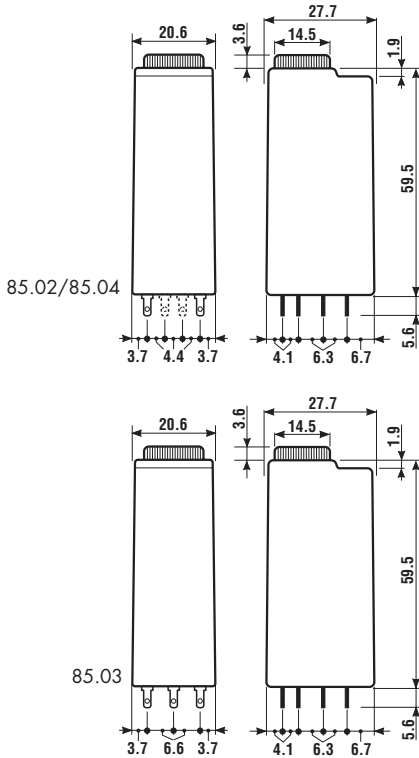


- Plug-in timer relay
- 2, 3 or 4 CO (DPDT, 3PDT or 4PDT) contact available
- Seven time scales, from 0.05s to 100h
- Multifunctions
- Sockets: see 94 series



	85.02	85.03	85.04
	- 2 pole, 10 A - AC/DC supply non polarized - Plug-in for use with 94 series sockets	- 3 pole, 10 A - AC/DC supply non polarized - Plug-in for use with 94 series sockets	- 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 recycler: ON start GI: Fixed pulse (0.5s) delayed	AI: ON delay DI: ON pulse SW: Symmetrical recycler: ON start GI: Fixed pulse (0.5s) delayed	AI: ON delay DI: ON pulse SW: Symmetrical recycler: ON start GI: Fixed pulse (0.5s) delayed
	wiring diagram	wiring diagram	wiring diagram
Contact specifications			
Contact configuration	2 CO (DPDT)	3 CO (3PDT)	4 CO (4PDT)
Rated current/Maximum peak current	A	10/20	7/15
Rated voltage/Maximum switching voltage V AC		250/400	250/250
Rated load in AC1	VA	2,500	1,750
Rated load in AC15 (230 V AC)	VA	500	350
Single phase motor rating (230 V AC)	kW	0.37	0.125
Breaking capacity in DC1: 30/110/220 V A		10/0.25/0.12	7/0.25/0.12
Minimum switching load	mW(V/mA)	300 (5/5)	300 (5/5)
Standard contact material		AgNi	AgNi
Supply specifications			
Nominal voltage	V AC (50/60 Hz)	230...240	230...240
	V AC/DC	12 - 24 - 48 - 110...125 (non polarized)	
Rated power AC/DC	VA (50 Hz)/W	2/2	2/2
Operating range	AC	(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
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
Recovery time	ms	≤ 20	≤ 20
Minimum control impulse	ms	—	—
Setting accuracy-full range	%	± 5	± 5
Electrical life at rated load in AC1	cycles	200 · 10 ³	200 · 10 ³
Ambient temperature range	°C	-20...+60	-20...+60
Protection category		IP 40	IP 40
Approvals: (according to type)			

ORDERING INFORMATION

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

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

Series _____
Type _____
 0 = Multifunction (AI, DI, GI, SW)
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

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

INSULATION

	85.02/03	85.04	
Dielectric strength	- between input and output circuit V AC	2,000	2,000
	- between open contacts V AC	1,000	1,000
Insulation (1.2/50 µs) between input and output	kV	6	4

85 OTHER DATA

Power lost to the environment	2 pole	3 pole	4 pole
without contact current W	1.6	1.6	1.6
with rated current W	3.7	4.7	3.6

