

**System motion detector power unit 1-channel RMD**

Order-No. : 155

**System motion detector power unit 2-channel RMD**

Order-No. : 159

**Operation- and  
Assembly Instructions****1 Safety instructions**

Electrical equipment may only be installed and fitted by electrically skilled persons.

Failure to observe the instructions may cause damage to the device and result in fire and other hazards.

Danger of electric shock. Device is not suitable for disconnection from supply voltage.

Danger of electric shock. Always disconnect before carrying out work on the device or load. At the same time, take into account all circuit breakers that supply dangerous voltage to the device or load.

These instructions are an integral part of the product, and must remain with the end customer.

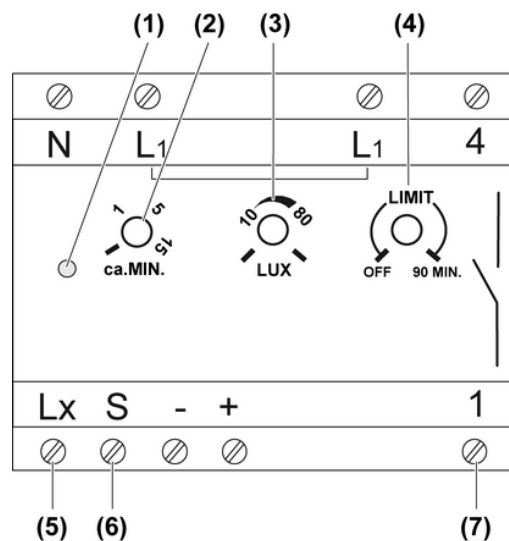
**2 Device components****System power pack, 1-channel RMD**

Figure 1: Power pack, 1-channel

- (1) Status LED
- (2) Adjuster, run-on time, **MIN**
- (3) Adjuster, brightness threshold, **LUX**
- (4) Forced switch-off adjuster, **LIMIT**
- (5) Terminal **Lx** Brightness evaluation of the system sensor
- (6) Terminal **S** Signal evaluation of the system sensor
- (7) Terminals **1** and **4** Potential-free switching contact

## System motion detector power RMD - 1-channel, 2-channel

### System power pack, 2-channel RMD

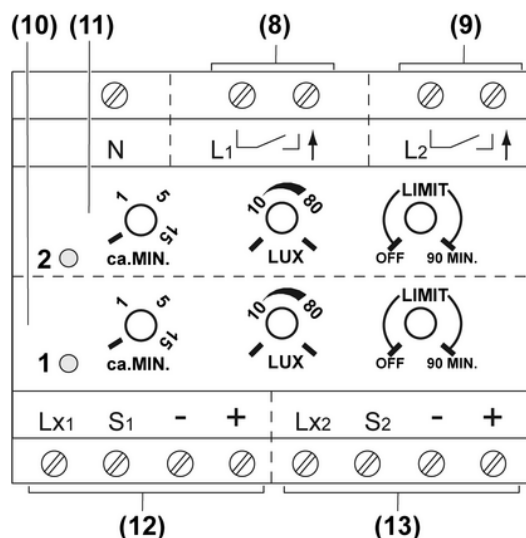


Figure 2: Power pack, 2-channel

- (8) Switching contact, channel 1
- (9) Switching contact, channel 2
- (10) Channel 1: Status LED and adjuster for **MIN**, **LUX** and **LIMIT**
- (11) Channel 2: Status LED and adjuster for **MIN**, **LUX** and **LIMIT**
- (12) Connection of system sensors for Channel 1
- (13) Connection of system sensors for Channel 2

## 3 Function

### Intended use

- Switching of electrical loads for the duration of a settable time on not reaching a brightness threshold
- Operation with suitable system sensors
- Installation in distribution boxes on DIN rail according to DIN EN 60715

### Product characteristics

#### System power pack, 1-channel RMD

- Device reacts to motion detection of system sensors
- Brightness threshold settable
- Switch-on time settable
- Forced switch-on settable, limit function
- Potential-free NO contact
- Small voltage switchable
- Manual switch-on possible with installation button, NC contact

