

Sensors and Controls

basicDIM DGC

At a glance

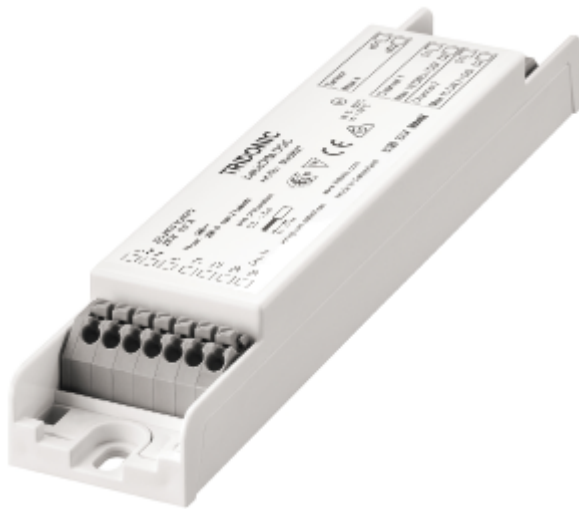


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1. What is the basicDIM DGC



The basicDIM DGC, also named "**DALI Group Controller**", allows you to set-up an easy to use, low cost constant light system with motion detection. If movement is detected by a sensor, an individually configurable motion detection profile will be triggered by the control device. When the level of ambient light changes, the artificial light level is adjusted accordingly. The ON/OFF switching and the change of the light intensity of the connected luminaires is possible with momentary-action switches or a remote control.

2. Technical data

Input:	
Rated supply voltage	220 - 240V
Power	2.5 W
Current draw on DALI-bus	2 mA
Maximum switching output (relay)	200 VA / 500 W
Switch inputs	2
DALI short addresses per basicDIM DGC	1 address
Output:	
Number of connected DGC sensors	max. 4
DALI/DSI output channels	2
Connected DALI/DSI drivers per output channel	max. 10

3. Features

☐ L

☐ N

☒ L'

☐ T1

☐ T2

☐ DA

☐ DA

220-240V 50/60Hz
230V 0,01A

Pmax: 500W
200VA max 2 ballasts

ta: 0...+60°C
tc: +70°C



TRIDONIC
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basicDIM DGC
Art. No. 28000920

Made in Slovakia

Sensor

Max 4

eD1 ☐

eD2 ☐

Channel 1

Max 10 DALI / DSI

Channel 2

Max 10 DALI / DSI

D1 ☐

D2 ☐

D1 ☐

D2 ☐

3.1. Output channels CH1/CH2

The basicDIM DGC offers two independent DALI/DSI output channels with integrated power supply. With this, it is possible to connect up to 10 DALI/DSI drivers without additional power supply (e.g. for DALI: PS1/PS2, see "Wiring examples, S. 9"). At the output channels, all commands are sent as Broadcast. This means that all of the drivers are reacting to the commands at the appropriate channel. Single addressing is not possible. Through the implementation of an **offset function**, the creation of individually defined intensity shiftings between the output channels is possible:

Offset	Channel 1	Channel 2
0 %	100 %	100 %
+20 %	80 %	100 %
-30 %	100 %	70 %

3.2. Switch inputs T1/T2

Additional features of the basicDIM DGC are the integrated switch inputs. It is possible to connect conventional momentary-action switches over the 230 V mains to take control over the brightness level or switch ON/OFF the connected drivers. The behaviour of the switch inputs can be configured with the configuration software [masterCONFIGURATOR](#), S. 6.

