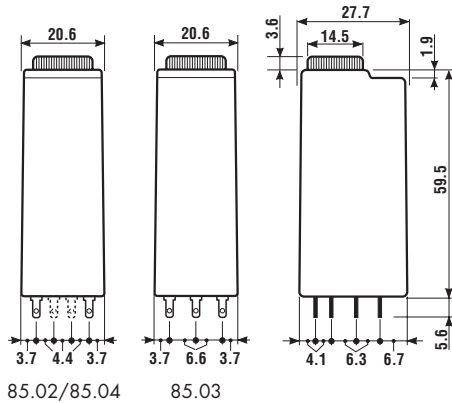


Features

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



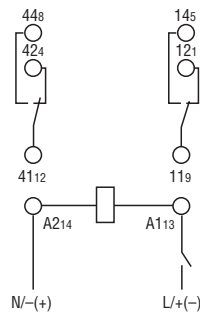
FOR UL HORSEPOWER AND PILOT DUTY RATINGS
SEE "General technical information" page V

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



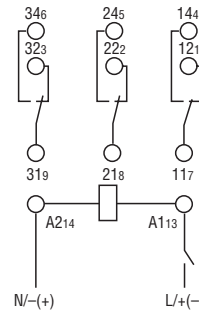
Wiring diagram
(without signal START)

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



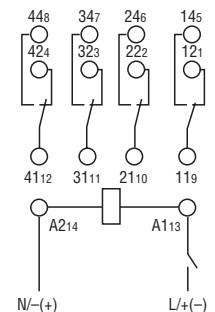
Wiring diagram
(without signal START)

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		85.02	85.03	85.04
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		85.02	85.03	85.04
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		85.02	85.03	85.04
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 · 10 ³	200 · 10 ³	150 · 10 ³
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

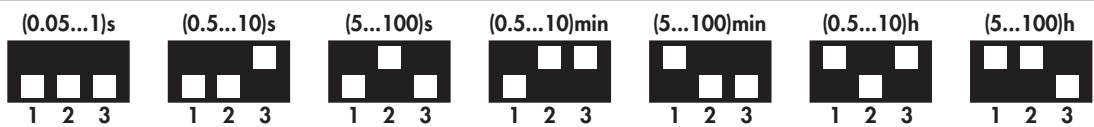
Supply voltage
 012 = 12 V AC/DC
 024 = 24 V AC/DC
 048 = 48 V AC/DC
 125 = (110...125)V AC/DC
 240 = (230...240)V AC

Supply version
 0 = AC (50/60 Hz)/DC
 8 = AC (50/60 Hz) for 240 V only

Technical data

Insulation				
Dielectric strength			85.02, 85.03	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 Supply terminals	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



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

Functions

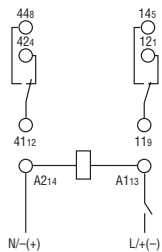
U = Supply voltage

= Output contact

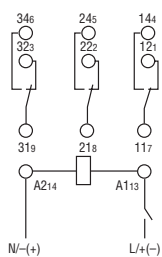
LED	Supply voltage	NO (SPDT-NO) output contact	Contacts	
			Open	Closed
	OFF	Open	x1 - x4	x1 - x2
	ON	Open	x1 - x4	x1 - x2
	ON	Open (Timing in Progress)	x1 - x4	x1 - x2
	ON	Closed	x1 - x2	x1 - x4

Wiring diagram

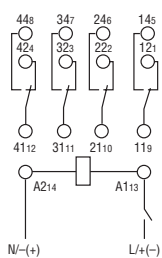
Type: 85.02, 85.03, 85.04



85.02



85.03

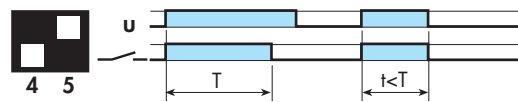


85.04



(AI) ON delay.

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



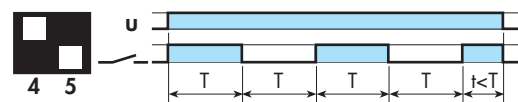
(DI) ON pulse.

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).