#### System power pack, 2-channel RMD

- Device reacts to motion detection of system sensors
- Brightness threshold can be set separately for both channels
- Switch-on time can be set separately for both channels
- Forced switch-off can be set separately for both channels
- Channel 1: non-floating NO contact
- Channel 2: potential-free NO contact
- Manual switch-on of both channels possible with installation button, NC contact

### Automatic operation

System sensors (accessories) detect heat movements or people, animals or objects and forward movement signals and the current brightness value to the power pack.

- The light is switched on if a person enters the monitored detection area and the brightness is below the set threshold.
- The light is switched off if no more movement is detected in the detection area and the follow-up time has elapsed.

In order to avoid light oscillations due to the cooling of a bulb, the power pack does not evaluate any signals for approx. 3 seconds after switch-off.

Switching on the mains voltage of the power pack triggers a switching operation on the power pack.

The Status LED (1) of the appropriate channel lights up when the load is switched on.

## 4 Operation

### Switching the light on manually

Optional installation button, NC contact is installed (mounting and electrical connection).

- Press the installation button for at least 1 second.  
Light is switched on independently of the brightness for the set follow-up time.  
When motions are detected, the delay time is restarted.

### Configuring the power pack

The three adjusters can be used to set the run-on time, the brightness threshold and, if necessary, a forced switch-off after 90 minutes.

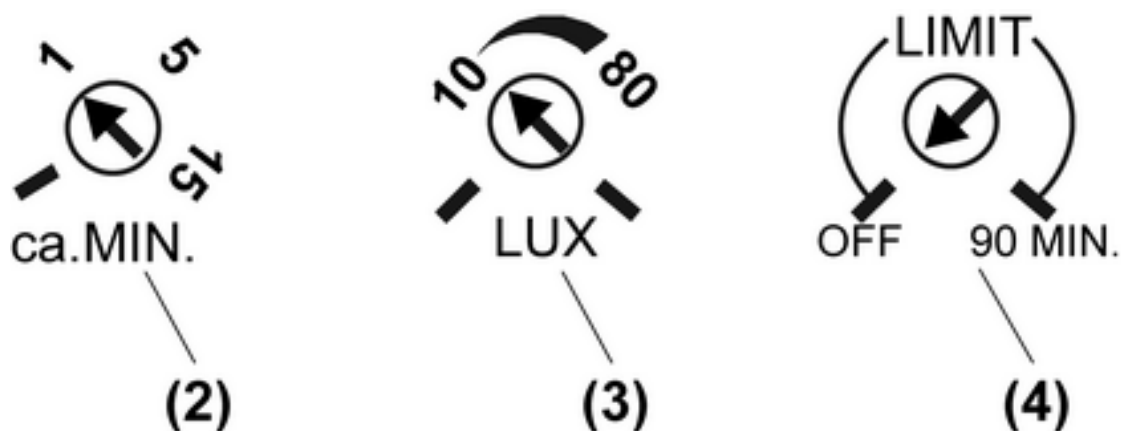


Figure 3: Power pack adjuster

### Set follow-up time

The light remains switched on for this time after the last movement detection. The run-on time is set between approx. 4 seconds and 15 minutes.

- Turn the **MIN** adjuster (2) to the required position (Figure 3).

### Setting the brightness threshold

The brightness threshold is infinitely adjustable in a range from approx. 3 to 80 lux and day operation.

- Turn the **LUX** adjuster (3) to the required position (Figure 3). A setting of approx. 10 lux activates the device at the start of twilight. For switching independent of brightness, turn the adjuster to the far right.

### Switching on the forced switched-off

The **LIMIT** adjuster (4) can be used to switch a forced switch-off on **90 MIN** or off **OFF**. With forced switch-off, the power pack switches off after 90 minutes at the latest. Switch-on only takes place again if the brightness is below the set threshold and there movement is again detected in the detection area. Forced switch-off prevents the light from switching off when there is constant movement detection, even if it is bright enough.

