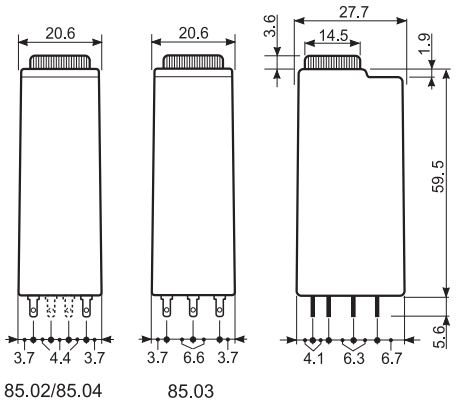
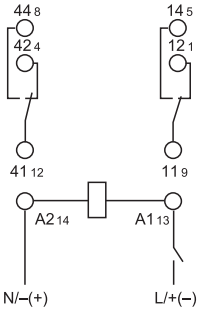
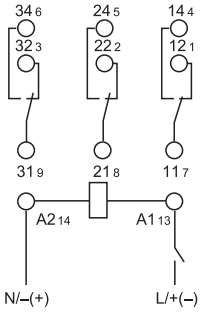
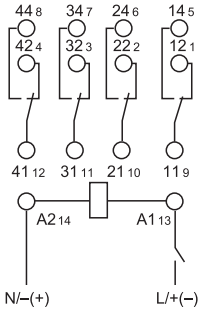
Features

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	85.03	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 recycling: ON start **GI:** Fixed pulse (0.5s) delayed	**AI:** ON delay **DI:** ON pulse **SW:** Symmetrical recycling: ON start **GI:** Fixed pulse (0.5s) delayed	**AI:** ON delay **DI:** ON pulse **SW:** Symmetrical recycling: ON start **GI:** Fixed pulse (0.5s) delayed
			
For UL Horsepower and Pilot Duty ratings See "General technical information" page V	Wiring diagram (without signal START)	Wiring diagram (without signal START)	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 · 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)	CE cULus		

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

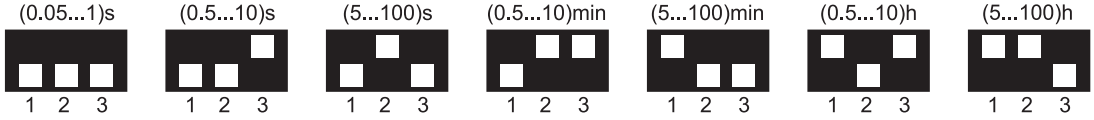
Supply voltage
012 = 12 V AC/DC
024 = 24 V AC/DC
048 = 48 V AC/DC
125 = (110...125)V AC/DC
240 = (230...240)V AC

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	common mode		EN 61000-4-5		4 kV
Supply terminals	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

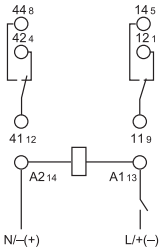
U = Supply voltage

= Output contact

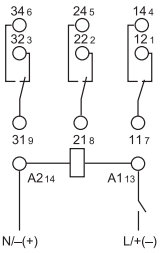
LED	Supply voltage	NO (SPDT-NO) output contact	Contacts Open	Contacts Closed
	OFF	Open	x1 - x4	x1 - x2
	ON	Open	x1 - x4	x1 - x2
	ON	Open (Timing in Progress)	x1 - x4	x1 - x2
	ON	Closed	x1 - x2	x1 - x4

Wiring diagram

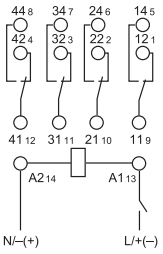
Type: 85.02, 85.03, 85.04



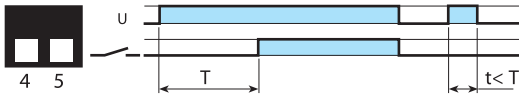
85.02



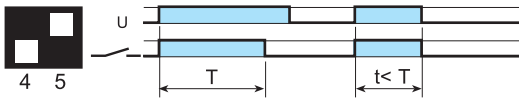
85.03



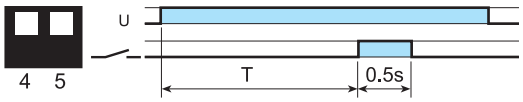
85.04



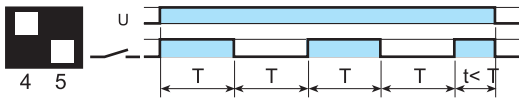
(AI) ON delay.
Apply power to timer.
Output contacts transfer after preset time has elapsed.
Reset occurs when power is removed.



(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).

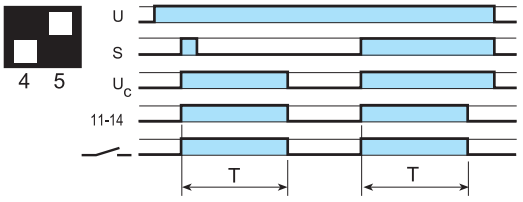
U = Supply voltage

S = Signal switch

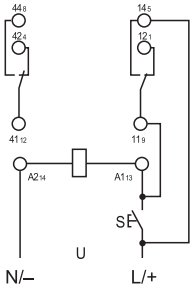
U_C = Supply voltage to the timer

11-14 = Self-holding contact

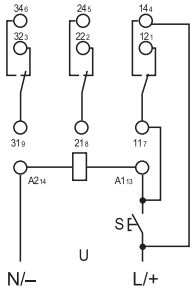
= Output contact



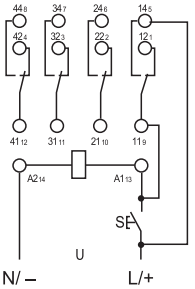
Signal ON Pulse
On mometary closure of Signal Switch (S) > 50 ms, the output contacts transfer and remain so (with self-holding on contact 11-14) for the duration of the preset delay, after which they reset.



85.02



85.03



85.04