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## CRM-42 CRM-42F

### Programmable staircase switch

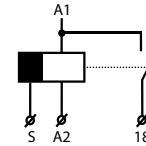
- CRM-42 with signalling before switch off
- CRM-42F without signaling



### Characteristics

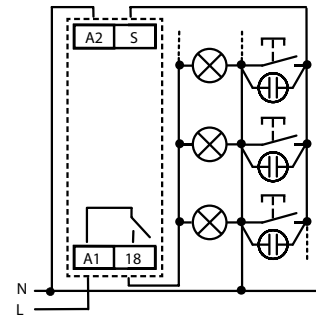
- intelligent staircase switch, the same use as CRM-4, but with enlarged possibility of control in mode „PROG“ it is possible to select time of delayed OFF by number of button pressing. Each pressing multiplies time set by potentiometer, it means that in case you set time to 5 min and press the button 3 times, then the output is automatically prolonged to 15 min. Output can be also switched off before time (reset) by long pressing of button (longer than 2 sec).
- output relay contact 16 A/AC1 with inrush current up to 80 A enables switching of el. bulbs and also fluorescent lights
- operating system switch:  
 ON - output is constantly ON (service model)  
 AUTO - timing according to adjusting by potentiometer in range 30 s - 10 min  
 PROG - timing with time prolongation option by number button pressing
- timing (in mode AUTO and PROG) is possible to be stopped by long pressing of the button (> 2 s)
- voltage range: AC 230 V, clamp terminals
- output indication: multif. red LED, flashing at certain states
- 3-wire or 4-wire connection (it is possible to control input S by potential A1 or A2)
- CRM-42:** warning before switch OFF- output doubleflash 40 and 30 sec before switch OFF
- CRM-42E:** without doubleflash product particularly suitable for energy-saving light bulbs, where frequent switching is due to damage
- function anti-block button protection (e.g. against blocking by a match)
- 1- MODULE, DIN rail mounting

### Symbol

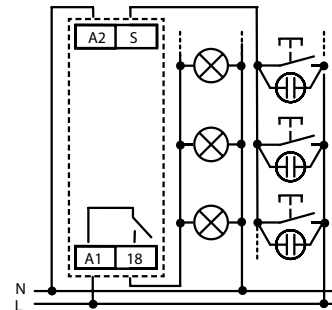


### Connection

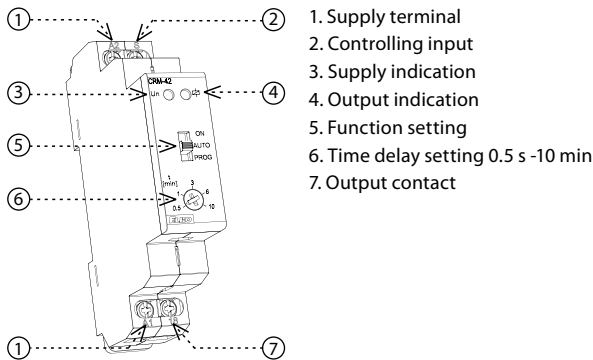
3-wire connection



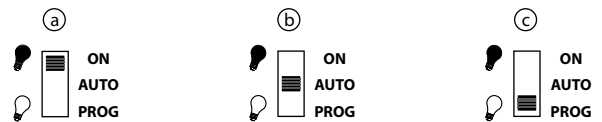
4-wire connection



### Description



### Operating switch



- Operating switch in ON position = permanent switch ON of relay contacts. This position is used for cleaning up, service and faults discovery around the load.
- In this position is device set in operating state and operates according to diagramm and adjusted time.
- Timing with the possibility of the illumination length extension by pressing a button (max. extension is 30 min).

Type of load	$\cos \varphi \geq 0.95$								
Mat. contacts AgSnO <sub>2</sub> contact 16A	AC1 250V / 16A	AC2 250V / 5A	AC3 250V / 3A	AC5a uncompensated 230V / 3A (690VA)	AC5a compensated 230V / 3A (690VA) to max. input C=14uF	AC5b 1000W	AC6a x	AC7b 250V / 3A	AC12 x
Type of load									
Mat. contacts AgSnO <sub>2</sub> contact 16A	AC13 x	AC14 250V / 6A	AC15 250V / 6A	DC1 24V / 10A	DC3 24V / 3A	DC5 24V / 2A	DC12 24V / 6A	DC13 24V / 2A	DC14 x

