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luxCONTROL

DALI basicDIM DGC

Table of contents

1. Scope of documentation

These operating instructions are valid for the basicDIM DGC.

NOTICE

The basicDIM DGC is configured in the masterCONFIGURATOR software (V2.12. or later) and basicDIM DGC Programmer (see "Reference list" at the end of this document).

TRIDONIC GmbH & Co KG is constantly striving to develop all its products. This means that there may be changes in form, equipment and technology.
Claims cannot therefore be made on the basis of information, diagrams or descriptions in these instructions.

The latest version of these operating instructions is available on our home page at http://www.tridonic.com/com/en/operating-instructions.asp

1.1. Copyright

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We are always open to comments, corrections and requests. Please send them to info@tridonic.com.

1.2. Imprint

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2. Safety instructions

The instructions in this section have been compiled to ensure that operators and users of the basicDIM DGC from Tridonic are able to detect potential risks in good time and take the necessary preventative measures.
The operator must ensure that all users fully understand these instructions and adhere to them. This device may only be installed and configured by suitably qualified personnel.

2.1. Intended use

2.1.1. Proper use

Control module for the operation of DALI/DSI compatible luminaires. The device may only be used for this intended purpose.

2.1.2. Improper use

Outdoor use. Extensions and modifications to the product.

⚠ WARNING!

Improper use could result in injury, malfunction or damage to property.
The operator must inform all usersof the potential risks associated with the use of the equipment and of protective countermeasures.

2.2. Dangers associated with the operation of the system

⚠ DANGER!

Danger of electrocution
Disconnect the power to the entire lighting system before working on the lighting system!

⚠ CAUTION!

Risk of damage caused by condensation
Prior to commissioning the system, wait until the control device is at room temperature and completely dry!

⚠ CAUTION!

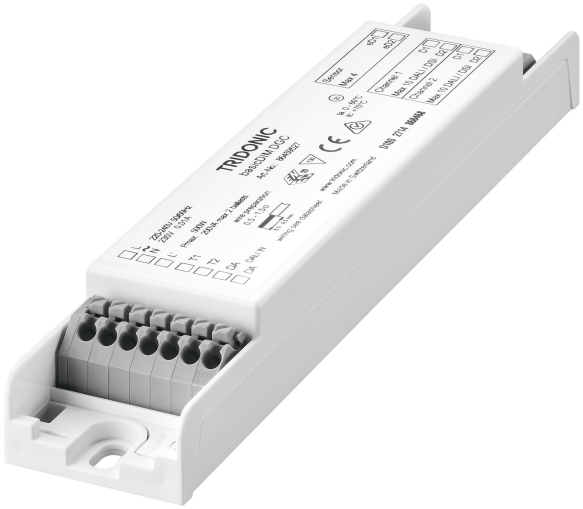
Risk of damage caused by humidity
Only use the control device in dry rooms and protect it against humidity!

⚠ CAUTION!

Electromagnetic compatibility (EMC)
Although the Tridonic control device meets the stringent requirements of the appropriate directives and standards on electromagnetic compatibility, it could potentially interfere with other devices under certain circumstances!

3. Product description

3.1. General information



The basicDIM DGC is a digital controller in the comfortDIM product range that can be used to control the control gear of a DALI group collectively.

The basic DIM DGC provides the basis for an easy-to-use and cost-effective lighting system with motion detection. When the sensor detects movement it triggers an individually adjusted table motion detection profile in the control unit. As the amount of natural ambient light changes the illuminance from the artificial lighting system is adjusted. The connected luminaires can be switched on and off via momentary-action switch or remote control possible.

The DALI IN interface allows integration of the basicDIM DGC module also into a comfortDIM system.

The basicDIM DGC module has 5 preprogrammed profiles which can be selected using the basicDIM DGC Programmer. The profiles can be adjusted to your application via the master CONFIGURATOR (≥ V2.12) software (see "Reference list" at the end of this document).

If the basicDIM DGC module is used in the basic application, the CH2 can be used as control channel for controlling subordinate basicDIM DGC modules (basic connection), so that the controlling and the subordinate basicDIM DGC modules can be programmed and allocated to groups using the masterCONFIGURATOR software. Every single basicDIM DGC module can be allocated to a group and respond to the presence of up to 5 groups. For more detailed information please refer to the masterCONFIGURATOR documentation (see "Reference list" at the end of this document).

3.2. Main applications

The DALI basicDIM DGC is designed for the following principal applications:

- Individual offices

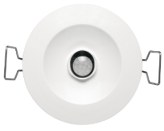
- Open-plan offices
- Training/presentation rooms
- Corridors, passage ways and garages
  The basicDIM DGC either controls all the units on the DALI circuit or a DALI group. The basicDIM DGC is Multi-master compatible, i.e. it can be used in conjunction with other DALI controllers in the comfortDIM product range. This allows the basicDIM DGC to be addressed and grouped in the same way as DALI control gear and makes it easy to configure the system.The basicDIM DGC is configured in the masterCONFIGURATOR software (V2.02. or later) (see "Reference list" at the end of this document).

3.3. Hardware / Connections / Specifications

- Supply: 230 V AC 50/60 Hz
- 1 relay output L' (max. 500W/200VA)
- Terminals T1, T2 for the connection of two local 230 V keys
- DALI IN input
- Sensor connection for up to 4 basicDIM DGC sensors
- For up to 20 DSI or DALI ballasts (max. 10 per output channel)

