

Features

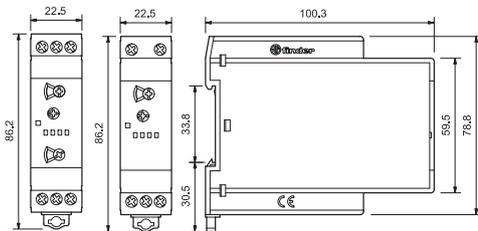
Multi-function and mono-function timer range

83.01 - Multi-function & multi-voltage

83.11 - ON delay, multi-voltage

- 22.5 mm wide
- Six time scales from 0.1 s to 20h
- High input/output isolation
- 35 mm rail (EN 60715) mount
- "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
- Multi-voltage versions with "PWM clever" technology

83.01 / 83.11
Screw terminal



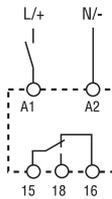
83.01 83.11

NEW 83.01

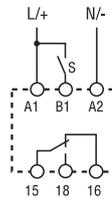


- Multi-voltage
- Multi-function

AI: ON delay
DI: ON pulse
SW: Symmetrical recycling: ON start
BE: Signal OFF delay
CE: Signal ON and OFF delay
DE: Signal ON pulse



Wiring diagram
(without signal START)



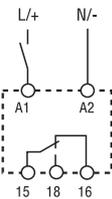
Wiring diagram
(with signal START)

NEW 83.11



- Multi-voltage
- Mono-function

AI: ON delay



Wiring diagram
(without signal START)

| 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 | 4,000 | 4,000 |
| Rated load AC15 (230 V AC) | VA | 750 | 750 |
| Single phase motor rating (230 V AC) | kW | 0.55 | 0.55 |
| Breaking capacity DC1: 30/110/220 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 | | AgCdO | AgCdO |
| 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 | AC | (10.8...265)V | (17...265)V |
| | DC | (10.8...265)V | (17...265)V |
| Technical data | | | |
| Specified time range | | (0.1...2)s, (1...20)s, (0.1...2)min, (1...20)min, (0.1...2)h, (1...20)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 | 100·10 ³ | 100·10 ³ |
| Ambient temperature range | °C | -10...+50 | -10...+50 |
| Protection category | | IP 20 | IP 20 |
| Approvals (according to type) | | CE | |

Features

Mono-function timer range

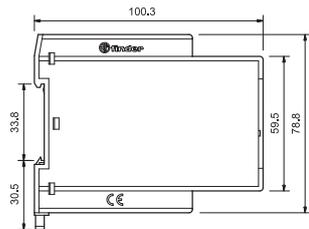
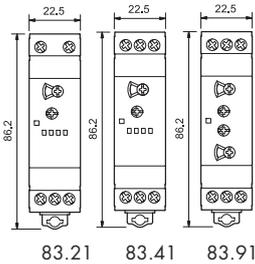
83.21 - ON pulse, multi-voltage

83.41 - Signal OFF delay, multi-voltage

83.91 - Asymmetrical recycling, multi-voltage

- 22.5 mm wide
- Six time scales from 0.1s to 20h
- High input/output isolation
- 35 mm rail (EN 60715) mount
- "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
- Multi-voltage versions with "PWM clever" technology

83.21/83.41/83.91
Screw terminal

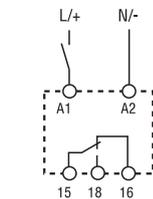


NEW 83.21



- Multi-voltage
- Mono-function

DI: ON pulse



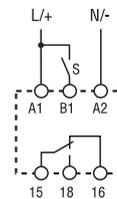
Wiring diagram
(without signal START)

NEW 83.41



- Multi-voltage
- Mono-function

BE: Signal OFF delay



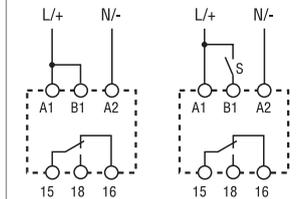
Wiring diagram
(with signal START)

NEW 83.91



- Multi-voltage
- Mono-function

LI: Asymmetrical recycling
(ON starting)
LE: Signal asymmetrical recycling
(ON starting)

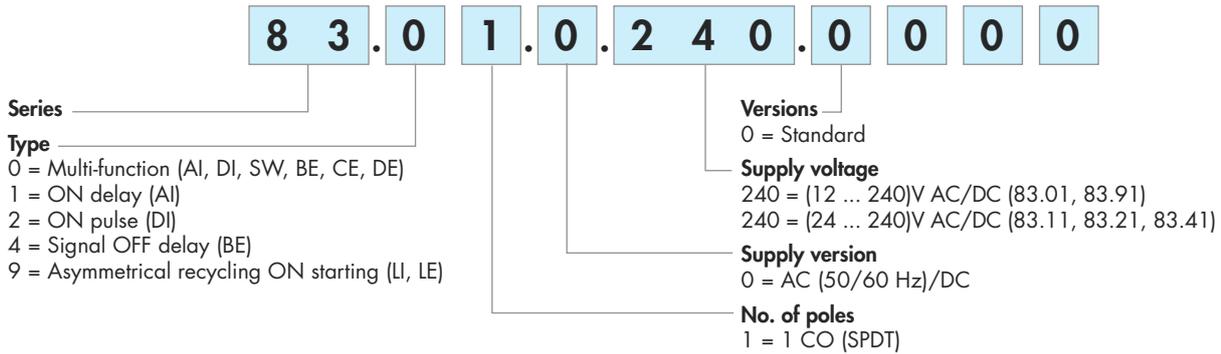


Wiring diagram (without signal START) Wiring diagram (with signal START)

