## **DALI-2 Touchpanel**



# Datasheet Multi Control Module

Multifunctional
DALI-2 control module
with flexible
button layout

Art.Nr. 24035410-G

Various DALI-2 Touchpanel Layouts:

Art. Nr.: G000 unprinted glasses

Art.Nr.: G01A (Dimming, 4 Scenes)

Art.Nr.: G02A (Dimming, 4 Scenes, 4 Groups)

Art. Nr.: G03A (Dimming, 4 Scenes, Tunable White)

Art. Nr.: G04A (Dimming, 4 Scenes, Tunable White, 4 Groups)

Art. Nr.: G05A (Dimming, 4 Scenes, Tunable White, 4 Groups)

Art. Nr.: G06A (Dimming, 4 Scenes, Colour RGB)

Art. Nr.: G07A (Dimming, 4 Scenes, Colour RGB, 4 Groups)

Art. Nr.: G08A (Dimming, Ceiling Fan, Blinds, 2 Groups, Tunable White, 4 Scenes)

Art. Nr.: G09A (Dimming, 4 Scenes, Colour and White RGBW)

Overview

https://www.lunatone.com/wp-content/uploads/2020/11/DALI-2-Touchpanel-Layouts EN.pdf

## **DALI-2 Touchpanel** Multifunctional Control Module

#### Overview

- multifunctional control module for DALI and DALI-2 systems
- multi-master capable: Several modules can be installed within a DALI circuit and / or a DALI group.
- capacitive touch interface
- up to 16 configurable keys
- standard layouts and factory settings for easy installation without configuration
- flexible layout individual design layout exchange on site. Additional glass inserts with different prints available as accessories.
- easy configuration via Lunatone DALI USB interface and DALI-Cockpit Software Tool
- touch interface material: glass
- plastic frame (RAL 9016)
   aluminium frame and customer specific frame colours upon request
- integrated DALI-2 application controller

- application controller: direct control of DALI devices
- in addition to the standard DALI commands, the application controller also supports DALI DT8 TC and RGB (W) control as well as macros
- Instance-mode: Easy integration through 16 DALI-2 pushbutton instances and 5 DALI-2 analogue instances (slider)
- easy installation on a flush-mounted installation box
- the module is supplied by the DALI bus – no additional power supply necessary
- version with integrated DALI power supply available ("-PS")
- DALI-2 control unit according to IEC62386-103







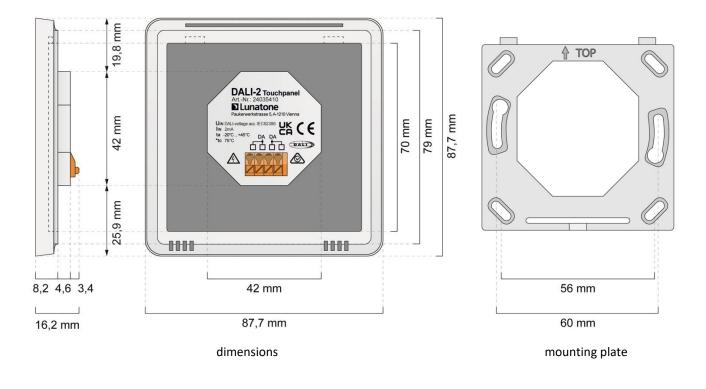
## Specification, Characteristics

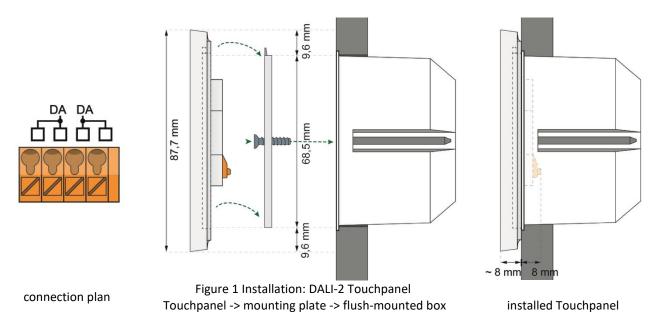
Туре	DALI-2 Touchpanel
article number	24035410
GTIN	9010342013089
DALI-Interface, power supply: DA, DA	DALI, DALI-2, Multimaster
output type	
terminal markings	DA, DA
voltage range	9,5V 22,5Vdc according to IEC62386
typical current consumption DALI (16,5V)	2 mA



DALI addresses	0	
DALI-2 addresses	1	
Insulation data:		
impulse voltage category	II	
pollution degree	2	
rated insulation voltage	250V	
insulation DALI / mains	reinforced isolation	
insulation test voltage DALI / mains	3000Vac	
environmental conditions:		
storing and transportation temperature	-20°C +75°C	
operational ambient temperature	-20°C +45°C	
rel. humidity, not condensing	15% 90%	
named data.		
general data: dimensions (I x w x h)	97 7mm v 97 7mm v 16 Fmm	
	87,7mm x 87,7mm x 16,5mm  back box installation	
mounting		
material	touch-interface: glass, frame: plastic	
expected life time	100.000h	
Protection class	II (when used/installed as intended)	
protection degree housing	IP40	
protection degree terminals	IP20	
Operating modes	Application Controller, DALI-2 Instance mode	
terminals:		
connection type	spring terminal connectors	
wire size: solid core	0,5 1,5 mm² (AWG20 AWG16)	
wire size: fine wired	0,5 1,5 mm² (AWG20AWG16)	
wire size: using wire end ferrule	0,25 1 mm²	
stripping length	8,5 9,5 mm / 0,33 0,37 inch	
tightening/ release of wire	push mechanism	
standards:		
DALI	IEC62386-101:2014 IEC62386-103:2014	
	EN 61547	
EMV	EN 50015 / IEC CISPR15	
safety	EN 61347-2-11 EN 61347-1	
Markings	DALI-2, CE, UKCA, RCM	
١	• • •	