CRM-42 CRM-42F

Function:	delay OFF responsive to control contact switch on
Supply terminals:	A1 - A2
Supply voltage:	AC 230 V / 50 - 60 Hz
Consumption:	AC max. 12 VA / 1.8 W
Max. dissipated power (Un + terminals):	4 W
Supply voltage tolerance:	-15 %; +10 %
Supply indication:	green LED
Time ranges:	0.5 - 10 min
Time setting:	potentiometer
Time deviation:	5 % - mechanical setting
Repeat accuracy:	5 % - set value stability
Temperature coefficient:	0.05 % / °C, at = 20 °C (0.05 % / °F, at = 68 °F)

Output

Number of contacts:	1x NO - SPST (AgSnO <sub>2</sub> ), switches potencial A1
Current rating:	16 A / AC1
Breaking capacity:	4000 VA / AC1, 384 W / DC
Inrush current:	30 A / < 3 s
Switching voltage:	250 V AC / 24 V DC
Output indication:	red LED
Mechanical life:	3x10 <sup>7</sup>
Electrical life (AC1):	0.7x10 <sup>5</sup>
Electrical life (AC5b):	8x10 <sup>4</sup> (bulbs 1000 W) *

Control

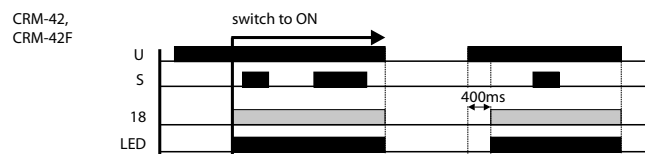
Control voltage:	AC 230 V
Power the control input:	AC 0.53 VA
Glow tubes connetions:	Yes
Max. amount of glow lamps connected to controlling input:	230 V - max. amount 50 pcs (measured with glow lamp 0.68 mA / 230 V AC)
Control. terminals:	A1-S or A2-S
Impulse length:	min. 50 ms / max. unlimited
Reset time:	max. 150 ms

Other information

Operating temperature:	-20 °C to +55 °C (-4 °F to 131 °F)
Storage temperature:	-30 °C to +70 °C (-22 °F to 158 °F)
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP40 from front panel / IP10 terminals
Overvoltage cathogory:	III.
Pollution degree:	2
Max. cable size (mm <sup>2</sup> ):	solid wire max. 2x 2.5 or 1x 4 / with sleeve max. 1x 2.5 or 2x 1.5, (AWG 12)
Dimensions:	90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")
Weight:	69 g (2.4 oz.)
Standards:	EN 60669-2-3, EN 61010-1

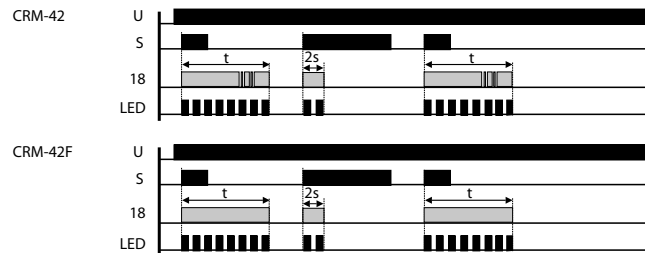
\* For bigger bulb dimmers and frequent switching w recommend to strengthen relay contact by power contactor, for example by a contactor line VSxxx.

Mode ON - the output is permanently closed in ON position. Control input is blocked.



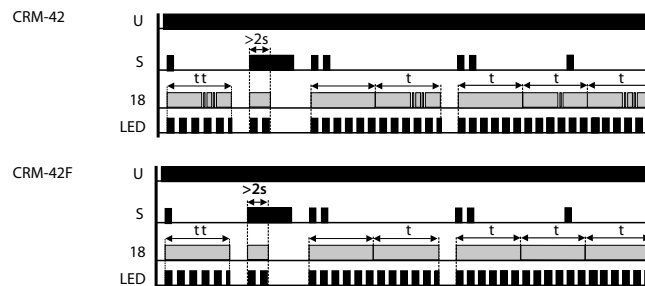
Mode AUTO - by pressing a control button in function AUTO the output closes and after the set time period the output opens.

CRM-42: Warning before switch OFF - output doubleflash 40 and 30 sec before switch OFF. \*  
CRM-42F: without flashing.



Mode PROG (the illumination time is defined by number of button pressing) - in function program the switched time is a sum of each time set by pressing the button. By pressing > 2 s the ouput opens.

CRM-42: Warning before switch OFF - output doubleflash 40 and 30 sec before switch OFF. \*  
CRM-42F: without flashing.



\* If the total set time is less than 1 min, there is no flashing according to the graph of the function.

Warning

Device is constructed for connection in 1-phase AC 230 V main alternating current voltage 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 overvoltage 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 it is possible to dismount the device after its lifetime, recycle, or store in protective dump.