



KNX 4 DALI Gateway

Datasheet

KNX-DALI Gateway

Interface: KNX to DALI
Broadcast control of 4 DALI lines

Art. Nr. 89451312
GTIN: 9010342013850



KNX 4 DALI Gateway Interface

Overview

- **4 DALI lines**
- **Integrated DALI bus power supply**
- **4 DALI ballasts per line-**
expansion of the number of devices with a DALI Expander
- Broadcast control
- **KNX color control RGB, RGBW, HSV, XY (DT8)**
- **color temperature control (Tunable White, Dim2Warm)**
- light control of various device types (DT0, DT2, DT3, DT4, DT6, DT8)
- recall of DALI scenes (0...15)
- KNX communication objects for relative and absolute control
- color control via standard KNX objects and **percentage values**
- KNX communication objects for light status
- Product database for ETS 5
- easy configuration via Lunatone DALI USB interface and free DALI-Cockpit Software tool
- **DALI-2** and KNX certified



Specification, Characteristics

type	KNX 4 DALI Gateway
article number	89451312
input: KNX	
input type	KNX / TP
Marking terminals	KNX- / KNX+
input voltage range	DC 21...32V SELV
max. input supply current	6mA
max. power consumption	150mW
input: 24 V	
input type	supply
terminals	KNX: yellow /white (alternatively 24V supply: red/black)
marking terminals	24V+ / GND
input voltage range	DC 23...27V
max. input supply current	100mA
max. power consumption	2.7mW
output: DALI 1 ... 4	
output type	DALI bus power supply
marking terminals	DA 1 ... 4 (DA+, DA-)
output voltage range	12Vdc...22,5Vdc, typ. 16V
guaranteed DALI current	10mA

max. DALI output current	250mA an additional external bus power supply is not possible!
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insulation data:

impulse voltage category	II
pollution degree	2
rated insulation voltage	250V
insulation DALI-output (DA+, DA-) / supply (L, N) DALI-input / DALI output (DA+, DA-) DALI-input / supply (L, N)	reinforced isolation DALI (DA+, DA-)/KNX (+,-)
insulation test voltage DALI-output/mains	3000Vac

environmental conditions:

storing and transportation temperature	-20°C... +75°C
operational ambient temperature	-20°C ... +60°C
rel. humidity, none condensing	15%...90%

general data:

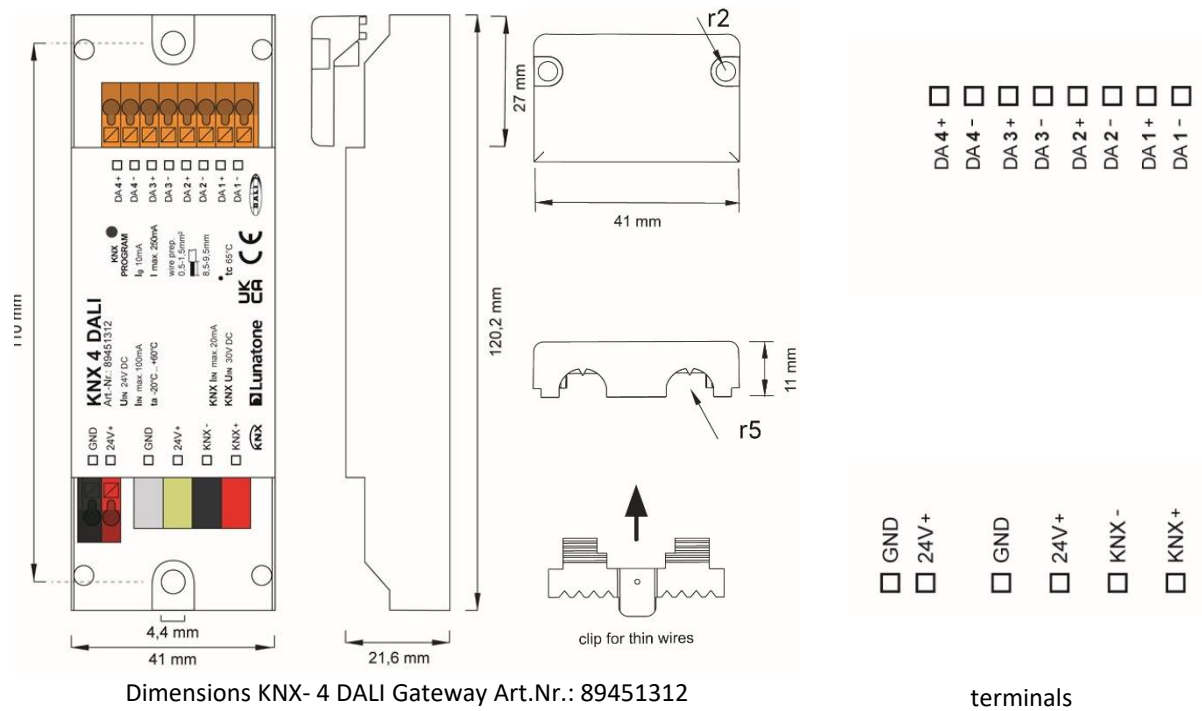
dimensions (l x w x h)	120mm x 41mm x 22mm
mounting	remote ceiling integration in class II devices
rated max. temperature tc	65°C
expected lifetime @ ta = 25°C	50.000h
protection class	II in intended use
protection degree housing	IP40
protection degree terminals	IP20

terminals DALI:

connection type	spring terminal connector
wire size solid core	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
wire size fine wired	0,5 ... 1,5 mm ² (AWG20 ...AWG16)
wire size using wire end ferrule	0,25 ... 1 mm ²
stripping length	8,5 ... 9,5mm / 0,33 ... 0,37inch

standards:

DALI	EN 62386-101
KNX	ISO/IEC 14543-3
EMV	EN 61547 EN 50015 / IEC CISPR15
safety	EN 61347-2-11 EN 61347-1



Typical Application

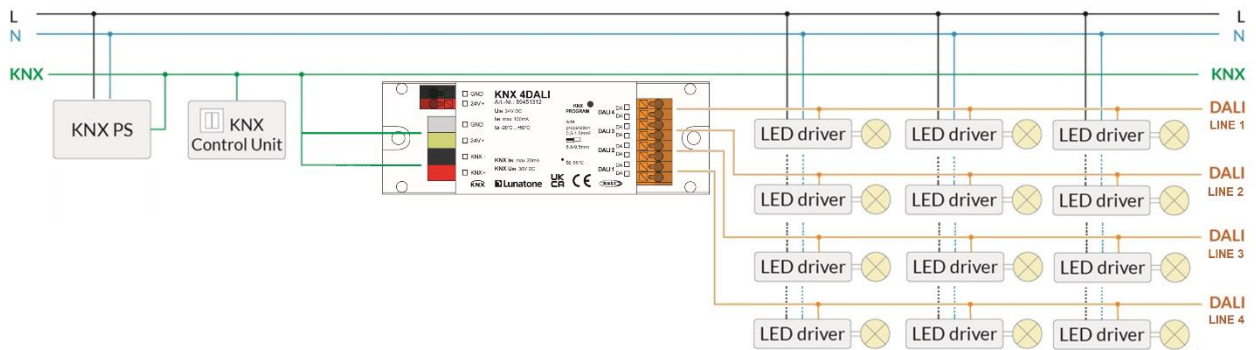


Abb. 1 typical application

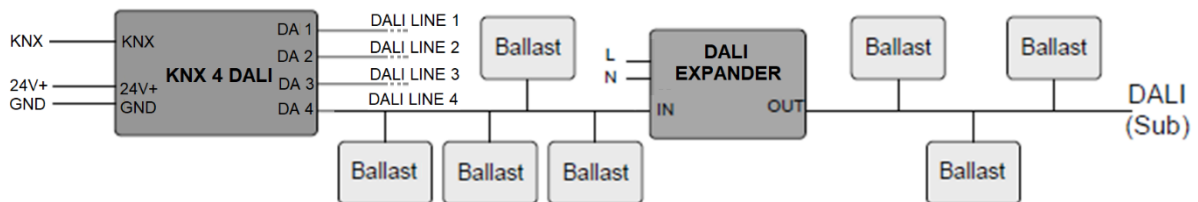


Abb. 2 application example: expansion with a DALI Expander (Art. Nr. 89453847)

General description

The gateway connects a KNX system with 4 independent DALI lines. It is DALI-2 and KNX certified (DALI-2 standard).

The gateway is supplied via an external 24V power supply (24V), either via the KNX connection (yellow / white) or the additional terminal block (red / black).

The gateway also serves as the DALI bus supply for all 4 DALI lines. 4 DALI ballasts can be supplied per line. A DALI expander (Art. No. 89453847) can be used to increase the number of devices on the DALI line, see Fig. 2, page 4. An additional DALI bus supply must not be connected.

The gateway is designed to control DALI dimmers without having to configure them in advance. This means that the replacement of defective dimmers, or lights with integrated dimmers, no longer requires configuration by a specialist.

The device supports color temperature control (CW-WW), color control (RGB, RGBW) as well as the control of other light sources (DT0, DT2, DT3, DT4, DT6).

There are two options to control **the color temperature CW-WW**:

- 1) KNX communication objects
- 2) Percentage values: The color temperature is automatically tracked via the brightness value. In this case, a table is used to define the color temperature.

Color control RGB, RGBW can be realized with:

- 1) KNX communication objects
- 2) Percentage values: A table is used to translate percentage specifications into color values. It is possible to use predefined translation tables as well as defining a custom table with 16 entries.

Usually the DALI Device Type 8 (DT8) is used for color control.

DALI **scene recalls** are possible with KNX communication objects for scenes. The scenes can be assigned with the help of a table.


The DALI-KNX Gateway can be configured with a product database for ETS5.


The DALI system can be configured with a Lunatone DALI USB interface and the free software tool DALI-Cockpit. When using the DALI-Cockpit Software, the PC must be connected to the DALI bus via a suitable interface module (e.g. DALI USB, DALI 4Net, DALI SCI RS232).

Installation

- The KNX 4 DALI Gateway is intended for remote installation in a ceiling or in an enclosure, ensure proper cable relief for installation in protection class II devices
- The device can be supplied via KNX (terminals: 24V +: yellow / GND: white) or an external 24V supply (24V: red / GND: black).
- The 4 DALI outputs are supplied by the KNX 4 DALI device. No additional DALI bus power supply may be connected to the DALI outputs.
If additional ballasts are required on the DALI bus, a DALI Expander (Art. No. 89453847) can be used, see application example, Fig. 2, page 4.
- 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 polarity of the output voltage is marked on the housing (DA+, DA-)
- The DALI wiring can be realized with standard low-voltage installation material. No special cables are required.
- The DALI-line may be installed within the same cable or as single conductors within the same tube as mains supply
- The DALI-line must not be connected to mains or other extra low voltage (SELV) systems
- Wiring topology of the DALI-line can be a line, tree or star
- 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. Therefore, the standards for installation in low voltage system apply.

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

Set up - Software

1. Start the ETS5 and load the Gateway's product database.
2. Assign the KNX address to the Gateway:
→ When requested, press the “Prog. button” on the device housing. If the address has been assigned successfully, the red LED will turn off.
3. Optional: start the Lunatone DALI Cockpit Software and make the desired configurations for the DALI System.
4. Configuration of the required gates in the ETS (function, DALI address).
5. Load the settings made in the ETS into the Gateway.

ETS (KNX configuration Software)

An ETS (version ETS 5) product database for the gateway is available.