| Contact specification | | | | |
|---|-----------------|---|---------------------|---------------------|
| Contact configuration | | 1 CO (SPDT) | 1 CO (SPDT) | 1 CO (SPDT) |
| Rated current/Maximum peak current | A | 16/30 | 16/30 | 16/30 |
| Rated voltage/Maximum switching voltage | V AC | 250/400 | 250/400 | 250/400 |
| Rated load AC1 | VA | 4,000 | 4,000 | 4,000 |
| Rated load AC15 (230 V AC) | VA | 750 | 750 | 750 |
| Single phase motor rating (230 V AC) | kW | 0.55 | 0.55 | 0.55 |
| Breaking capacity DC1: 30/110/220 V | A | 16/0.3/0.12 | 16/0.3/0.12 | 16/0.3/0.12 |
| Minimum switching load | mW (V/mA) | 500 (10/5) | 500 (10/5) | 500 (10/5) |
| Standard contact material | | AgCdO | AgCdO | AgCdO |
| Supply specification | | | | |
| Nominal voltage (U _N) | V AC (50/60 Hz) | 24...240 | 24...240 | 12...240 |
| | V DC | 24...240 | 24...240 | 12...240 |
| Rated power AC/DC | VA (50 Hz)/W | < 1.8 / < 1 | < 1.8 / < 1 | < 1.8 / < 1 |
| Operating range | AC | (17...265)V | (17...265)V | (10.8...265)V |
| | DC | (17...265)V | (17...265)V | (10.8...265)V |
| Technical data | | | | |
| Specified time range | | (0.1...2)s, (1...20)s, (0.1...2)min, (1...20)min, (0.1...2)h, (1...20)h | | |
| Repeatability | % | ± 1 | ± 1 | ± 1 |
| Recovery time | ms | ≤ 50 | ≤ 50 | ≤ 50 |
| Minimum control impulse | ms | — | 50 | 50 |
| Setting accuracy-full range | % | ± 5 | ± 5 | ± 5 |
| Electrical life at rated load in AC1 | cycles | 100·10 ³ | 100·10 ³ | 100·10 ³ |
| Ambient temperature range | °C | -10...+50 | -10...+50 | -10...+50 |
| Protection category | | IP 20 | IP 20 | IP 20 |
| Approvals (according to type) | | | | |

Ordering information

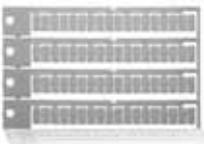
Example: 83 series, modular timers, 1 CO (SPDT) - 16 A, supply rated at (12...240)V AC/DC.



Technical data

| Insulation | | | | |
|---|----------------------------------|---------------------------|--------------------------|-------------|
| Dielectric strength | | | 83.01/11/21/41/91 | |
| | between input and output circuit | V AC | 4,000 | |
| | between open contacts | V AC | 1,000 | |
| Insulation (1.2/50 µs) between input and output | | kV | 6 | |
| 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 | 1x6 / 2x4 | 1x4 / 2x2.5 |
| | | AWG | 1x10 / 2x12 | 1x12 / 2x14 |

Accessories



060.72

Sheet of marker tags, for types 83.01/11/21/41, plastic, 72 tags, 6x12 mm

060.72

Functions

U = Supply voltage

S = Signal switch

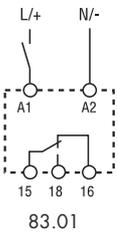
 = Output contact

| LED | Supply voltage | NO output contact | Contacts | |
|---|----------------|------------------------------|----------|---------|
| | | | Open | 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 |

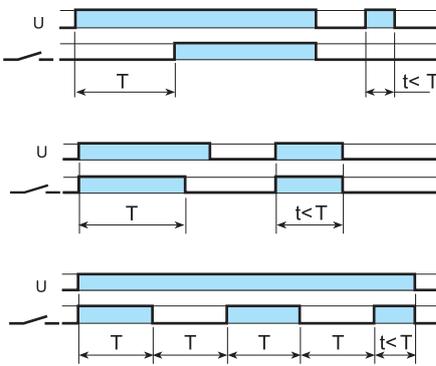
Wiring diagram

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

Without signal START



Type 83.01



(AI) ON delay.