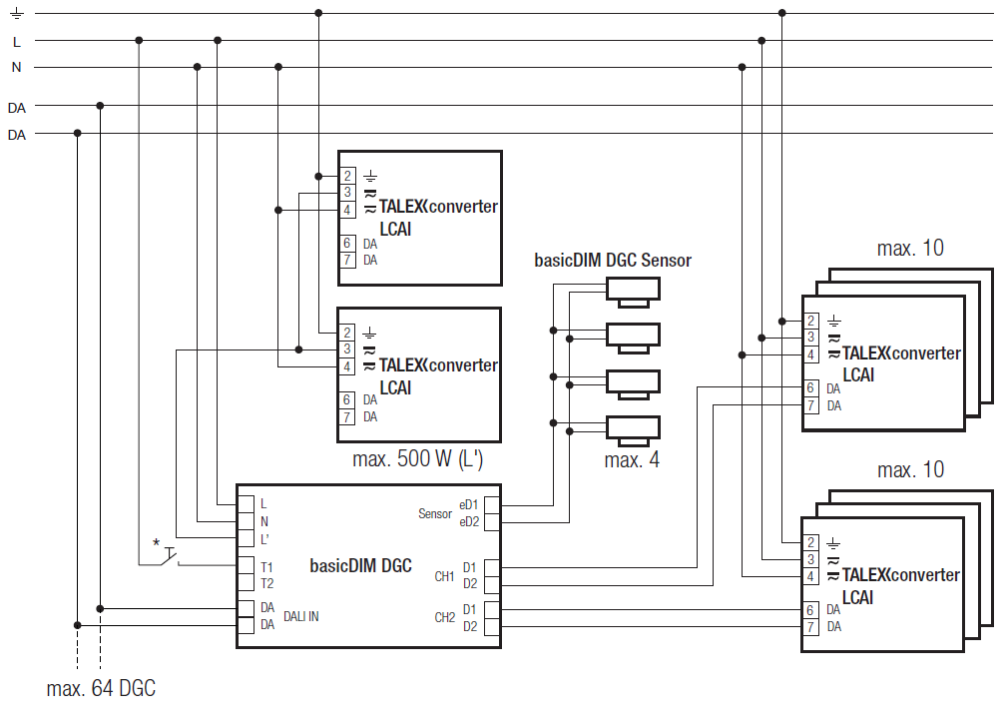
3.4. System description

The DALI basicDIM DGC can be used as a single unit or in combination with basicDIM DGC 5DPI_14 sensors:

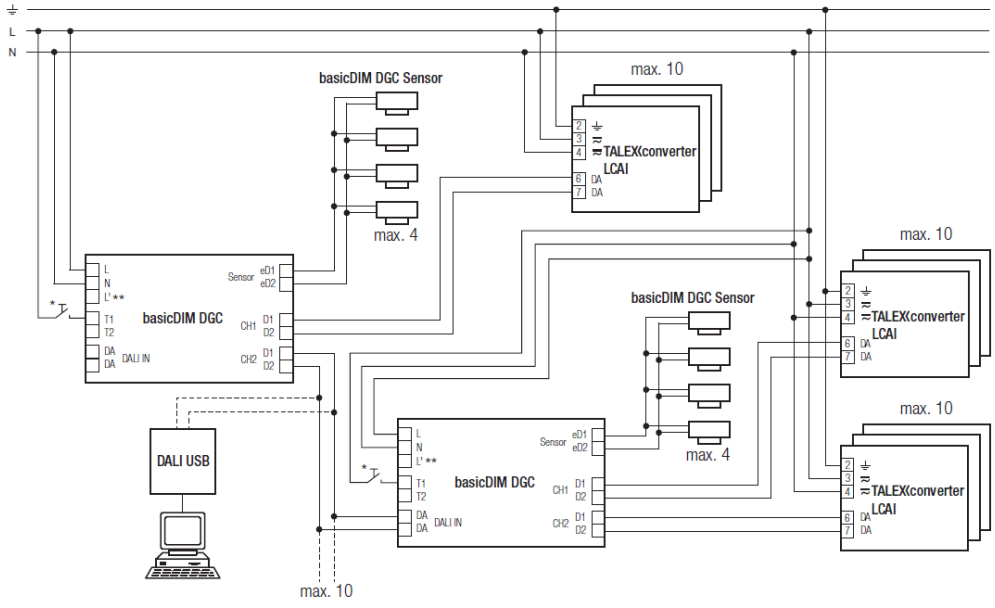
Digital controller	+	Sensor	/	Sensor	+	Remote control	/	Remote control
								
DALI basicDIM DGC (28000920)		basicDIM DGC Sensor 5DPI 14f inbuilt (28000933)		basicDIM DGC Sensor 5DPI 14 rc remote (28000934)		basicDIM DGC Programmer (28000646)		REMOTECONTROL IR6 (28000647)

