 2 A 24 V DC, solid state relay	24 V AC/DC	34.81.7.024.9024	93.69.0.024
1 output 2 A 240 V AC, solid state relay	24 V AC/DC	34.81.7.024.8240	93.69.0.024

Note: Although the timer socket covers both 12 and 24 volt supplies, it must be combined with the appropriate 12 V or 24 V relay; resulting in a combination suitable for just a single supply voltage.

## Technical data

## EMC specifications

Type of test		Reference standard	
Electrostatic discharge	contact discharge	EN 61000-4-2	4 kV
	air discharge	EN 61000-4-2	8 kV
Radio-frequency electromagnetic field	(80 ÷ 1,000 MHz)	EN 61000-4-3	10 V/m
	(1,400 ÷ 2,700 MHz)	EN 61000-4-3	10 V/m
Fast transients (burst) (5-50 ns, 5 and 100 kHz)	on Supply terminals	EN 61000-4-4	4 kV
	on control signal terminals	EN 61000-4-4	4 kV
Surges (1.2/50 µs) on supply and control signal terminals	common mode	EN 61000-4-5	2 kV
	differential mode	EN 61000-4-5	0.8 kV
Radio-frequency common mode (0.15 ÷ 80 MHz)	on Supply terminals	EN 61000-4-6	10 V
	on control signal terminals	EN 61000-4-6	3 V
Radiated and conducted emission		EN 55022	class B

## Other data

Current absorption on signal control (B1)	mA	<1.7 (12V) - <3.5 (24V)
Bounce time (EMR) : NO/NC	ms	1/6
Vibration resistance (EMR, 10..55 Hz): NO/NC	g	10/5
Power lost to the environment	without contact current W	0.3
	with rated current W	0.8

## Terminals

		Solid and stranded cable	
		Screw terminals	Push-in terminals
Wire strip length	mm	10	8
⊕ Screw torque	Nm	0.5	—
Max. wire size	mm <sup>2</sup>	1 x 2.5 / 2 x 1.5	1 x 2.5
	AWG	1 x 14 / 2 x 16	1 x 14
Min. wire size	mm <sup>2</sup>	1 x 0.2	1 x 0.2
	AWG	1 x 24	1 x 24

### Input specifications

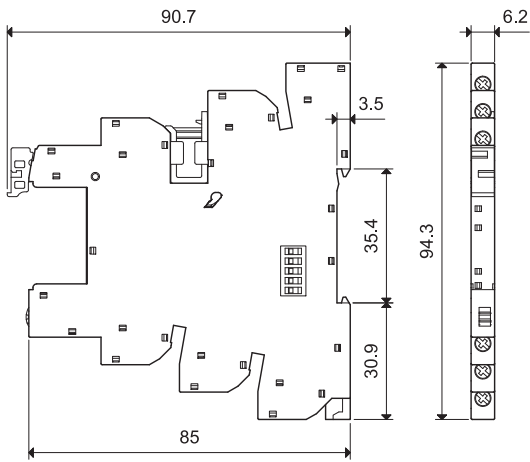
#### Input data AC/DC timer

Nominal voltage $U_N$	Operating range (AC/DC)		Must drop-out voltage $U_r$	Rated input current at $U_N$		Rated power at $U_N$	
	$U_{min}$	$U_{max}$		DC	AC	DC	AC
V	V	V	V	mA	mA	W	VA / W
12	9.6	13.2	1.2	15	23	0.2	0.3 / 0.2
24	19.2	26.4	2.4	11	19	0.25	0.4 / 0.3

### Outline drawings

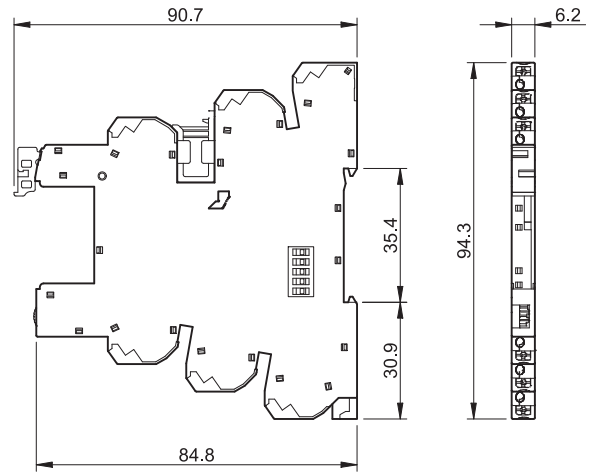
93.68

Screw terminal



93.69

Push-in terminal



Times scales

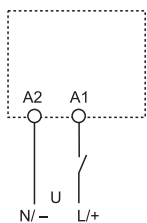


Functions

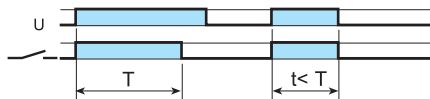
LED	Supply voltage	NO contact/output
	OFF	Open
	ON	Open
	ON	Open (timing to close in progress)
	ON	Closed

Wiring diagram

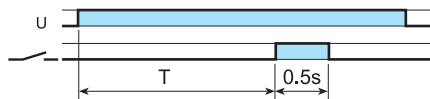
U = Supply voltage      S = Signal switch      = Output contact



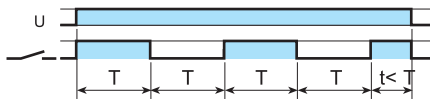
**(AI) On-delay**  
Apply power to timer. Output contacts transfer after preset time has elapsed. Reset occurs when power is removed.



