

## DIM MULTleco



## Control Unit Operating instructions

## Purpose and application

The DIM MULTleco control unit controls the lighting at the workplace and in offices according to the level of daylight and the presence of persons to increase comfort and save energy. The control unit can be installed in luminaires (e.g. floor standing luminaires) or in suspended ceilings.

## Function

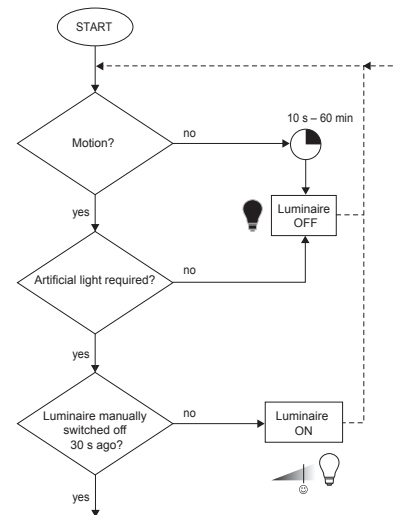
The control unit can be operated in two different operating modes, see also "Setting the operating mode":

### Brightness control

The sensors measure the brightness in the area to be regulated and keep this to an adjustable set value by introducing artificial light according to the amount of daylight available.

The sensors also detect the presence of people.

When the level of daylight is sufficient or people are no longer present, the connected luminaires switch off after an adjustable delay period.



Brightness control, presence detection and automatic switch-on can be activated and deactivated using various modes.

### Brightness reduction

If persons are present, the luminaires are dimmed to an adjustable brightness value.

If no persons are present, the brightness drops to a fixed standby value of 50%, 30% or 10% after an adjustable delay time.

Automatic switch-on and automatic switch-off during periods of prolonged absence can be activated and deactivated using various modes.

## Design

The control unit is made up of the following components:

- Adjusting screw for switch-off delay time (A)
- Sensor connection (B)
- DIP switch (C)
- Pushbutton connection (D)
- Control line connection (E)
- Load contact (F) optional
- Power supply connection (G)



## Operation

### Symbols

	Pushbutton on the luminaire		Luminaire on
	Switch on		Luminaire off
	Switch off		Luminaire flashes
	Short press (< 0.5 s)		Brightness with automat. control
	Long press (> 0.5 s)		Confirmation of the setting
	Double-click		Manual dimming
	Presence detection (detection of small movements)		

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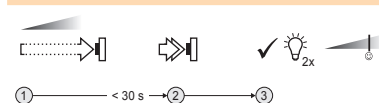
## Operation (cont.)

T1		DIP				
			1	2	3	4 5
X	X	ON				
X*	X*					
X	—					
X*	—					
—	X					
—	X*					
—	—					
—**	—					

T2		DIP				
			1	2	3	4 5
X	X	ON				
X*	X					
X	—					
X*	—					
—	—					
—	X**					

I → O      O → I

↔      ↔



## Adjusting the operating mode

Via DIP switch 1 and 2.

### "Brightness control" operating mode

DIP switch 1 = ON  
DIP switch 2 = ON



The following functions are switched on and off using DIP switches 3, 4 and 5, see Table T1:



Presence detection



Brightness control

The device is delivered with both functions switched on.

\* Does not switch on via sensor. Manual switch-on required.

\*\* Automatic switch-off after expiry of the switch-off delay time (motion independent).

### "Brightness reduction" operating mode

DIP switch 1 = ON  
DIP switch 2 = OFF



Standby: 50%



DIP switch 1 = OFF  
DIP switch 2 = ON



Standby: 30%



DIP switch 1 = OFF  
DIP switch 2 = OFF



Standby: 10%



The following functions are switched on and off using DIP switches 3, 4 and 5, see Table T2:



Presence detection



Automatic switch-off of the luminaires after expiry of twice the switch-off delay time

\* Does not switch on via sensor. Manual switch-on required.

\*\* Motion independent

## Manually switching luminaire on and off

Via short press.

Note: In the "Brightness reduction" operating mode, manual switch-off of the luminaires is not possible.

## Changing the brightness manually

Note: Function is locked if necessary, see "Locking and releasing pushbutton functions".

Via long press.

Each repeated long key button press causes a toggle between increased brightness and decreased brightness.

The brightness control is deactivated until the next time the luminaire is switched on.

## Adjusting the set value/brightness value

Note: Function is locked if necessary, see "Locking and releasing pushbutton functions".

In the "Brightness control" operating mode the setting corresponds to the set value for the automatic brightness control (tip: make the setting when there is little daylight).

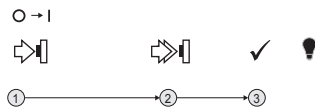
In the "Brightness reduction" operating mode, the setting corresponds to the fixed brightness value to which it is dimmed when movement is detected.

① Set the desired brightness.

② Double-click.

③ Confirmation: Luminaire flashes.

