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Made in Czech Republic

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SMR-K, SMR-T, SMR-H, SMR-B

Super-multifunction relay



Characteristics

- multifunction relay designed for installation into a wiring box or under wall-switch in an existing electrical installation
- advantageous and fast solution for exchanging standard wall-switch for a switch controlled by time or for an impulse relay controlled by a button
- time scale 0.1 s - 10 days divided into 10 ranges:
(0.1 s - 1 s / 1 s - 10 s / 0.1 min - 1 min / 1 min - 10 min / 0.1 hrs - 1 hrs / 1 hrs - 10 hrs / 0.1 day - 1 day / 1 day - 10 days / only ON / only OFF)

SMR-K

- 3-wire connection, works without the connection of a neutral conductor
- power output: 10 - 160 VA
- for flawless function of the product is necessary the presence of a load R, L or C between input S and neutral wire

SMR-T

- 3-wire connection, works without the connection of a neutral conductor
- power output: 10 - 160 VA
- between input S and neutral wire is possible connect any load R, L, or C - that is not necessary (unlike SMR-K)

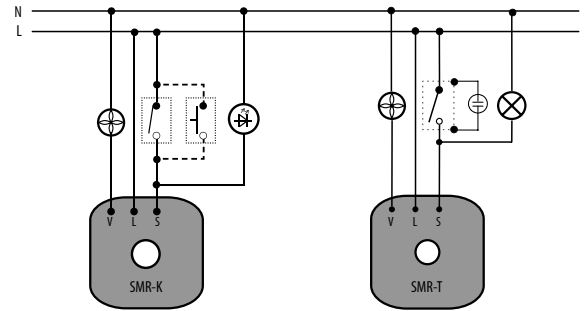
SMR-H

- 4-wire connection
- power output: 0 - 200 VA

SMR-B

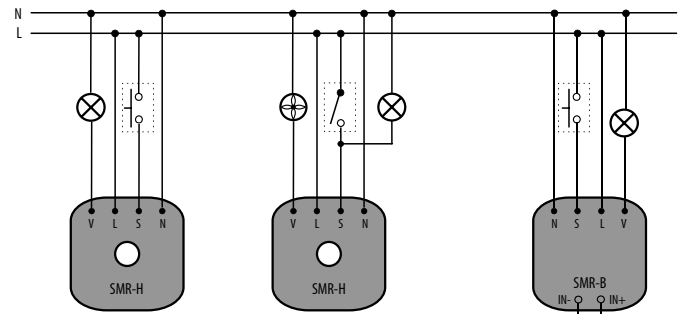
- 4-wire connection
- 10 functions
- output contact 1x 16 A / 4000 VA, 250 V AC1
- enables switching of fluorescent lights and also energy saving lights
- suitable for switching loads greater than SMR-K, SMR-T, SMR-H, for example pulse relay, stair automatic switch, switching of ladder radiators in bathrooms
- independent galvanically separated input AC/DC 5 - 250 V, for example for control from a security system

Connection



Typical wiring of SMR-K
- timer for fan

Fan controlling depending
on the lighting



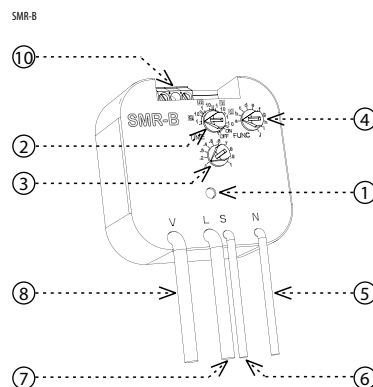
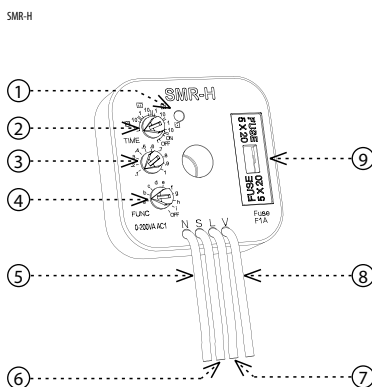
Typical wiring of SMR-H
- timer for lamp

Fan control depending
on the lighting

Input for external control
voltage AC/DC 5 - 250 V

Note: SMR-K, SMR-T, SMR-H are not intended for switching capacity load (energy saving bulbs and LED lights with capacity power etc.), these products are only intended for switching resistive and inductive loads (incandescent bulbs, fans, etc.). SMR-B with relay output is intended to other types of load. Using this output it is possible to switch the load of R, L or C-values listed in the load table.