TIME SCALES

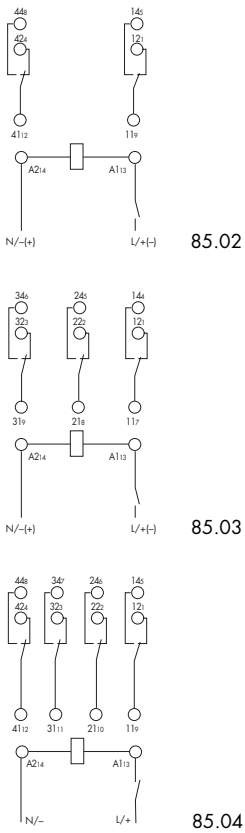
(0.05...1) s	(0.5...10) s	(5...100) s	(0.5...10) min	(5...100) min	(0.5...10) h	(5...100) h
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

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

FUNCTIONS

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

Wiring diagram



Types: 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. 0.5s.

(SW) Symmetrical recycler: 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
Uc = 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

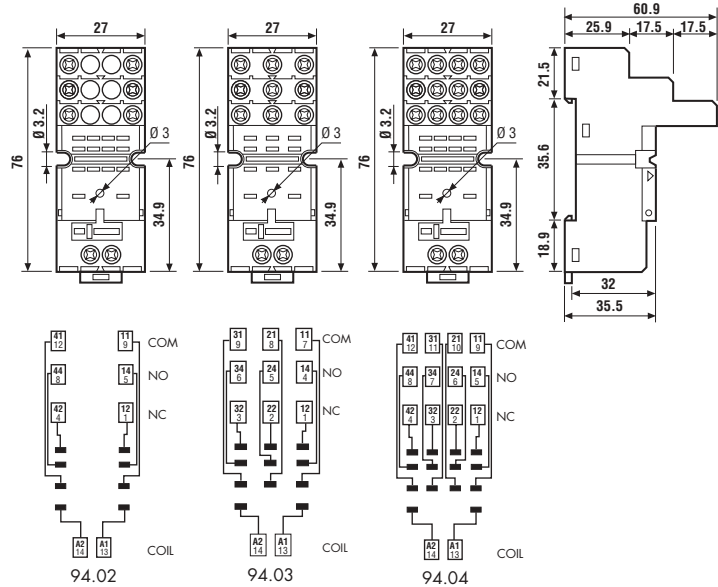
Approvals
(according to type):



- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Protection category: IP 20
- Ambient temperature: $(-40...+70)^{\circ}\text{C}$
- Torque: 0.5 Nm
- Wire strip length: 8 mm
- Max wire size:

	solid wire	stranded wire
mm ²	1x6 / 2x2.5	1x4 / 2x2.5
AWG	1x10 / 2x14	1x12 / 2x14

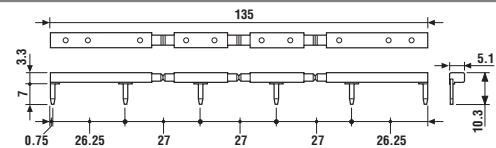
Timer type	85.02		85.03		85.04	
	BLUE	BLACK	BLUE	BLACK	BLUE	BLACK
Colour						
Clamp terminal socket: panel or 35 mm rail (EN 50022) mount	94.02	94.02.0	94.03	94.03.0	94.04	94.04.0
Metal retaining clip (supplied with timer)	094.81					
6-way jumper link for 94.02, 94.03 and 94.04 sockets	094.06	094.06.0	094.06	094.06.0	094.06	094.06.0
Identification tag	094.00.4					



094.06

6-way jumper link	094.06
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- Rated values: 10 A - 250 V