Download link for ETS product database:
<https://www.lunatone.com/en/downloads-a-z/>

All necessary settings for the KNX system can be made using the ETS. For larger projects, it can be useful to rename the gates and enter the used DALI addresses - this can increase clarity in the product database. See Fig.3 below.

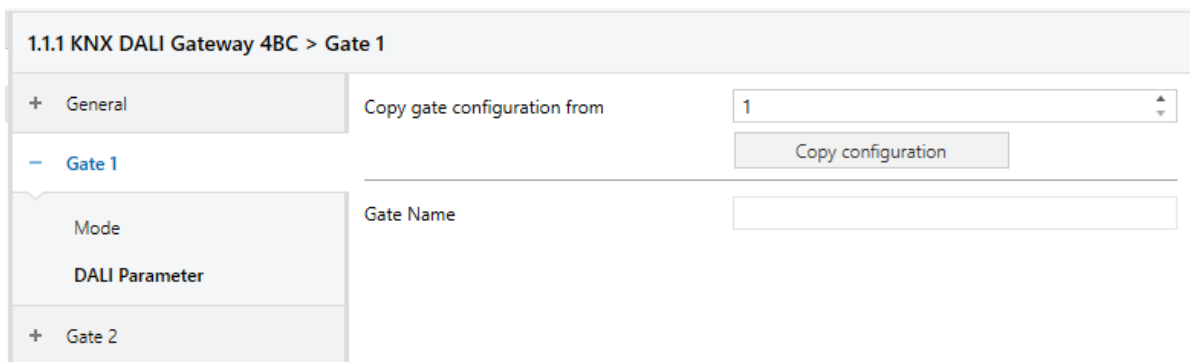


Fig.3 Gate Settings ETS

Settings DALI Cockpit

The DALI Cockpit is a configuration software developed by Lunatone for DALI devices (Windows operating system).

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).

Download link for DALI Cockpit Software:
<https://www.lunatone.com/en/product/dali-cockpit/>

The following DALI settings can be made:

- Assignment of DALI addresses
- definition of groups
- definition of scenes
- configuration of the DALI operating devices
- setting Lunatone operating modes (Dim2Warm, Balance&Dim, Color&Dim)
- defining fade time
- saving and loading DALI configurations
- sending DALI commands manually

With the DALI Cockpit Software all devices on the DALI bus can be automatically or manually assigned with an individual address.

Afterwards it is possible to, defined scene values (color, color temperature, brightness, etc.) of each device. Devices can also be assigned to the 16 DALI groups. However, the DALI groups will not be used via the KNX 4 DALI gateway, since the DALI gateway solely uses broadcast control.

With broadcast control all devices are addressed, and receive DALI commands simultaneously, hence a synchronous lighting control can be realized.

DALI Device Types

In the DALI standard, devices are divided into different types. The following device types are supported by the gateway:

- DT0 fluorescent lamps
- DT2 discharge lamps
- DT3 low voltage halogen lamps
- DT4 incandescent light bulbs
- DT6 single color LEDs - 1 channel
- DT8 color management of Tunable White CW-WW and color RGB / RGBW LEDs

Application Example

The KNX 4 DALI gateway only supports DALI broadcast control, all devices of the respective DALI lines are addressed via broadcast.

Fig. 4 shows an example installation with 4 DALI lines. The dimmers (gears) connected to the DALI lines are controlled by KNX input devices (buttons, presence detectors).

As the gateway acts as a single master on the DALI lines no further masters (control devices, buttons, presence detectors) may be installed on the DALI lines.

The current status of the devices is sent to the KNX participants or can be queried (see KNX flags).

A central switching of all DALI ballasts via KNX can be implemented with the gateway

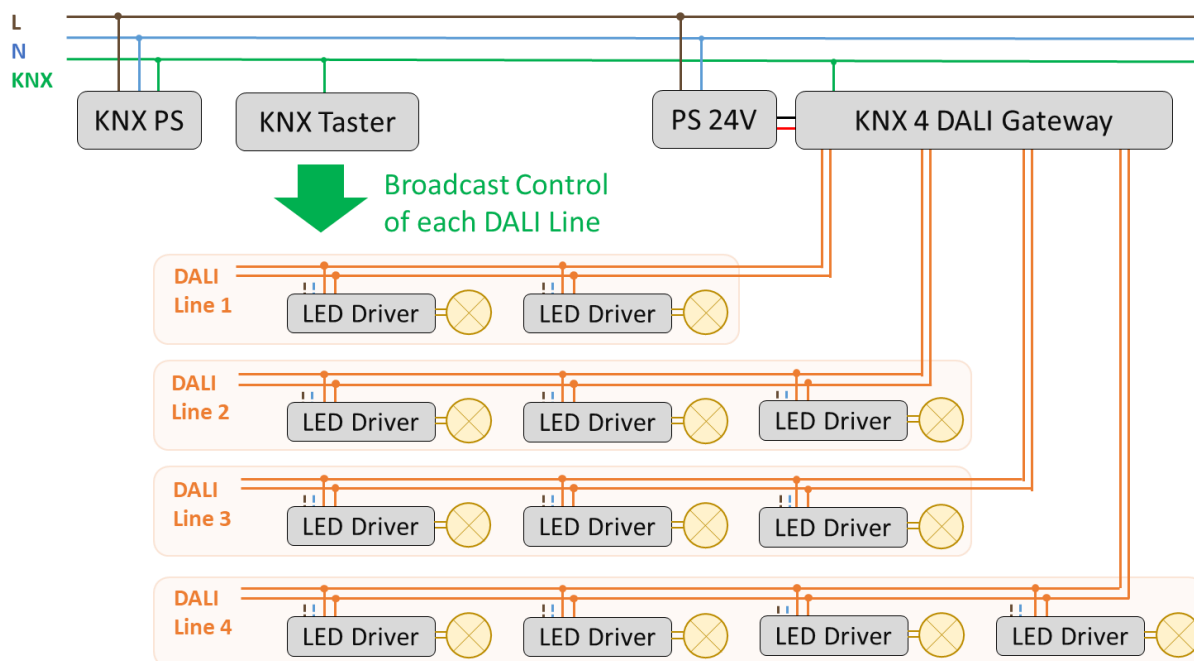


Fig.4 Example: KNX system with KNX 4 DALI gateway and 4 DALI lines

ETS - GATES

In the ETS, the following gate types are available for each of the 4 gates (each gate corresponds to one of the DALI lines):

- Switch& Dim Gate,
- Simplicity Color Gate,
- Standard Color Gate
- Scene Gate

See also Fig. 5., the gate specific settings are described on the pages 9-14.