- Set **LIMIT** adjuster to **90 MIN**.

## 5 Information for electrically skilled persons

### 5.1 Fitting and electrical connection



#### **DANGER!**

**Electrical shock when live parts are touched.**

**Electrical shocks can be fatal.**

**Before carrying out work on the device or load, disengage all the corresponding circuit breakers. Cover up live parts in the working environment.**

### Connecting and installing the 1-channel power pack

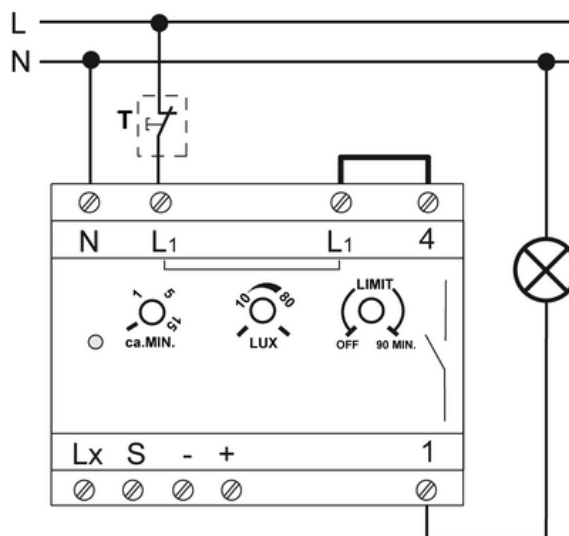


Figure 4: Connection diagram, 1-channel power pack

- Install the power pack on the DIN rail.
- Connect the power pack according to connection diagram (Figure 4). Optionally insert the installation button T, NC contact, in the supply cable of the power pack, in order to be able to switch the power pack on manually for the length of the run-on time.
- Install the bridge between the terminals **L<sub>1</sub>** and **4** on the same conductor when connecting the switching contact.
- **i** The switching output can be operated on a different conductor to the power supply.
- If multiple miniature circuit breakers supply dangerous voltages to the device or load, couple the miniature circuit breakers or label them with a warning, to ensure release is guaranteed.
- Connect the system sensors to the terminals **Lx**, **S**, **-** and **+** of the power pack (see System sensors instructions).

Using the 1-channel power pack, switch a small voltage.

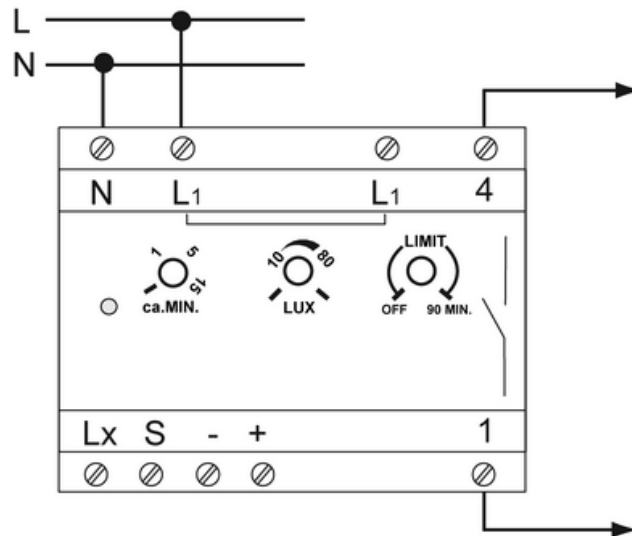


Figure 5: Connection diagram for switching contact to small voltage

- Connect the power pack according to connection diagram (Figure 5).