**□** Lunatone





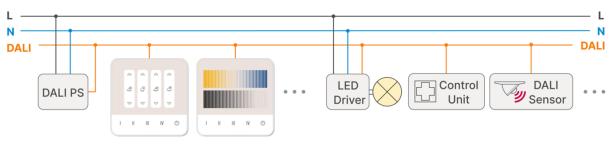


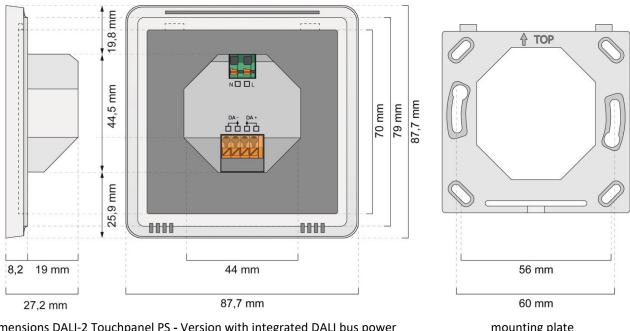
Figure 2 DALI-2 Touchpanel typical application



# Specification, Characteristics – DALI-2 Touchpanel PS: Version with integrated Bus Power Supply

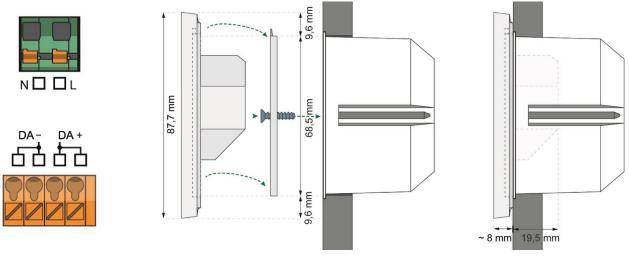
Version with integrated bus power supply (70mA). If not stated otherwise in the table below all information for standard version applies – all DALI-2 Touchpanel versions are available with integrated power supply 70mA.

article number 24035410-PS  Input L,N  Input type supply, mains-voltage markings N, L  Input voltage range 230V AC  max. input supply current 17 mA  Input supply frequency 50Hz / 60Hz  power consumption max. 2W  start-up time < <250ms   Output DA+, DA-  output type DALI  markings DA-, DA+  output voltage range 12Vdc 20,5 Vdc  guaranteed DALI supply current 80mA  max. DALI supply current 80mA  Open circuit proof yes  Short circuit proof yes  Insulation data  Impulse voltage category II  Pollution degree 2  Rated insulation voltage 250V  Rated impulse withstanding voltage 1nsulation test voltage DALI / mains reinforced isolation Insulation test voltage DALI / mains 3000V a.c.  general data:  dimensions 88mm x 88mm x 39mm	type	DALI-2 Touchpanel-PS	
input type markings N, L input voltage range 230V AC max. input supply current 17 mA Input supply frequency 50Hz / 60Hz power consumption max. 2W start-up time  cutput DA+, DA- output type DALI markings DA-, DA+ output voltage range 12Vdc 20,5 Vdc guaranteed DALI supply current 70mA max. DALI supply current 80mA Open circuit proof Yes Short circuit proof yes  insulation data Impulse voltage category Il Pollution degree 2 Rated insulation voltage 1 supply current Pollut on degree 2 type Rated impulse withstanding voltage 4 kV Insulation DALI / mains Insulation test voltage DALI / mains Insulat	article number	24035410- <b>PS</b>	
input type markings N, L input voltage range 230V AC max. input supply current 17 mA Input supply frequency 50Hz / 60Hz power consumption max. 2W start-up time  cutput DA+, DA- output type DALI markings DA-, DA+ output voltage range 12Vdc 20,5 Vdc guaranteed DALI supply current 70mA max. DALI supply current 80mA Open circuit proof Yes Short circuit proof yes  insulation data Impulse voltage category Il Pollution degree 2 Rated insulation voltage 1 supply current Pollut on degree 2 type Rated impulse withstanding voltage 4 kV Insulation DALI / mains Insulation test voltage DALI / mains Insulat			
markings N, L input voltage range 230V AC max. input supply current 17 mA Input supply frequency 50Hz / 60Hz power consumption max. 2W start-up time < <250ms   output DA+, DA- output type DALI markings DA-, DA+ output voltage range 12Vdc 20,5 Vdc guaranteed DALI supply current 70mA max. DALI supply current 80mA Open circuit proof yes Short circuit proof yes  insulation data Impulse voltage category II pollution degree 2 Rated insulation voltage 2 Rated insulation voltage 4 kV Insulation DALI / mains reinforced isolation Insulation test voltage DALI /mains 3000V a.c. general data:			
input voltage range  max. input supply current  Input supply frequency  power consumption max.  2W  start-up time  cutput DA+, DA-  output type  markings  DA-, DA+  output voltage range  guaranteed DALI supply current  max. DALI supply current  TomA  max. DALI supply current  Roma  Open circuit proof  Short circuit proof  yes  insulation data  Impulse voltage category  Rated insulation voltage  Rated insulation Voltage  Insulation DALI / mains  reinforced isolation  Insulation test voltage DALI /mains  general data:	input type	supply, mains-voltage	
max. input supply current  Input supply frequency  power consumption max.  start-up time  cutput DA+, DA-  output type  DALI  markings  DA-, DA+  output voltage range  guaranteed DALI supply current  max. DALI supply current  70mA  max. DALI supply current  80mA  Open circuit proof  yes  Short circuit proof  yes  insulation data  Impulse voltage category  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  reinforced isolation  Insulation test voltage DALI /mains  general data:	markings	N, L	
Input supply frequency power consumption max. 2W start-up time	input voltage range	230V AC	
power consumption max.  start-up time  cutput DA+, DA-  output type  DALI  markings  DA-, DA+  output voltage range  12Vdc 20,5 Vdc  guaranteed DALI supply current  70mA  max. DALI supply current  80mA  Open circuit proof  yes  Short circuit proof  yes  Short circuit proof  Insulation data  Impulse voltage category  Ill  Pollution degree  2  Rated insulation voltage  Rated impulse withstanding voltage  4 kV  Insulation DALI / mains  reinforced isolation  Insulation test voltage DALI /mains  3000V a.c.	max. input supply current	17 mA	
output DA+, DA-       output type     DALI       markings     DA-, DA+       output voltage range     12Vdc 20,5 Vdc       guaranteed DALI supply current     70mA       max. DALI supply current     80mA       Open circuit proof     yes       Short circuit proof     yes       Insulation data     II       Pollution degree     2       Rated insulation voltage     250V       Rated impulse withstanding voltage     4 kV       Insulation DALI / mains     reinforced isolation       Insulation test voltage DALI /mains     3000V a.c.	Input supply frequency	50Hz / 60Hz	
output DA+, DA- output type DALI markings DA-, DA+ output voltage range 12Vdc 20,5 Vdc guaranteed DALI supply current 70mA max. DALI supply current 80mA Open circuit proof yes Short circuit proof yes  insulation data Impulse voltage category II Pollution degree 2 Rated insulation voltage 250V Rated impulse withstanding voltage 4 kV Insulation DALI / mains reinforced isolation Insulation test voltage DALI /mains 3000V a.c.	power consumption max.	2W	
output type  markings  DA-, DA+  output voltage range  guaranteed DALI supply current  max. DALI supply current  Roma  Open circuit proof  Short circuit proof  yes  Short circuit proof  Impulse voltage category  Pollution degree  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  reinforced isolation  Insulation test voltage DALI /mains  Rated insulation DALI / mains	start-up time	<250ms	
output type  markings  DA-, DA+  output voltage range  guaranteed DALI supply current  max. DALI supply current  Roma  Open circuit proof  Short circuit proof  yes  Short circuit proof  Impulse voltage category  Pollution degree  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  reinforced isolation  Insulation test voltage DALI /mains  Rated insulation DALI / mains			
output type  markings  DA-, DA+  output voltage range  guaranteed DALI supply current  max. DALI supply current  Roma  Open circuit proof  Short circuit proof  yes  Short circuit proof  Impulse voltage category  Pollution degree  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  reinforced isolation  Insulation test voltage DALI /mains  Rated insulation DALI / mains			
markings DA-, DA+ output voltage range 12Vdc 20,5 Vdc guaranteed DALI supply current 70mA max. DALI supply current 80mA Open circuit proof yes Short circuit proof yes  insulation data Impulse voltage category II Pollution degree 2 Rated insulation voltage Rated impulse withstanding voltage Insulation DALI / mains Insulation DALI / mains Insulation test voltage DALI /mains			
output voltage range guaranteed DALI supply current 70mA max. DALI supply current 80mA Open circuit proof yes Short circuit proof yes  insulation data Impulse voltage category Il Pollution degree 2 Rated insulation voltage Rated impulse withstanding voltage Insulation DALI / mains Insulation test voltage DALI /mains			
guaranteed DALI supply current  max. DALI supply current  80mA  Open circuit proof  yes  Short circuit proof  yes  insulation data  Impulse voltage category  Pollution degree  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  Insulation test voltage DALI /mains  reinforced isolation  Insulation test voltage DALI /mains  general data:			
max. DALI supply current  Open circuit proof  yes  Short circuit proof  yes  insulation data  Impulse voltage category  Il  Pollution degree  2  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  Insulation test voltage DALI /mains  general data:	output voltage range	12Vdc 20,5 Vdc	
Open circuit proof Short circuit proof yes  insulation data Impulse voltage category II Pollution degree 2 Rated insulation voltage Rated impulse withstanding voltage Insulation DALI / mains Insulation test voltage DALI /mains Seneral data:	guaranteed DALI supply current	70mA	
Short circuit proof  insulation data  Impulse voltage category  Pollution degree  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  Insulation test voltage DALI /mains  general data:	max. DALI supply current	80mA	
insulation data  Impulse voltage category  Pollution degree  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  Insulation test voltage DALI /mains  general data:	Open circuit proof	yes	
Impulse voltage category  Pollution degree  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  Insulation test voltage DALI /mains  Reneral data:	Short circuit proof	yes	
Impulse voltage category  Pollution degree  Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  Insulation test voltage DALI /mains  Reneral data:			
Pollution degree 2 Rated insulation voltage 250V Rated impulse withstanding voltage 4 kV Insulation DALI / mains reinforced isolation Insulation test voltage DALI /mains 3000V a.c.  general data:			
Rated insulation voltage  Rated impulse withstanding voltage  Insulation DALI / mains  Insulation test voltage DALI /mains  general data:		II	
Rated impulse withstanding voltage 4 kV Insulation DALI / mains reinforced isolation Insulation test voltage DALI /mains 3000V a.c.  general data:	Pollution degree	2	
Insulation DALI / mains reinforced isolation Insulation test voltage DALI /mains 3000V a.c.  general data:	Rated insulation voltage	250V	
Insulation test voltage DALI /mains 3000V a.c.  general data:	Rated impulse withstanding voltage	4 kV	
general data:	Insulation DALI / mains	reinforced isolation	
	Insulation test voltage DALI /mains	3000V a.c.	
dimensions 88mm x 88mm x 39mm	general data:		
	dimensions	88mm x 88mm x 39mm	



