finder
SWITCH TO THE FUTURE

Modular timers 8 - 16 A

80
SERIES

Door control

Message panels infotainment

Driver's control console

Multi-function and mono-function timer range

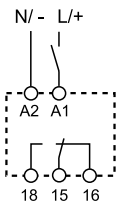
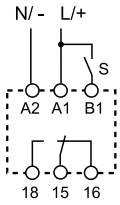
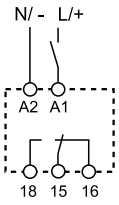
80.01T - Multi-function & multi-voltage
80.11T - On-delay, multi-voltage

- Complies with EN 45545-2:2020 (protection against fire of materials), EN 61373 (resistance against random vibrations and shock, Category 1, Class B), EN 50155 (resistance to temperature and humidity, OT4/ST1 class)
- 17.5 mm wide
- Six time scales from 0.1 s to 24 h
- High input/output isolation
- "Blade + cross" - both flat blade and cross head screw drivers can be used to adjust the range and function selectors, the timing trimmer, and to disengage the rail mounting clip
- New multi-voltage versions with "PWM clever" technology
- 35 mm rail (EN 60715) mount

80.01T / 80.11T
Screw terminal

* Short term (10 min) +70°C

For outline drawing see page 8

	80.01T	80.11T
		
	• Multi-voltage • Multi-function	• Multi-voltage • Mono-function
	AI: On-delay **DI:** Interval **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	**AI:** On-delay
			
	Wiring diagram (without control signal)	Wiring diagram (with control signal)	Wiring diagram (without control signal)
Contact specification			
Contact configuration		1 CO (SPDT)	1 CO (SPDT)
Rated current/Maximum peak current	A	16/30	16/30
Rated voltage/ Maximum switching voltage	V AC	250/400	250/400
Rated load AC1	VA	4000	4000
Rated load AC15 (230 V AC)	VA	750	750
Single phase motor rating (230 V AC)	kW	0.55	0.55
Breaking capacity DC1: 24/110/220 V	A	16/0.3/0.12	16/0.3/0.12
Minimum switching load	mW (V/mA)	500 (10/5)	500 (10/5)
Standard contact material		AgNi	AgNi
Supply specification			
Nominal voltage (U_N)	V AC (50/60 Hz)	12…240	24…240
	V DC	12…240	24…240
Rated power AC/DC	VA (50 Hz)/W	< 1.8/< 1	< 1.8/< 1
Operating range	V AC	10.8…265	16.8…265
	V DC	10.8…265	16.8…265
Technical data			
Specified time range		(0.1…2)s, (1…20)s, (0.1…2)min, (1…20)min, (0.1…2)h, (1…24)h	
Repeatability	%	± 1	± 1
Recovery time	ms	≤ 50	≤ 50
Minimum control impulse	ms	50	—
Setting accuracy-full range	%	± 5	± 5
Electrical life at rated load in AC1	cycles	$100 \cdot 10^3$	$100 \cdot 10^3$
Ambient temperature range	°C	–25…+55*	–25…+55*
Protection category		IP 20	IP 20
Approvals (according to type)			

H

Mono-function timer range

80.41T - Off-delay with control signal, multi-voltage

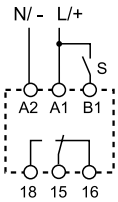
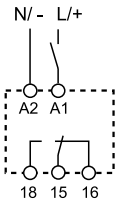
80.61T - Power off-delay (True off-delay), multi-voltage

- Complies with EN 45545-2:2020 (protection against fire of materials), EN 61373 (resistance against random vibrations and shock, Category 1, Class B), EN 50155 (resistance to temperature and humidity, OT4/ST1 class)
- 17.5 mm wide
- Type 80.41T: six time scales from 0.1 s to 24 h
- Type 80.61T: four time scales from 0.05 s to 3 min
- High input/output isolation
- "Blade + cross" - both flat blade and cross head screw drivers can be used to adjust the range and function selectors, the timing trimmer, and to disengage the rail mounting clip
- New multi-voltage versions with "PWM clever" technology
- 35 mm rail (EN 60715) mount

