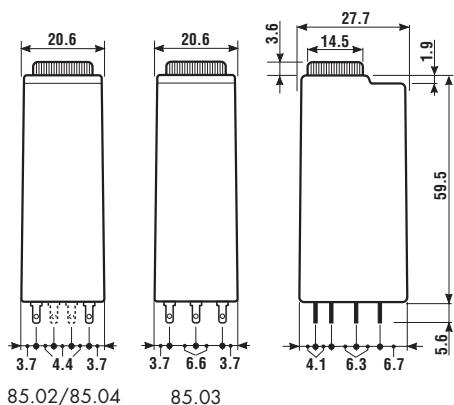


Features

Plug-in timer

- 85.02 - 2 Pole 10 A
- 85.03 - 3 Pole 10 A
- 85.04 - 4 Pole 7 A

- Multifunctions
- Seven time scales, from 0.05s to 100h
- 94 series sockets



85.02/85.04

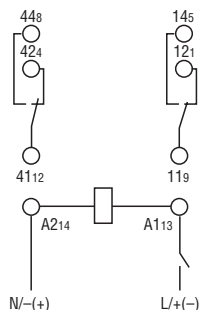
85.03

85.02



- 2 pole, 10 A
- AC/DC supply non polarized
- Plug-in for use with 94 series sockets

- AI:** ON delay
- DI:** ON pulse
- SW:** Symmetrical recycling: ON start
- GI:** Fixed pulse (0.5s) delayed



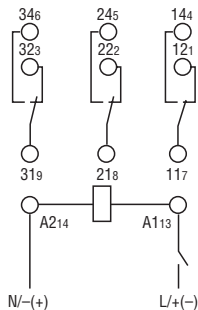
Wiring diagram
(without signal START)

85.03



- 3 pole, 10 A
- AC/DC supply non polarized
- Plug-in for use with 94 series sockets

- AI:** ON delay
- DI:** ON pulse
- SW:** Symmetrical recycling: ON start
- GI:** Fixed pulse (0.5s) delayed



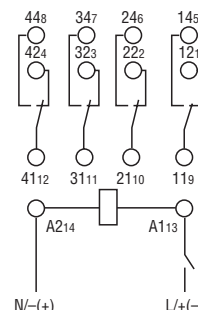
Wiring diagram
(without signal START)

85.04



- 4 pole, 7 A
- AC/DC supply non polarized
- Plug-in for use with 94 series sockets

- AI:** ON delay
- DI:** ON pulse
- SW:** Symmetrical recycling: ON start
- GI:** Fixed pulse (0.5s) delayed



Wiring diagram
(without signal START)

Contact specification

Contact configuration

2 CO (DPDT)

3 CO (3PDT)

4 CO (4PDT)

Rated current/Maximum peak current A

10/20

10/20

7/15

Rated voltage/Maximum switching voltage V AC

250/400

250/400

250/250

Rated load AC1 VA

2,500

2,500

1,750

Rated load AC15 (230 V AC) VA

500

500

350

Single phase motor rating (230 V AC) kW

0.37

0.37

0.125

Breaking capacity DC1: 30/110/220 V A

10/0.25/0.12

10/0.25/0.12

7/0.25/0.12

Minimum switching load mW (V/mA)

300 (5/5)

300 (5/5)

300 (5/5)

Standard contact material

AgNi

AgNi

AgNi

Supply specification

Nominal voltage (U_N) V AC (50/60 Hz)

230...240

230...240

230...240

V AC/DC

12 - 24 - 48 - 110...125 (non polarized)

Rated power AC/DC V AC (50 Hz)/W

2/2

2/2

2/2

Operating range AC

(0.85...1.1) U_N

(0.85...1.1) U_N

(0.85...1.1) U_N

DC

(0.85...1.1) U_N

(0.85...1.1) U_N

(0.85...1.1) U_N

Technical data

Specified time range

(0.05...1)s, (0.5...10)s, (5...100)s, (0.5...10)min, (5...100)min, (0.5...10)h, (5...100)h

Repeatability %

± 2

± 2

± 2

Recovery time ms

≤ 20

≤ 20

≤ 20

Minimum control impulse ms

—

—

—

Setting accuracy-full range %

± 5

± 5

± 5

Electrical life at rated load in AC1 cycles

200 · 10³

200 · 10³

150 · 10³

Ambient temperature range °C

-20...+60

-20...+60

-20...+60

Protection category

IP 40

IP 40

IP 40

Approvals (according to type)



Ordering information

Example: 85 series timer, 4 CO (4PDT), 24 V AC/DC supply voltage, AI, DI, GI, SW functions.