dimensions DALI-2 Touchpanel PS - Version with integrated DALI bus power supply

mounting plate



connection plan **DALI-2 Touchpanel PS** 

Figure 3 Installation DALI-2 Touchpanel PS Touchpanel -> mounting plate -> flush-mounted box

installed Touchpanel

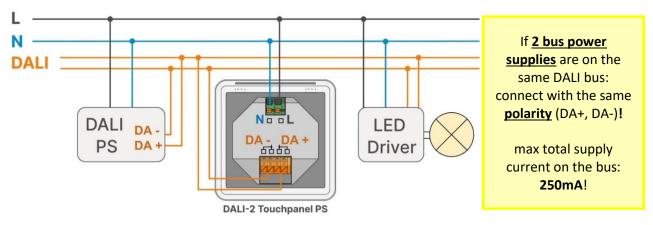


Figure 4 installation example DALI-2 Touchpanel PS with an additional DALI PS on the DALI bus

#### Installation

The DALI-2 Touchpanel is directly connected and supplied by the DALI bus. A DALI bus power supply (e.g., DALI PS) is required, no additional power supply is needed.

**DALI-2 Touchpanel PS**: includes a DALI bus power supply (70mA). If 2 or more bus power supplies are connected on the same DALI bus, they need to be connected with the same polarity. (marked with DA+, DA-), see Figure 4, page 6.

It is possible to connect multiple DALI PS on a DALI line, but the sum of all maximum supply currents must not exceed 250 mA!

- **DALI-2 Touchpanel** (and DALI-2 Touchpanel PS with no additional DALI PS): the connection to the DALI terminals can be made regardless of polarity. The bus input is protected against overvoltage (mains voltage).
- The wiring should be carried out as a permanent installation in a dry and clean environment.
- Installation may only be carried out in a voltage-free state of the system and by qualified specialists.
- National regulations for setting up electrical systems must be followed.
- The DALI wiring can be realized with standard low-voltage installation material. No special cables are required.
- Only 1 wire may be connected to each terminal. When using double wire end

ferrules, the connection capacity of the terminal must be considered.