80.41T / 80.61T
Screw terminal

* Short term (10 min) +70°C

For outline drawing see page 8

	80.41T	80.61T
		
	• Multi-voltage • Mono-function	• Multi-voltage • Mono-function
	BE: Off-delay with control signal	**BI:** Power off-delay (True off-delay)
	 Wiring diagram (with control signal)	 Wiring diagram (without control signal)
Contact specification		
Contact configuration	1 CO (SPDT)	1 CO (SPDT)
Rated current/Maximum peak current A	16/30	8/15
Rated voltage/ Maximum switching voltage V AC	250/400	250/400
Rated load AC1 VA	4000	2000
Rated load AC15 (230 V AC) VA	750	400
Single phase motor rating (230 V AC) kW	0.55	0.3
Breaking capacity DC1: 24/110/220 V A	16/0.3/0.12	8/0.3/0.12
Minimum switching load mW (V/mA)	500 (10/5)	300 (5/5)
Standard contact material	AgNi	AgNi
Supply specification		
Nominal voltage (U_N) V AC (50/60 Hz)	24…240	24…240
V DC	24…240	24…220
Rated power AC/DC VA (50 Hz)/W	< 1.8/< 1	< 0.6/<0.6
Operating range V AC	16.8…265	16.8…265
V DC	16.8…265	16.8…242
Technical data		
Specified time range	(0.1…2)s, (1…20)s, (0.1…2)min, (1…20)min, (0.1…2)h, (1…24)h	(0.05…2)s, (1…16)s, (8…70)s, (50…180)s
Repeatability %	± 1	± 1
Recovery time ms	≤ 50	—
Minimum control impulse ms	50	500 (A1-A2)
Setting accuracy-full range %	± 5	± 5
Electrical life at rated load in AC1 cycles	$100 \cdot 10^3$	$100 \cdot 10^3$
Ambient temperature range °C	–25…+55*	–25…+55*
Protection category	IP 20	IP 20
Approvals (according to type)	CE UKCA cULus EAC	

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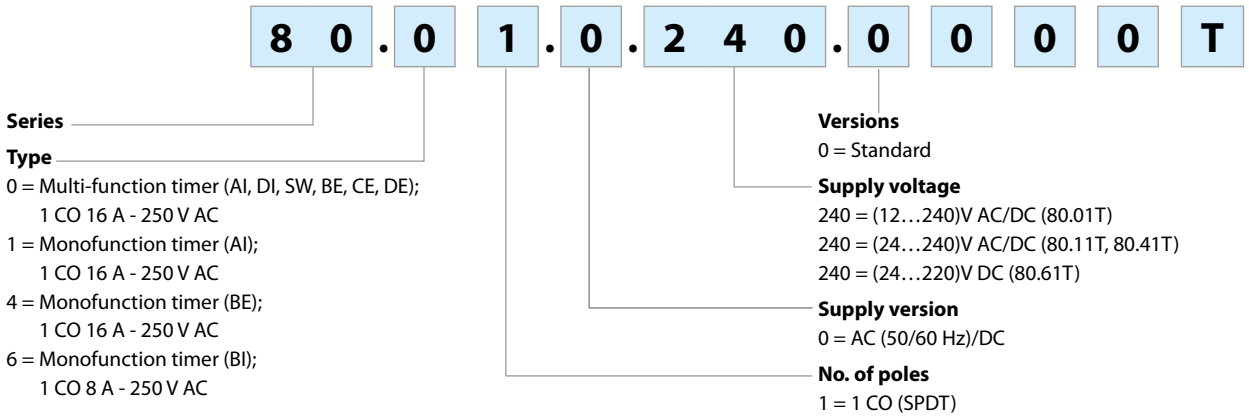
Ordering information

Example: 80 series, modular timers, 1 CO (SPDT) - 16 A, supply rated at (12…240)V AC/DC.