8 5 . 0 4 . 0 . 0 2 4 . 0 0 0 0

Series

Type

0 = Multifunction (AI, DI, GI, SW)*

* AI = ON delay

DI = ON pulse

GI = Fixed pulse (0.5s) delayed

SW = Symmetrical recycling: ON start

No. of poles

2 = 2 pole - 10 A

3 = 3 pole - 10 A

4 = 4 pole - 7 A

Supply voltage

012 = 12 V AC/DC

024 = 24 V AC/DC

048 = 48 V AC/DC

125 = (110...125)V AC/DC

240 = (230...240)V AC

Supply version

0 = AC (50/60 Hz)/DC

8 = AC (50/60 Hz) for 240 V only

Technical data

Insulation						
Dielectric strength			85.02/03		85.04	
			between input and output circuit	V AC	2,000	2,000
			between open contacts	V AC	1,000	1,000
			between adjacent contacts	V AC	2,000	1,550
Insulation (1.2/50 μs) between input and output			kV	6	4	
EMC specifications						
Type of test			Reference standard			
Electrostatic discharge	contact discharge		EN 61000-4-2		n.a.	
	air discharge		EN 61000-4-2		8 kV	
Radio-frequency electromagnetic field (80 ÷ 1000 MHz)			EN 61000-4-3		15 V/m	
Fast transients (burst) (5-50 ns, 5 kHz) on Supply terminals			EN 61000-4-4		4 kV	
Surges (1.2/50 μs) on	common mode		EN 61000-4-5		4 kV	
	differential mode		EN 61000-4-5		2 kV	
Radio-frequency common mode (0.15 ÷ 80 MHz) on Supply terminals			EN 61000-4-6		10 V	
Power-frequency (50 Hz)			EN 61000-4-8		30 A/m	
Radiated and conducted emission			EN 55022		class B	
Other data						
Power lost to the environment	without contact current		W	1.6		
	with rated current		W	3.7 (85.02)	4.7 (85.03) 3.6 (85.04)	

Times scales

(0.05...1)s	(0.5...10)s	(5...100)s	(0.5...10)min	(5...100)min	(0.5...10)h	(5...100)h
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3

NOTE: time scales and functions must be set before energising the timer.

Functions

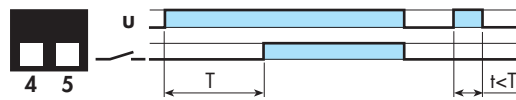
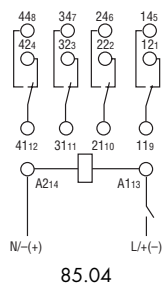
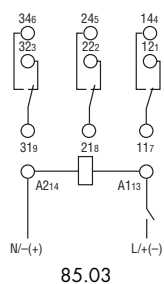
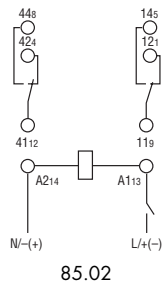
U = Supply voltage

= Output contact

LED	Supply voltage	NO (SPDT-NO) output contact	Contacts	
			Open	Closed
	OFF	Open	x1 - x4	x1 - x2
	ON	Open	x1 - x4	x1 - x2
	ON	Open (Timing in Progress)	x1 - x4	x1 - x2
	ON	Closed	x1 - x2	x1 - x4

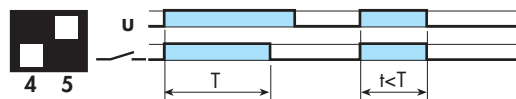
Wiring diagram

Type: 85.02, 85.03, 85.04



(AI) ON delay.