4. Installation

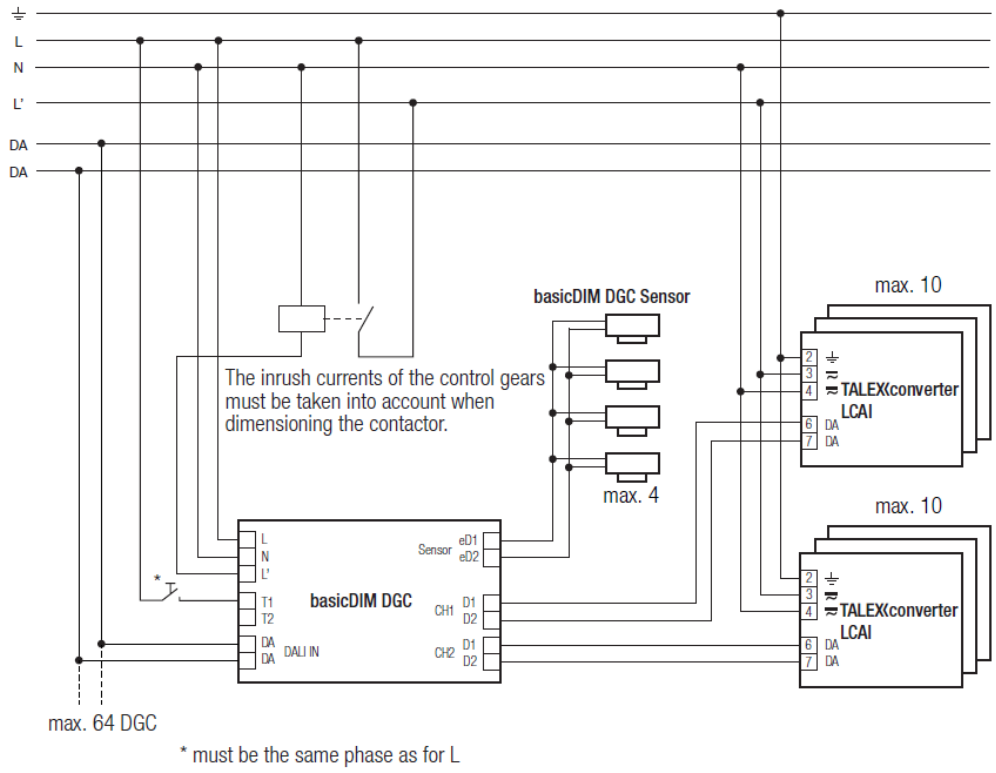
DALI



basic



Relais in standby



NOTICE

Installation

- basicDIM DGC can be operated without sensor.
- DSI/DALI is not SELV. The installation instructions for mains voltage therefore apply.
- The maximum cable length between the external switch and basicDIM DGC is 100 m.
- The maximum cable length between the sensor and basicDIM DGC is 10 m.
- A synchronous operation of DALI and DSI ballasts at the same control gear is not possible.
- The output channels (for a cable cross-section of 1,5 m^2) must not be exceeded 100 m.
- If CH2 is used as link line, the maximum cable length must not exceed 100 m (at 1.5 mm^2).
- Any number of push to make switches may be connected in parallel to the inputs.
- Do not connect standard switches to the input.
- Please ensure that the detection range of the sensor lies in the lighting area of the controlled luminaires.
- Heaters, fans, printers and copiers located in the detection zone may cause incorrect presence detection.
- To avoid false readings, the sensor should be installed so there is no direct light from the lamp in the detection zone.
- Sensor wires must be routed separately from the lamp wires and mains cables otherwise the lighting control system may malfunction.If separate routing is not possible (for reasons of space) shielded lamp wires and mains cables must be used.

5. Functions

The DALI basicDIM DGC has the following functions and user interfaces:

- Basic functions
- Constant light control by means of ambient light sensor
- Presence-based control by means of PIR motion sensor or presence detector
- Remote control via an infrared input for two different IR remote controls

5.1. Basic functions

5.1.1. PowerOn behaviour

The PowerOn behaviour determines the behaviour of the basicDIM DGC when it is switched on and off. The following commands are transferred at PowerOn.

	CH1 DALI	CH1 eD	CH2 DALI	CH2 eD
PowerON	» DTR0 » SET POWER ON LEVEL » SET SYSTEM FAILURE LEVEL » SET MIN LEVEL (adjustable) » SET MAX LEVEL (adjustable) » SET FADE TIME	-	» DTR0 » SET POWER ON LEVEL » SET SYSTEM FAILURE LEVEL » SET MIN LEVEL (adjustable) » SET MAX LEVEL (adjustable) » SET FADE TIME	-

The adjustable parameters MIN LEVEL SET, SET MAX LEVEL are taken from the settings of the basicDIM DGC.

5.1.2. Behaviour in normal operation

In normal operation the following parameters are transferred:

	CH1 DALI	CH1 eD	CH2 DALI	CH2 eD
Normal operation	» DAP » QUERY LAMP FAILURE	-	» DAP » QUERY LAMP FAILURE	» QUERY CONTROL TYPE NUMBER

The eD-parameter QUERY TYPE CONTROL NUMBER checks whether an additional basicDIM DGC is connected to CH2 (which corresponds to basic configuration).
If this is the case, the DALI IN port is disabled.

5.1.3. DALI IN interface

⚠ CAUTION!

By using the DGC in basic configuration (additional DGCs connected to CH2) DALI IN interface will be deactivated.

To activate the DALI IN interface DALI again, proceed as follows:

1. Disconnect all DGCs connected to CH2
2. Connect DALI USB to CH2
3. Switch configuration mode of CH2
   → DALI IN interface is activated

The DALI IN interface allows integration of the basicDIM DGC module also into a comfortDIM or other Building Management Systems (BMS). The following DALI commands are supported.

Supported DALI configuration commands

Command
RESET
STORE ACTUAL LEVEL IN THE DTR
STORE THE DTR AS MAX LEVEL
STORE THE DTR AS MIN LEVEL
STORE THE DTR AS FADE TIME
ADD TO GROUP
REMOVE FROM GROUP
STORE DTR AS SHORT ADDRESS
ENABLE WRITE MEMORY
TERMINATE
DATA TRANSFER REGISTER (DTR)
INITIALISE
RANDOMISE
COMPARE
WITHDRAW
SEARCHADDRH
SEARCHADDRM
SEARCHADDRL
PROGRAM SHORT ADDRESS
VERIFY SHORT ADDRESS
DATA TRANSFER REGISTER 1 (DTR1)
DATA TRANSFER REGISTER 2 (DTR2)
WRITE MEMORY LOCATION

Reaction to DALI control commands at the DALI IN interface

Reaction
DIRECT ARC POWER CONTROL (DAP)
OFF
UP / Down
RECALL MAX LEVEL
RECALL MIN LEVEL
ON AND STEP UP
GO TO SCENE

Response to DALI query commands at the DALI IN interface

Command	Reaction basicDIM DGC
QUERY STATUS	According to DALI
QUERY CONTROL GEAR	Response is always "Yes" (0xFF), independent of what control gear is connected to CH1/CH2
QUERY LAMP FAILURE	Error bit is set if at least one connected device reports an error
QUERY LAMP POWER ON	Answer is "yes" if at least one output channel is on
QUERY LIMIT ERROR	According to DALI
QUERY RESET STATE	According to DALI
QUERY MISSING SHORT ADDRESS	According to DALI
QUERY VERSION NUMBER	According to DALI
QUERY CONTENT DTR	According to DALI
QUERY DEVICE TYPE	According to DALI
QUERY PHYSICAL MINIMUM LEVEL	According to DALI
QUERY CONTENT DTR1	According to DALI
QUERY CONTENT DTR2	According to DALI
QUERY ACTUAL LEVEL	Current nominal value of output channel 1 is answered (even if output channel 1 is 0% and output channel 2 is > 0%).
QUERY MAX LEVEL	According to DALI
QUERY MIN LEVEL	According to DALI
QUERY FADE TIME / FADE RATE	Fade Time according to DALI Fade Rate always "8".
QUERY GROUPS 0-7	According to DALI
QUERY GROUPS 8-15	According to DALI
QUERY RANDOM ADDRESS (H)	According to DALI

QUERY RANDOM ADDRESS (M)	According to DALI
QUERY RANDOM ADDRESS (L)	According to DALI
READ MEMORY LOCATION	According to DALI
QUERY SHORT ADDRESS	According to DALI

NOTICE

Relay only responds to DALI command GO TO SCENE. Other commands are ignored by the Relay.

5.1.4. Switch

basicDIM DGC has two inputs (T1 and T2) for two external switches. Any number of switches can be connected in parallel to the inputs (parallel connection of T1 and T2 possible).

