

Item number	Order description	MD-C / PD-C ... 8	
EP10055393	MD-C 360i/8		
EP10425875	MD-C 360i/8 MIC *		
EP10425059	PD-C 360i/8		
EP10425882	PD-C 360i/8 MIC *		
EP10425042	PD-C 360i/8plus		
EP10055317	MD-C 360i/24		
EP10428067	PD-C 360i/24		
EP10425288	PD-C 360i/24plus		
EP10425707	PD-C 360i/24 DRY *		
EP10427749	MD-C 360i/32		
EP10427756	PD-C 360i/32		
EP10427763	PD-C 360i/32plus		
EP10428128	MD-C 360i/32 Corridor *		
EP10428180	PD-C 360i/32 Corridor *		

(\* see table chapter 7)

## GB DETAILED OPERATING INSTRUCTIONS

These operating instructions contain detailed information on the installation, commissioning and setting options of the product described. The current version of this document is available on the respective product page at [www.esylux.com](http://www.esylux.com) and can be printed out in A4 format. Read the operating instructions carefully and observe all safety instructions and warnings.

### 1 • SAFETY INSTRUCTIONS



**CAUTION:** Electrical devices connected to a 230 V mains supply may only be assembled and commissioned by electrical installation technicians or trained electricians, taking country-specific regulations into account.

Use this product only as intended (as described in the user instructions). Changes or modifications to the product or painting it will result in loss of warranty. You should check the device for damage immediately after unpacking it. If there is any damage, you should not install the device under any circumstances. If you suspect that safe operation of the device cannot be guaranteed, you should turn the device off immediately and make sure that it cannot be operated unintentionally.

### 2 • DESCRIPTION

Motion and presence detectors are passive infrared detectors that automatically switch connected lighting depending on natural light and presence / movement and are suitable for use indoors. An additional "HVAC" switch contact (depending on detector type) can be used for controlling another light source / panel light or for controlling heating, ventilation and air conditioning (HVAC), depending on presence.

### 3 • INSTALLATION / ASSEMBLY / CONNECTION

Please refer to the supplied leaflet for instructions.

### 4 • START-UP

#### • Connect the power supply

A warm-up phase of approx. 25 seconds is initiated.

The **red** (channel 1 = C1), **green** (channel 2 = C2 / if present) and **blue** LEDs flash alternately. The connected lighting is switched on.

The remote controllable detectors are supplied with factory settings and are therefore immediately ready for use after the warm-up phase.

#### Overview of factory settings:

Detector type	MD-C 360i/8	PD-C 360i/8	PD-C 360i/8plus
	MD-C 360i/8 MIC	PD-C 360i/8 MIC	PD-C 360i/24plus
	MD-C 360i/24	PD-C 360i/24	PD-C 360i/32plus
	MD-C 360i/32	PD-C 360i/24 DRY	
	MD-C 360i/32 Corridor	PD-C 360i/32	
		PD-C 360i/32 Corridor	
Light value 1	Passageway (approx. 100 lux)	Working area (approx. 400 lux)	Working area (approx. 400 lux)
"Light channel" time setting	5 min.	5 min.	5 min.
"HVAC channel" time setting			60 min.
Mode	Fully automatic	Fully automatic	Fully automatic

### 4.1 Function after the warm-up phase

#### Fully automatic mode – switching channel "lighting-C1"

If the ambient lighting level is higher than the default light value, the **red LED** and the connected lighting will be switched off.

**Automatic switch-on:** if the detector has been triggered by movement and the ambient lighting level has fallen below the default light value.

The **red LED** is enabled to indicate motion detection: two short flashes each time movement is detected.

**Automatic switch-off:** if movement is no longer detected, the lighting will be switched off once the set time has elapsed.



**Note on presence detectors:** However, should the natural lighting level increase and the ambient lighting level exceed the preset light value, the detector will automatically switch the lighting off 5 minutes after reaching the preset light value, regardless of any movement / presence. The lighting can subsequently be switched back on manually at any time.

#### Delay

When persons are present, in order to avoid sudden changes in brightness caused by undesired switching on/off of the lighting, the detector will only be triggered after a time delay.

Example: A passing cloud could potentially cause unnecessary switching.

