Lunatone

DALI GC/GC-A

Datasheet

Group Control Module

Module for the control of 2 DALI groups by using conventional momentary switches

Art. Nr. 24138907 (GC-A)

Art. Nr. 24033450 (GC)

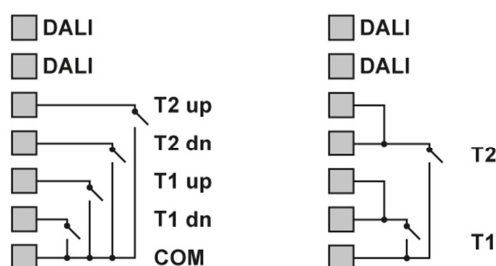subject to change, information provided without guarantee

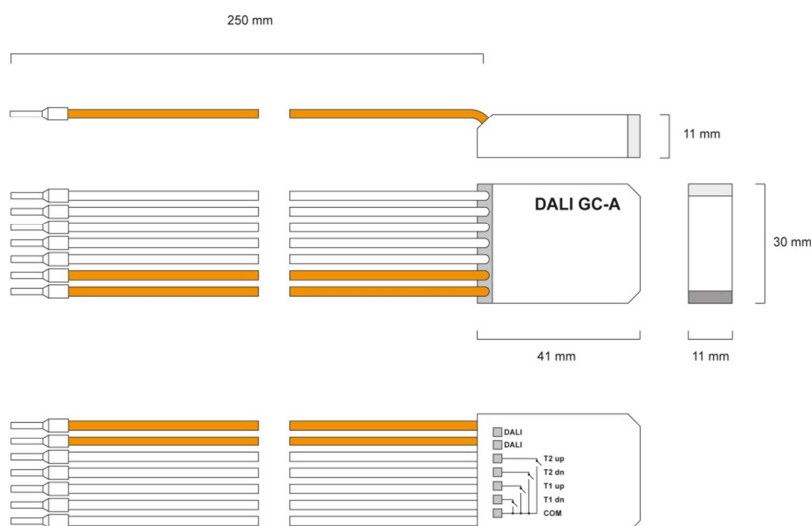# DALI GC/GC-A Group Control Module

Overview

- Compact control module for 2 DALI groups

- The DALI groups can be selected with a rotary switch on the housing

- Conventional momentary switches can be connected on the inputs

- The DALI GC offers the possibility to address ballasts and add/remove them from groups. The DALI GC-A does not support this feature.

- The DALI GC modules allow multi master operation. Multiple control modules can be used on the same DALI–line.

- The DALI GC can be easily inserted in the mounting box for the light switch

- The DALI GC must not be connected to the mains. It is supplied directly via the DALI signal line.

- The momentary switches are connected directly to the module (potential free contacts)

Specification, Characteristics

type	DALI-GC	DALI GC-A
article number	24033450	24138907
supply	via DALI signal line	
typ. current consumption	6 mA	
input	2 momentary switches single/twin	
output	DALI	
groups	2 from 16/broadcast	
group selection	rotary switch	
addressing mode	Yes (special key sequence)	No
storing temperature	-20°C … +75°C	
Operational ambient temperature	-20°C … +75°C	
protection class	IP20	
connecting wire cross section	0.75 mm^2	
connecting wire length	250 mm	

connection variants

250 mm

11 mm

DALI GC-A

30 mm

41 mm

11 mm

DALI
DALI
T2 up
T2 dn
T1 up
T1 dn
COM

geometry

Installation

The DALI GC/GC-A is supplied directly via the DALI signal line. A typical value of the current consumption is 6mA. For the supply of the DALI-line a DALI PS can be used. The connection of the DALI-connectors is polarity free and can withstand overvoltage of up to 250Vac.

For group control single or twin momentary switches can be used. Please check the connection diagram for details. The switch inputs are not protected against overvoltage!

Function

Switching of a group is done with a short key press, whereas dimming is performed on long key press actions.