Action	Reaction
Short press (< 500 ms)	ON/OFF (a short press activates lighting control, with this the switch like the AUTO key of the BasicDIM remote control)
Long press (> 500 ms)	Dim up/down A change in light value deactivates the lighting control temporarily. Lighting control is reactivated if the luminaire switches on again automatically (when motion is detected) or if it is switched off and on manually. The function can be edited with the basicDIM DGC Programmer or the masterCONFIGURATOR software (see "Reference list" at the end of this document).
2 x short press	Stores the currently measured light value as new setpoint of the lighting control (luminaire acknowledges by flashing twice). Depending on the profile selected, this function can be activated or deactivated. The function can be edited with the basicDIM DGC Programmer or the masterCONFIGURATOR software (see "Reference list" at the end of this document).

Different output channels are controlled, depending on the profile selected.

5.1.5. Relais

The relay can be used in four different operating modes:

Symbol	Operating mode	Description
	Standby	Energy saving mode If the basicDIM DGC module is switched off, the relay will switch off (after 10 minutes). If the basicDIM DGC is switched on, the relay will switch on. Switching: relay in standby mode
	OnlyOFF	The relay must be switched on using the momentary-action switch, but is switched off by the presence detector.
	Active	The relay is switched on or off via the presence detector.
	Inactive	The relay must be switched on and off using the momentary-action switch.

Depending on the profile used, the relay will respond differently. For the 5 main profiles (Individual room, Classroom, Corridor, WC, Free-standing luminaire) the relay operating modes Standby and OnlyOFF are used. The masterCONFIGURATOR software allows to enable or disable the relay profiles as well (see "Reference list" at the end of this document).

5.1.6. Presence detector

Depending on the profile used, different operating modes are preprogrammed for the presence detector. These can be changed using the basicDIM DGC Programmer or the masterCONFIGURATOR software (see "Reference list" at the end of this document).

Symbol	Name	Description
	ON / OFF	The light is switched on and off automatically based on the presence/absence of people.
	only OFF	The presence detector just switches the connected luminaires off. The luminaires are switched on manually via the connected external momentary-action switch or the remote control.
	neverOFF	If no presence is detected, the sensor dims down to the “second light level” parameter and maintains this setting.

	OFF	Presence detector disabled. The light must be switched on and off manually.

5.1.7. Run-on time

A time starting from the last detected movement in the room; when the run-on time expires, the fade time begins. If further movement is detected during the run-on time, it starts over again.

You can choose whether you want the basicDIM DGC module to switch off the light completely or to dim it down to the second light level after the run-on time.

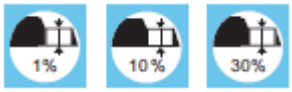
The run-on time may vary depending on the profile used. It can be changed using the basicDIM DGC Programmer or the masterCONFIGURATOR software (see "Reference list" at the end of this document).

5.1.8. Switch-off delay

Time for which the absence value is maintained if no movement is detected.

The switch-off delay and the absence level differ depending on the profile used; these parameters may be changed using the basicDIM DGC Programmer or the masterCONFIGURATOR software (see "Reference list" at the end of this document).

5.1.9. Absence level

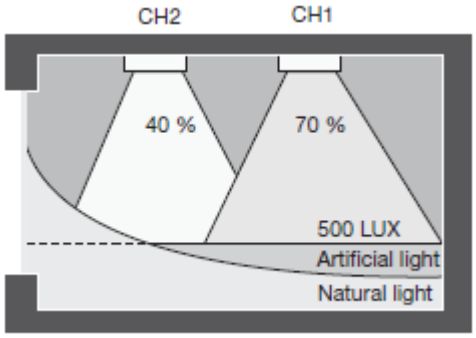


Level to which the luminaire group switches during the switch-off delay.

5.1.10. Offset

Depending on the profile used, a negative offset may be enabled between CH2 and CH1. Using the basicDIM DGC Programmer and the masterCONFIGURATOR software, this parameter may be changed, a positive offset is also

possible (see "Reference list" at the end of this document).



5.1.11. Manual-off delay

If the light is switched off manually via momentary-action switch or remote control, the presence detector is disabled. After a period of delay without any presence detected, the presence detector is enabled again. If the sensor detects presence during the “Manual Off” delay, the delay time will start all over again.

5.1.12. Lighting control

Lighting control is started via the Auto key of the basicDIM Programmer or REMOTECONTROL IR6.

NOTICE

If the basicDIM DGC module has been switched on via the ON key, lighting control is disabled.If you want to use lighting control, you need to start the DGC module via the Auto key.

Lighting control can also be disabled using the masterCONFIGURATOR software (see "Reference list" at the end of this document).

5.1.13. Set target value

The target value can be set with one of the following:

- REMOTECONTROL IR6 (press the key for > 3 s)

- basicDIM DGC Programmer (press the key for > 3 s)
- masterCONFIGURATOR software
- external momentary-action switch:

By briefly pressing the momentary-action switch twice the currently measured light level is saved as new target value. Depending on the profile used, this function is enabled or disabled, but it can be changed using the basicDIM DGC Programmer or the masterCONFIGURATOR software (see "Reference list" at the end of this document).

5.1.14. Bright-out

If the nominal illuminance level (e.g. 500 lx) is exceeded for 10 minutes at over 150 % (e.g. 750 lx), the light is switched off, even if presence is detected. The light is switched on again as soon as the measured light level falls below the target value.

Depending on the profile used, this function is either enabled or disabled and can be changed using the basicDIM DGC Programmer or the masterCONFIGURATOR software (see "Reference list" at the end of this document). The bright-OUT status can be indicated on the sensor by a slowly flashing green status LED.

By default this function is disabled, but it can be enabled using the masterCONFIGURATOR software (see "Reference list" at the end of this document).

Light control incl. brightout activated for CH1. CH2 is not illuminated controlled.

5.1.15. Neighbourhood function

The neighbourhood function determines how the motion sensor responds when presence is detected in another group.

Depending on the profile used, the basicDIM DGC can respond differently to presence detected in other groups. The settings can be changed using the basicDIM DGC Programmer or the masterCONFIGURATOR software (see "Reference list" at the end of this document).

Symbol	Name	Description
	Switched off	No response to presence detected in other groups. Default setting for all profiles!