Apply power to timer.
Output contacts transfer after preset time has elapsed.
Reset occurs when power is removed.



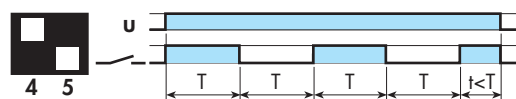
(DI) ON pulse.

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



(GI) Fixed 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 recycling: ON start.

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).

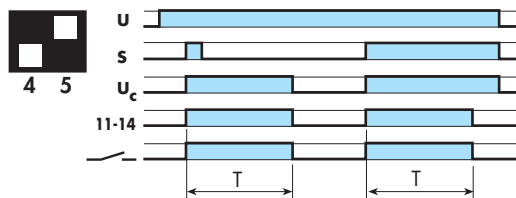
U = Supply voltage

S = Signal switch

U_c = Supply voltage to the timer

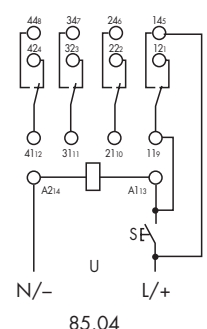
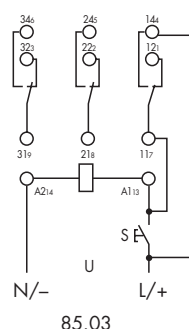
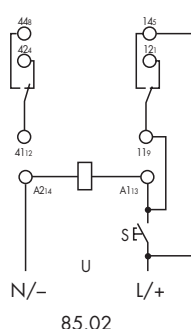
11-14 = Self-holding contact

= Output contact



Signal ON Pulse

On momentary closure of Signal Switch (S) > 50 ms, the output contacts transfer and remain so (with self-holding on contact 11-14) for the duration of the preset delay, after which they reset.

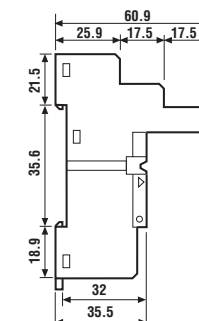
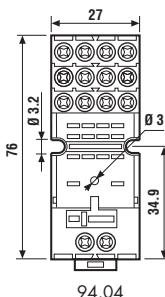
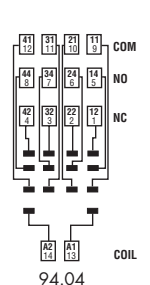
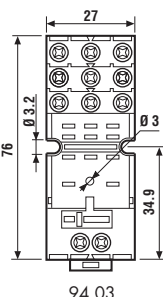
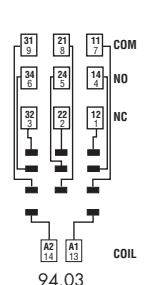
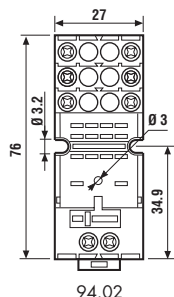
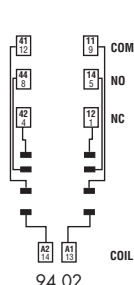




94.04
Approvals
(according to type):

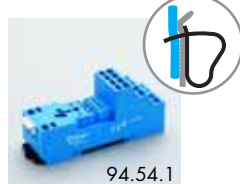


Screw terminal (Box clamp) socket	94.02	94.02.0	94.03	94.03.0	94.04	94.04.0
panel or 35 mm rail (EN 50022) mount	Blue	Black	Blue	Black	Blue	Black
For timer type	85.02		85.03		85.04	
Accessories						
Metal retaining clip (supplied with timer)	094.81					
6-way jumper link	094.06	094.06.0	094.06	094.06.0	094.06	094.06.0
Identification tag	094.00.4					
Technical data						
Rated values	10 A - 250 V					
Dielectric strength	≥ 2 kV AC					
Protection category	IP 20					
Ambient temperature	°C	−40...+70				
 Screw torque	Nm	0.5				
Wire strip length	mm	8				
Max. wire size for 94.02, 94.03 and 94.04 sockets	solid wire			stranded wire		
	mm²	1x6 / 2x2.5			1x4 / 2x2.5	
	AWG	1x10 / 2x14			1x12 / 2x14	