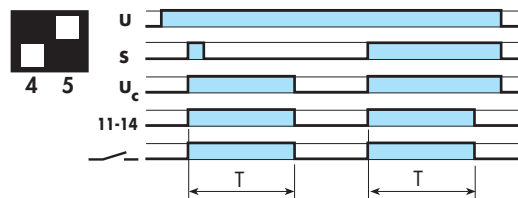
U = Supply voltage

S = Signal switch

U_c = Supply voltage to the timer

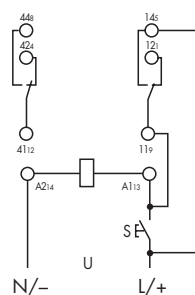
11-14 = Self-holding contact

= Output contact

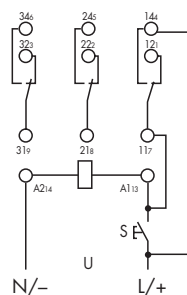


Signal ON Pulse

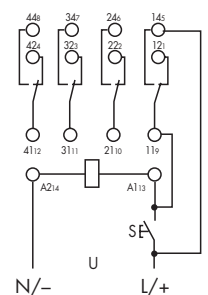
On momentary closure of Signal Switch (S) > 50 ms, the output contacts transfer and remain so (with self-holding on contact 11-14) for the duration of the preset delay, after which they reset.



85.02



85.03



85.04

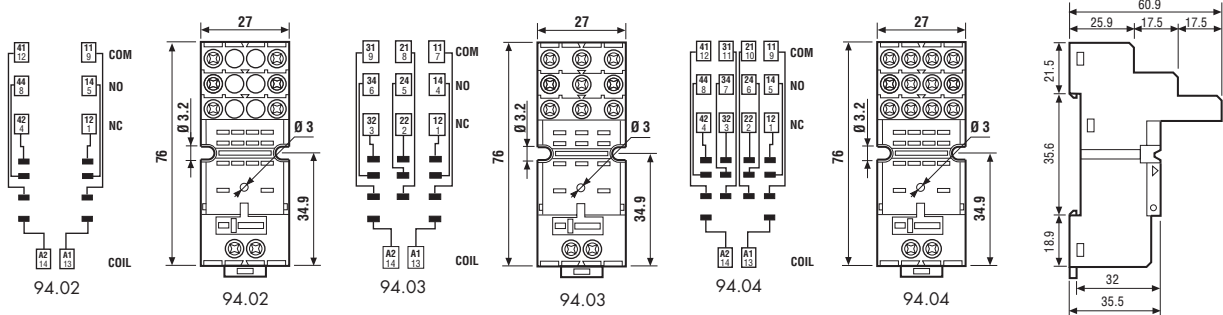


94.04

Approvals (according to type):

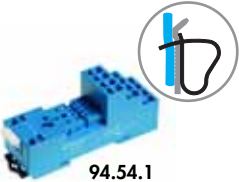
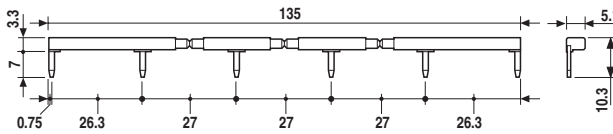


Screw terminal (Box clamp) socket panel or 35 mm rail (EN 60715) mount	94.02	94.02.0	94.03	94.03.0	94.04	94.04.0
For timer type	Blue	Black	Blue	Black	Blue	Black
Accessories	85.02					
Metal retaining clip (supplied with timer)	85.03					
6-way jumper link	85.04					
Identification tag	094.81					
Technical data	094.06					
Rated values	094.06.0					
Dielectric strength	094.06					
Protection category	094.06.0					
Ambient temperature	094.06					
⊕ Screw torque	094.06.4					
Wire strip length	10 A - 250 V					
Max. wire size for 94.02, 94.03 and 94.04 sockets	2 kV AC					
	IP 20					
	°C -40...+70					
	Nm 0.5					
	mm 8					
	solid wire			stranded wire		
	mm ² 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 (blue)	094.06.0 (black)
Rated values	10 A - 250 V	

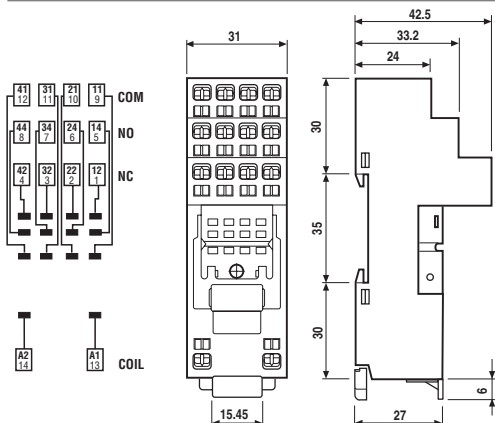
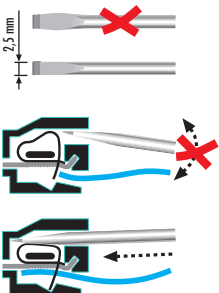