**Attention:** The DALI-signal is not classified as SELV circuit (Safety Extra Low Voltage). Therefore, the installation regulations for low voltage apply.



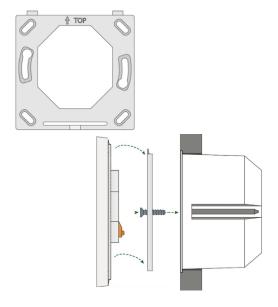
The voltage drop on the DALI line must not exceed 2V at maximum length (300m) and maximum bus load (250mA).

### Wall Mounting

The DALI-2 Touchpanel can be attached to an electrical socket using a mounting plate (included), see also Figure 1 on page 4 and Figure 3 on page 6

First the mounting plate is attached to the electrical socket, paying attention to the orientation - Marking:

Then the DALI touch panel can be hooked in from the top and fixed with the screw on the bottom.



#### Addressing and Configuration

- After installation, the device can already be used with the default factory settings.
- Addressing and changes to the factory settings, such as setting the effective range and functions, are possible with the Software tool DALI Cockpit (Windows PC).
- When using the DALI-Cockpit Software, the PC must be connected to the DALI bus via a suitable interface module (DALI USB, DALI 4Net, DALI SCI RS232). The DALI-2 Touchpanel is automatically recognised by the DALI Cockpit during the addressing process and listed in the device overview.
- The addressing is done according to the DALI-2 specification and the device receives a corresponding address.
- For localisation a buzzer is integrated in each DALI-2 Touchpanel. Alternatively, the allocation can also be done via the serial number of the device.

#### **Touch Panel Layout**

The DALI-2 Touchpanel is equipped with an interchangeable glass with layout print as user interface.

An overview of the Lunatone standard layouts can be found in section "Standard Layouts and Factory Settings" on page 16.

The devices are delivered with the ordered layouts. Also, customer-specific designs can be realized. Design templates can be found at: <a href="https://www.lunatone.com/en/produkt/dali-2-touchpanel/">https://www.lunatone.com/en/produkt/dali-2-touchpanel/</a>.

The User Interface can be adapted to the respective needs using standard graphics software. On request, it is also possible to use a glass without print and paper inserts (size of the inserts: 86.4mm x 86.4mm).

Thanks to the interchangeable user interface, the touch panel offers customer-specific flexibility and can be adjusted to any application.

The exchange of the layout is carried out by pressing on the upper edge – pushing the frame down, away from the glass, see Figure 5.

Additional glasses are available as accessories. Both standard and custom designs can be ordered from Lunatone.



Attention: If the position of the buttons does not match after changing the layout, the configuration also needs to be adjusted (DALI Cockpit Software).

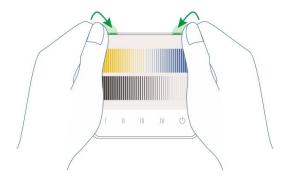


Figure 5 pressure points to exchange the glass

### **Operation and Function**

The DALI-2 Touchpanel is a universal module to control DALI compatible luminaries.

Each DALI-2 Touchpanel layout can implement up to 16 buttons. The function of each button can be configured individually.

On delivery the buttons are preconfigured, matching the inserted layout.

If the design is changed, the button configuration should be adapted accordingly.

As with other Lunatone control devices, the settings can be changed with the DALI Cockpit Software tool.

In the DALI Cockpit device overview existing configurations can be saved or loaded by right-clicking on the device, using "Export device settings ..." or "Import device settings ..." accordingly, see Figure 6.

All Lunatone standard layout configuration files and descriptions can be found under:

https://www.lunatone.com/en/produkt/dali-2-touchpanel/

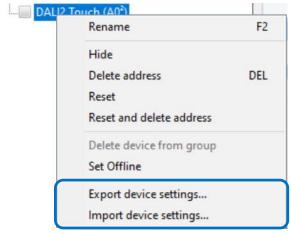


Figure 6 import or export device settings

With the DALI Cockpit Software tool, existing settings can be adjusted to fit the application e.g. number of buttons, button functions, effective range, etc. see.Figure 7 and Figure 8.



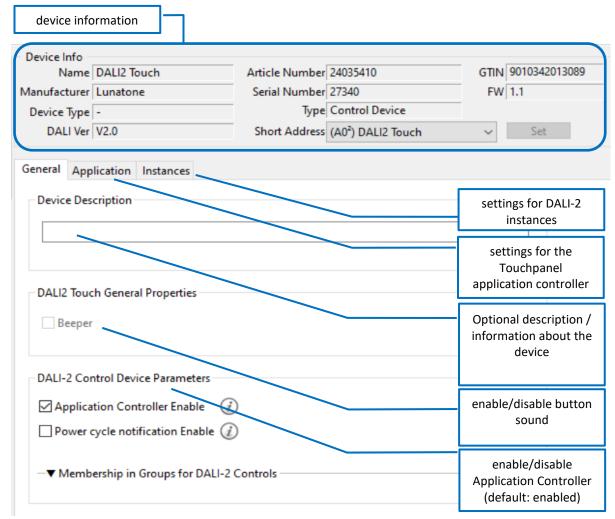


Figure 7 general settings – DALI Cockpit

It is necessary to distinguish between application controller and DALI-2 instances.

**The application controller** gives direct DALI control commands that are immediately executed by the DALI drivers.

The DALI-2 instances generate event messages that are interpreted and processed by higher-level control units (WAGO, Beckhoff, LUNATONE DALI-2 KNX gateway). General information on the DALI-2 instance mode:

https://www.lunatone.com/en/dali-2-factsheet/ section: DALI-2 Instancemode

The application controller and instance event messages can be active at the same time.

Additional Information: A

<u>deactivated</u> Application Controller is indicated in the DALI Cockpit device tree with: **(a)**.

