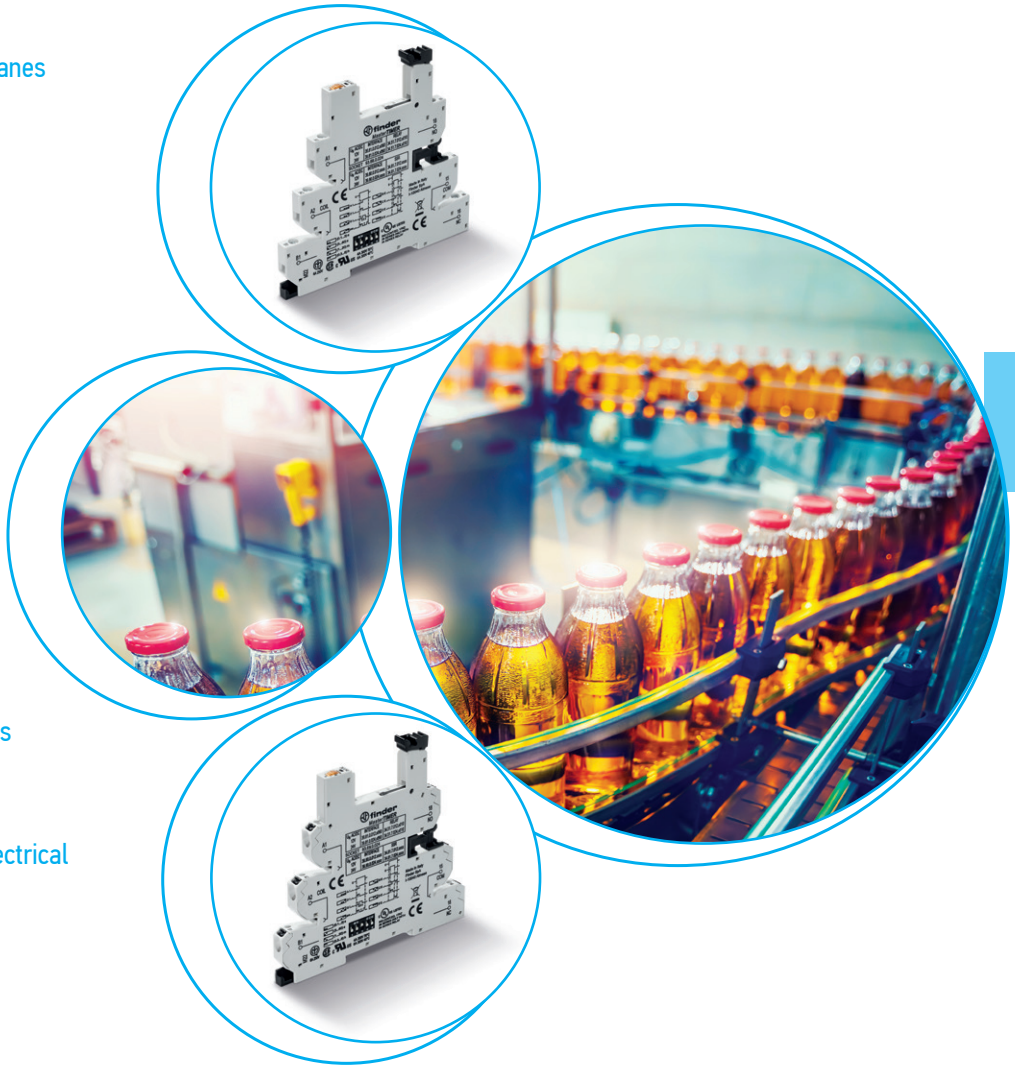
finder
SWITCH TO THE FUTURE

Timed socket for 34 series

- Hoists and cranes
- Packaging machines
- Traffic light controls
- Bottling plant
- Carousel warehouses
- Control panels
- Panels for electrical distribution
- Labelling machines