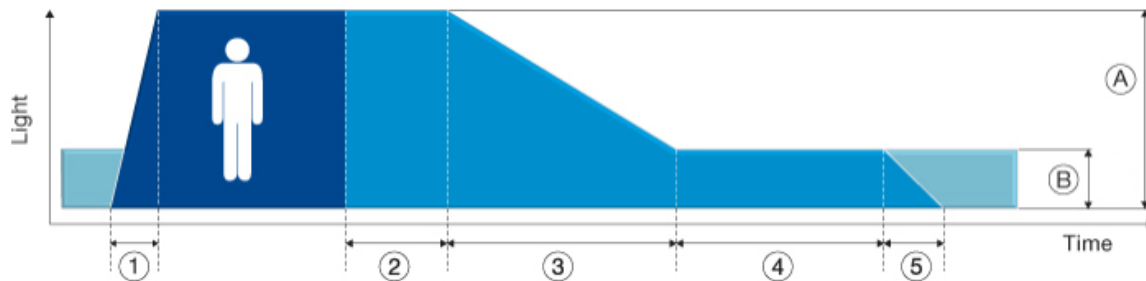
3.3. Relay output L'

The switching behaviour of the relay output can be configured with the configuration software [masterCONFIGURATOR](#), S. 6. The relay provides the possibility to switch additional devices (e.g. a fan) together with the lighting if motion is detected. The wiring can be taken from [Chapter 7: Wiring examples](#), S. 9.

3.4. Neighbourhood function

The neighbourhood function provides the possibility to react to the motion detection of other DGCs. There are 3 options available: presence value, absence value and MASK. The settings can be changed with the [basicDIM DGC Programmer](#), S. 7 or the software [masterCONFIGURATOR](#), S. 6.

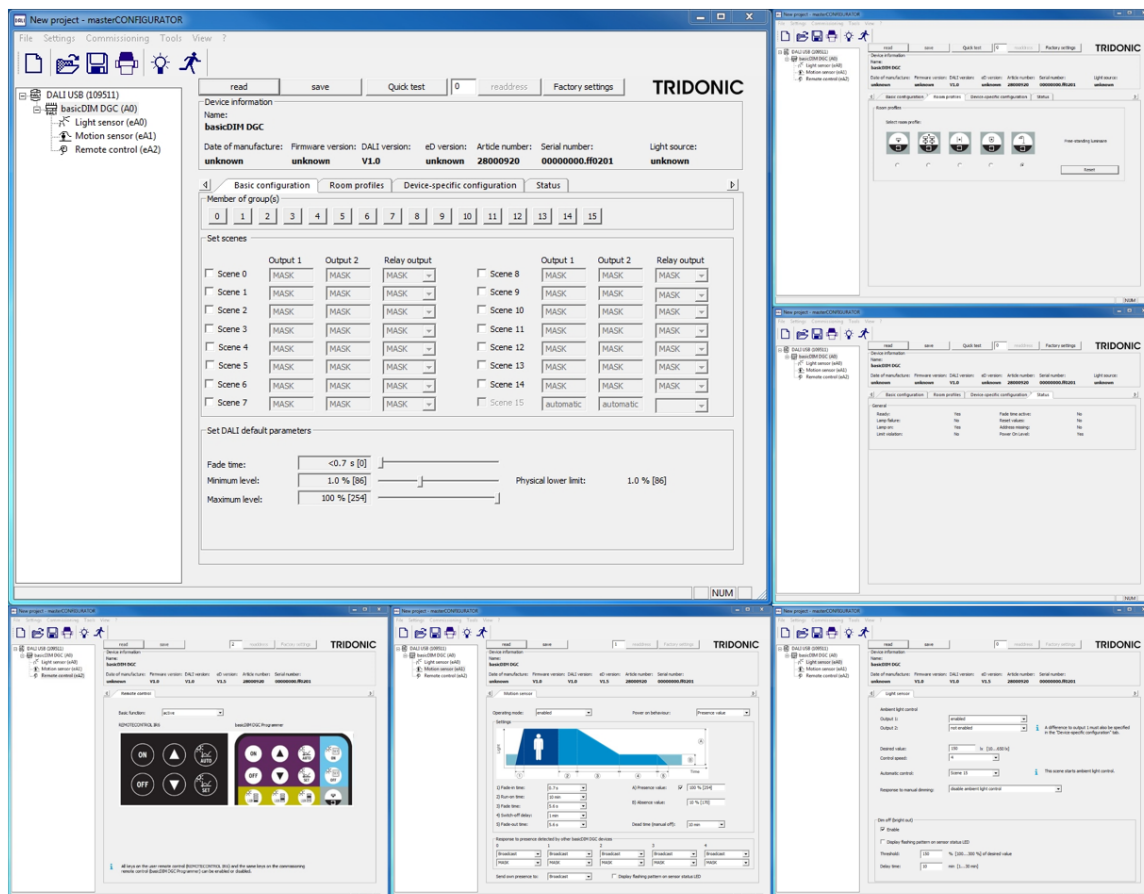
3.5. Presence control with the "corridorFUNCTION"