DALI Parameter

In addition to the gate-specific settings available under "Mode", the following DALI parameters (tab "DALI parameters") can also be set for the gate types Switch & Dim, Simplicity Color and Standard Color:

- Behavior when switching on (Switch On),
- Behavior when switching off (Switch Off),
- The minimum attainable level when dimming (Minimum dim level)
- the dimming behavior: linear or logarithmic (dimming value calculation type).

see also Fig.6.

Gateway start-up (reset) behavior

There are two possible start-up behaviors:

- recall of a predefined values. Values can be defined with the ETS, at start-up the status communication objects are automatically sent.
- no action

These options are available in the ETS product database for each gate.

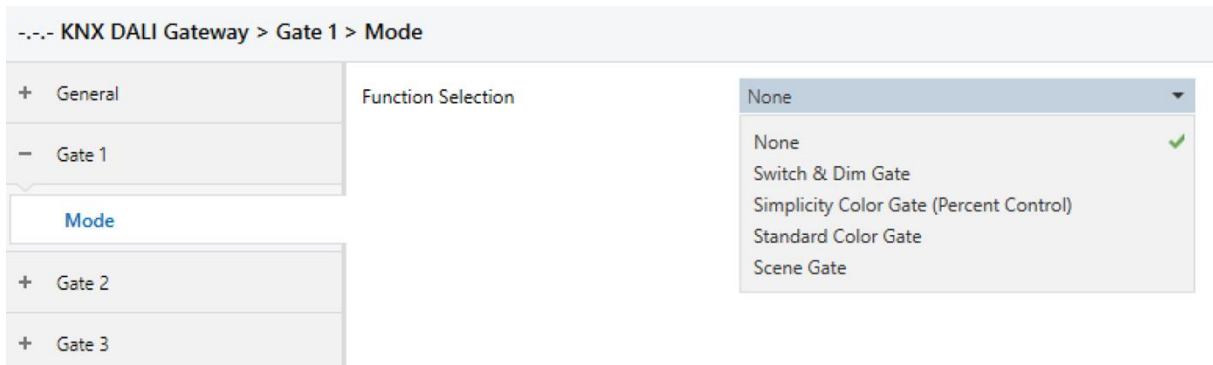


Fig.5 Gate settings ETS: choose the gate type

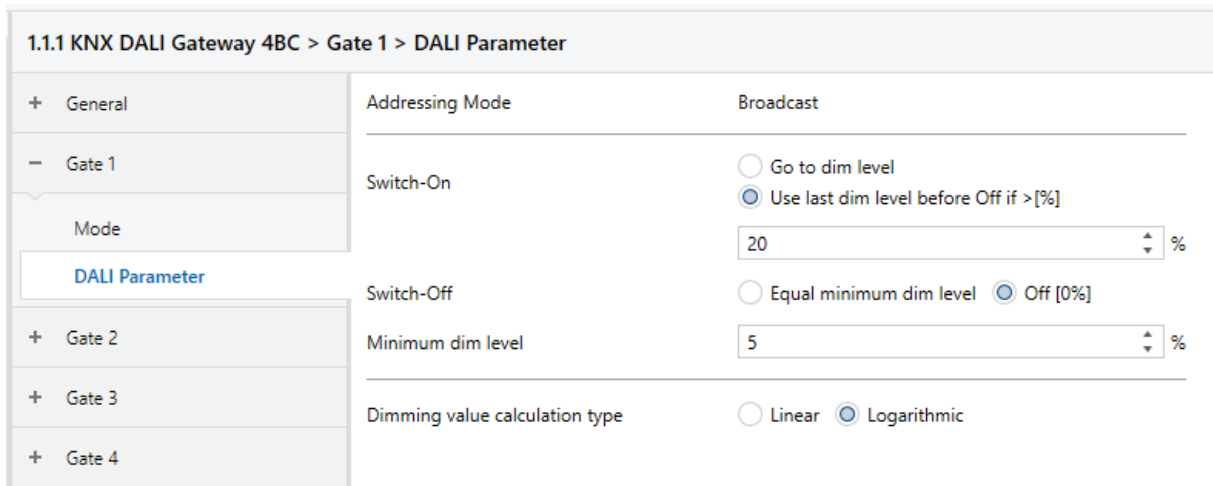


Fig.6 Gate settings ETS: DALI Parameter

Simplicity Color Gates

These gates are specially designed to set color / color temperature and brightness with simple KNX buttons, the color setting is made using percentage values. Table 2 lists the

available options. Conversion parameters can be set in the ETS. The overview also shows the necessary data point types and compatible DT8, DT6 color display modes.