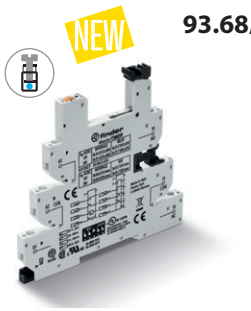
93
SERIES

Slim timed sockets for 34 series, 6.2 mm wide

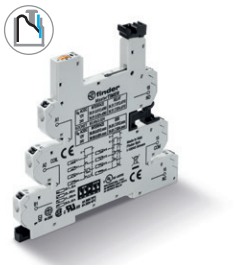
- Timer adjustment via top mounted rotary knob accessible after assembly
- Control signal terminal
- DIP-switch for selection of 4 time scales and 8 functions
- Output with fuse module option
- EMR and SSR: 12 to 24 V AC/DC supply
- Screw terminal and push-in terminal

93.68
Screw terminals

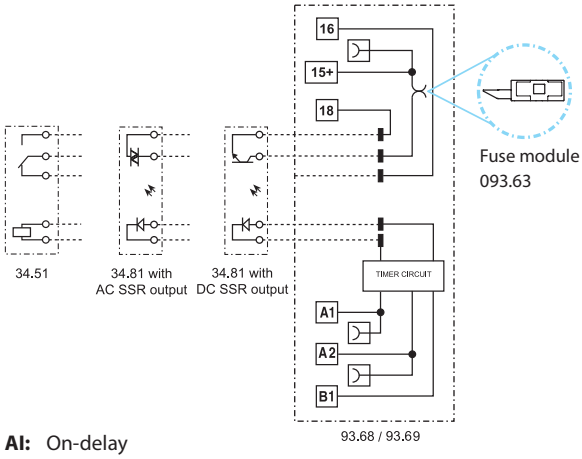
93.69
Push-in terminal



93.68/93.69



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



AI: 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 5

Contact specification		
Contact configuration		See 34.51 and 34.81 relays
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: 24/110/220 V	A	
Minimum switching load	mW (V/mA)	
Standard contact material		
Supply specification		
Nominal voltage (U_N)	V AC (50/60 Hz)/DC	12…24
Rated power AC/DC	VA/W	See coils specifications page 4
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
Approvals (according to type)		

93 SERIES
Timed socket for 34 series

Ordering information

Example: type 93.68 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 version
0 = AC (50/60 Hz)/DC

Supply voltage
024 = (12…24)V AC/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 6 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 6 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 6 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 6 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 V 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 ÷ 1000 MHz)	EN 61000-4-3	10 V/m
	(1400 ÷ 2700 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 (12 V) - < 3.5 (24 V)	
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^2	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^2	1 x 0.5	1 x 0.5
	AWG	1 x 21	1 x 21

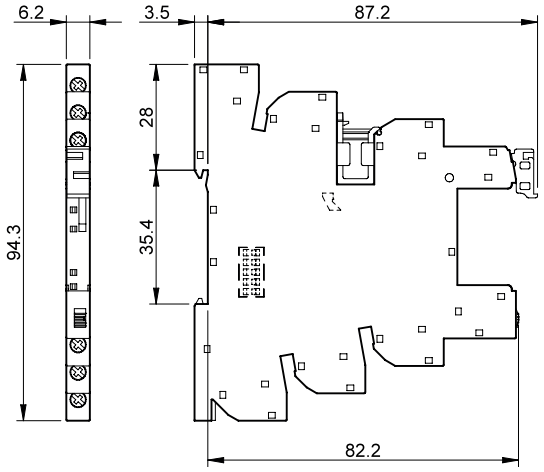
Input specifications

Input data AC/DC timer

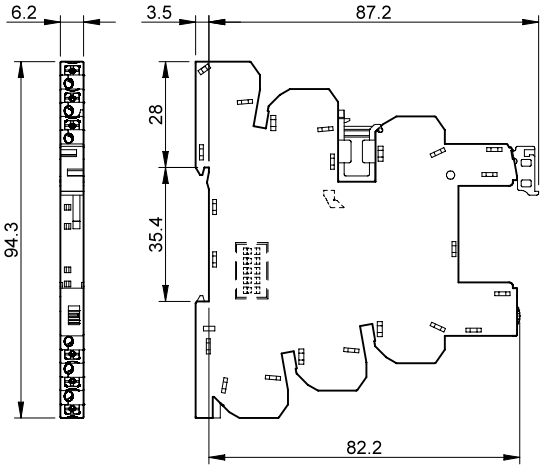
Nominal voltage	Operating range (AC/DC)		Must drop-out voltage	Rated input current at U_N		Rated power at U_N	
U_N	U_{min}	U_{max}	U_r	DC	AC	DC	AC
V	V	V	V	mA	mA	mA	mA
12	9.6	13.2	1.2	15	23	0.2	0.3/0.2
24	19.2	26.4	2.4	11	19	0.25	0.4/0.3