1.	Fade-in time	Period of time starting as soon as the presence of persons is detected. During fade-in time, luminous intensity fades to the presence value.
2.	Run-on time	Period of time starting as soon as no presence of persons is detected any more. When the presence detector again reports the presence of persons during run-on time, the run-on time starts all over again. If this is not the case, fade time starts after run-on time has elapsed. This time is set directly at the presence detector.
3.	Fade time	Period of time during which luminous intensity fades from the presence value to the absence value.
4.	Switch-off delay	Period of time during which the absence value is maintained before the lighting is switched off. Depending on the profile selected, different levels may be set for the switch-off delay period or it may not have been defined at all.
5.	Fade-out time	During the fade-out time the luminous intensity is faded out from absence value to shutdown.
A.	Presence value	Luminous intensity set for the presence of persons
B.	Absence value	Luminous intensity set for the absence of persons

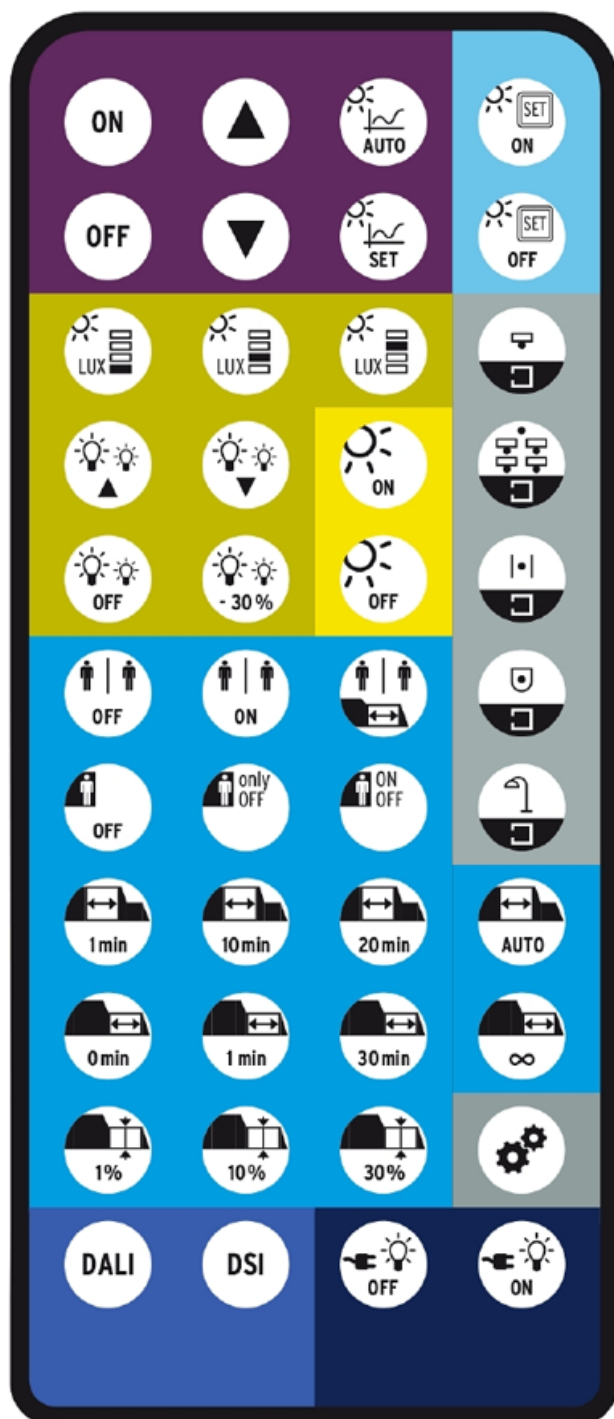
4. Configuration

4.1. masterCONFIGURATOR



Additional to the possibility of the infrared-programming over the DGC programmer, the DGC includes a DALI-IN interface. The DALI-IN interface in combination with the software **masterCONFIGURATOR** makes it possible to configure the basicDIM DGC completely. Thus, scene-, sensor- and relay-functions can be adjusted even more accurately to the needs of the user and the full potential of the product can be used.

4.2. basicDIM DGC Programmer



ON	OFF	Switches the light ON/OFF	
▲	▼	Dims the light Up/Down	
AUTO		Starts ambient light control	
SET		Sets the desired light level	
SET ON	SET OFF	PTM Set: ON/OFF	
LUX 150	LUX 300	LUX 500lx	Set ambient light control to 150/300/500lx
▲	▼		+10/-10% Offset between CH2 & CH1
OFF	-30%		0/-30% Offset between CH2 & CH1
ON	OFF	Bright-Out: ON/OFF	
single office	Activate Profile „single office“		