 KNX control (Modes, data point types)	Gateway (notes)	 DALI device types (supported color modes)
Control: color / brightness separately		
Option 1 - (absolute): <ul style="list-style-type: none"> Color: DPT 5.001 (0... 100%) Brightness: DPT 5.001 (0... 100%) Switching: DPT 1.001 (On / Off) 	Color translation: 2 predefined tables, 1 individual table	DALI - DT8 Color display: RGBWAF
Option 2 - (relative): <ul style="list-style-type: none"> Color: DPT 1.007 (incr./decr.) Brightness: DPT 1.007 (incr./decr.) Switching: DPT 1.001 (On/Off) 		
Control: color temperature / brightness separately		
Option 1 - (absolute): <ul style="list-style-type: none"> Color temp.: DPT 5.001 (0...100%) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off) 	Temperature translation: 2 predefined tables, 1 individual table	DALI - DT8 Color display: Tc
Option 2 - (relative): <ul style="list-style-type: none"> Color temp.: DPT 1.007 (incr./decr.) Brightness: DPT 1.007 (incr./decr.) Switching: DPT 1.001 (On/Off) 		
Control: brightness, color temperature automatically		
Option 1 - (absolute): <ul style="list-style-type: none"> Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off) 	The brightness can be set with a simple KNX switch button. The color temperature is set depending on the brightness. (Behavior lightbulb)	DALI - DT8 Color display: Tc
Option 2 - (relative): <ul style="list-style-type: none"> Brightness: DPT 1.007 (incr./decr.) Switching: DPT 1.001 (On/Off) 		

table 2. Simplicity Color Gates

1.1.4 KNX DALI Gateway 4BC > Gate 1 > Mode

+ General	Function Selection	Simplicity Color Gate (Percent Control)
- Gate 1	Color Control Type	Tunable White (Tc) Color
Mode	Color Calculation Table	Tunable White (Tc) Table 1
DALI Parameter	Relative Step Size	1 %
+ Gate 2	Startup Behaviour	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled
+ Gate 3	Switch at Startup	<input type="radio"/> Off <input checked="" type="radio"/> On
+ Gate 4	Brightness at Startup	20 %
	Color value at Startup	100 %

Fig.7 Gate Settings ETS: Tab “Mode” for Simplicity Color Gate **Tunable White**



1.1.4 KNX DALI Gateway 4BC > Gate 1 > DALI Parameter

+ General	Addressing Mode	Broadcast
- Gate 1	Switch-On	<input type="radio"/> Go to dim level <input checked="" type="radio"/> Use last dim level before Off if >[%]
Mode		20 %
DALI Parameter	Switch-Off	<input type="radio"/> Equal minimum dim level <input checked="" type="radio"/> Off [0%]
+ Gate 2	Minimum dim level	5 %
+ Gate 3	Dimming value calculation type	<input type="radio"/> Linear <input checked="" type="radio"/> Logarithmic
+ Gate 4		

Fig.8 Gate Settings ETS: Tab “DALI Parameters” for Simplicity Color Gate

Standard Color Gates

The control is implemented via the data point types for color control specified in KNX. Table 3 lists the available options:

 KNX control <i>(Modes, data point types)</i>	Gateway (notes)	 DALI device types (supported color modes)
XY color control		
Option 1: <ul style="list-style-type: none"> color x: DPT 7.001 (0...65.535) color y: DPT 7.001 (0...65.535) Brightness: DPT 5.001 (0...100%) Brightness: DPT 3.007 (B1U3) Switching: DPT 1.001 (On/Off) 	The XY color values and the brightness values are converted into a DT8 DALI command sequence.	DALI - DT8 Color display: XY coordinates
Option 2: <ul style="list-style-type: none"> color xy: DPT 242.600 (xy) Brightness: DPT 5.001 (0...100%) Brightness: DPT 3.007 (B1U3) Switching: DPT 1.001 (On/Off) 		
Tc color control		
Option 1: <ul style="list-style-type: none"> Tc: DPT 7.600 (Color Temp.) Brightness: DPT 5.001 (0...100%) Brightness: DPT 3.007 (B1U3) Switching: DPT 1.001 (On/Off) 	The color temperature values, and the brightness values are converted into a DT8 DALI command sequence.	DALI - DT8 Color display: Tc
RGB color control		
Option 1: <ul style="list-style-type: none"> red: DPT 5.001 (0...100%) green: DPT 5.001 (0...100%) blue: DPT 5.001 (0...100%) Brightness: DPT 5.001 (0...100%) Brightness: DPT_3.007 (B1U3) Switching: DPT 1.001 (On/Off) 	The RGB color values and the brightness values are converted into a DALI DT8 command sequence.	DALI - DT8 Color display: RGBWAF
Option 2: <ul style="list-style-type: none"> RGB: DPT 232.600 (Color RGB) Brightness: DPT 3.007 (B1U3) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off) 		
Option 3: <ul style="list-style-type: none"> Hue: DPT 5.001 (0...100%) Saturation: DPT 5.001 (0...100%) Brightness: DPT 3.007 (B1U3) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off) 		

RGBW color control

<p>Option 1:</p> <ul style="list-style-type: none"> • red: DPT 5.001 (0...100%) • green: DPT 5.001 (0...100%) • blue: DPT 5.001 (0...100%) • white: DPT 5.001 (0...100%) • Brightness: DPT 5.001 (0...100%) • Brightness: DPT_3.007 (B1U3) • Switching: DPT 1.001 (On/Off) 	<p>The RGBW color values and the brightness values are converted into a DALI DT8 command sequence.</p>	<p>DALI - DT8 Color display: RGBWAF</p>
<p>Option 2:</p> <ul style="list-style-type: none"> • red: DPT 3.007 (B1U3) • green: DPT 3.007 (B1U3) • blue: DPT 3.007 (B1U3) • white: DPT 3.007 (B1U3) • Brightness DPT 5.001 (0...100%) • Brightness: DPT_3.007 (B1U3) • Switching: DPT 1.001 (On/Off) 		
<p>Option 3:</p> <ul style="list-style-type: none"> • RGBW: DPT 251.600 (RGBW) • Brightness: DPT 3.007 (B1U3) • Brightness: DPT 5.001 (0...100%) • Switching: DPT 1.001 (On/Off) 		