	Switched on	If presence is reported by other groups, the light level will switch to presence value
	Switched on	If presence is reported by other groups, the light level will switch to absence value

5.1.16. Momentary-action switch inputs

Depending on the profile used, the momentary-action switch inputs control different functions.

Symbol	Description
	Momentary-action switch 1
	Momentary-action switch 2
	Display of outputs controlled by momentary-action switch (CH1 and CH2, or just CH1 or CH2)

5.1.17. Basic functions

Symbol	Description
	Switching on If the DGC module has been switched on via ON, lighting control is disabled.
	Switching off
	Dimming up
	Dimming down

5.1.18. Behaviour after return of power

The basicDIM DGC module features two different types of starting behaviour after mains failure.

Symbol	Description
	Power ON behaviour OFF (luminaires remain switched off)
	Power ON behaviour ON (the luminaires are switched on after return of power). Default setting for all profiles!

5.2. Constant light control

5.2.1. Description

Constant light control makes it possible to match the lighting in a room to the naturally available ambient light. To do this, the ambient light sensor monitors the illuminance in the room, compares it to the previously set brightness setpoint and dims the light until the received illuminance matches the desired setpoint.

If several basicDIM DGC sensors are used, constant light control is linked to the sensor with the highest address. In order to change this and use another sensor for the constant light control, do the following:

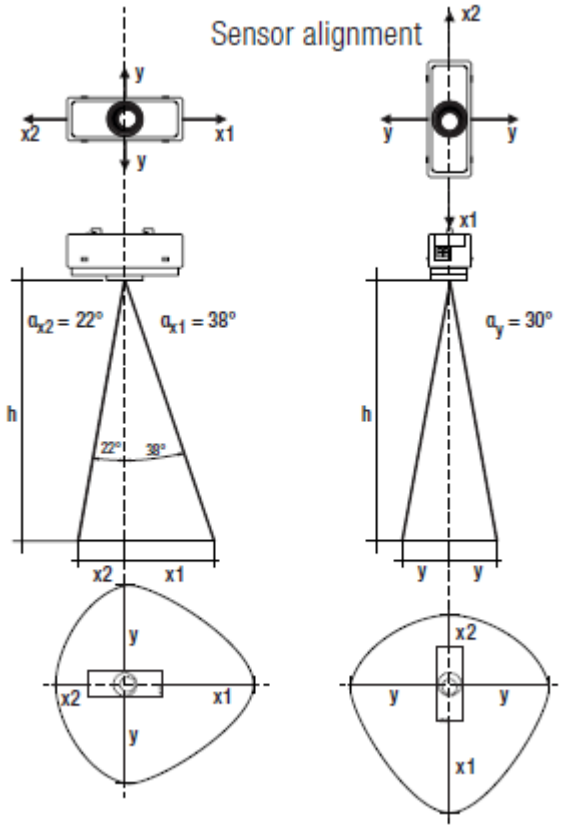
- Go to the desired sensor with the basicDIM DGC Programmer or the REMOTECONTROL IR6
- Hold down SET (>3 s)

Where ambient light values are high, this can result in ambient light-based bright-out and bright-in. If the measured illuminance exceeds a specified threshold value for a period of time that is longer than the specified delay time, the luminaire group is switched off by the DALI basicDIM DGC. This also applies in cases where motion is detected in the room. The luminaire group is switched on again as soon as the measured illuminance falls below the brightness setpoint.

The Constant light control function ensures that the illuminance in the room remains constant and changes due to variable amounts of ambient light in the room are compensated for. This produces greater comfort, illumination is always properly adjusted, and it also saves energy.

Detection area of the ambient light sensor

The detection area of the sensor is sized so that a relatively large area, rather than just an individual location on the task area, is covered and assessed. This ensures that objects being moved around cannot cause incorrect measurements.



The diameter of the detection area depends on the detection angle of the sensor and the height at which it is mounted.

Calculating the diameter:

x1 = tan(αx1) × h

x2 = tanα(x2) × h

y = tan(αy) × h

Typical example values of detection area:

Height h (m)	ø x1 (m)	ø x2 (m)	ø y (m)
1.7	1.3	0.7	1.0
2.0	1.6	0.8	1.2
2.3	1.8	0.9	1.3
2.5	2.0	1.0	1.4
2.7	2.1	1.1	1.6
3.0	2.3	1.2	1.7
3.5	2.7	1.4	2.0

4.0	3.1	1.6	2.3

5.2.2. Tricks and hints

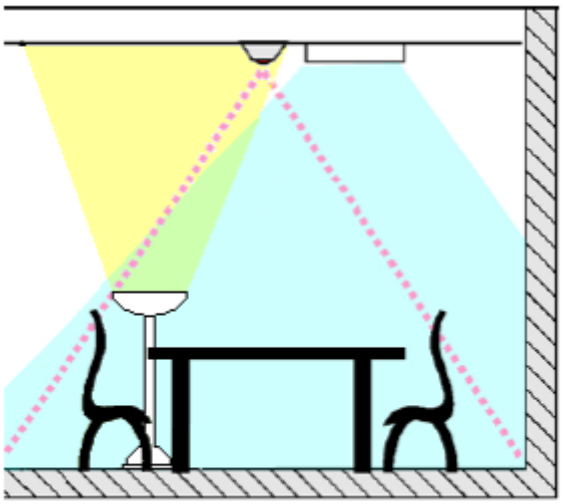
Position the ambient light sensor correctly

Ambient light control is based on measuring reflected artificial light and daylight. This light must be detected correctly and completely. Prevent measurements being falsified by other light sources. Positioning the ambient light sensor correctly is crucial:

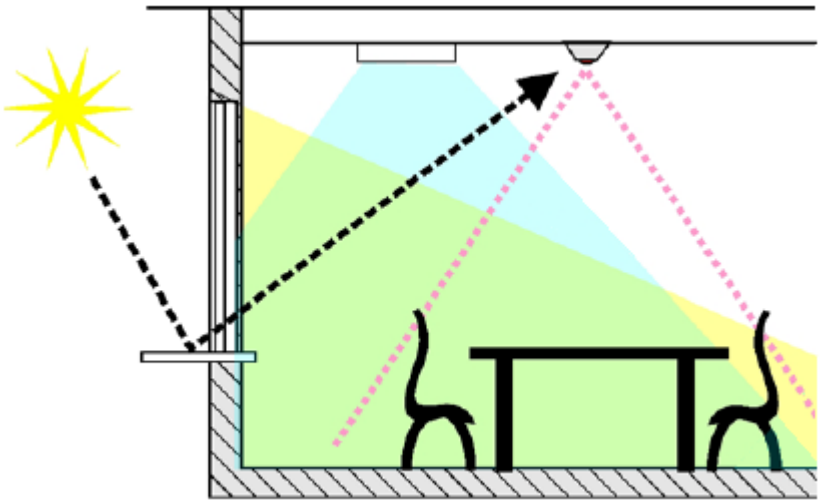
1. In order to be able to control ambient lighting properly, the sensor must be able to detect the light from the controlled luminaires completely.