Technical data

Insulation				
Dielectric strength			**80.01T/11T/41T**	**80.61T**
	between input and output circuit	V AC	4000	2500
	between open contacts	V AC	1000	1000
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	4 kV
	air discharge		EN 61000-4-2	8 kV
Radio-frequency electromagnetic field (80 ÷ 1000 MHz)			EN 61000-4-3	10 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	4 kV
on start terminal (B1)	common mode		EN 61000-4-5	4 kV
	differential mode		EN 61000-4-5	4 kV
Radio-frequency common mode (0.15 ÷ 80 MHz) on Supply terminals			EN 61000-4-6	10 V
Radiated and conducted emission			EN 55022	class B
Other data				
Current absorption on signal control (B1)			< 1 mA	
Power lost to the environment	without contact current	W	1.4	
	with rated current	W	3.2	
Screw torque		Nm	0.8	
Max. wire size			solid cable	stranded cable
		mm^2	1 x 6 / 2 x 4	1 x 4 / 2 x 2.5
		AWG	1 x 10 / 2 x 12	1 x 12 / 2 x 14

H

Functions

U = Supply voltage

S = Signal switch

= Output contact

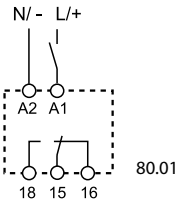
LED*	Supply voltage	NO output contact	Contacts Open	Contacts Closed
	OFF	Open	15 - 18	15 - 16
	ON	Open	15 - 18	15 - 16
	ON	Open (Timing in Progress)	15 - 18	15 - 16
	ON	Closed	15 - 16	15 - 18

* The LED on type 80.61T is illuminated only when the supply voltage is applied to the timer; during the timing period the LED is not illuminated.

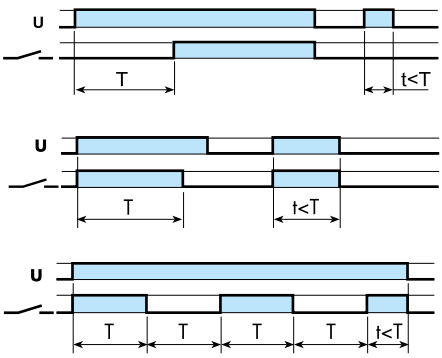
Wiring diagram

Without control signal = Start via contact in supply line (A1).
With control signal = Start via contact into control terminal (B1).

Without control signal



Type 80.01T

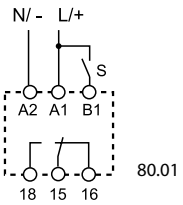


(AI) On-delay.
Apply power to timer. Output contacts transfer after preset time has elapsed. Reset occurs when power is removed.

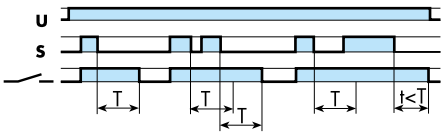
(DI) Interval.
Apply power to timer. Output contacts transfer immediately. After the preset time has elapsed, contacts reset.

(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).

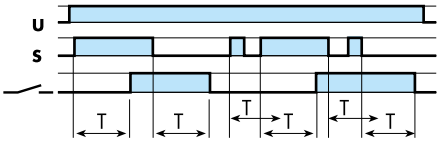
With control signal



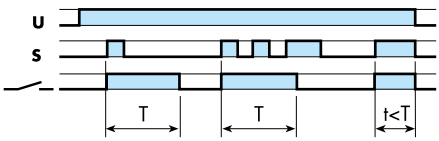
80.01T



(BE) Off-delay with control signal.
Power is permenently 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 permenently 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 permenently 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.

NOTE: The function must be set before energising the timer.

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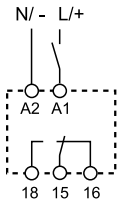
Functions

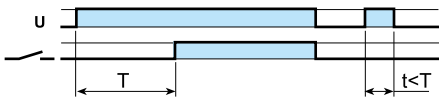
Wiring diagram

Without control signal



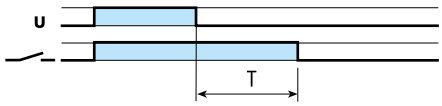
80.11/21/61

Type 80.11T



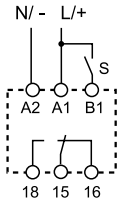
(AI) On-delay.
Apply power to timer. Output contacts transfer after preset time has elapsed. Reset occurs when power is removed.