A device with <u>active</u> instances is indicated with: 1



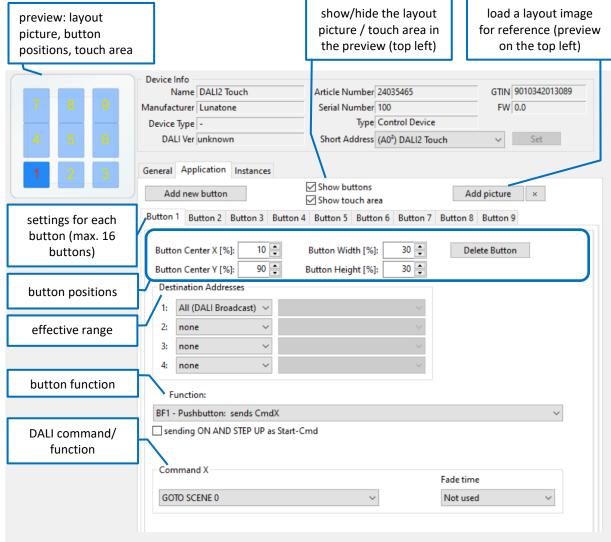


Figure 8 Application: Application Controller

#### **Button position**

To adjust the button positions, a reference picture can be added to the preview on the top left corner of the Cockpit Window (Figure 8 "Add picture"). Supported image formats: bmp, jpg, png, gif, tif, tiff, emf.

The positions of the buttons are defined by 4 parameters:

Button Centre X in % Button Width X in % Button Centre Y in % Button Height Y in %

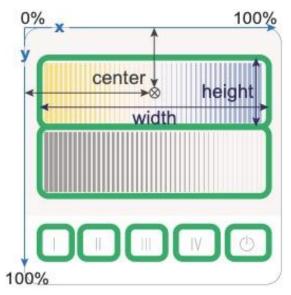


Figure 9 Button positions (indicated in green)



#### Destination address / effective range

In the section "destination addresses" it is possible to define which devices are affected by the button function. Possible destination addresses:

Broadcast (an alle)
 DALI group (0 - 15)
 DALI single address (0 - 63)

Up to 4 different target addresses can be defined for each button. When the button is pressed the target addresses 1 to 4 will be processed sequentially (see Figure 10)

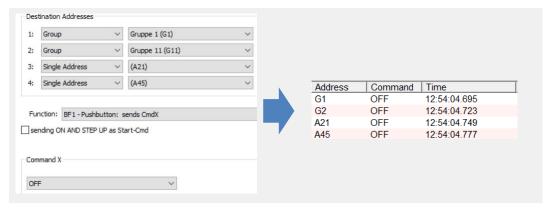


Figure 10 Example: Addressing Inputs 1-4 – sequentially processed

#### **Button Function (BF)**

Various "Button Functions" (BF) can be assigned to the individual buttons. The "Button Function" defines the behaviour of a button. A short or long press of the button can trigger different DALI commands.

A toggle function (switching between on and off) is also possible.

For the DALI-2 Touchpanel following "Button Functions" are available, see Figure 11

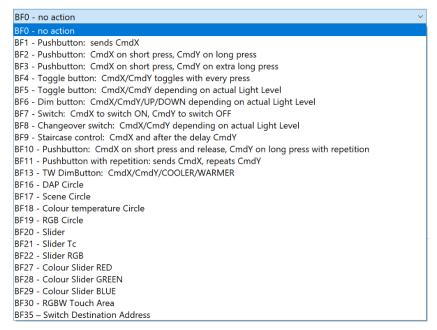


Figure 11 DALI-2 Touchpanel button functions



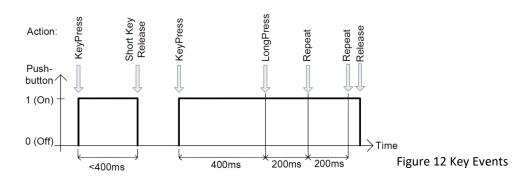
Key presses (short / long) are queried according to the timing diagram in Figure 12 Key Events and translated into internal signals (key events).

The following table (Table 1) shows how the selected "Button Function" (lines 0 to 13)

sends the commands CmdX and CmdY in connection with the "Key Events" (Figure 12). CmdX and CmdY refer to DALI commands.

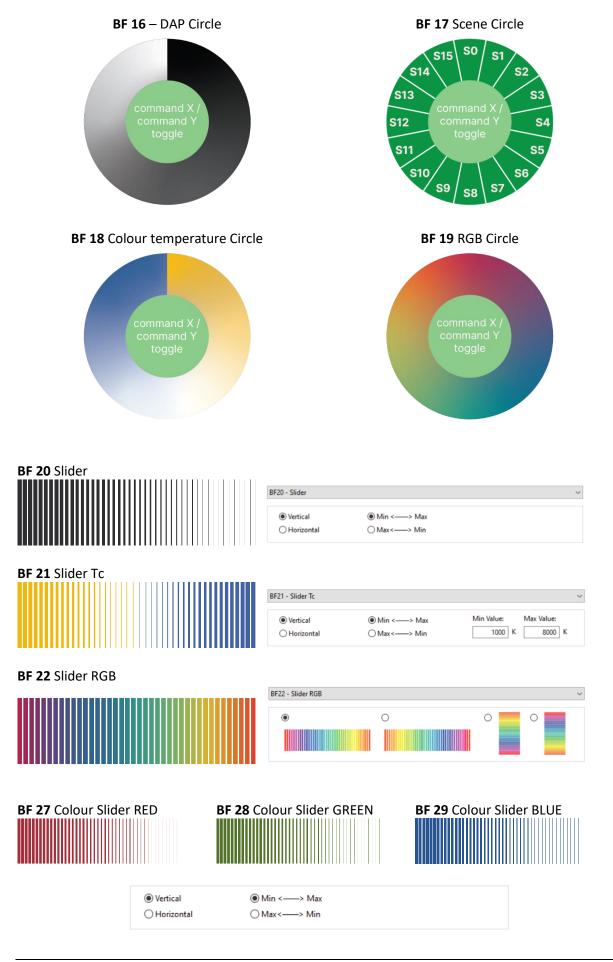


Note: The DALI commands are transmitted to all assigned addresses.