Outline drawing

Type 93.68
Screw terminals



Type 93.69
Push-in terminal

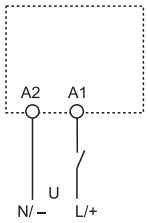


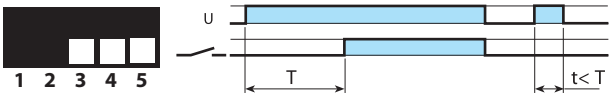
Times scales

Functions

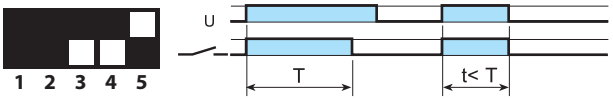
LED	Supply voltage	NO contact/output
	OFF	Open
	ON	Open
	ON	Open (timing to close in progress)
	ON	Closed

Wiring diagram **U** = Supply voltage **S** = Signal switch = Output Contact

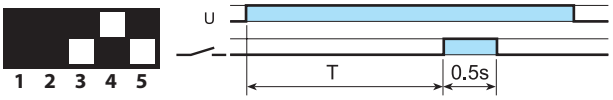




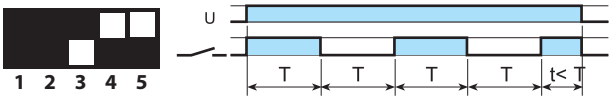
(AI) On-delay.
Apply power to timer.
Output contacts transfer after preset time has elapsed.
Reset occurs when power is removed.



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

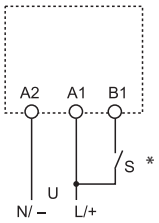


(GI) Pulse (0.5 s) delayed.
Apply power to timer.
Output contacts transfer after preset time has elapsed.
Reset occurs after a fixed time of 0.5 s.

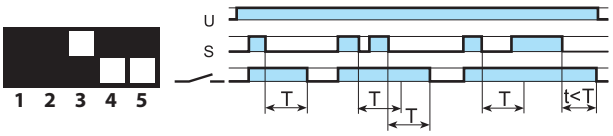


(SW) Symmetrical flasher (starting pulse on).
Apply power to timer.
Output contacts transfer immediately and cycle between ON and OFF for as long as power is applied.
The ratio is 1:1 (time on = time off).

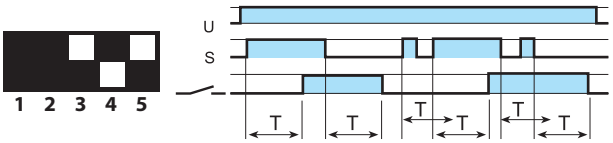
With control signal



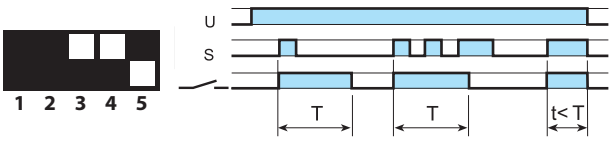
* With DC supply, positive polarity has to be conneted to B1 terminal (according to EN 60204-1).



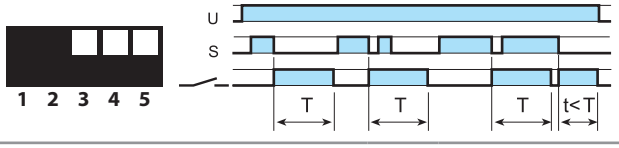
(BE) Off-delay with control signal.
Power is permanently applied to the timer. The output contacts transfer immediately on closure of the Signal Switch (S). Opening the Signal Switch initiates the preset delay, after which time the output contacts reset.



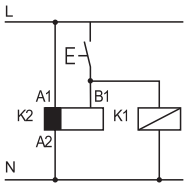
(CE) On- and off-delay with control signal.
Power is permanently applied to the timer. Closing the Signal Switch (S) initiates the preset delay, after which time the output contacts transfer. Opening the Signal switch initiates the same preset delay, after which time the output contacts reset.