94.54.1

Approvals (according to type):



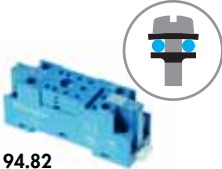
Screwless terminal socket 35 mm rail (EN 60715) mount	94.54.1 (blue)	94.54.10 (black)
For timer type	85.02, 85.04	
Accessories	094.81	
Technical data	10 A - 250 V	
Rated values	2 kV AC	
Dielectric strength	IP 20	
Protection category	°C -25...+70	
Ambient temperature	mm 7	
Wire strip length	solid wire	
Max. wire size for 94.54.1 socket	stranded wire	
	mm ² 2x(0.2...1.5)	
	2x(24...18)	





94.74

Approvals
(according to type):

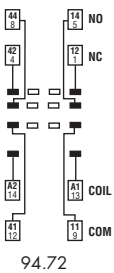


94.82

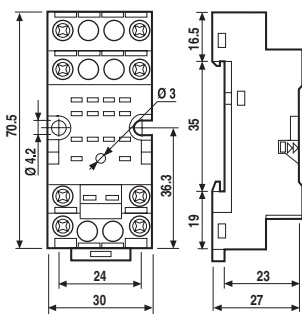
Approvals
(according to type):



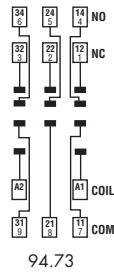
Screw terminal (Plate clamp) socket panel or 35 mm rail (EN 60715) mount	94.72 Blue	94.72.0 Black	94.73 Blue	94.73.0 Black	94.74 Blue	94.74.0 Black
For timer type	85.02		85.03		85.02, 85.04	
Accessories	Metal retaining clip (supplied with timer) 094.81					
Screw terminal socket panel or 35 mm rail (EN 60715) mount	94.82 Blue				94.82.0 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 and 94.82 sockets		solid wire		stranded wire	
	mm ²		1x2.5 / 2x1.5		1x2.5 / 2x1.5	
	AWG		1x14 / 2x16		1x14 / 2x16	



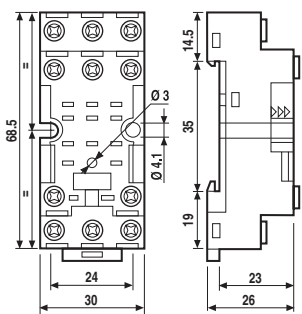
94.72



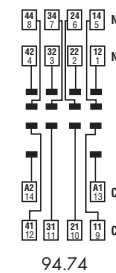
94.72



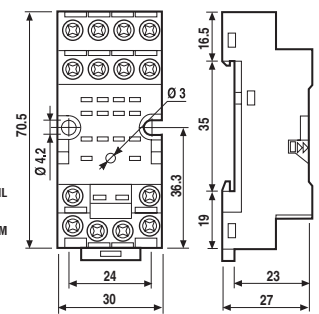
94.73



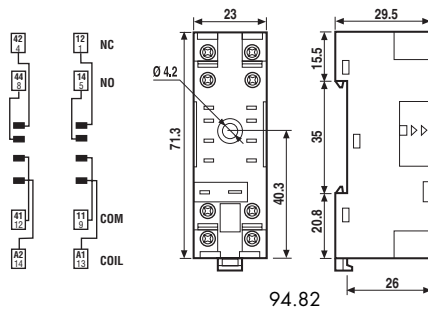
94.73



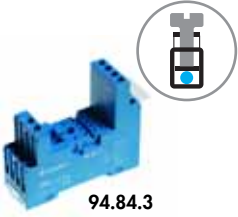
94.74



94.74

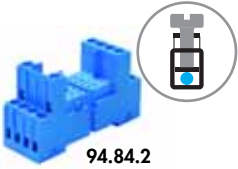


94.82



94.84.3

Approvals
(according to type):