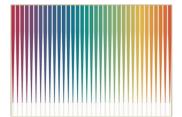
button function number	event: press	event: short press (release)	event: long press	event: extra- long press	event: repeat	function	typical application
0	-	-	-	-	-	-	-
1	CmdX	-	-	-	-	sends CmdX on key press	master off
2	CmdX	-	CmdY	-	-	sends CmdX on key press sends CmdY on long key press	switch to 2 different levels
3	-	CmdX	-	CmdY	-	sends CmdX on key press sends CmdY on extra-long key press	store level as scene
4	CmdX / CmdY toggle	-	-	-	-	sends <b>alternating</b> CmdX and CmdY on key press	toggle push button
5	CmdX / CmdY toggle	-	-	-	-	sends CmdX or CmdY on key press depending on bus status	changeover button
6	-	CmdX / CmdY toggle	UP / DOWN	-	UP / DOWN	sends CmdX or CmdY on short key press depending on bus status sends alternating UP or DOWN on long press and repeat	push and dim
7	CmdX CmdY on any release		-	-	-	sends CmdX on key press sends CmdY on key release (after any duration)	switch
8	CmdX / CmdY toggle CmdY / CmdX toggle on any release	-	-	-	-	sends CmdX or CmdY on key press depending on bus status sends CmdY or CmdX on key release (after any duration) depending on bus status	changeover switch
9	CmdX CmdY on delay	-	-	-	-	sends CmdX on key press sends CmdY after a programmable delay	staircase control
10	-	CmdX	CmdY	-	CmdY	sends CmdX on short key press sends CmdY on long key press sends CmdY on repeat	push and dim
11	CmdX	-	-	-	CmdY	sends CmdX on key press sends CmdY on repeat	push and dim
13	-	CmdX / CmdY toggle	-	-	WARMER / COOLER	sends CmdX or CmdY on short key press depending on bus status sends alternating WARMER or COOLER on repeat	tunable white dim

Table 1





#### BF 30 RGBW Touch Area





#### **BF 35**: Switch destination Address:



When a button is selected with this function, the effective ranges of all other keys on the touchpanel are switched to the specified effective range.

A button with BF35 and the selection "Original Button Destination" restores the effective ranges of the individual buttons.

#### **Commands**

The actual action, i.e. which function is triggered when pressing a button is determined by the button function and command assigned to the button.

For button function 1-13, in most cases, an X command (CmdX) and also a Y command (CmdY) can be selected.



The following options are available:

Command name	action / function
None	no command is sent
DIRECT ARC	direct arc power – set light
POWER	level in %
OFF	off
UP	dim up (using fade rate)
DOWN	dim down (using fade rate)
	increases light level by one
STEP UP	increment
	decreases light level by one
STEP DOWN	increment
RECALL MAX	recalls MAX value
RECALL MIN	recalls MIN value

STEP DOWN AND OFF	decreases light level by one increment, if value at MIN switch off
	increases light level by one
ON AND STEP UP	increment, if OFF switch on
	DALI-2-Cmd for switching
GOTO LAST	on to the last active level
ACTIVE LEVEL	(Memory-Function)
(DALI 2)	(Firmware 2.0 and up)
GO TO SCENE	go to scene 0-15

Table 2

Depending on the selected command, additional input fields might appear for further settings, see Figure 13.



Figure 13 additional settings to a DALI command



#### **Predefined macros**

Macros are predefined/ user defined command sequences that can be triggered by a single command.

The following macros are available:

Nr	Macro	Function
M1	Go Home	Light dims down to DAP 0 with predefined fade time, then fade time is set back to a programmable value
M2	Sequential Scenes	A list of the scenes can be defined; the scene is switched with each button press.
M3	Dynamic Scenes	A dynamic sequence of up to 16 scenes can be defined, including custom fade times and delays.
M4	Save actual light level as scene	When triggered the current level is saved in a scene (options: light level, RGB colour value, WAF colour value or colour temperature).
M5	User Defined Cmd-List	A user-defined macro script with up to 19 commands is executed.
M6	TC cooler	Activates the DT8 mode and sends the command "COOLER" 3 times.
M7	TC warmer	Activates the DT8 mode and sends the command "WARMER" 3 times.
M8	Send RGB +	Activates the DT8 mode and sends an ascending RGB colour table value.
M9	Send RGB -	Activates the DT8 mode and sends a descending RGB colour table value.
M10	Delayed Off	Sends a DAP level and after a delay the OFF command. DAP level and delay are user defined.

Table 3

#### **DALI-2 Instances**

In this operating mode, no DALI control commands are sent on the bus, but DALI-2 event messages for DALI-2 compatible central control systems. General information on DALI-2 Instancemode can be found here.

The DALI-2-Touchpanel supports up to 16 instances of type 1 (IEC62386-301, Input Devices – Push Button), and 5 instances of type 2 (IEC62386-301, Analogue Input Device) which are assigned to the 16 buttons and 5 sliders / circles accordingly.

The number of sliders (BF20-BF22,BF27-BF29) or circles (BF16-BF19) is therefore limited to 5 for the instance mode.

The instances are assigned to the buttons one after the other - see the example below:



i16

i0 i1 i2 i3 i4

Buttons → Instances

Button1	Pushbutton	BF1	Instance 0
Button2	Pushbutton	BF1	Instance 1
Button3	Pushbutton	BF1	Instance 2
Button4	Slider Tc	BF21	Instance 16
Button5	Slider	BF20	Instance 17
Button6	Pushbutton	BF1	Instance 3
Button7	Pushbutton	BF1	Instance 4

**Button – Instance Assignment** 





**Attention:** sliders and circles or any other buttons with analogue instance types need to be configured as **buttons 1-5** to ensure the functionality of the analogue instance!

#### **DALI-2 Pusbutton Instance (instance type 1)**

As defined in the standard, the following events are supported and sent on the DALI bus as INPUT NOTIFICATIONs:

Event name	Event Information	Description
Button released	00 0000 0000b	The button is released
Button pressed	00 0000 0001b	The button is pressed
Short press	00 0000 0010b	The button is pressed and released, without being pressed quickly again (in case of double press enabled), or the button is pressed and quickly released (in case double press is disabled)
Double press	00 0000 0101b	The button is pressed and released, quickly followed by another button press
Long press start	00 0000 1001b	The button is pressed without releasing it

Long	00 0000	Following a long press
press	1011b	start condition the
repeat		button is still pressed,
		the event occurs at
		regular intervals as long
		as the condition holds
Long	00 0000	Following a long press
_		· · · · · · · · · · · · · · · · · · ·
press	1100b	start condition, the
stop		button is released
Button	00.0000	The button has been
	00 0000	
free	1110b	stuck and is now
		released
Button	00 0000	The button has been
stuck	1111b	pressed for a very long
		time and is assumed
		stuck.
		Stuck.

Table 4

Further parameters of the instances 0-15 are: event filter and event timer settings (short timer, double timer, repeat timer, stuck timer), which can be configured via the DALI Cockpit Software. See Figure 14.