Description



1. Output indication
2. Rough time setting
3. Fine time setting
4. Function setting
5. Neutral conductor
6. Switch (button)
7. Phase conductor
8. Output to appliance
9. Exchangeable fuse
10. Galvanically separated control input 5 - 250 V AC/DC

Type of load	$\cos \varphi \geq 0.95$	M	M	AC5a uncompensated	AC5a compensated	AC5b	AC6a	AC7b	AC12
Mat. contacts AgSnO ₂ contact 16A	250V / 16A	250V / 5A	250V / 3A	230V / 3A (690VA)	230V / 3A (690VA) to max. input C=14uF	1000W	x	250V / 3A	x
Type of load	AC13	AC14	AC15	DC1	DC3	DC5	DC12	DC13	DC14
Mat. contacts AgSnO ₂ contact 16A	x	250V / 6A	250V / 6A	24V / 10A	24V / 3A	24V / 2A	24V / 6A	24V / 2A	x

Technical parameters

	SMR-K	SMR-T	SMR-H	SMR-B
Number of functions:	9			10
Connection:	3-wire, without neutral		4-wire, with neutral	
Voltage range:	AC 230 V / 50 - 60 Hz			
Power input (no operation / make):	0.8 / 3 VA		max. 1 / 1 VA	
Supply voltage tolerance:	-15 %; +10 %			
Time ranges:	0.1 s - 10 days			
Time setting:	via rotary switch			
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)			

Output

Number of contacts:	1x triac		1x NO / SPST (AgSnO ₂)	
Resistive load:	10 - 160 VA		0 - 200 VA	
Inductive load:	10 - 100 VA		8 A 250 V AC (cos φ > 0.4)	

Control

Control voltage:	AC 230 V		AC 230 V, UNI - 5-250 V AC/DC	
Control current:	25 μA		3 mA	
Impulse length:	min. 50 ms / max. unlimited			
Glow tubes connetions:	x		Yes	
Max. amount of glow lamps connected to controlling input:	x		230 V - max. amount 50 pcs (measured with glow lamp 0.68 mA / 230 V AC)	

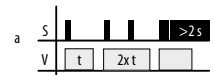
Other information

Operating temperature:	0.. 50 °C (32.. 122 °F)			
Operating position:	any			
Mounting:	free at connecting wires			
Protection degree:	IP30 in standard conditions			
Overvoltage category:	III.			
Pollution degree:	2			
Fuse:	F 1A / 250 V		x	
Connection wires (cross-section / lenght):	3x CY, 0.75 mm ² (AWG 18) / 90 mm (3.5")	4x CY, 0.75 mm ² (AWG 18) / 90 mm (3.5")	2x CY, 0.75 mm ² (AWG 18), 2x CY, 2.5 mm ² (AWG 10) / 90 mm (3.5")	
Glow-lamps in control button:	x		max. 10	
Dimensions:	49 x 49 x 13 mm (1.9 x 1.9 x 0.5")			49 x 49 x 21 mm (1.9 x 1.9 x 0.8")
Weight:	27 g (0.95 oz.)	27 g (0.95 oz.)	28 g (0.98 oz.)	53 g (1.9 oz.)
Standards:	EN 61812-1, EN 61010-1			

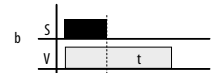
Warning

Device is constructed for connection in 1-phase main AC 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 qualified electrician staff only, who has learnt these instruction and functions of the device. This device contains protection against over-voltage peaks and disturbances 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 disturbances must be ensured. Before installation the main switch must be in position "OFF" and the device should be de-energized. 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. After stop using the product it is possible to demount and recycle.

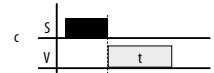
Function



a) **Delay off on entering edge** - Output times when it is switched. Each following pressing (max. 5x) increases timelong pressing swithes output off.



b) **Delay off on descending edge** - after a switch is pushed, output swithes immediatly, starts timing after a button is released.



c) **Delay on descending edge** - output swithes and starts timing after a button is released.



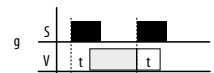
d) **Cycler - flasher** - Output regularly swithes according to set intervals.



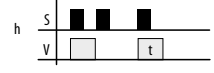
e) **Impulse shift** - Delayed swithing after pushing a swith and delayed swithing off after its release.



f) **Delay on** - Output swithes with delay after swith on, this state stays until the product doesnt swith off.



g) **Impuls relay** - After energization by pressing a button, output swithes, and swithes off by another pressing. The length of pressing does not matter. Delay for reaction to a button can be set by potentiometer and thus eliminate button contact recoil.



h) **Impulse relay with delay** - When pressing a button, output swithes and starts timing. Another pressing swithes the output off in case it happens before timing is finished.



i) **Cycler starting with a gap** - Output cycles in regular intervals, cycler starts with a gap.



j) **Cycler starting with gap** - Delay on after swithing on until it is de-energized or a swith is pressed again (function j is valid only for SMR-B).