Time delay from light to dark: 30 sec. = **red LED** lights up during this period.

Time delay from dark to light: 5 min. = **red LED** flashes slowly during this period.

#### Fully automatic mode – switching channel "HVAC-C2" (heating, ventilation, air conditioning or lighting / if present)

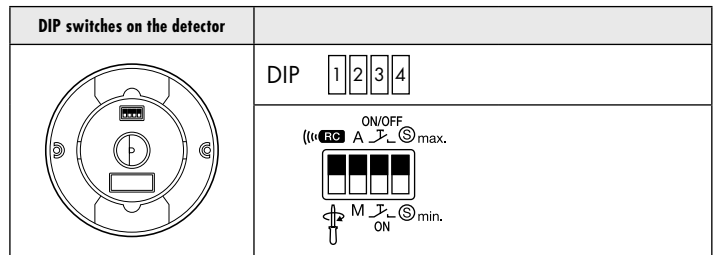
**Automatic switch-on:** The contact is independent of the light value and will only be triggered by movement.

The **green LED** is enabled to indicate motion detection: two short flashes each time movement is detected (no LED indication for DUO version).

**Automatic switch-off:** if movement is no longer detected, the contact will be switched off once the set time has elapsed.

## 5 • INDIVIDUAL SETTINGS AND FUNCTIONS

Clear pre-selection of functions using DIP switches directly on the detector



Individual adjustments can easily be made by remote control or manually by means of adjusting elements selected by operating the selector switch DIP 1 (see illustration).

### 5.1 Settings and functions via remote control

See page 3.

### 5.2 Settings and functions via adjusting elements

DIP switch 1			
	Time setting (light)	Light value	Time setting (HVAC)

#### • Control: lux light values

☾ = light value is approx. 5 lux

☀ = daytime operation

For ease of use, the lux scale is calibrated according to the scope of application:

- Passageways = 1 - 2 (approx. 40 - 200 lux)
- Working areas = 2 - 3 (approx. 200 - 600 lux)
- Activities requiring a high level of lighting = > 3 (> 600 lux)



**NB:** When turning the lux control (starting from the moon symbol), if the current ambient light value is reached, the red LED will light up (as a setting aid). The LED will automatically go out after 30 seconds.

#### Function "short pulse" for "lighting" channel

Once the detector has been triggered by movement (lighting is below preset ambient lighting level), the lighting and the **red LED** will be switched on for 1 second and then off for 9 seconds.

#### Function "short pulse" for "HVAC" channel

Once the detector has been triggered by movement, the channel and the **green LED** will be switched on for 5 seconds and then off for 5 seconds.

#### "Test" function: checking the range / detection using test mode

Connected lighting turns on – for clear inspection / pacing out of a detector's field of detection. Real-time, load-free indication of movement given by 2 flashes of the **blue LED**.

DIP switch 2 Toggle between "fully automatic and semiautomatic operation"	
	<p><b>Fully automatic mode – "lighting" switching channel – see 4.1</b></p> <p><b>Semiautomatic mode – only for "lighting" switching channel</b></p> <p><b>Manual switch-on:</b> The detectors have a separate "S" terminal for connecting an external button (button – operating current – with zero conductor connection). This means that the detector can be manually overridden at any time so that the lighting can be switched on or off individually.</p> <p><b>Automatic switch-off:</b> If movement is no longer detected, the lighting will be switched off once the set time has elapsed.</p>

### 5.3 Additional manual control by button

#### 5.3.1 "lighting" channel

The detectors have a separate "S" terminal for connecting an external button (button – operating current – with zero conductor connection). This means that the detector can be manually overridden at any time so that the "lighting-C1" channel can be switched on or off individually.

**Manual switch-on:** The lighting will remain switched on for as long as the detector continues to detect movement. If movement is no longer detected, the lighting will switch off and the detector will revert to the set operating mode once the set time has elapsed.

**Manual switch-off:** The lighting will remain switched off for as long as the detector continues to detect movement. If movement is no longer detected, the detector will revert to the set operating mode once the set time has elapsed.