094.06

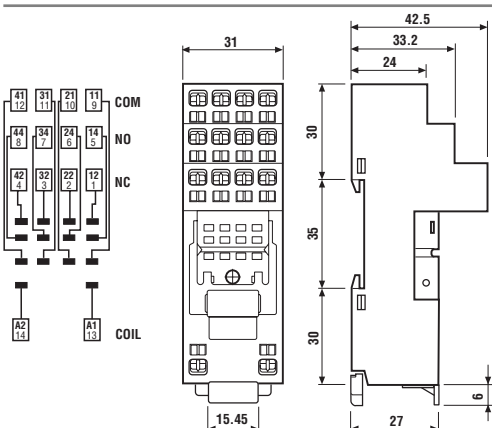
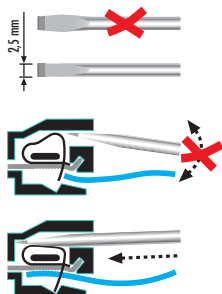
6-way jumper link for 94.02, 94.03 and 94.04 sockets		094.06
Rated values		10 A - 250 V

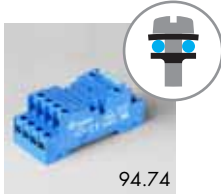


94.54.1
Approvals
(according to type):

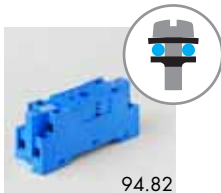


Screwless terminal socket 35 mm rail (EN 50022) mount		94.54.1 (blue)	94.54.10 (black)
For timer type		85.02, 85.04	
Accessories			
Metal retaining clip		094.81	
Technical data			
Rated values		10 A - 250 V	
Dielectric strength		≥ 2 kV AC	
Protection category		IP 20	
Ambient temperature		°C -25...+70	
Wire strip length		mm	7
Max. wire size for 94.54.1 socket		solid wire	
		mm ²	
		2x(0.2...1.5)	
Max. wire size for 94.54.1 socket		stranded wire	
		mm ²	
		2x(24...18)	





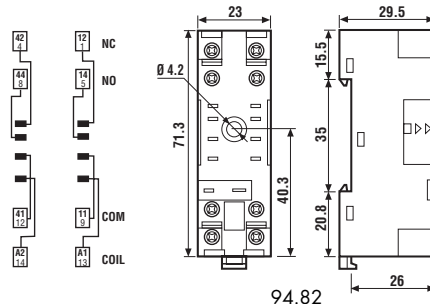
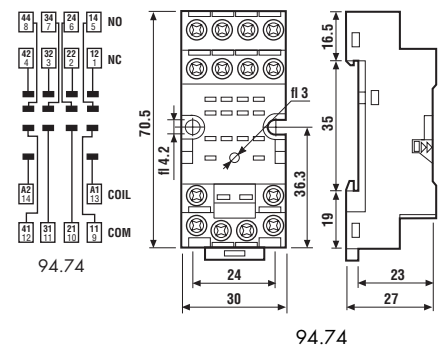
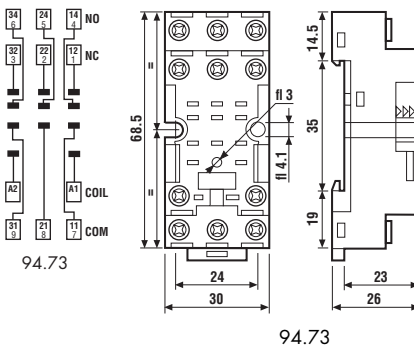
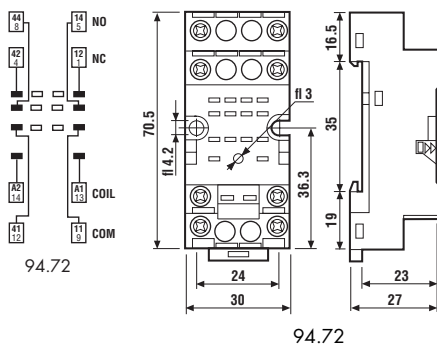
Approvals
(according to type):



Approvals
(according to type):

