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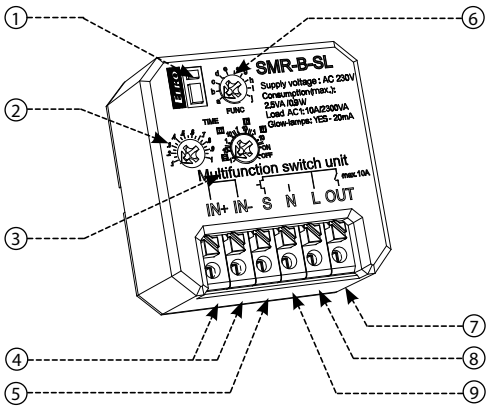
SMR-B-SL

Multifunction time relay - screwless terminals

Characteristics

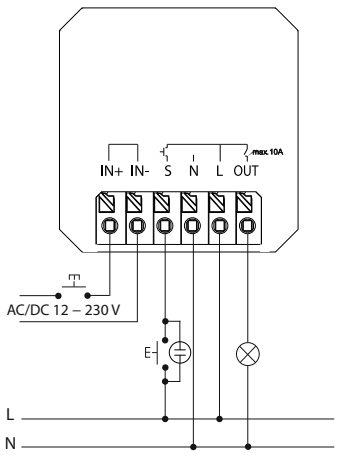
- Multifunction time relay designed for installation in an installation box, under a push button or switch in an existing electrical installation.
- Screwless terminals speed up installation and save space in the installation box.
- 4-wire connection (with neutral wire).
- Two terminals for galvanically separated input IN.
- The output contact switches the potential L (connected phase).
- Allows switching of all types of load.

Description



1. Indication of operating states
2. Fine time setting
3. Time range setting
4. Galvanically separated input (IN)
5. Control input (S)
6. Function setting
7. Output to appliance
8. Phase conductor
9. Neutral conductor

Connection



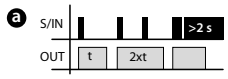
Optional galvanically separated control input

Technical parameters

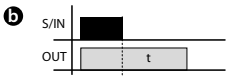
	SMR-B-SL
Power supply	
Connection:	4-wire
Supply voltage:	AC 230 V (50 Hz)
Consumption (max.):	2.5 VA/0.9 W
Supply voltage tolerance:	–15 %; +10 %
Time circuit	
Number of functions:	10
Time range:	0.1 s – 10 d
Time setting:	rotary switch and potentiometer
Time deviation:	10 % – mechanical setting
Repeat accuracy:	2 % – set value stability
Temperature coefficient:	0.1 %/°C, at = 20 °C (0.1 %/°F, at = 68 °F)
Reset time (max.):	450 ms
Output	
Contact type:	1× closing ($AgSnO_2$)
Current rating:	10 A
Breaking capacity:	2500 VA
Electrical life (AC1):	100.000 ops.
Switching voltage:	AC 250 V
Power dissipation (max.):	0.6 W
Mechanical life:	10.000.000 ops.
Control input S	
Control voltage:	AC 230 V (–15%; +10%)
Load between S-N:	YES
Impulse length:	min. 20 ms/max. unlimited
Glow lamp connection (max.):	YES (20 mA)
Control input IN	
Control voltage:	AC/DC 12 – 230 V (–15%; +10%)
Load between S-N:	YES
Impulse length:	min. 20 ms/max. unlimited
Galvanic isolation:	YES
Input current (max.):	2 mA
Glow lamp connection:	NO
Other information	
Operating temperature:	–20 .. +55 °C (–4 .. 131 °F)
Storage temperature:	–30 .. +70 °C (–22 .. 158 °F)
Dielectric strength:	AC 2.5 kV (supply - input IN)*
Operating position:	any
Mounting:	loose on the supply wires
Protection degree:	IP40
Overvoltage category:	II.
Pollution degree:	2
Cross-wire section; solid/ stranded with ferrule (max.):	1× 1.5 mm^2 (16 AWG), 2× 0.75 mm^2 (18 AWG)/ 1× 1.5 mm^2 (16 AWG), 2× 0.75 mm^2 (18 AWG)
Dimensions:	43 × 44 × 22 mm (1.69″ × 1.73″ × 0.87″)
Weight:	35 g (1.23 oz)
Standards:	EN 61812-1

** basic instalation betwen IN - S, L, N terminals*

Function



SINGLE SHOT rising edge, programmable
When input S/IN is closed, the output closes and starts timing. Each subsequent pressing (max. 5×) prolongs the set time and thus the delay length. When the delay runs out, the output opens. Long press >2s during the delay opens the output immediately.