**(DI) Interval**  
Apply power to timer. Output contacts transfer immediately. After the preset time has elapsed, contacts reset.



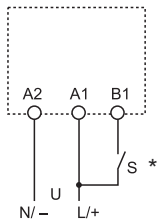
**(GI) Pulse (0.5s) delayed**  
Apply power to timer. Output contacts transfer after preset time has elapsed. Reset occurs after a fixed time of 0.5s.



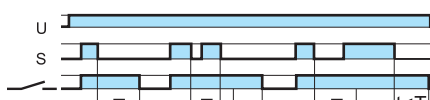
**(SW) Symmetrical flasher (starting pulse on)**  
Apply power to timer. Output contacts transfer immediately and cycle between ON and OFF for as long as power is applied. The ratio is 1:1 (time on = time off).

Timers and Monitoring relays

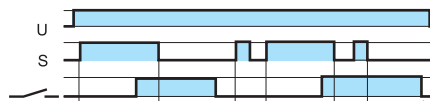
With control signal



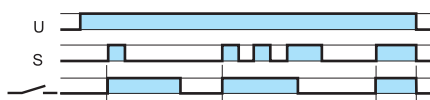
\* With DC supply, positive polarity has to be connected to B1 terminal (according to EN 60204-1).



**(BE) Off-delay with control signal**  
Power is permanently applied to the timer. The output contacts transfer immediately on closure of the Signal Switch (S). Opening the Signal Switch initiates the preset delay, after which time the output contacts reset.



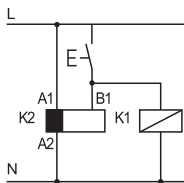
**(CE) On- and off-delay with control signal**  
Power is permanently applied to the timer. Closing the Signal Switch (S) initiates the preset delay, after which time the output contacts transfer. Opening the Signal Switch initiates the same preset delay, after which time the output contacts reset.



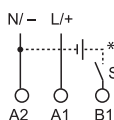
**(DE) Interval with control signal on**  
Power is permanently applied to the timer. On momentary or maintained closure of Signal Switch (S), the output contacts transfer, and remain so for the duration of the preset delay, after which they reset.



**(EE) Interval with control signal off**  
Power is permanently applied to the timer. On opening of the Signal Switch (S) the output contacts transfer, and remain so for the duration of the preset delay, after which they reset.

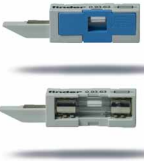


• Possible to control an external load, such as another relay coil or timer, connected to the control signal terminal B1.



\*\* A voltage other than the supply voltage can be applied to the command Start (B1), example:  
A1 - A2 = 24 V AC  
B1 - A2 = 12 V DC

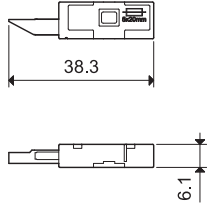
Accessories



093.63

**Output fuse module** | 093.63

- Patent-pending solution for easy load protection
- For 5 x 20 mm fuses up to 6 A, 250 V
- Easy visibility of the fuse condition through the window
- Quick connection to socket



093.16

**16-way jumper link** | 093.16 (blue) | 093.16.0 (black) | 093.16.1 (red)

Rated values | 36 A - 250 V

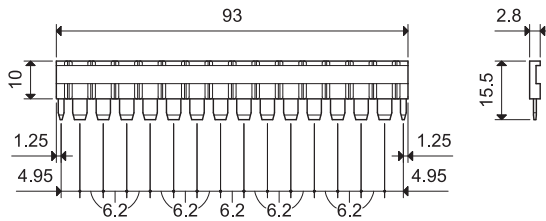
Possibility of multiple connection, side by side



093.16.0



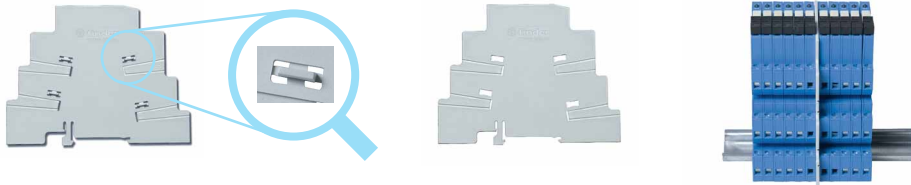
093.16.1



093.60

**Dual-purpose plastic separator (1.8 mm or 6.2 mm separation)** | 093.60

1. By breaking off the protruding ribs (by hand), the separator becomes only 1.8 mm thick; useful for the visual separation of different groups of interfaces, or necessary for the protective separation of different voltages of neighbouring interfaces, or for the protection of cut ends of jumper links.



2. Leaving the ribs in place provides 6.2mm separation. Simply cutting (with scissors) the relevant segment(s) permits the interconnection across the separator of 2 different groups of interface relays, using the standard jumper link.



060.72

**Sheet of marker tags, plastic, 72 tags, 6x12 mm** | 060.72