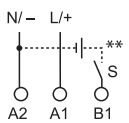
(DE) Interval with control signal on.
Power is permanently applied to the timer. On momentary or maintained closure of Signal Switch (S), the output contacts transfer, and remain so for the duration of the preset delay, after which they reset.



(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.

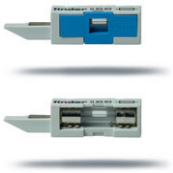


- Possible to control an external load, such as another relay coil or timer, connected to the control signal terminal B1.



** 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

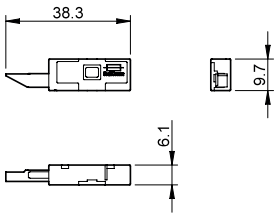
Approvals
(according to type):

Output fuse module	093.63

- 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

Notes

Safety: Because the output circuit can be reinstated, even with the fuse removed, it is important not to consider the removal of the fuse as a "safety disconnect". Always isolate elsewhere before working on the circuit.
UL: According to UL508A, the fuse module cannot be installed in power circuits (in which it is mandatory that a fuse certified according to UL category JDDZ be fitted). However, where the MasterInterface is connected as an output interface to a PLC no such restrictions apply, and the fuse module can be usefully employed.



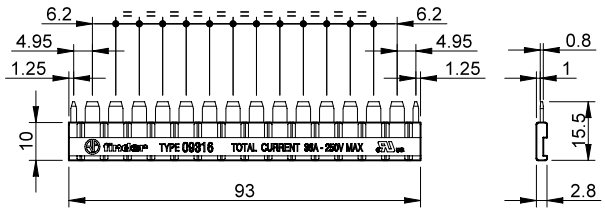
093.16

093.16.0

093.16.1

Approvals
(according to type):

16-way jumper link	093.16 (blue)	093.16.0 (black)	093.16.1 (red)
Rated values	6 A - 250 V		
Possibility of multiple connection, side by side			

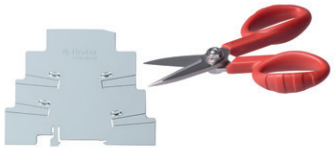


093.60

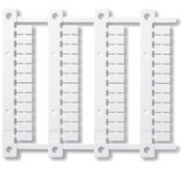
Dual-purpose plastic separator (1.8 mm or 6.2 mm separation)	093.60

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 6.2 mm 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.



Sheet of marker tags, plastic, 48 tags, 6 x 12 mm, for CEMBRE thermal transfer printers	060.48



060.48

Accessories

093.62

Terminal doubler (for socket Push-in only)		093.62
Total load		6 A - 300 V
Max. wire size		**Solid and stranded cable**
	mm^2	2 x 1.5
	AWG	2 x 16

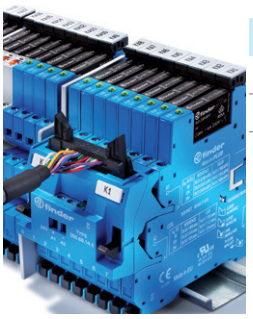
093.68.14.1

Approvals
(according to type):

*Master**ADAPTER***		093.68.14.1

The *Master**ADAPTER*** permits the easy connection of A1/A2 terminals of up to *Master**INTERFACE*** modules to PLC outputs via a 14-Pole ribbon cable, plus simple 2-wire power supply connection.

Technical data		
Rated current (per signal path)	A	1
Minimum required supply power	W	3
Nominal voltage (U_N)	V DC	24
Operating range		$(0.8…1.1)U_N$
Control logic		Positive switching (to A1)
Power supply status indication		Green LED
Ambient temperature range	°C	–40…+70
Terminals for 24 V control logic		
Type of connector		14 pole, according to IEC 60603-13
Terminals for 24 V power supply		
Wire strip length	mm	9.5
Screw torque	Nm	0.5
Max. wire size		
solid wire	mm^2	1 x 4 / 2 x 1.5
	AWG	1 x 12 / 2 x 16
stranded wire	mm^2	1 x 2.5 / 2 x 1.5
	AWG	1 x 14 / 2 x 16



Connected
*Master**ADAPTER***