Default settings for pushbutton instances:

Assigned Instance	None
groups	
Event Scheme	Instance addressing
Selected Event	Short press,
Filters	Long press start
	Long press repeat
	Long press stop
	Button Stuck/free
Short press timer	500ms
Double press timer	- (not used)
Repeat timer	160ms
Stuck Timer	20s



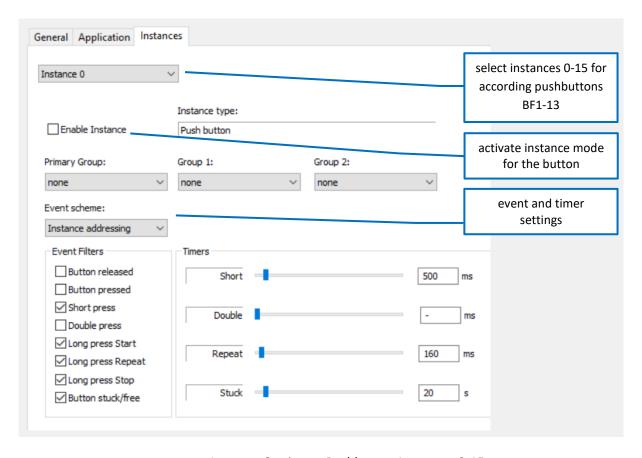


Figure 14 Instance Settings – Pushbutton Instances 0-15

#### **DALI-2 Analog Instance (Instancetype 2)**

The event input value of the analogue instance corresponds to the selected position value on the assigned slider or circle. If this value is changed, the instance generates a DALI-2 event ("INPUT NOTIFICATION").

Parameters of the analogue input device instances 16-20 are: event filter and event timer settings (report, deadtime), which can be configured via the DALI Cockpit Software, see Figure 15.

By using the report timer, the input value is sent periodically as a DALI-2 event regardless of input value changes. (Report Timer set to 0s, means no event is sent)

The deadtime can be used to prevent the generation of an event by the instance for the set deadtime-period.

Default Settings for analogue input instances:

Assigned Instance	None
Assigned instance	None
groups	
Event Scheme	Instance addressing
Selected Event	Position
Filters	
<b>Event Priority</b>	5 (lowest)
Report timer	255s
Deadtime	12,75s

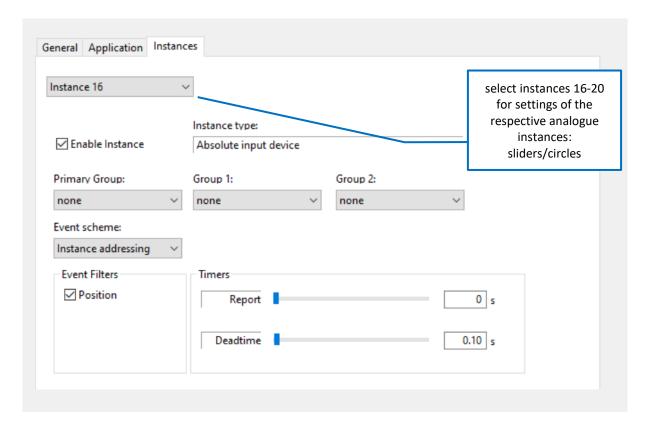
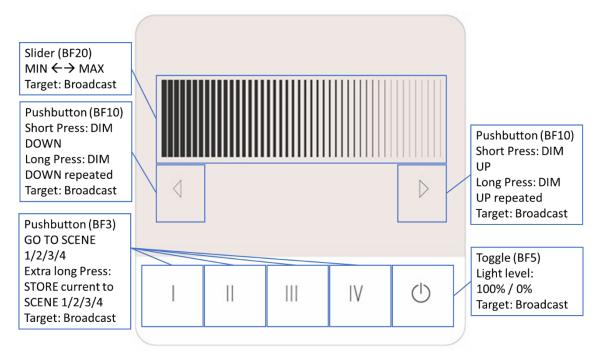
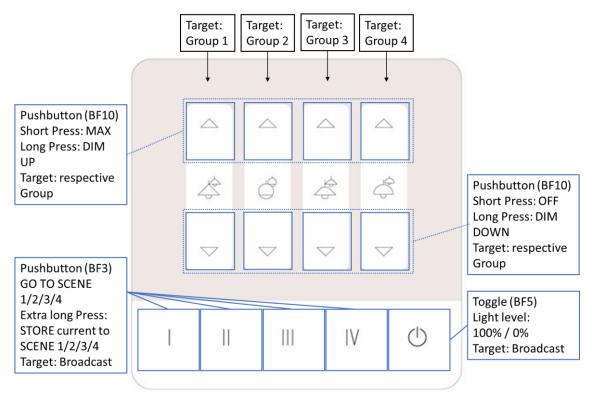


Figure 15 Instance Settings – Analogue Instances 16-20

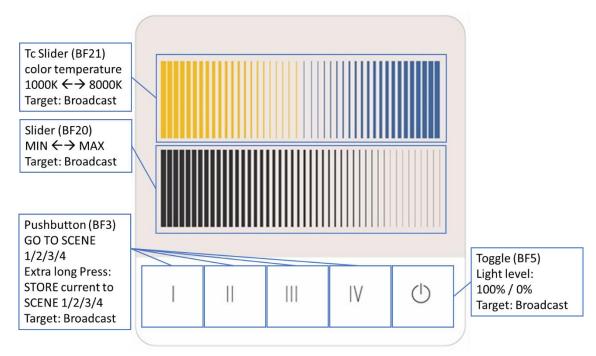
### Standard Layouts – Factory Settings



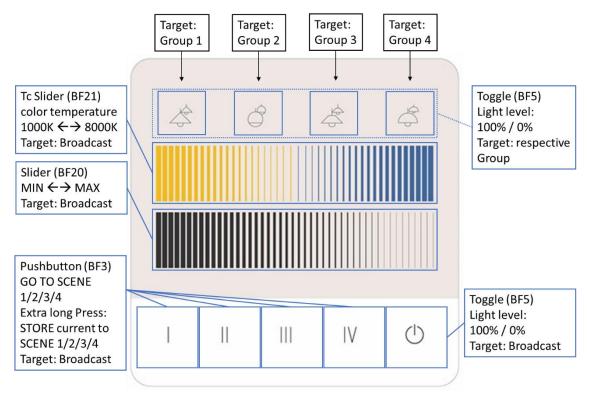
Layout Art. Nr.: G01A brightness slider & arrows for fine adjustment