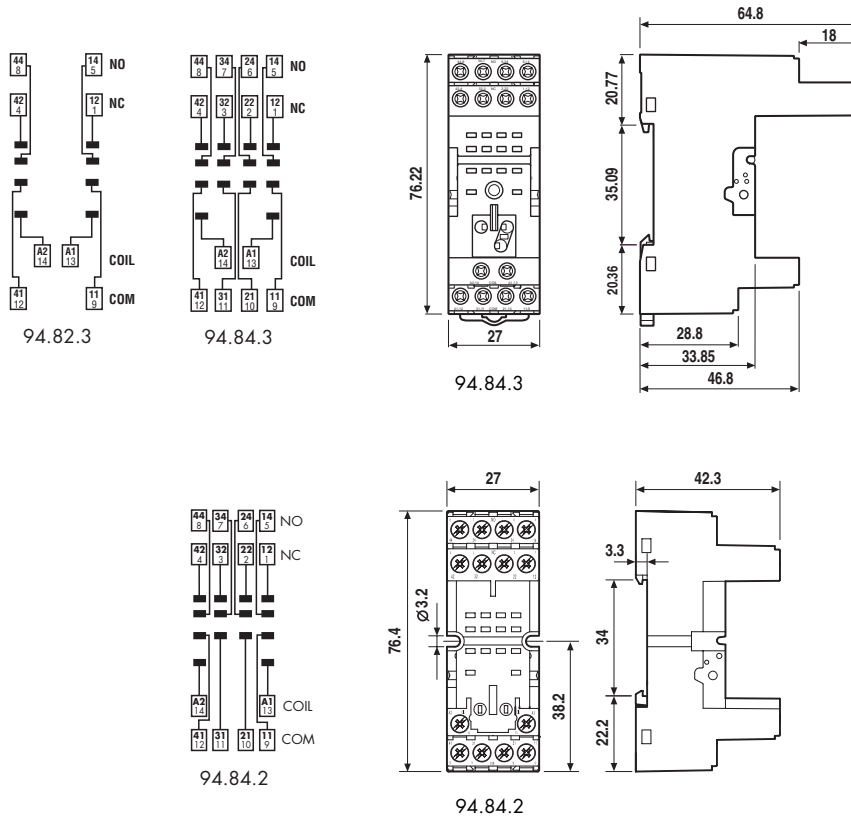


94.84.2

Approvals
(according to type):

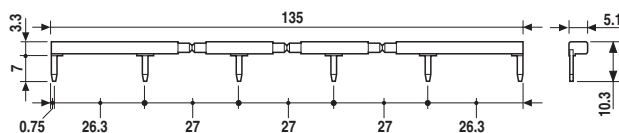


Screw terminal (Box clamp) socket panel or 35 mm rail mount	94.82.3	94.82.30	94.84.3	94.84.30
	Blue	Black	Blue	Black
For timer type	85.02		85.02, 85.04	
Accessories				
Metal retaining clip	094.81			
6-way jumper link	094.06	094.06.0	094.06	094.06.0
Identification tag	094.80.2			
Screw terminal (Box clamp) socket panel or 35 mm rail mount	94.84.2	94.84.20		
	Blue	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	
	mm ² 1x6 / 2x2.5		1x4 / 2x2.5	
	AWG 1x10 / 2x14		1x12 / 2x14	



094.06

6-way jumper link for 94.82.3, 94.84.3 and 94.84.2 sockets	094.06 (blue)	094.06.0 (black)
Rated values	10 A - 250 V	



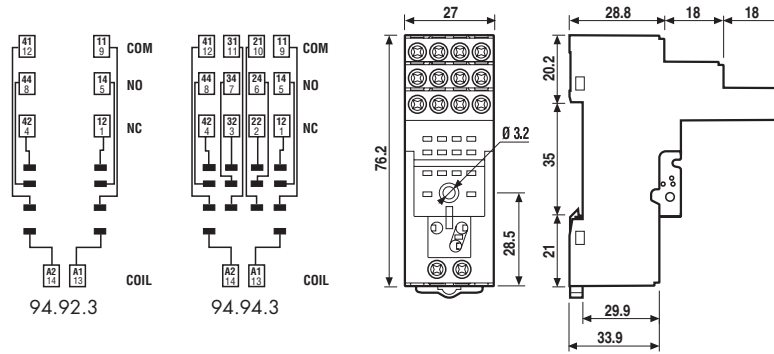


94.94.3

Approvals
(according to type):



Screw terminal (Box clamp) socket	94.92.3	94.92.30	94.94.3	94.94.30
panel or 35 mm rail (EN 60715) 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	
	mm ²	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 (blue)	094.06.0 (black)
Rated values	10 A - 250 V	