classroom	Activate Profile „classroom“		
corridor	Activate Profile „corridor“		
toilet	Activate Profile „toilet“		
free-standing luminaire	Activate Profile „free-standing luminaire“		
OFF	ON	Neighbourhood function:	deactivated/activated/activated
OFF	only OFF	P.I.R Sensor:	inactive/only OFF/active
1 min	10 min	20 min	Run-On time: 1, 10, 20mins or AUTO
0 min	1 min	30 min	Switch-Off delay: 0, 1, 30mins or infinite
1%	10%	30%	Absence level: 1, 10 or 30%
test	Activate Profile „test“		
DALI	DSI	Select operating mode: DALI or DSI	
OFF	ON	Return of power: Luminaire switched OFF/ON	

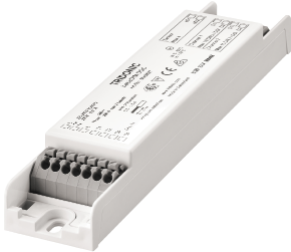




For more details about the functionalities of each single button, please refer to the documentation "basicDIM DGC Programmer", which is available under this link:

https://www.tridonic.com/com/en/download/technical/basicDIM_DGC_PROGRAMMER_en.pdf.

5. Field of application/room profiles

- _ **Profile 1:** "Single office" (adjustable offset for e.g. wall-side and window-side, switch inputs, light and motion sensor)
- _ **Profile 2:** "Classroom" (room and blackboard lighting, switch inputs, light and motion sensor)
- _ **Profile 3:** "Corridor" (hotel corridors, automatic motion detection and dimming of the lighting, absence value 10 %, never off, switch inputs)
- _ **Profile 4:** "Toilet" (two separate output channels for anteroom and toilet, relay output for fans, switch inputs, light and motion sensor)
- _ **Profile 5:** "Free-standing luminaire" (two separate output channels for direct and indirect-lighting, light and motion sensor, two switch inputs)
- _ **Many more...** (for reduction of DALI addresses on a big site, conversion of DALI into DSI signals)

6. System description

Control device	+	Sensor	/	Sensor	+	Remote control	/	Remote control
								
basicDIM DGC		basicDIM DGC Sensor 5DPI 14f luminaire installation		basicDIM DGC Sensor 5DPI 14rc ceiling installation		basicDIM DGC Programmer		REMOTE- CONTROL IR6
28000920		28000933 / 28001696		28000934		28000646		28000647

7. Wiring examples