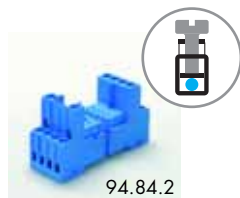


Screw terminal (Plate clamp) socket	94.72	94.72.0	94.73	94.73.0	94.74	94.74.0
panel or 35 mm rail (EN 50022) mount	Blue	Black	Blue	Black	Blue	Black
For timer type	85.02		85.03		85.02, 85.04	
Accessories						
Metal retaining clip (supplied with timer)	094.81					
Screw terminal socket	94.82			94.82.0		
panel or 35 mm rail (EN 50022) mount	Blue			Black		
For timer type	85.02			85.02		
Accessories						
Metal retaining clip (supplied with timer)	094.81					
Technical data						
Rated values	10 A - 250 V					
Dielectric strength	≥ 2 kV AC					
Protection category	IP 20					
Ambient temperature	°C	−40...+70				
 Screw torque	Nm	0.5				
Wire strip length	mm	8 (94.72, 94.73, 94.74); 9 (94.82)				
Max. wire size for 94.72, 94.73, 94.74		solid wire			stranded wire	
and 94.82 sockets	mm²	1x2.5 / 2x1.5			1x2.5 / 2x1.5	
	AWG	1x14 / 2x16			1x14 / 2x16	





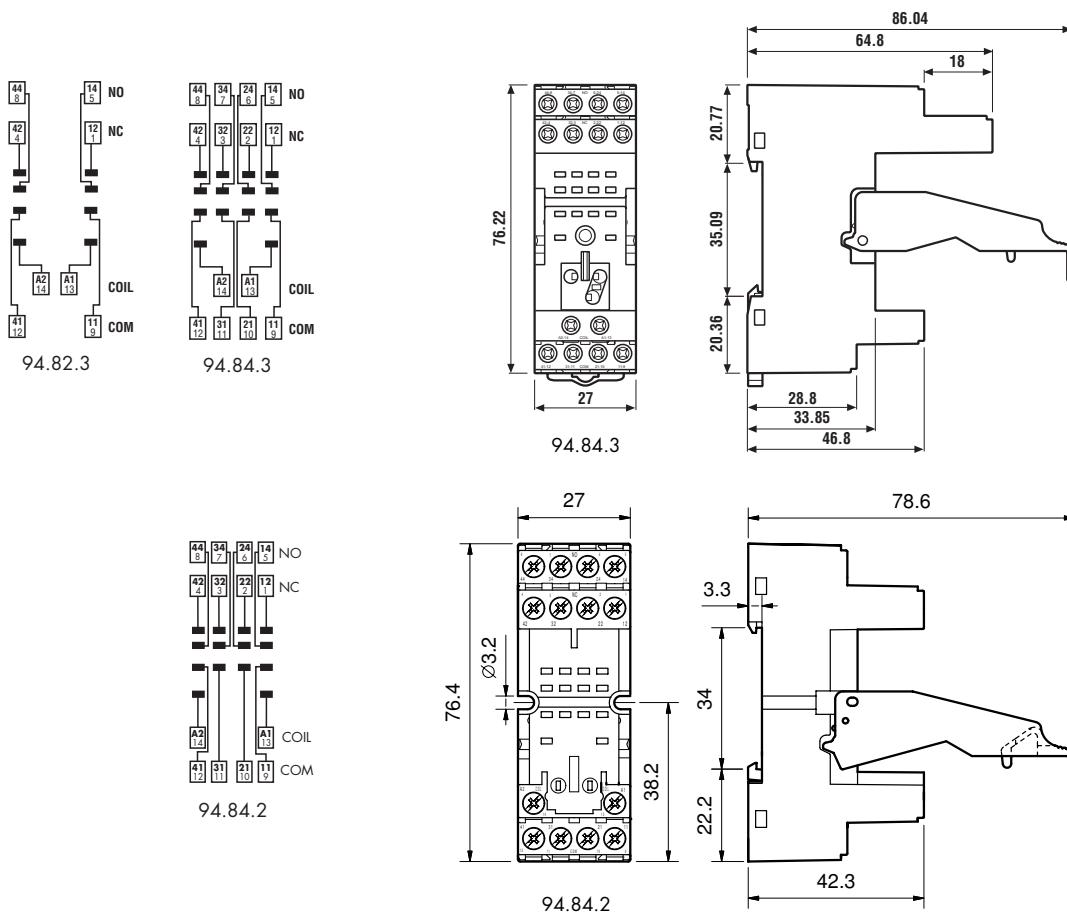
Approvals
(according to type):