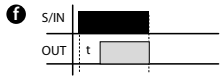


OFF DELAY 4
When input S/IN is closed, the output closes. When input S/IN is open, timing starts. When the delay runs out, the output opens. If input S/IN is closed again during the delay (t), the output will open for few ms when the delay runs out and closes again.

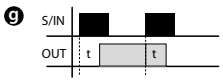
SINGLE SHOT falling edge
When input S/IN is closed, nothing happens. When input S/IN is open, the output closes and timing starts. When the delay runs out, the output opens. Repeated closing/opening of input S/IN during the delay (t) doesn't affect its length.

FLASHER - ON first with Control Signal
When input S/IN is closed, the output closes and timing starts. The output opens when the delay runs out, and the timing starts from the beginning. The output closes when the delay runs out, and the timing starts from the beginning once again. This repeats until input S/IN is opened which stops the cycling function and opens output (if it was closed).

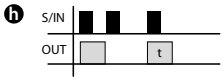
ON/OFF DELAY 3
When input S/IN is closed, the timing starts. The output closes when the delay runs out. When input S/IN is open, the timing starts again. The output opens when the delay runs out. If the input S/IN is closed and opened before first delay runs out, notning happens. If the input S/IN is closed during second delay it will immediately stops the function and opens the output.



ON DELAY with Control Signal 2
When input S/IN is closed, the timing starts. The output closes when the delay runs out. When input S/IN is open, the output opens as well.

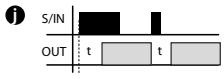


ON/OFF DELAY 4
When input S/IN is closed, the timing starts. The output closes when the delay runs out. When input S/IN is open, nothing happens. When input S/IN is closed again, the timing starts. The output opens when the delay runs out. When input S/IN is open again, nothing happnes.



MEMORY LATCH with Delay
When input S/IN is closed, the output closes and timing starts. When the delay runs out, the output opens. The output opens immediately if the input S/IN is open and closed before the delay runs out.

FLASHER - OFF first with Control Signal
When input S/IN is closed, the timing starts. The output closes when the delay runs out, and timing starts from the beginning. The output opens when the delay runs out, and the timing starts from the beginning once again. This repeats until input S/IN is opened which stops the cycling function and opens output (if it was closed).



ON DELAY with Control Signal
When input S/IN is closed, the timing starts. The output closes when the delay runs out. When input S/IN is open, nothing happens. When input S/IN is closed again, the output opens and timing starts again. The output closes when the delay runs out.

Type of load	cos φ ≥ 0.95 AC1	M AC2	M AC3	AC5a uncompensated	AC5a compensated	HAL.230V AC5b	AC6a	AC7b	AC12
Contact material $AgSnO_2$, 10A	250V / 10A	250V / 5A	250V / 4A	x	x	250W	250 / 4A	250V / 1A	250V / 1A
Type of load	AC13	AC14	AC15	DC1	M DC3	M DC5	DC12	DC13	DC14
Contact material $AgSnO_2$, 10A	x	250V / 4A	250V / 3A	24V / 10A	24V / 3A	24V / 2A	24V / 10A	24V / 2A	x

Warning

This device is constructed for connection in 1-phase network AC 230 V and must be installed according to norms valid in the state of application. Connection according to the details in this direction. Installation, connection, setting and servicing should be installed by qualifi ed electrician staff only, who has learnt
these instruction and functions of the device. This device contains protection against overvoltage peaks and disturbancies in supply. For correct function of the protection of this device there must be suitable protections of higher degree (A, B, C) installed in front of them. According to standards elimination of disturbancies must be ensured. Before installation the main switch must be in position "OFF" and the device should be deenergized. Don´t install the device to sources of excessive electro-magnetic interference. By correct installation ensure ideal air circulation so in case of permanent operation and higher ambient temperature the maximal operating temperature of the device is not exceeded. For installation and setting use screw-driver cca 2 mm. The device is fully-electronic - installation should be carried out according to this fact. Non-problematic function depends also on the way of transportation, storing and handling. In case of any signs of destruction, deformation, non-function or missing part, don´t install and claim at your seller it is possible to dismount the device after its lifetime, recycle, or store in protective dump.