The button function can also be set as follows:

DIP switch 3	
	<p><b>"Room" button function – manual switch-on and switch-off (default setting)</b></p> <p><b>"Hallway" button function – manual switch-on only</b> Manual switch-off not possible, safety function for pathway and hallway lighting</p>

### 5.4 Sensitivity adjustment

DIP switch 4	
	<p><b>Maximum sensitivity (default setting)</b></p> <p><b>Reduced sensitivity = optional masking of interference sources</b></p> <p>Despite careful planning and positioning, interference sources can still cause undesired switching, such as local hot air streams from heaters or underfloor heating; ventilators, air-conditioning units, fans, lights, TVs and HiFis, or computers.</p> <p><b>NB: If reducing the sensitivity does not manage to mask the interference source completely, you can also mask out individual areas of detectors by means of the enclosed covering clips / lens mask. Alternatively you will need to re-position the detector.</b></p>

#### 5.5. Control: acoustic sensor (MD-C 360i/8 MIC + PD-C 360i/8 MIC)

The acoustic sensor can only be adjusted manually using the control.

- Turning all the way to the left (-) deactivates the sensor
- Turning all the way to the right (+) maximises sensitivity

The acoustic sensor will only be enabled if the detector is activated first, either by movement or by switching on manually (button or remote control). This stops noises from outside the monitored area affecting operation.

**Automatic switch-off:** if movement or noise is no longer detected, the lighting will be switched off once the set time has elapsed. The lighting can be immediately re-activated, e.g. by calling out (making a noise), within 8 seconds. The acoustic sensor should be adjusted to take into account the surrounding area (noise from nearby HiFis or TVs could trigger the sensor, for instance). The **green LED** indicates the acoustic sensor's response.

### 6 • DISPOSAL / WARRANTY



This device must not be disposed of as unsorted waste.

Used devices must be disposed of correctly. Contact your local town council for more information.

The ESYLUX manufacturer's warranty can be found online at [www.esylux.com](http://www.esylux.com).

Technical and design features may be subject to change.

	MD-C 360i/8 MD-C 360i/24 MD-C 360i/32 MD-C 360i/32 Corridor	MD-C 360i/8 MIC	PD-C 360i/8 PD-C 360i/24 PD-C 360i/32 PD-C 360i/32 Corridor	PD-C 360i/8 MIC	PD-C 360i/8 plus PD-C 360i/24 plus PD-C 360i/32 plus	PD-C 360i/24 Dry
230 V ~ / 50 - 60 Hz	●	●	●	●	●	●
Power consumption in W	0,3	0,3	0,3	0,3	0,3	0,3
Field of detection 360°	●	●	●	●	●	●
Range (diameter in m)	8 24 32	8	8 24 32	8	8 24 32	24
Settings on device or via remote control Mobil-PDi/MDi	●	●	●	●	●	●
Light value approx. 5 lux - 2000 lux / daytime operation	●	●	●	●	●	●
<b>"Lighting" channel</b>						
Switching capacity: 2300 W / 10 A (cos φ = 1), 1150 VA / 5 A (cos φ = 0.5), capacitive load / electronic ballasts – max. inrush current 450 A / 200 μs	●	●	●	●	●	–
Switching capacity: floating / NC, 230 V ~ / 5 A, 24 V ~ / 5 A, capacitive load / electronic ballasts – max. inrush current 30 A / 20 ms	–	–	–	–	–	2x
In-built acoustic sensor	–	●	–	●	–	–
Time setting: impulse / 1 min. - 30 min.	●	●	●	●	●	●
Switch input – lighting	●	●	●	●	●	●
<b>"HVAC" channel</b>						
Switching capacity: floating / NO, 230 V ~ / 2 A, 24 V ~ / 2 A, capacitive load / electronic ballasts – max. inrush current 30 A / 20 ms	–	–	–	–	●	–
Time setting: impulse / 5 min. - 120 min.	–	–	–	–	●	–
Slave connection: PD-C 360/8 Slave, PD-C 360/24 Slave, PD-C 360/32 Slave	–	–	●	●	●	●
Protection type: recessed-mounted IP 20, IP 20 / IP 54 with surface-mounted box (accessory), ceiling-mounted IP 20 (accessory)	●	●	●	●	●	●
Protection class	II	II	II	II	II	II
Operating temperature range -25 °C ... +50 °C	●	●	●	●	●	●
Colour: white, similar to RAL 9010	●	●	●	●	●	●