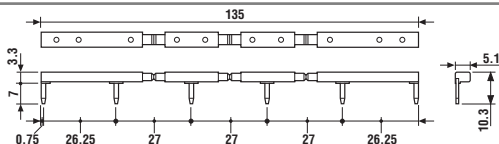
Approvals
(according to type):



Screw terminal (Box clamp) socket panel or 35 mm rail mount	94.82.3 Blue	94.82.30 Black	94.84.3 Blue	94.84.30 Black
For timer type	85.02		85.02, 85.04	
Accessories				
Metal retaining clip	094.81			
6-way jumper link	094.06	094.06.0	094.06	094.06.0
Identification tag	094.80.2			
Screw terminal (Box clamp) socket panel or 35 mm rail mount	94.84.2 Blue	94.84.20 Black		
For timer type	85.02, 85.04			
Accessories				
Metal retaining clip	094.81			
6-way jumper link	094.06		094.06.0	
Identification tag	094.80.2			
Technical data				
Rated values	10 A - 250 V			
Dielectric strength	≥ 2 kV AC			
Protection category	IP 20			
Ambient temperature	°C	−40...+70		
 Screw torque	Nm	0.5		
Wire strip length	mm	7		
Max. wire size for 94.82.3, 94.84.3 and 94.84.2 sockets		solid wire		stranded wire
	mm²	1×6 / 2×2.5		1×4 / 2×2.5
	AWG	1×10 / 2×14		1×12 / 2×14



6-way jumper link for 94.82.3, 94.84.3 and 94.84.2 sockets	094.06
Rated values	10 A - 250 V





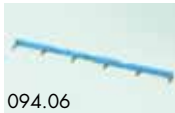
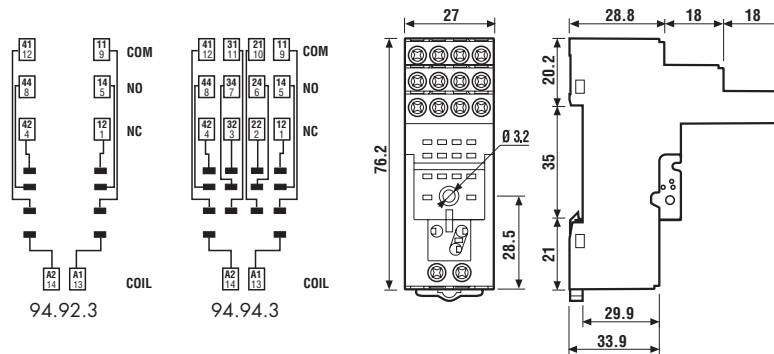
94.94.3

Approvals
(according to type):



060.72

Screw terminal (Box clamp) socket	94.92.3	94.92.30	94.94.3	94.94.30
panel or 35 mm rail (EN 50022) mount	Blue	Black	Blue	Black
For timer type	85.02		85.02, 85.04	
Accessories				
Metal retaining clip	094.81			
6-way jumper link	094.06	094.06.0	094.06	094.06.0
Identification tag	094.80.2			
Technical data				
Rated values	10 A - 250 V			
Dielectric strength	≥ 2 kV AC			
Protection category	IP 20			
Ambient temperature	°C	−25...+70		
 Screw torque	Nm	0.5		
Wire strip length	mm	8		
Max. wire size for 94.92.3 and 94.94.3 sockets		solid wire		stranded wire
	mm²	1x6 / 2x2.5		1x4 / 2x2.5
	AWG	1x10 / 2x14		1x12 / 2x14



094.06

6-way jumper link for 94.92.3 and 94.94.3 sockets	094.06
Rated values	10 A - 250 V