table 3 Standard Color Gates

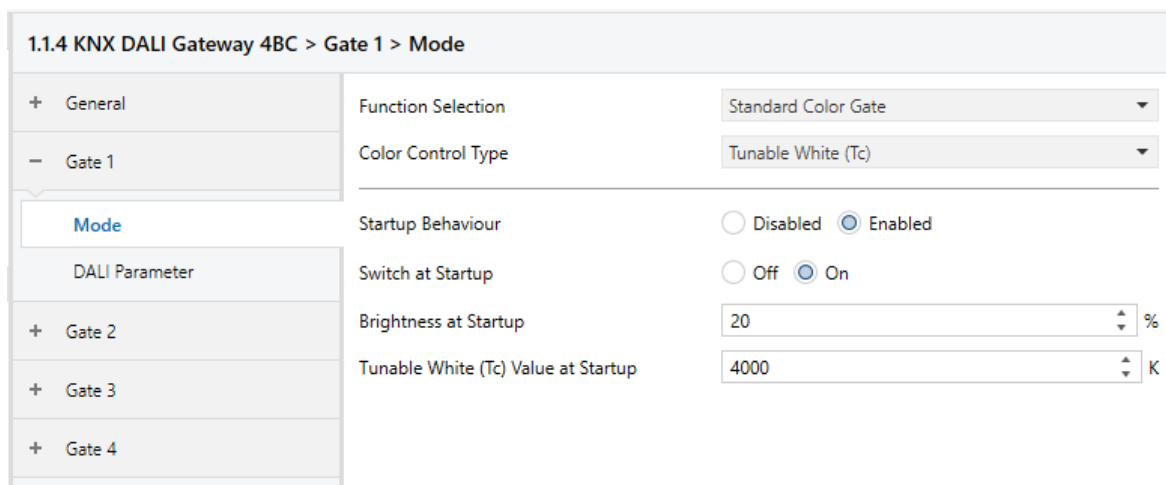


Fig.9 Gate Settings ETS: Tab „Mode“ Standard Color Gate for Tunable White

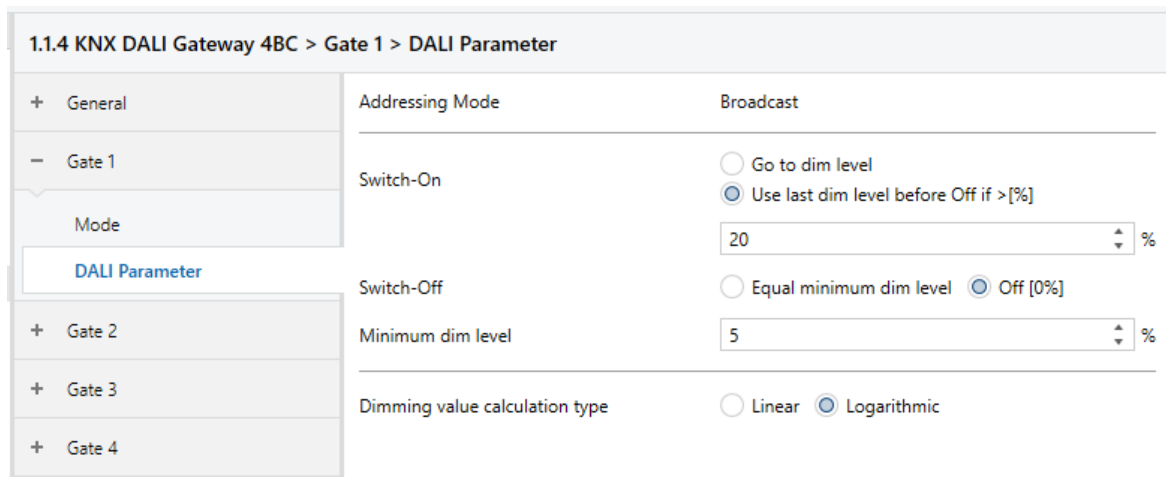


Fig.10 Gate Settings ETS: Tab „DALI Parameter“ Standard Color Gate

Scene Gates

DALI scenes can be recalled with KNX scene objects. Each of the 64 KNX scenes can be assigned to a DALI scene.



 KNX control <i>(Modes, data point types)</i>	Gateway (notes)	 DALI device types (supported color modes)
Control: Scenes		
Scenes: <ul style="list-style-type: none"> DPT 1.022 (Scene_AB) DPT 17.001(Scene_Number) 	The 64 KNX scenes can be assigned to the 16 DALI scenes.	DALI Scenes (0...15)
Scenes: <ul style="list-style-type: none"> DPT 1.007 (Step) 	A DALI scene table defined by the user is run through with the defined direction	DALI Scenes (0...15)