80.61T



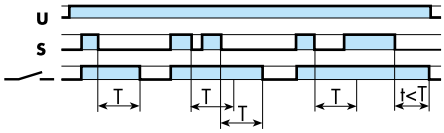
(BI) Power off-delay (True off-delay).
Apply power to timer (minimum 500 ms). Output contacts transfer immediately. Removal of power initiates the preset delay, after which time the output contacts reset.

With control signal

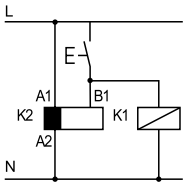


80.41

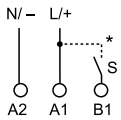
80.41T



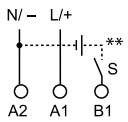
(BE) Off-delay with control signal.
Power is permenently applied to the timer.
The output contacts transfer immediately on closure of the Signal Switch (S). Opening the Signal Switch initiates the preset delay, after which time the output contacts reset.



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



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



** A voltage other than the supply voltage can be applied to the command Start (B1), example:
A1 - A2 = 230 V AC
B1 - A2 = 12 V DC

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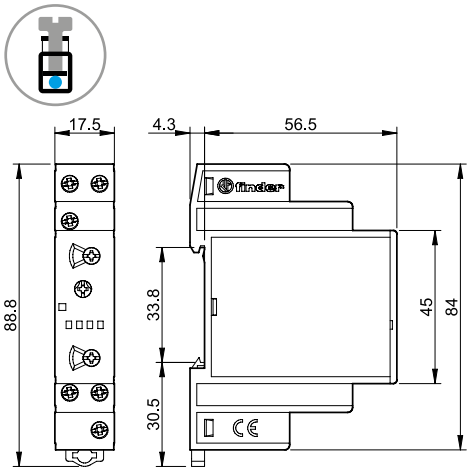
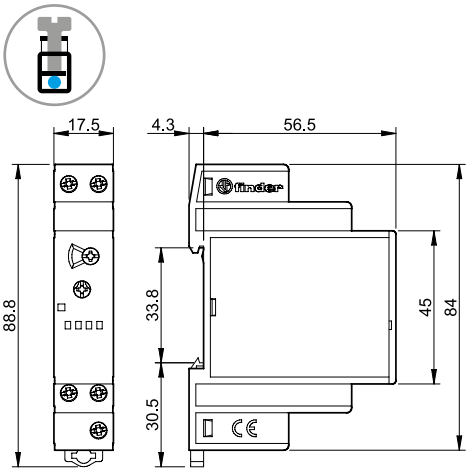
Outline drawings

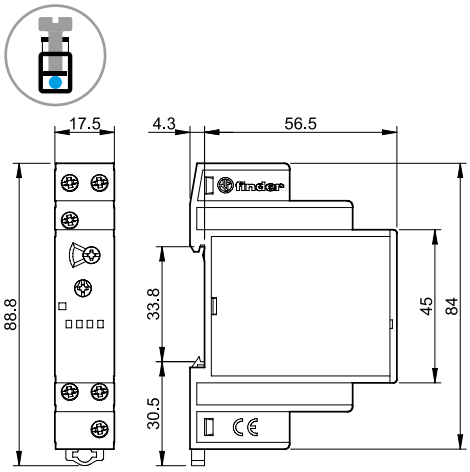
Type 80.01T
Screw terminal



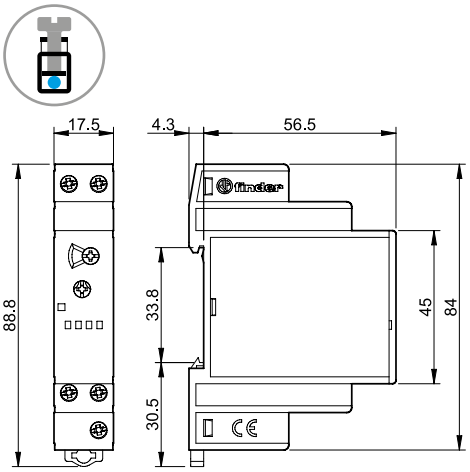
Type 80.11T
Screw terminal



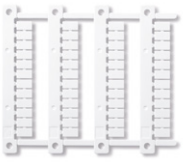
Type 80.41T
Screw terminal



Type 80.61T
Screw terminal



Accessories



060.48

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

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