94.54.1

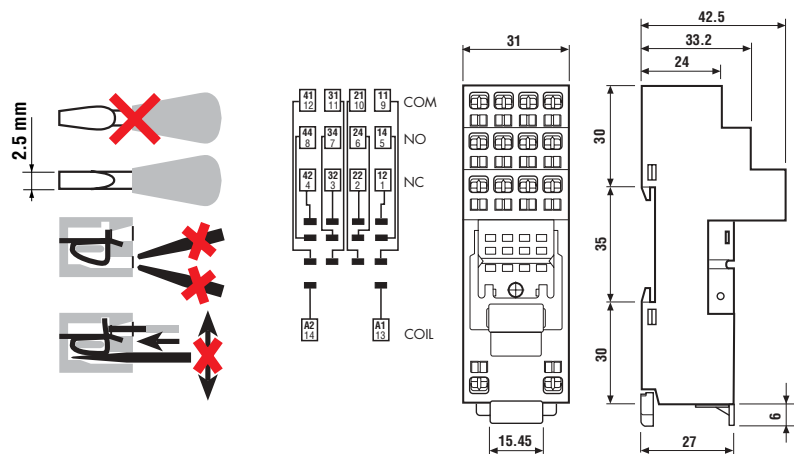
Approvals
(according to type):



- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Protection category: IP 20
- Ambient temperature: $(-25...+70)^{\circ}\text{C}$
- Wire strip length: 7 mm
- Max wire size:

	solid wire	stranded wire
mm ²	2x(0.2...1.5)	2x(0.2...1.5)
AWG	2x(24...18)	2x(24...18)

Relay type	85.02, 85.04	
Colour	BLUE	BLACK
Screwless terminal socket: 35 mm rail (EN 50022) mount	94.54.1	94.54.10
Metal retaining clip	094.81	





94.74

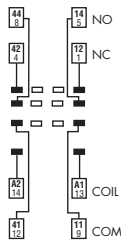
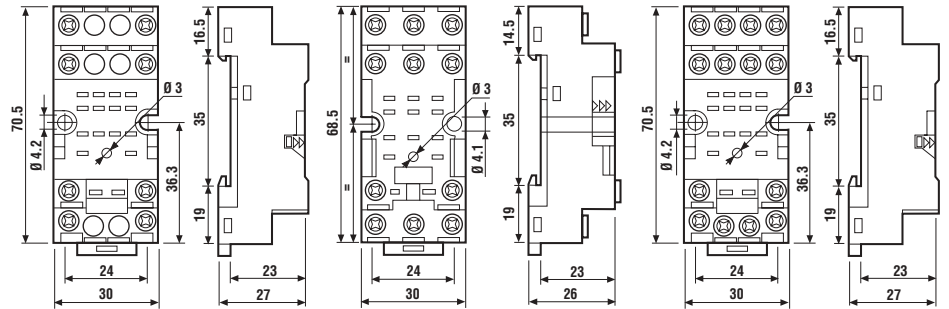
Timer type	85.02		85.03		85.04	
Colour	BLUE	BLACK	BLUE	BLACK	BLUE	BLACK
Screw terminal socket: panel or 35 mm rail (EN 50022) mount	94.72	94.72.0	94.73	94.73.0	94.74	94.74.0
Metal retaining clip (supplied with timer)	094.81					

Approvals
(according to type):

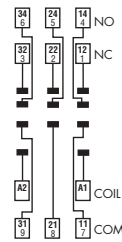


- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Protection category: IP 20
- Ambient temperature: $(-40...+70)^{\circ}\text{C}$
- Torque: 0.5 Nm
- Wire strip length: 8 mm
- Max wire size:

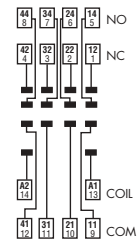
	solid wire	stranded wire
mm ²	1x2.5 / 2x1.5	1x2.5 / 2x1.5
AWG	1x14 / 2x16	1x14 / 2x16



94.72



94.73



94.74



94.82

Timer type	85.02	
Colour	BLUE	BLACK
Screw terminal socket: panel or 35 mm rail (EN 50022) mount	94.82	94.82.0
Metal retaining clip (supplied with timer)	094.81	

Approvals
(according to type):



- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Protection category: IP 20
- Ambient temperature: $(-40...+70)^{\circ}\text{C}$
- Torque: 0.5 Nm
- Wire strip length: 9 mm
- Max wire size:

	solid wire	stranded wire
mm ²	1x2.5 / 2x1.5	1x2.5 / 2x1.5
AWG	1x14 / 2x16	1x14 / 2x16