table 4 Scene Gates

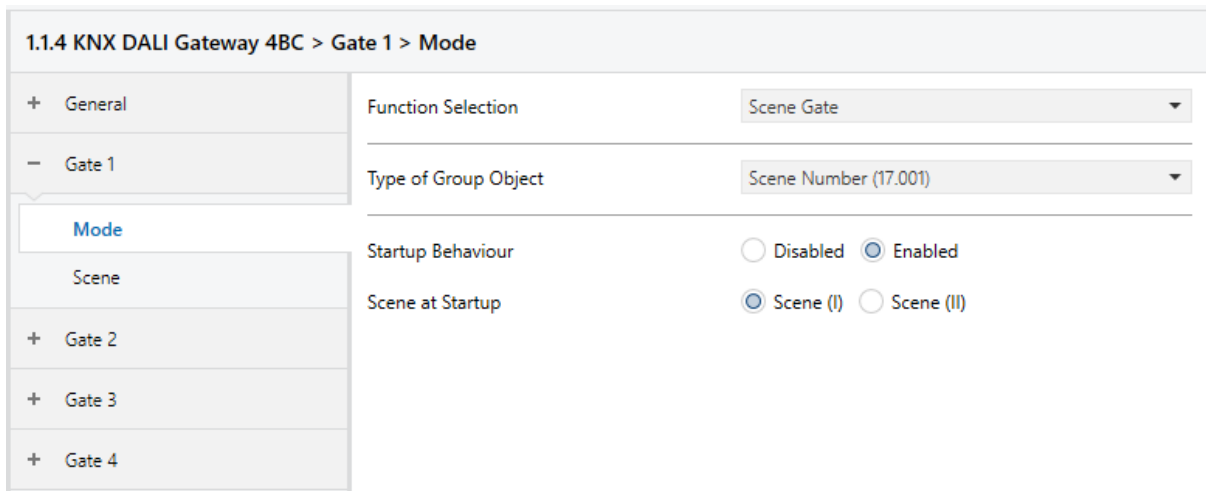


Fig.11 Gate Settings ETS: Tab "Mode" Standard Scene Gate

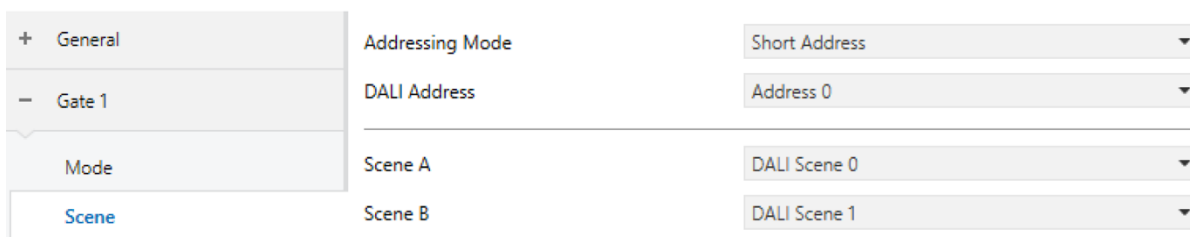


Fig.12 Gate Settings ETS: Tab „Scene“ Standard Scene Gate

Switch&Dim Gates

The gate type Switch&Dim offers the possibility to switch and dim lights.



 <i>KNX control (Modes, data point types)</i>	<i>Gateway (notes)</i>	 <i>DALI device types (supported color modes)</i>
Control: Switch&Dim		
<p>Option 1 - (absolute):</p> <ul style="list-style-type: none"> Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001(On/Off) 	Other DALI device types can be controlled.	<ul style="list-style-type: none"> <li style="background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;">DALI - DT0 fluorescent lamps <li style="background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;">DALI - DT2 discharge lamps <li style="background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;">DALI - DT3 low voltage halogen lamps <li style="background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;">DALI - DT4 incandescent light bulbs <li style="background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;">DALI - DT6 LED

table 5 Switch&Dim Gates

1.1.4 KNX DALI Gateway 4BC > Gate 1 > Mode

+ General	Function Selection	Switch & Dim Gate
- Gate 1	Startup Behaviour	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled
Mode	Switch at Startup	<input type="radio"/> Off <input checked="" type="radio"/> On
DALI Parameter	Brightness at Startup	20 %

Fig.13 Gate Settings ETS: Tab „Mode“ Switch & Dim Gate

1.1.4 KNX DALI Gateway 4BC > Gate 1 > DALI Parameter

+ General	Addressing Mode	Broadcast
- Gate 1	Switch-On	<input type="radio"/> Go to dim level <input checked="" type="radio"/> Use last dim level before Off if >[%]
Mode	Switch-Off	<input type="radio"/> Equal minimum dim level <input checked="" type="radio"/> Off [0%]
DALI Parameter	Minimum dim level	5 %
+ Gate 2	Dimming value calculation type	<input type="radio"/> Linear <input checked="" type="radio"/> Logarithmic
+ Gate 3		

Fig.14 Gate Settings ETS: Tab „DALI Parameter“ Switch & Dim Gate

Overview Gate types

Gate type	KNX data point types Control	DALI DT8 Status	Lunatone operation mode		
			xy-coordinates	RGBWAF	Tc
color / brightness separate	Option 1 - (absolute): Color: DPT 5.001 (0...100%) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off) Option 2 - (relative): Color: DPT 1.007 (incr./decr.) Brightness: DPT 1.007 (incr./decr.) Switching: DPT 1.001 (On/Off)	Color: DPT 5.001 (0...100%) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)		x	
color temperature brightness separate	Option 1 - (absolute): Color: DPT 5.001 (0...100%) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off) Option 2 - (relative): Color: DPT 1.007 (incr./decr.) Brightness: DPT 1.007 (incr./decr.) Switching: DPT 1.001 (On/Off)	Color: DPT 5.001 (0...100%) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)			x
brightness, color automatic	Option 1 - (absolute): Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off) Option 2 - (relative): Brightness: DPT 1.007 (incr./decr.) Switching: DPT 1.001 (On/Off)	Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)			x
XY color control	Option 1: Color x: DPT 7.001 (0...65.535) Color y: DPT 7.001 (0...65.535) Brightness: DPT 3.007 (B1U3) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)	Color x: DPT 7.001 (0...65.535) Color y: DPT 7.001 (0...65.535) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)	x		
	Option 2: Color xy: DPT 242.600 () Brightness: DPT 3.007 (B1U3) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)	Color xy: DPT 242.600 () Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)	x		
Tc color control	Option 1: Tc: DPT 7.600 (Color Temp.) Brightness: DPT 3.007 (B1U3) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)	Tc: DPT 7.600 (Color Temp.) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)			x
RGB color control	Option 1: red: DPT 5.001 (0...100%) green: DPT 5.001 (0...100%) blue: DPT 5.001 (0...100%) Brightness: DPT_3.007 (B1U3) Switching: DPT 1.001 (On/Off)	red: DPT 5.001 (0...100%) green: DPT 5.001 (0...100%) blue: DPT 5.001 (0...100%) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)			
	Option 2: RGB: DPT 232.600 (Color RGB) Brightness: DPT 5.001 (0...100%) Brightness: DPT 3.007 (B1U3) Switching: DPT 1.001 (On/Off)	RGB: DPT 232.600 (Color RGB) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)		x	
	Option 3: Hue: DPT 5.001 (0...100%) Saturation: DPT 5.001 (0...100%)	Hue: DPT 5.001 (0...100%) Saturation: DPT 5.001 (0...100%) Brightness: DPT_5.001 (0...100%)			