- Position the sensor so that the sensor's detection area lies within the area that is lit by the controlled luminaires.

2. If the sensor is directly exposed to other light sources, this falsifies the results obtained and the reflected artificial light and daylight can no longer be detected correctly.



- Position the sensor so that it is not directly exposed to other artificial light sources (e.g. free-standing luminaires in the room).



- Position the sensor so that it is not directly exposed to sunlight:
  - » Make sure that the detection area of the sensor lies within the room.
  - » Make sure that the sensor is far enough away from any window area.
  - » Make sure that any glare or sunlight reflected by shiny glass or metal surfaces cannot hit the sensor.

3. If more than one control gear is used in a room, it is possible that the detection areas of the sensors may overlap. Overlapping detection areas may cause the different control circuits to affect one another and this may lead to false results.

- Position the sensors so that their detection areas do not overlap.

5.3. Presence control

5.3.1. Description

Presence-based control makes it possible to link illuminance to the presence or absence of people. The light is switched on as soon as a person enters a room. When the person leaves, the light is set to a predefined light value after a certain time lapse. Presence-based control offers the benefits of saving energy as well as the convenience of automatic lighting control.

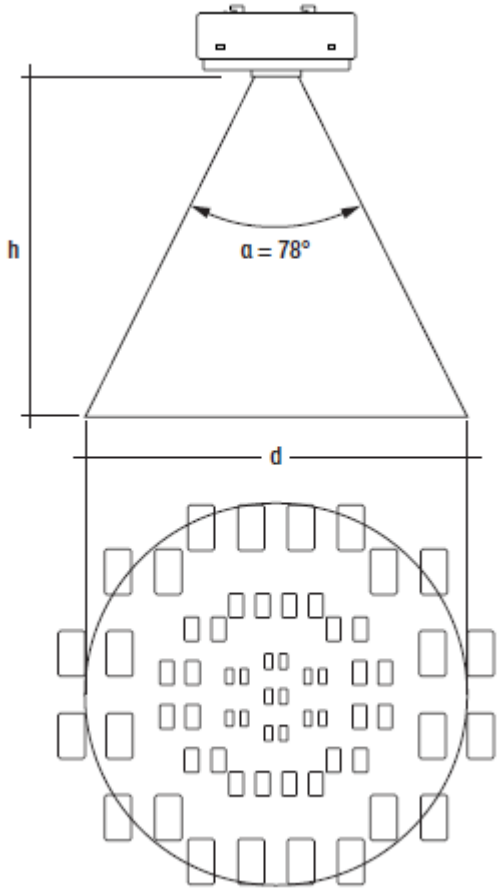
NOTICE

The presence-based control of the basicDIM DGC sensors reacts to moving thermal radiation from people. Other heat sources (e.g. photocopiers, radiators, etc.) may have an adverse affect on presence-based control. Make sure that there are no other heat sources in the immediate vicinity of the sensor.

Detection area of the motion sensor

The detection area of the motion sensor consists of a pattern of various measurement fields. The following conditions must be met in order for an object to be detected reliably:

- The object must move from one measurement field to another
- The temperature of the object must be different from the background temperature



The diameter of the detection area depends on the detection angle of the sensor and the height at which it is mounted. The mounting height also has an effect on the sensor's accuracy.
The position and mounting height produce two different detection areas:

- Up to 2 m mounting height presence is detected and over 2 m motion is detected.

Calculating the diameter:
$d2 = 2 \times \tan(0{,}5 \times \alpha) \times h$

Typical example values of detection area:

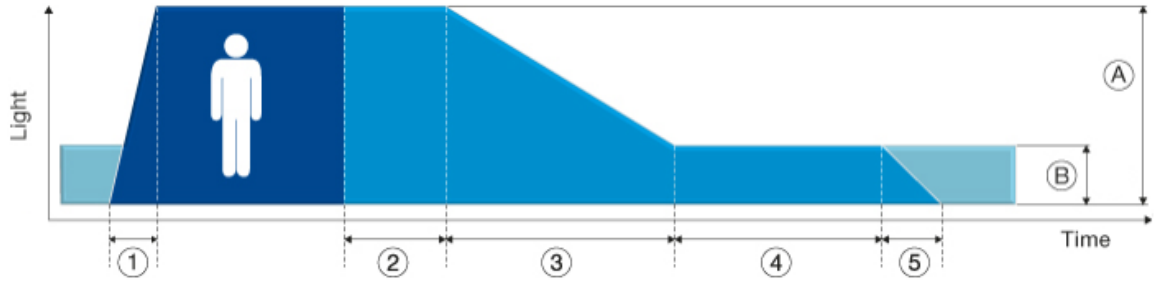
Height h (m)	ø d (m)
1.7	2.8
2.0	3.2
2.3	3.7
2.5	4.0
2.7	4.4
3.0	4.9

3.5	5.7
4.0	6.5

NOTICE

The recommended maximum room height is 3 m for office applications and 4 m for corridor applications.
For presence detection, it is vital that arm movements, etc. can be detected.Position the sensor on the ceiling so that the room user's hands are located in the centre of the detection area and are not concealed by display screens, backs, etc.

