

# finder Modular Timers User Guide

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Modular Timers User Guide



SELECTION GUIDE Timers

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## **Modular Timers**

#### **Timers**



Series 80 – Modular multi-function and single-function timers

- "PWM clever" technology for automatic recognition and regulation of the supply voltage, resulting in a wide nominal voltage range of 12 to 240 V AC or (non polarized) DC
- Rated current up to 16 A; a version with 1 A SSR output is also available
- Six time scales from 0.1s to 24h
- High input/output isolation
- "Blade + cross" both flat blade and crosshead screwdrivers can be use on rotary selectors and terminals



## 81 Series – Modular timers with start and reset function

- Multi-function (7 functions, 4 with supply start and 3 with control signal)
- Reset function
- "PWM clever" technology for automatic recognition and regulation of the supply voltage, resulting in a wide nominal voltage range of 12 to 240 V AC or (non polarized) DC
- DIP switch for time and function controls
- Nominal current 16 A
- Six time scales from 0.1s to 10h



### 83 Series – Modular timers 22.5 mm, multi-function and mono-function types available

- "PWM clever" technology for automatic recognition and regulation of the supply voltage, resulting in a wide nominal voltage range of 12 to 240 V AC or (non polarized) DC
- Rated current up to 16 A
- Versions available with: 2 timed contacts, or 1 timed contact + 1 instantaneous contact: adjustable timing by means of an external potentiometer
- Eight time scales from 0.05s to 10 days
- High input/output isolation







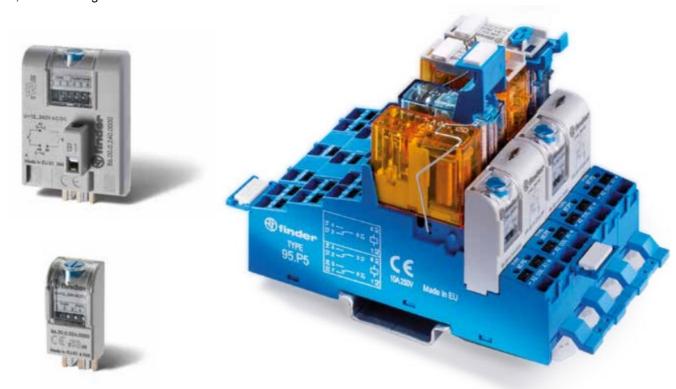
## 84 Series – SMARTimer, digital multi-fuction modular timer

- Programming mode via Smartphone with NFC technology (Android and iOS) and the Finder Toolbox App
- Wide backlit LCD display
- Multi-function (the 30 functions for each channel can be combined between the two channels to create new functions)
- High precision and flexibility, adjustable in tenths of a second, seconds, minutes, hours
- 2 CO 16 A output contacts
- Two supply version available: 12...24 V AC/DC or 110...240 V AC/DC



## 85 Series - Multi-function Miniature plug-in timers. Plug-in for use with 94 series sockets

- AC/DC supply non polarized
- Seven time scales from 0.05s to 100h
- Contacts with rated current up to 10 A
- -2, 3 or 4 changeover contacts



86 Series - Plug-in Timer modules for use with relay & socket

- Wide supply voltage range
- Seven time scales from 0.05s to 100h
- LED indication

Type 86.00 – Compatible with the following socket types: 90.02, 90.03, 92.03, 96.04

Type 86.30 – Compatible with the following socket types: 90.02, 90.03, 92.03, 96.02, 96.04, 94.02, 94.03, 94.04, 94.54, 94.P3, 94.P4, 97.01, 97.02, 97.51, 97.52, 97.P1, 97.P2



# 88 Series – Plug-in or panel mount timers

- Multi-function or Mono-function
- 8 or 11 pins for use with 90 series sockets
- Time scales from 0.05s to 100h
- Wide supply voltage range
- Versions available: 2 timed contacts or 1 timed contact + 1 instantaneous contact
- Compatible with all 90 series sockets



# 93 Series - Multi-function slim timed sockets for 34 series relays

- 6.2 mm wide
- EMR and SSR: 12 to 24 V AC/DC supply
- DIP-switch for selection of 4 time scales (from 0.1 s to 6 h) and 8 functions
- LED indication

Timer socket 93.21 with relay, comprises the following interface:

38.21 (SSR / EMR) – screw terminals

Timer socket 93.68 with relay, comprises the following interfaces:

39.81 (EMR) - screw terminals

39.80 (SSR) - screw terminals

Timer socket 93.69 with relay, comprise the following interfaces:

39.91 (EMR) - Push-in terminals

39.90 (SSR) – Push-in terminals

## **FUNCTIONS**

	FUNCTIONS		80 SERIES	81 SERIES	83 SERIES	84 SERIES	85 SERIES	86 SERIES	88 SERIES	93 SERIES
AI	On-delay	U T KET	80.01 80.11 80.71	81.01	83.01 83.02 83.11	84.02	85.02 85.03 85.04	86.00 86.30	88.02	93.21 93.68 93.69
AE	On-delay with control signal	U 8 T			83.52	84.02				
AC	On-delay with maintained control signal	S				84.02				
ВІ	Power off-delay (True off-delay)	U T	80.61		83.62					
BE	Off-delay with control signal	s I I I I	80.01 80.41 80.71	81.01	83.01 83.02 83.41	84.02		86.00	88.02	93.68 93.69
CE	On- and off-delay with control signal	S T T T T T T	80.01 80.71		83.01 83.02			86.00		93.68 93.69
CEa	On- and off-delay with control signal	S T T T T							88.02	
CEb	On and off independent delays with control signal	T1 T2 KT1 T1 KT2 T2				84.02				
DI	Interval	T teT	80.01 80.21 80.71	81.01	83.01 83.02 83.21	84.02	85.02 85.03 85.04	86.00 86.30	88.02	93.21 93.68 93.69
DE	Interval with control signal on	U 5 T   I <t< td=""><td>80.01 80.71</td><td>81.01</td><td>83.01 83.02</td><td>84.02</td><td></td><td>86.00</td><td>88.02</td><td>93.68 93.69</td></t<>	80.01 80.71	81.01	83.01 83.02	84.02		86.00	88.02	93.68 93.69
DC	Interval with maintained control signal	S T tel				84.02				
EE	Interval with control signal off	S T T T INT				84.02		86.00		93.68 93.69
EEa	Interval with control signal off (retriggerable)	U S			83.52	84.02				
EEb	Interval with control signal off	U S T T T		81.01		84.02				

	FUNCTIONS		80 SERIES	81 SERIES	83 SERIES	84 SERIES	85 SERIES	86 SERIES	88 SERIES	93 SERIES
FE	Interval with control signal on and off	S T T T			83.52	84.02		86.00		
WD	Watchdog (retriggerable interval with control signal on)	S T T T T T T T T T T T T T T T T T T T			83.01 83.02	84.02				
GI	Pulse delayed	T 0.5s			83.01 83.02	84.02	85.02 85.03 85.04		88.02 88.12	93.21 93.68 93.69
GE	Pulse delayed with control signal on	T 0.25 T 0.25			83.52	84.02				
GC	Pulse delayed with maintained control signal	T1 T2				84.02				
SW	Symmetrical flasher (starting pulse on)	T T T T T T	80.01 80.71	81.01	83.01 83.02	84.02	85.02 85.03 85.04	86.00	88.12	93.21 93.68 93.69
SP	Symmetrical flasher (starting pulse off)	U T T T T T		81.01		84.02			88.02	
LI	Asymmetrical flasher (starting pulse on)	T1 T2 T1 T2 [sT]	80.91		83.91	84.02			88.92. 0001	
LE	Asymmetrical flasher (starting pulse on) with control signal	s	80.91		83.91	84.02				
LC	Asymmetrical flasher (starting pulse on) with maintained control signal	T1 12 T2 1< T1 1< T2 1< T1				84.02				
PI	Asymmetrical flasher (starting pulse off)	T2 T1 T2 T1 TT2			83.91	84.02			88.92. 0000	
PE	Asymmetrical flasher (starting pulse off) with control signal	S T2 T1 T2 N <t1< td=""><td></td><td></td><td>83.91</td><td>84.02</td><td></td><td></td><td></td><td></td></t1<>			83.91	84.02				
PC	Asymmetrical flasher (starting pulse off) with maintained control signal	S T1 T2 T1 T2 CT				84.02				
SD	Star-delta	Δ Tυ=[0.051]s	80.82		83.82	84.02*				

	FUNCTIONS		80 SERIES 81 SERIES	83 SERIES	84 SERIES	85 SERIES	86 SERIES	88 SERIES	93 SERIES
IT	Timing step	S T T		83.52	84.02				
SHp	"Shower" (off-delay with control signal and pause signal)	P(X1-X2)		83.52	84.02				
ВЕр	Off-delay with control signal and pause signal	P(X1-X2)		83.52	84.02				
DEp	Interval with control signal on and pause signal	P(X1-X2)		83.52	84.02				
Ala	On-delay (2 timed contacts)	U C <sub>1</sub> C <sub>2</sub> T			84.02*			88.12	
Alb	On-delay (1 timed contact + 1 instantaneous contact)	U C <sub>1</sub> C <sub>2</sub> T			84.02*			88.12	
Dla	Interval (2 timed contacts)	U C <sub>1</sub> C <sub>2</sub> T			84.02*			88.12	
Dlb	Interval (1 timed contact + 1 instantaneous contact)	U C <sub>1</sub> C <sub>2</sub> T ,			84.02*			88.12	
OFF	Relay OFF The output contact stays permanently open	U			84.02				
ON	Relay ON The output contact stays permanently closed				84.02				
SS	Monostable controlled by Signal switch. The output contact follows the status of Signal Switch (S)	U 8 P			84.02				
PS	Monostable controlled by Pause switch. The output contact follows the status of Pause Switch (P)	U			84.02				





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# **Documents / Resources**



<u>finder Modular Timers</u> [pdf] User Guide Modular Timers, Modular, Timers

# References

• ® Relays, Timers, Movement detectors, Dimmers - Finder Relays, Inc.

Manuals+,