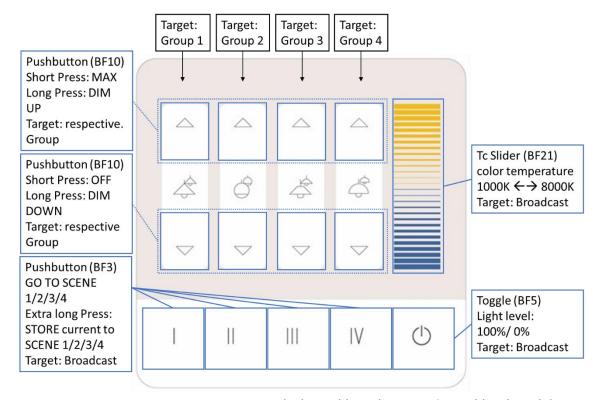
Layout Art. Nr.: G02A 4 groups separately dimmable with arrows



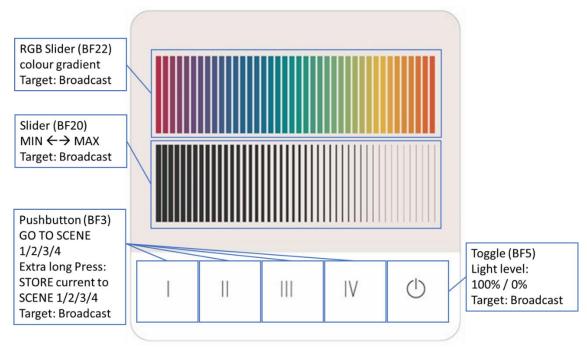
Layout Art. Nr.: G03A brightness slider & tunable white slider



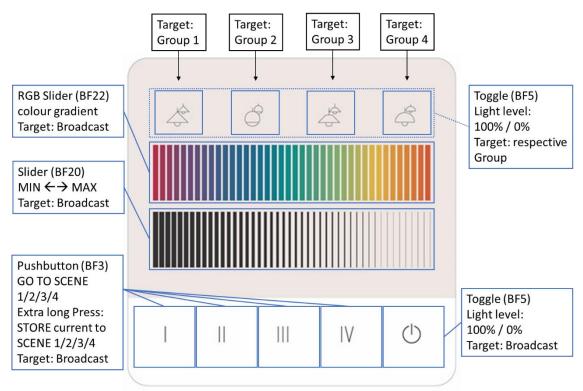
Layout Art. Nr.: G04A 4 groups on/off, brightness slider, tunable white slider



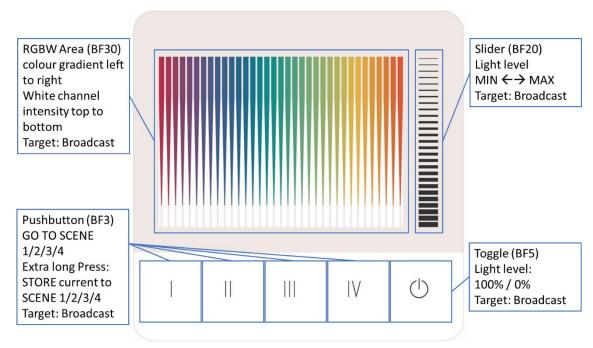
Layout Art. Nr.: G05A 4 groups separately dimmable with arrows & tunable white slider



Layout Art. Nr.: G06A brightness Slider & RGB slider



Layout Art. Nr.: G07A 4 groups on/off, brightness slider, RGB slider



Layout Art. Nr.: G09A brightness slider & RGBW slider

#### Purchase information

Art. Nr. 24035410-G\_\_ GTIN 9010342013089 DALI-2 Touchpanel please indicate the desired Layout: G01A to G08A below.

#### Art. Nr. 24035410-PS-G\_\_\_

DALI-2 Touchpanel PS Version with integrated DALI-PS 70mA please indicate the desired Layout: G01A to G08A below.

#### **Glass Standard layouts**

Various layouts, overview: https://www.lunatone.com/wpcontent/uploads/2020/11/DALI-2-Touchpanel-Layouts EN.pdf

Art. Nr. 24035410-**G000** unprinted glass GTIN 9010342013652

Art. Nr. 24035410-**G01A** dimming, 4 scenes GTIN 9010342013669

Art. Nr. 24035410-**G02A** dimming, 4 scenes, 4 groups GTIN 9010342013676

Art. Nr. 24035410-G03A dimming, 4 scenes, tunable white GTIN 9010342013683

Art. Nr. 24035410-**G04A** dimming, 4 scenes, tunable white, 4 groups
GTIN 9010342013690

Art. Nr. 24035410-**G05A** dimming, 4 scenes, tunable white, 4 groups
GTIN 9010342013706

Art. Nr. 24035410-**G06A** dimming, 4 scenes, colour RGB GTIN 9010342013713

Art. Nr. 24035410-**G07A** dimming, 4 scenes, colour RGB, 4 groups GTIN 9010342013720

Art. Nr. 24035410-**G08A** dimming, ceiling fan, blinds, 2 groups, tunable white, 4 scenes GTIN 9010342013737

Art. Nr. 24035410-**G09A** dimming, 4 scenes, colour and white RGB GTIN 9010342013843

#### Glass sample sets:

Art. Nr. G000 3 pieces of clear, unprinted glasses

Art. Nr.: G01A - Art. Nr.: G08A Sample set of 3 pieces of according glasses

Art. Nr.: GMIX5

Set of 5 glasses - please state the desired article numbers (Art. Nr.: G01A - Art. Nr.:

G08A)

## Additional Information and Equipment

Touchpanel Layout configuration files for the DALI cockpit

https://www.lunatone.com/wpcontent/uploads/2021/03/TouchpanelLayout Konf igFiles.zip

DALI Cockpit - free configuration software for DALI systems

https://www.lunatone.com/en/product/dalicockpit/

Lunatone DALI products <a href="https://www.lunatone.com/en">https://www.lunatone.com/en</a>

Lunatone Datasheets and Manuals <a href="https://www.lunatone.com/en/downloads-a-z/">https://www.lunatone.com/en/downloads-a-z/</a>

DALI-2 Instancemode Information sheet https://www.lunatone.com/wp-content/uploads/2021/10/DALI-2 Instance-Guide EN M0024.pdf

#### Contact

Technical Support: <a href="mailto:support@lunatone.com">support@lunatone.com</a>

Requests: sales@lunatone.com

www.lunatone.com







#### Disclaimer

Subject to change. Information provided without guarantee. The datasheet refers to the current delivery.

The function in installations with other devices must be tested for compatibility in advance.