## Operation (cont.)



### Deactivating presence detection via pushbutton

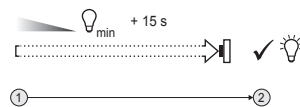
Note: Function is locked if necessary, see "Locking and releasing pushbutton functions".

When presence detection is active, the green LED on the sensor lights up briefly each time motion is detected.

Deactivate presence detection:

- ① Switch on if necessary.
- ② Double-click.
- ③ Confirmation: Luminaire switches off. Green LED on the sensor lights continuously.

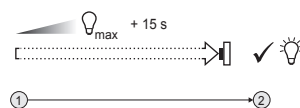
The presence detection is activated again the next time the luminaire is switched on by pushbutton if presence detection is switched on and active through selection of the corresponding operating mode.



### Locking and releasing pushbutton functions

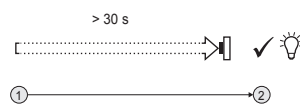
**Lock preset reference and deactivation of the presence detection**

- ① Set the minimum brightness and press the pushbutton for another 15 seconds.
- ② Confirmation: Luminaire flashes.



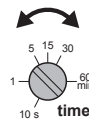
**Lock the preset reference and manual brightness change**

- ① Set the maximum brightness and press the pushbutton for another 15 seconds.
- ② Confirmation: Luminaire flashes.



**Re-release all pushbutton functions**

- ① Press the pushbutton for 30 seconds.
- ② Confirmation: Luminaire flashes.



### Adjusting the switch-off delay time

Note: When the presence detection is activated, each time a movement is detected, the countdown of the time restarts.

Turn the adjusting screw to the required setting:

- To the left: shorter (min. 10 s)
- To the right: longer (max. 60 min)

### Behaviour after a power failure

After a power failure, the luminaire remains switched off until the next time presence is detected or a pushbutton is operated.

If the "Automatic switch-off" function is switched on in the "Brightness reduction" operating mode, the luminaire switches on with the standby value after a power failure.

If you cannot remedy the fault, please contact the Customer Service department of the luminaire manufacturer.

### Luminaire does not function

No mains voltage available.

→ Check whether the green LED is lit. Use a voltage tester to test if mains voltage is present.

Illuminant is faulty.

→ Replace illuminant.

The luminaire was switched off via the pushbutton.

→ Switch on luminaire.

The sensor is exposed to excessive amounts of ambient light.

→ Cover the sensor and observe the behaviour of the luminaire.

### A set value for the brightness cannot be specified

Preset reference is locked.

→ Unlock the set value specification.

Brightness control is switched off in the selected operating mode.

→ Select a suitable operating mode.

### Brightness is not adjusted to the selected set value

Pushbutton was not pressed within 30 seconds after setting the set value (presence detection is activated)

→ Double-click within 30 seconds after carrying out manual dimming.

Brightness control was not started until 5 seconds after the set value was adjusted.

→ Wait until the delay time expires.

Brightness control was deactivated by a manual operation.

→ Switch luminaire off and on again.

Brightness control is switched off in the selected operating mode.

→ Select a suitable operating mode.

### Presence detection is not functional

The luminaire was switched off by pushbutton less than 30 seconds ago.

→ Wait until the delay time expires.

The workplace is not fully within the detection area of the sensor.

→ Move your hand in front of one of the sensors. If the LED in the sensor does not flash, realign the sensor to the workplace.

Presence detection is deactivated

→ Activate presence detection by briefly pressing the pushbutton.

Presence detection is switched off in the selected operating mode.

→ Select a suitable operating mode.

No artificial light is necessary.

→ See "Function".

### Presence detection cannot be deactivated

Brightness was manually changed within the last 30 seconds.

→ Wait until the delay time expires.

Presence detection is switched off in the selected operating mode.

→ Select a suitable operating mode.

### Luminaire does not react as expected to the press of a button

Pushbutton was pressed too long or too short.

→ See "Manually changing brightness".

Manual brightness change is locked.

→ See "Locking and releasing pushbutton functions".

## Appendix

## Accessories

Designation/Description	Product number
LS/PD MULTI 3	4050300802138
Light and motion sensor	
LS/PD MULTI 3 B	4050300803081
Light and motion sensor, movable	
LS/PD MULTI 3 FL	4008321047342
Light and motion sensor, flat	
LS/PD MULTI3 CI	4008321916648
Light and motion sensor for ceiling installation	
Y-CONNECTOR	4050300803135
Branching element for the connection of additional sensors	
Y-CONNECTOR Screw	4008321916686
Branching element with screw terminal for connection of additional sensors and for connection of MULTeco systems with central presence detection	
ECO CI KIT	4008321392091
Cable strain relief for the independent installation of the MULTeco control unit (e.g. ceiling installation)	
SENSOR KIT	4008321916662
Adapter for the surface mounting of the LS/PD CI sensor	

The CE requirements to EN 60928 are fulfilled. The EMC requirements to EN 61547 are fulfilled



Conformity with the relevant EU directives is confirmed by the CE symbol.