	Brightness: DPT_5.001 (0...100%) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)	Switching: DPT 1.001 (On/Off)		
RGBW color control	Option 1: red: DPT 5.001 (0...100%) green: DPT 5.001 (0...100%) blue: DPT 5.001 (0...100%) white: DPT 5.001 (0...100%) Brightness: DPT_3.007 (B1U3) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)	red: DPT 5.001 (0...100%) green: DPT 5.001 (0...100%) blue: DPT 5.001 (0...100%) white: DPT 5.001 (0...100%) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)		
	Option 2: red: DPT 3.007 (B1U3) green: DPT 3.007 (B1U3) blue: DPT 3.007 (B1U3) white: DPT 3.007 (B1U3) Brightness: DPT 5.001 (0...100%) Brightness: DPT_3.007 (B1U3) Switching: DPT 1.001 (On/Off)	red: DPT 3.007 (B1U3) green: DPT 3.007 (B1U3) blue: DPT 3.007 (B1U3) white: DPT 3.007 (B1U3) Brightness: DPT 5.001 (0...100%) Switching: DPT 1.001 (On/Off)		x
	Option 3: RGBW: DPT 251.600 (RGBW) Brightness: DPT 5.001 (0...100%) Brightness: DPT 3.007 (B1U3) Switching: DPT 1.001 (On/Off)	RGBW: DPT 251.600 (RGBW) Brightness: DPT 3.007 (0...100%) Switching: DPT 1.001 (On/Off)		
Scenes	DPT 1.002 (Scene_AB)	DPT 1.002 (Scene_AB)		
	DPT 17.001(Scene_Number)	DPT 17.001(Scene_Number)		
	DPT 1.007 (Step)	DPT 17.001(Scene Number)		


table 6 Overview Gate types

Function overview DALI DT8 modes

The following color display modes are possible with DT8:

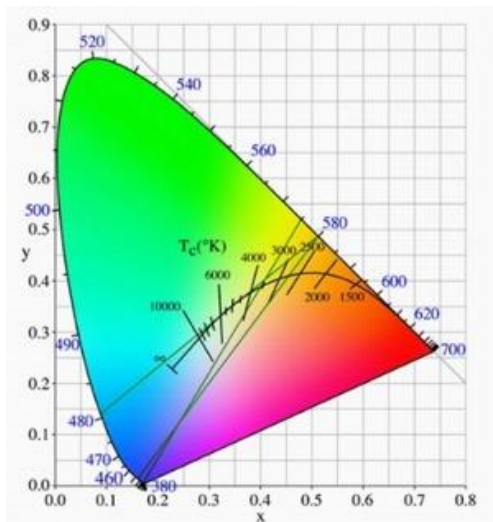
- xy coordinate
- Color temperature Tc
- Primary (color) N (not supported by GW)
- RGBWAF

 Attention: Not every DALI DT8 operating device supports all colors modes specified for DT8.

 Attention: When selecting the DT8 control units, make sure that the required modes are supported!

xy coordinate

In this mode, the color information can be transmitted to the luminaire in a standardized manner. The color adjustment is carried out via the X coordinate, the Y coordinate and the intensity.



Color temperature Tc

With this mode, the color temperature is transmitted directly to the DALI operating device. Advantage: color temperatures are not calculated in the control unit. Color temperatures can be controlled relative to the initial value. Since the control gear is already

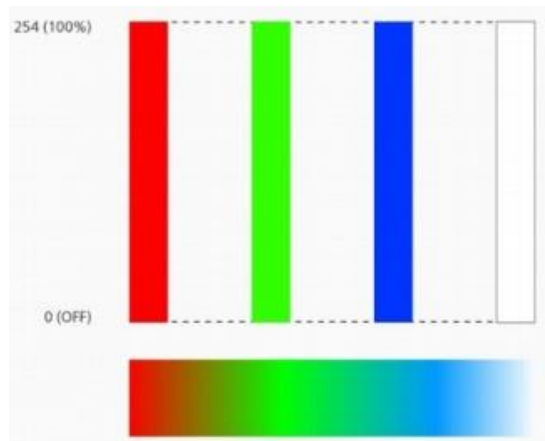
adjusted to the primary colors of the luminaire by the manufacturer, two-, three- or four-channel luminaires can be controlled.

A black body (perfectly radiant body) changes its color from red to yellow to white (Black-Body-Line - BBL) when its temperature rises. The absolute temperature T (Kelvin) of the black body is referred to as the color temperature Tc.



Primary (color) N

Each output channel (RGBW) is controlled individually. In this mode, the light output is determined by the sum of the individual channel outputs.



RGBWAF

With RGBWAF, up to a maximum of six output channels can be controlled independently of one another via the lamp power level. Each output channel is connected with an LED strip with e.g. a different color connected. The output channels must be assigned to the specific colors: R (red), G (green), B (blue), W (white), A (amber) or F (freely selected color).

Purchase Information

Art.Nr.: 89451312

KNX 4 DALI Gateway

KNX to DALI interface, 4 independent DALI lines, integrated DALI bus power supply

Additional Information and Equipment

DALI Cockpit - free configuration software for DALI systems

<https://www.lunatone.com/en/product/dali-cockpit/>

Lunatone DALI products

<https://www.lunatone.com/en>

Lunatone data sheets and manuals

<https://www.lunatone.com/en/downloads-a-z/>

Contact

Technical Support: support@lunatone.com

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.