5.3.2. Presence detection process



Nr.	Name	Range of values	Description	Adjustments via...
(1)	Fade-in time	0.7 - 90.5 s (default: 0.7 s)	Time that starts as soon as the presence of a person is detected. During the fade-in time the luminous intensity is faded up to the presence value.	mC[1]
(2)	Run-on time 	30 s - 60 min (default: depending on profile)	Time that starts as soon as the presence of a person is no longer detected. If the presence of a person is detected again during the run-on time the run-on time is restarted from zero. If no presence is detected during the run-on time the fade time is started as soon as the run-on time expires.	mC[1] and Pr[2]
(3)	Fade time	0.7 - 90.5 s (default: 5.6 s)	Time during which the luminous intensity is faded from the presence value to the absence value.	mC[1]
(4)	Switch-off delay 	0 s - infinite (default: depending on profile)	Time during which the absence value is held before the lighting is switched off. Depending on the profile selected the switch-off delay may have different values or may not be defined.	mC[1] and Pr[2]
(5)	Fade-out time	0.7 - 90.5 s (default: 5.6 s)	During the fade-out time the luminous intensity is faded out from absence value to shutdown.	mC[1]
(A)	Presence value	1 - 100 % (default: depending on profile)	Luminous intensity when persons are present.	mC[1] and Pr[2]

(B)	Absence value	1 - 100 % (default: depending on profile)	Luminous intensity when there is no person present.	mC[1] and Pr[2]

mC[1] => masterCONFIGURATOR, Pr[2] => basicDIM DGC Programmer

5.4. Remote control

If the basicDIM DGC is used in combination with a basicDIM DGC sensor, it can be controlled with the following remote controls. To get more informations about these remote controls, follow the link beside the product image.

basicDIM DGC PROGRAMMER (28000646)

www.tridonic.com/qrDGCProg

REMOTECONTROL IR6 (28000647)

www.tridonic.com/qrIR6

6. Room profiles

6.1. Room profile 1 Individual room

6.1.1. Brief description

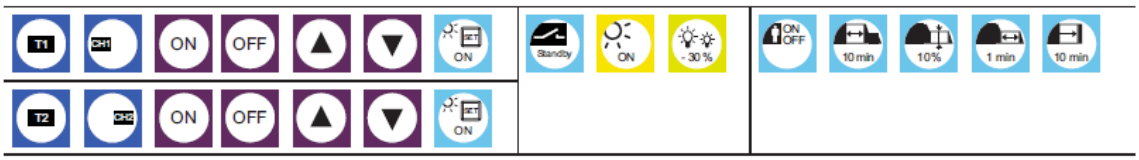
Typical setting

Two illumination areas (windows area, rest of the room), two switches, motion sensor(s)

Control

Switch 1 controls the lighting of the windows area, switch 2 controls the lighting of the rest of the room.

6.1.2. Available commands



6.1.3. Table of functions

Function	Description
PowerOn behaviour	= Presence state
T1 effective range	= Only Output 1
T1 short press	= ON and OFF
T1 long press	= dimming
T1 double click	= Saving enabled => Luminaires at both outputs flash twice (pause for 5 s between double clicks)
T2 effective range	= Only Ausgang 2
T2 short press	= ON and OFF
T2 long press	= dimming
T2 double click	= Saving enabled => Luminaires at both outputs flash twice (pause for 5 s between double clicks)
Relays	= standby
TLN BrightOUT	= enabled, dimming out after 10 minutes
TLN output 1	= automatic
TLN output 2	= automatic with offset of -30%
AWS mode	= ON/OFF
AWS run-on time	= 10 min
AWS absence value	= 10 %
AWS switch-off delay	= 1 min
AWS Fadetime	= 5.7 sec

AWS manual OFF delay	= 10 min
AWS signal exchange	= disabled (no response to presence of other devices)
Output 1 (operating mode)	= DALI
Output 2 (operating mode)	= DALI, no network master

6.2. Room profile 2 Classroom

6.2.1. Brief description

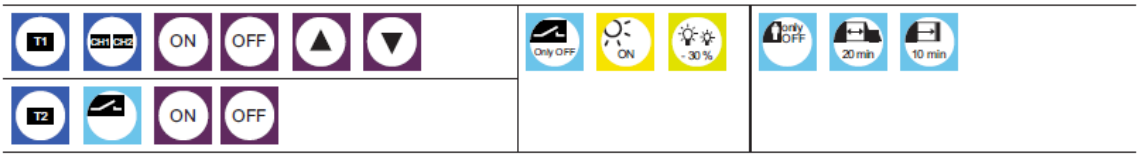
Typical setting

Three illumination areas (windows area, rest of the room, separate presentation area), two switches, motion sensor(s)

Control

Switch 1 controls the lighting of the windows area and the rest room of the room together (ratio of the two dimming levels remains the same), button 2 controls the presentation area.

6.2.2. Available commands



6.2.3. Table of functions

Function	Description
PowerOn behaviour	= Presence state
T1 effective range	= Output 1 and Output 2
T1 short press	= ON and OFF
T1 long press	= dimming
T1 double click	= Saving disabled
T2 effective range	= Relay
T2 short press	= ON and OFF => only possible, if Output 1 is ON !
T2 long press	= no function
T2 double click	= Saving disabled
Relays	= only OFF
TLN BrightOUT	= enabled, dimming out after 10 minutes
TLN output 1	= automatic
TLN output 2	= automatic, no network master
AWS mode	= only OFF
AWS run-on time	= 20 min
AWS absence value	= 0 %
AWS switch-off delay	= 0 min
AWS Fadetime	= 5.7 sec

AWS manual OFF delay	= 10 min
AWS signal exchange	= disabled (no response to presence of other devices)
Output 1 (operating mode)	= DALI
Output 2 (operating mode)	= DALI, no network master

6.3. Room profile 3 Corridor

6.3.1. Brief description

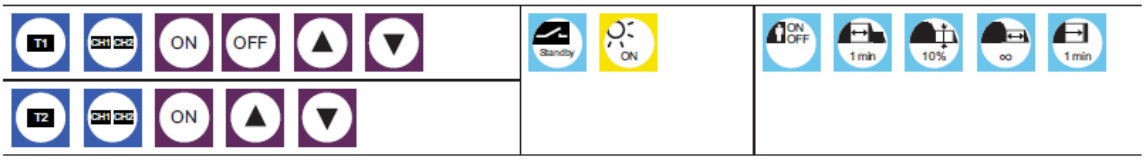
Typical setting

One illumination areas, switches, motion sensor(s)

Control

Switches control the lighting of all the luminaires. Different dimming levels can be defined for presence detection in another room (neighbourhood function), for presence detection in the corridor itself and for the absence of any presence detection.