### Connecting and installing the 2-channel power pack

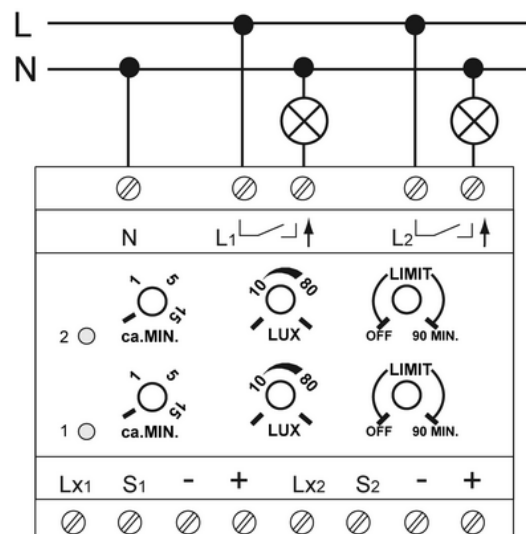


Figure 6: Connection diagram, 2-channel power pack

- Install the power pack on the DIN rail.
- Connect the power pack according to connection diagram (Figure 6).
- If multiple miniature circuit breakers supply dangerous voltages to the device or load, couple the miniature circuit breakers or label them with a warning, to ensure release is guaranteed.
- Connect the system sensors to the terminals **Lx**, **S**, - and + for channels 1 and 2 of the power pack (see System sensors instructions).

**i** The two switching outputs **L<sub>1</sub>** and **L<sub>2</sub>** can be operated on different conductors.

**i** If more than 8 system sensors are required, then the outputs of Channel 1 and Channel 2 must be switched in parallel. For this, lay a bridge between output 1 and output 2. The maximum connected load does not increase as a result.

## System motion detector power RMD - 1-channel, 2-channel

- i** Parallel switching of multiple power packs is possible on the external side, however the maximum connected load does not increase as a result.

## 5.2 Commissioning

### Commissioning the motion detector system

- Connect the system sensors in sequence (see System sensor instructions) and test them individually, in order to guarantee the function.
- Set the power pack for the function testing of the sensors as follows:  
**MIN** adjuster approx. 4 seconds at left stop  
**LUX** adjuster, Day modern right stop
- Pace off the detection area for each system, paying attention to reliable detection and interference sources (see System sensors instructions).
- After commissioning the system sensors, set the **MIN**, **LUX** and **LIMIT** adjusters for normal operation.

## 6 Appendix

### 6.1 Technical data

Rated voltage	AC 230 V ~
Mains frequency	50 Hz
Power consumption	
Order-No. 155	approx. 1.1 W
Order-No. 159	approx. 1.8 W
Ambient temperature	-25 ... +55 °C
run-on time	approx. 4 s ... 15 min
Brightness setting	approx. 3 ... 80 lx (and day operation)
Connected load for AC 230 V~	
Incandescent lamps	2300 W
HV halogen lamps	2300 W
Tronic transformers	1200 W
Inductive transformers	1200 VA
Electronic ballast	Type-dependent
Fluorescent lamps, uncompensated	1200 VA
Fluorescent lamps, parallel compensated	920 VA
Fluorescent lamps, duo circuit	2300 VA
Switching current	10 A
Switch-on current	max. 20 A Per channel
Minimum switching current	100 mA
Minimum switching voltage	AC 12 V~
Contact type	μ
Connection	
Single stranded	1.5 ... 4 mm <sup>2</sup>
finely stranded without conductor sleeve	0.75 ... 4 mm <sup>2</sup>
finely stranded with conductor sleeve	0.5 ... 2.5 mm <sup>2</sup>
Number of system sensors	max. 8 (Per channel)
Total length power cable	max. 100 m
Fitting width	72 mm / 4 modules

### 6.2 Accessories

System motion detector 180° surface-mounted	Order-No. 151 09
System motion detector 240° surface-mounted	Order-No. 152 09

### **6.3 Warranty**

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

Our products are under guarantee within the scope of the statutory provisions.

If you have a warranty claim, please contact the point of sale or ship the device postage free with a description of the fault to the appropriate regional representative.

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