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

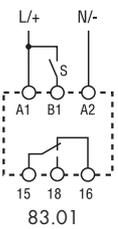
(DI) ON pulse.

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

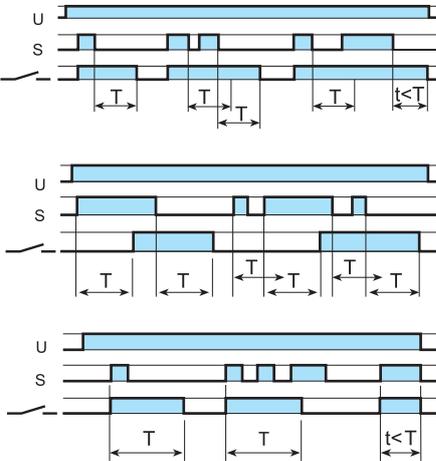
(SW) Symmetrical recycling: ON start.

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).

With signal START



83.01



(BE) Signal OFF delay.

Power is permanently 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.

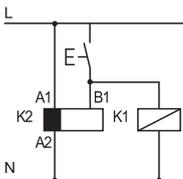
(CE) Signal ON and OFF delay.

Power is permanently 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.

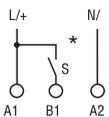
(DE) Signal ON pulse.

Power is permanently 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.

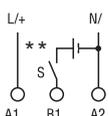
NOTE: The function must be set before energising the timer.



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



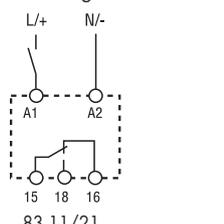
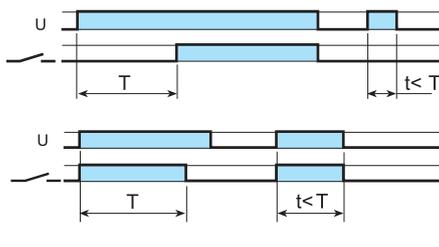
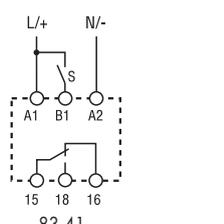
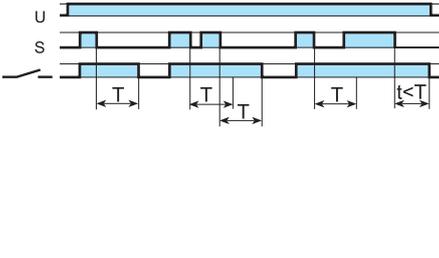
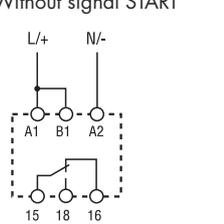
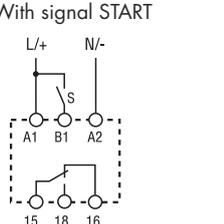
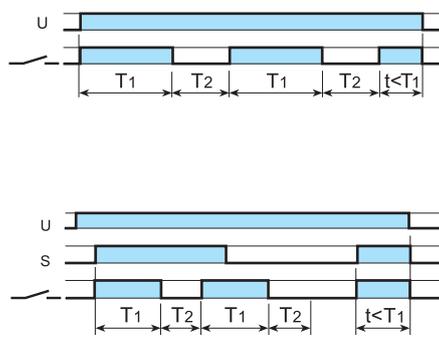
* With DC supply, positive polarity has to be connected to B1 terminal (according to EN 60204-1).

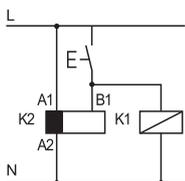


** A voltage other than the supply voltage can be applied to the command Start (B1), example:
 A1 - A2 = 230 V AC
 B1 - A2 = 12 V DC

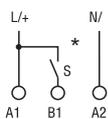
Functions

Wiring diagram

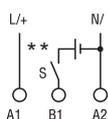
| | | | |
|---|---|--|---|
| <p>Without signal START</p>  <p>83.11/21</p> | <p>Type 83.11</p> <p>83.21</p> |  | <p>(AI) ON delay. Apply power to timer. Output contacts transfer after preset time has elapsed. Reset occurs when power is removed.</p> <p>(DI) ON pulse. Apply power to timer. Output contacts transfer immediately. After the preset time has elapsed, contacts reset.</p> |
| <p>With signal START</p>  <p>83.41</p> | <p>83.41</p> |  | <p>(BE) Signal OFF delay. Power is permanently 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.</p> |
| <p>Without signal START</p>  <p>83.91</p> <p>With signal START</p>  <p>83.91</p> | <p>83.91</p> |  | <p>(LI) Asymmetrical 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 ON (T1) and OFF (T2) times are independently adjustable.</p> <p>(LE) Signal asymmetrical recycling (ON start) Power is permanently applied to the timer. Closing Signal Switch (S) causes the output contacts to transfer immediately and cycle between ON (T1) and OFF (T2), until opened.</p> |



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