6.3.2. Available commands



6.3.3. Table of functions

Function	Description
PowerOn behaviour	= Presence state
T1 effective range	= Output 1 and Output 2
T1 short press	= ON and OFF
T1 long press	= dimming
T1 double click	= Saving disabled
T2 effective range	= Output 1 and Output 2
T2 short press	= Only ON
T2 long press	= dimming
T2 double click	= Saving enabled
Relays	= standby
TLN BrightOUT	= enabled, dimming out after 10 minutes
TLN output 1	= automatic
TLN output 2	= automatic, no offset (0%)
AWS mode	= ON/OFF
AWS run-on time	= 1 min
AWS absence value	= 10 %
AWS switch-off delay	= "never OFF"
AWS Fadetime	= 5.7 sec
AWS manual OFF delay	= 1 min

AWS signal exchange	= disabled (no response to presence of other devices)
Output 1 (operating mode)	= DALI
Output 2 (operating mode)	= DALI, no network master

6.4. Room profile 4 Restroom

6.4.1. Brief description

Typical setting

Two illumination areas (sink and mirror area, toilet area), two switches, motion sensor(s)

Control

Switch 1 controls the lighting of the sink and mirror area, switch 2 controls the lighting of the toilet area.
In connection with presence detection different dimming levels can be defined for the two lighting areas.

6.4.2. Available commands

T1 CH1 CH2 ON OFF T2 ON	Only OFF	ON OFF 20 min 1 min

6.4.3. Table of functions

Function	Description
PowerOn behaviour	= Presence state
T1 effective range	= Output 1 and Output 2
T1 short press	= ON and OFF
T1 long press	= disabled
T1 double click	= Saving is blocked
T2 effective range	= Relay
T2 short press	= Only ON => only possible, if Output 1 is ON !
T2 long press	= disabled
T2 double click	= Saving is blocked
Relays	= only OFF
TLN BrightOUT	= enabled, dimming out after 10 minutes
TLN output 1	= automatic
TLN output 2	= manual
AWS mode	= ON/OFF
AWS run-on time	= 20 min
AWS absence value	= 0 %
AWS switch-off delay	= 0 min
AWS Fadetime	= 5.7 sec

AWS manual OFF delay	= 1 min
AWS signal exchange	= disabled (no response to presence of other devices)
Output 1 (operating mode)	= DALI
Output 2 (operating mode)	= DALI, no network master

6.5. Room profile 5 Free-standing luminaire (default)

6.5.1. Brief description

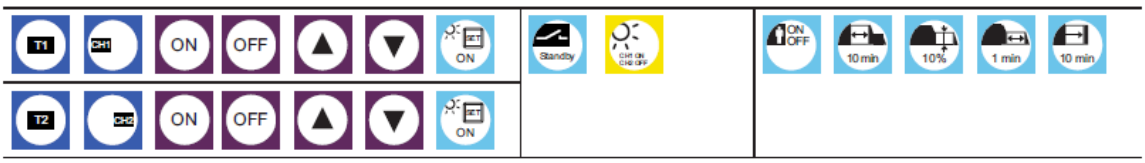
Typical setting

Two illumination areas (direct and indirect lighting), two switches, motion sensor(s)

Control

Switch 1 controls direct lighting, switch 2 controls indirect lighting.
If no presence is detected the free-standing luminaire is switched off completely to avoid stand by losses.

6.5.2. Available commands



6.5.3. Table of functions

Function	Description
PowerOn behaviour	= Presence state
T1 effective range	= Output 1
T1 short press	= ON and OFF
T1 long press	= dimming
T1 double click	= Saving enabled => Luminaires from output 1 will flash twice
T2 effective range	= Output 2
T2 short press	= ON and OFF
T2 long press	= dimming
T2 double click	= Saving enabled => Luminaires from output 1 will flash twice
Relays	= standby
TLN BrightOUT	= enabled, dimming out after 10 minutes
TLN output 1	= automatic
TLN output 2	= manual
AWS mode	= ON/OFF
AWS run-on time	= 10 min
AWS absence value	= 10 %
AWS switch-off delay	= 1 min
AWS Fadetime	= 5.7 sec

AWS manual OFF delay	= 10 min
AWS signal exchange	= disabled (no response to presence of other devices)
Output 1 (operating mode)	= DALI
Output 2 (operating mode)	= DALI, no network master

7. Status information

A sensor mounted LED provides status information about the device's operation:

7.1. Green light → Normal operation

Status indicator	Meaning
3 x flashing	PowerOn
1 x short impulse	Presence detected
2 x short impulse	Confirmation of infrared reception

7.2. Orange light → Maintenance

Status indicator	Meaning
Normal flashing	Addressing, initialization or identification in progress
Slow flashing	Firmware update in progress

7.3. Red light → Error

Status indicator	Meaning
Cyclic rapid flashing with pause	Short circuit on output 1 or output 2
Rapid flashing	Jammed hardware switch (230 V)

8. Reference list

8.1. Related documents

- Documentation masterCONFIGURATOR:
  http://www.tridonic.com/com/en/download/Manual_masterConfigurator_en.pdf
- Data sheet DALI basicDIM DGC:
  http://www.tridonic.com/com/en/download/data_sheets/basicDIM_DGC_en.pdf
- Declarations of conformity:
  http://www.tridonic.com/com/en/declarations-of-conformity.asp
- Certificates:
  http://www.tridonic.com/com/en/certificates-controls.asp
- Parameter settings basicDIM DGC PROGRAMMER:
  http://www.tridonic.com/com/en/download/technical/basicDIM_DGC_PROGRAMMER_en.pdf
- Parameter settings REMOTECONTROL IR6:
  http://www.tridonic.com/com/en/download/technical/REMOTECONTROL_IR6_en.pdf

8.2. Downloads

- Tridonic software: http://www.tridonic.com/com/en/software.asp
- Download masterCONFIGURATOR: http://www.tridonic.com/com/en/software-masterconfigurator.asp

8.3. Additional information

- DALI manual: http://www.tridonic.com/com/en/download/technical/DALI-manual_en.pdf
- Guarantee conditions: http://www.tridonic.com/com/en/guarantee.asp
- Data sheets: http://www.tridonic.com/com/en/data-sheets.asp
- Environmental declarations: http://www.tridonic.com/com/en/environmental-declarations.asp
- Product specifications: http://www.tridonic.com/com/en/product-specifications.asp
- Other technical documents: http://www.tridonic.com/com/en/technical-docs.asp