## 7 • SETTINGS AND FUNCTIONS VIA REMOTE CONTROL

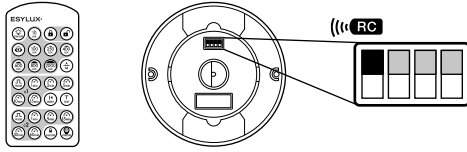
Mobil-PDi/MDi (item no. EM10425509)



**NB: For optimum reception, when programming the settings, point the remote control at the detector.**  
Please note that if the sun shines directly on the sensor, the standard detection range of approx. 8 m may be dramatically reduced owing to the sun's infrared rays.

### 1. Setting via remote control

The **DIP switch 1** on the detector needs to be set as shown in the illustration.



Button	Customised setting
	<b>Entering programming mode</b> <b>Blue LED</b> lights up on the detector, indicating "blue mode" (programming mode). The connected lighting turns on. Whilst in programming mode, the detector's movement sensor is disabled.
	<b>Set switch-on light value using the eye button or a fixed light value</b>
	<b>Inputting the current ambient lighting level (between 5 - 2000 lux) as the switch-on value</b> Connected lighting and the <b>blue LED</b> switch off. Once the input process has been successfully completed, the lighting turns on and the <b>blue LED</b> lights up continuously.
-	<b>Fixed switch-on values (10 - 2000 lux)</b> Confirmed by <b>blue and red LED</b> on the detector flashing alternately.
-	<b>Determining a time setting for channel "lighting-C1": 1 min and 15 min (*) or short pulse:</b> once the detector has been triggered by movement (lighting is below preset ambient lighting level), the lighting and the <b>red LED</b> will be switched on for 1 second and then off for 9 seconds. Confirmed by <b>blue and red LED</b> on the detector flashing alternately.  <b>Note * :</b> 2 x key  = switch-off delay time 30 min. Valid for products marked with * on page 1.
-	<b>Determining a time setting for channel "HVAC-C2": 1 min and 60 min or short pulse:</b> once the detector has been triggered by movement, the channel and the <b>green LED</b> will be switched on for 5 seconds and then off for 5 seconds. Confirmed by <b>blue and green LED</b> on the detector flashing alternately.
	<b>Alternating between "fully automatic" and "semi-automatic" operation modes</b> Semi-automatic mode = press button, the <b>blue LED</b> will turn off for approx. 3 seconds. Fully automatic mode = press button, the <b>blue LED</b> will flash for approx. 3 seconds.
	<b>Switching LEDs on / off (red / green LED)</b> To switch LEDs off = press button, the <b>blue LED</b> will turn off for approx. 3 seconds. To switch LEDs on = press button, the <b>blue LED</b> will flash for approx. 3 seconds.
	<b>Reinstating factory settings</b> Confirmed by <b>blue and red LED</b> on the detector flashing alternately.
	<b>Exiting programming mode</b> <b>Blue LED</b> goes out; settings are now saved. The detector will now operate automatically according to the preset values.  <b>NB: If the programming mode is not exited by pressing the button, the detector automatically exits the programming mode 10 minutes after the last button was pressed.</b>
<b>Additional functions via Mobil-PDi/MDi remote control</b>	
	<b>Checking the range / detection using test mode</b> Connected lighting turns on - for clear inspection / pacing out of a detector's field of detection. Real-time, load-free indication of movement given by 2 flashes of the <b>blue LED</b> .  <b>NB: Exit test mode by pressing the "TEST" or "RESET" button.</b>
	<b>Switch "lighting C1" on / off manually (replaces button)</b>
	<b>"Continuous lighting 4 h ON / OFF" for "lighting-C1"</b> The lighting can be switched on or off at any time for a duration of 4 hours by pressing the button. Once the 4 hours have expired, the detector switches back to the corresponding set operating mode.  <b>NB: When the "4 h ON / OFF" feature is activated, the detector no longer responds to movement and is not controlled by the light value.</b>
	<b>Interrupting the "TEST", "light ON / OFF", "light 4 h ON / OFF" functions</b> The detector switches back to the corresponding set operating mode.