Key	Duration	Function
Single Key	40…300ms	Max / Off
Up-Key	40…300ms	Max / Off
Down-Key	40…300ms	Min / Off
Single Key	>300ms	Alternating: Dim Up / Down
Up-Key	>300ms	Dim Up
Down-Key	>300ms	Dim Down

The DALI GC/GC-A sends the switching and dimming commands to the predefined groups. Group selection can be done with the rotary switch on the backside of the housing.

rotary switch	group address	
position	Group A	Group B
0	Broadcast	1
1	1	2
2	2	3
3	3	4
4	4	5
5	5	6
6	6	7
7	7	8
8	8	9
9	9	10
A	10	11
B	11	12
C	12	13
D	13	14
E	14	15
F	15	16

Addressing Mode and Group Configuration

The DALI GC supports addressing and grouping, whereas the DALI GC-A does not support this special feature. Please find the details for the programming mode below.

Another way for commissioning is the use of a DALI USB interface and the free configuration tool DALI-Cockpit. With the help of this powerful tool, you can simply set up your DALI-network. However, the DALI GC/GC-A can itself not be accessed by the DALI Cockpit.

Programming Mode

The DALI GC module provides two programming options:

Programming **with** cancelling the existing group settings

and **without** cancelling the existing group settings

Entering Programming Mode:

Press and hold one button for longer than 10 seconds. A beep will confirm. Then you have to release the button for 1 second, again confirmed by a beep. Press the key again. After an additional second 2 beeps will confirm.

Now there is decision for one of the modes.

➜ Release button will enter the **programming mode without** cancelling the active group settings (anytime before having pressed 3 additional seconds)

➜ Keep button pressed and wait until 3 additional beeps (~3s), releasing the button then will enter **the programming mode with cancelling active group settings**

After having entered the programming mode all lamps are dimmed to minimum and addressing is started. Each ballast that has been recognized and addressed will be dimmed up to maximum.

After having finished addressing the ballast are dimmed to minimum again One ballast will stay at maximum.

The maximum level is an indicator for the selected lamp.

Ballast Selection and Group Assignment:

The selected ballast can be changed by a short button press. With a button press of 3 seconds confirmed by a beep the ballast will be assigned to the group (group selector + switch-input define the active group) if you release the button. Holding the button for additional 3 seconds (overall 6seconds), again indicated with a beep, will remove the selected ballast from the group if you release the key.

Leaving Programming Mode:

Holding the button additional 4 seconds (10 seconds overall) will leave the programming mode (indicated by a 3beep sequence).

DALI Instruction Set

The DALI GC/GC-A operates as control device on the DALI-line. It is based on the standard for Control Gears (IEC 62386-102). In nomral operation the commands in the table below are executed. The DALI GC supports additional commands for addressing and group commissioning..

DALI cmdNr	command	function
0	OFF	OFF
1	UP	Dim Up
2	DOWN	Dim Down
5	RECALL MAX	Maximum
6	RECALL MIN	Minimum
8	ON AND STEP UP	Goto Minimum if OFF, otherwise StepUp one Increment[1]

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[1] ab V1.3 ist der Befehl ON AND STEP UP implementiert falls der vorhergehende Befehl OFF war. Frühere Versionen senden RECALL MAX.

Additional Information and Equipment

DALI-Cockpit – free configuration tool from Lunatone for DALI systems
http://lunatone.at/en/dali-systems/software/

DALI-Manual http://www.dali-ag.org/c/manual_gb.pdf

DALI USB – PC interface for DALI system. The DALI-Cockpit can access DALI components using the DALI USB
http://lunatone.at/en/downloads/Lunatone_Art24138923_DALI_USB_Datasheet_EN.pdf

DALI PS – power supply for a DALI line
http://lunatone.at/en/downloads/Lunatone_Art24033444_DALI_PS_Datasheet_EN.pdf

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