

NEW



EAN code  
CRM-101/UNI: 8595188181327

### Technical parameters

### CRM-101

#### Power supply

Supply terminals:	A1 - A2
Voltage range:	AC/DC 12 - 240 V (AC 50/60 Hz)
Power input (max.):	2 VA/1.5W
Supply voltage tolerance:	-15 %; +10 %
Supply indication:	green LED

#### Time circuit

Time range t1:	1 - 60 min (t1 = t1a + t1b)
Time range t2:	0.5 - 120 s
Time setting:	rotary switch and potentiometer
Time deviation:	5 % - mechanical setting
Repeat accuracy:	0.2 % - set value stability
Temperature coefficient:	0.01 %/°C, at = 20 °C (0.01 %/°F, at = 68 °F)

#### Output

Number of contacts:	1x changeover/SPDT (AgNi)
Current rating:	16 A/AC1
Breaking capacity:	4000 VA/AC1, 384 W/DC
Switching voltage:	250 V AC/24 V DC
Max. power dissipation:	1.2 W
Output indication:	multifunction red LED
Mechanical life:	10.000.000 ops.
Electrical life (AC1):	100.000 ops.

#### Control

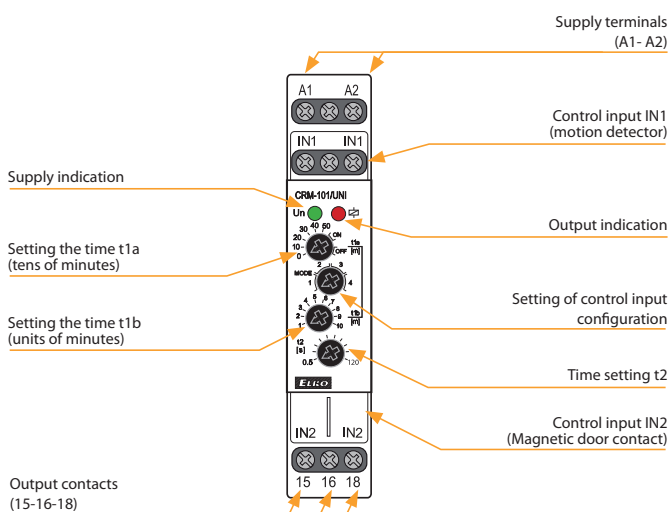
Control terminals:	IN1-IN1, IN2-IN2
Impulse length:	min. 25 ms/max. unlimited
Reset time:	max. 150 ms

#### 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)
Dielectric strength:	4kV AC (supply - output)
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP40 from front panel/IP20 terminals
Overvoltage category:	III.
Pollution degree:	2
Max. cable size (mm <sup>2</sup> ):	solid wire max. 1x 2.5 or 2x 1.5/ with sleeve max. 1x 2.5 (AWG 12)
Dimensions:	90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")
Weight:	70 g (2.5 oz.)
Standards:	EN 61812-1

- Time relay for automatic switching ON and OFF of electricity in hotel rooms, with the help of connected sensors (replacement of common card switches).
- 2 control inputs - potential-free:  
IN1 (MD) - motion detector  
IN2 (MC) - magnetic door contact.
- **1 control input - voltage dependant:**  
**S (MD) - motion detector**
- Adjustable configuration of control inputs:  
NO - normally open/NC - normally closed, according to the type of connected sensors).
- Time delay t1 (delayed switch-off of electricity).  
Adjustable in the range of 1 - 60 min in minute steps.
- Time delay t2 (input blocking for motion detector).  
Adjustable continuously in the range 0.5 - 120 s.

### Description



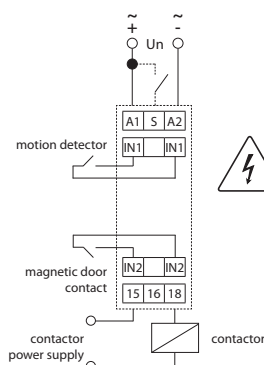
### Setting of control inputs configuration

MODE	IN1	IN2
1	NO	NO
2	NO	NC
3	NC	NO
4	NC	NC

### Example settings:

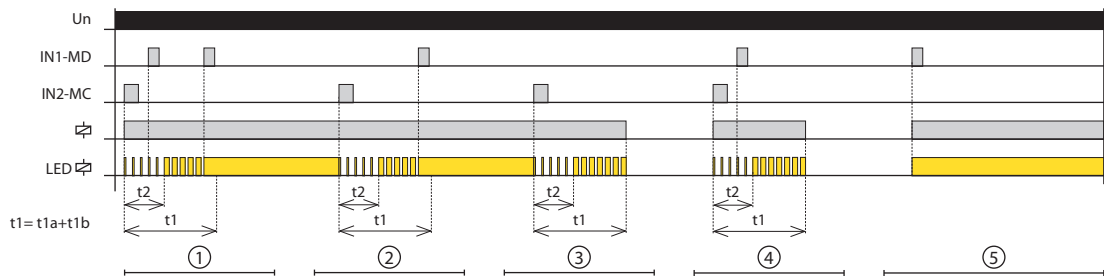
- door contact is NC (closed when the door is closed)
- motion detector has NC contact (closed at rest, opens when motion is detected)
- MODE must be set to position 4

### Connection



**Do not apply voltage to terminals IN1 and IN2 - the control contacts must be potential-free!**

## Function



## ① Arrival of persons in the room

- When people enter the room, IN2 is activated (MC - magnetic door contact)
- closes the relay (turns on the electricity) and at the same time the delay t1 and t2 starts
  - the red LED flashes depending on the delay in progress.
- Contact IN1 (MD - motion detector), responds to the movement of people in the room
- during the delay t2, the MD operation is blocked
  - if IN1 is activated after the delay t2 has elapsed or if the contact IN1 is already closed, the delay t1 ends and the red LED lights up permanently. The relay remains permanently closed.

## ② Person leaving the room

- When the person leaves the room, contact IN2 is activated
- delays t1 and t2 start at the same time
  - if there is a movement in the room after the delay t2 has elapsed, IN1 is activated, the delay t1 is terminated and the relay remains closed

## ③ Last person leaving the room

- When the person leaves the room, contact IN2 is activated
- delays t1 and t2 start at the same time
  - if IN1 is not activated after the delay t2 has elapsed (there is no movement in the room), then after the delay t1 the red LED goes out and the relay opens (switches off the electricity).

## ④ No movement after delay t2

- When people enter the room, IN2 is activated (MC - magnetic door contact)
- closes the relay (turns on the electricity) and at the same time the delay t1 and t2 starts
  - if IN1 is not activated after the delay t2 has elapsed (e.g. a brief insight into the room), then after the delay t1 the red LED goes out and the relay opens (switches off the electricity).

## ⑤ Movement at rest

- Idle state - in case the IN1 does not activate the relay (switches off the electricity) after the person leaves the room after the delay t2 has elapsed. However, another person remains in the room motionless (e.g. sleeping).
- if IN1 is activated (e.g. by waking up a sleeping person), the relay closes without delay (turns on the electricity).