

B.E.G. Configure Tool

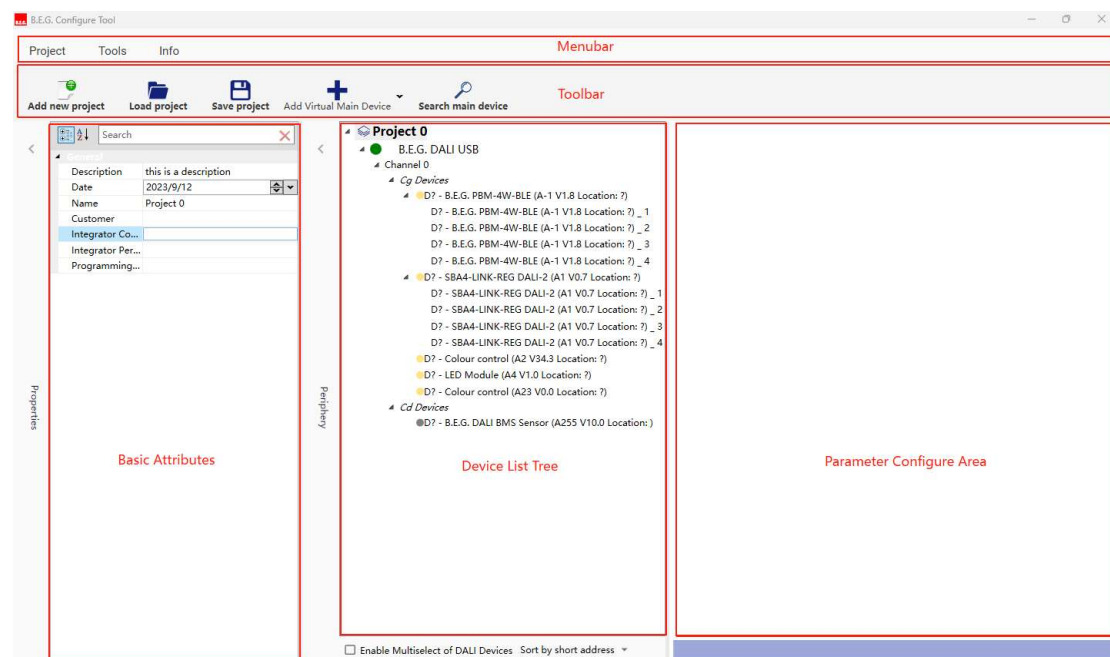
USER MANUAL



Content

A.	Interface	2
1.	Menu bar	2
2.	Toolbar	3
B.	Common Operations	6
1.	Suggestions for build a new project	6
2.	Add a main device	9
3.	Addressing DALI Devices	10
4.	Configure DALI Devices	11
	(1) Drag & Drop Group and Scene	12
	(2) Drag & Drop Device number	13
	(3) Write to single or multiple DALI device(s)	14
	(4) Read single or multiple DALI device(s)	15
	(5) Sort devices	15
	(6) Right click menu	15
	(7) DALI Commands	17
5.	Quick Replacement	17
6.	Send to B.E.G. DALI-LINK APP	18
7.	Save PDF	18
8.	Update B.E.G. Devices	19
9.	Update Main Devices	20
10.	Timer Parameters Configuration	21
C.	Device Parameters Description	23
1.	Value	23
2.	LED Module	23
3.	Converter	24
4.	Relay	24
5.	Emergency Light	25
6.	Colour Control	26
7.	Push Button	26
8.	Multi Sensor	30
9.	Control Device Instance	35
10.	SBA (Shutter Blind Actuator)	37
D.	Attachments	39
1.	Support devices	39

A. Interface



1. Menu bar

➤ Project

➤ Save as PDF

Save parameters of all equipment in the current project as .pdf.

➤ Tools

➤ Update Main Devices

Update firmware version of Gateway or Timer in the file format *.beg.

➤ Update DALI Devices

Visible when selecting a main device. Multiple update DALI devices under this main device line in the file format *.beg.

➤ Update DALI USB device

Update firmware version of DALI USB in the file format *.dfu.

➤ Info

➤ Update Database

This is used to update device type, language and parameters database.

➤ Help

Open the help document.

➤ About

Display the current version.

2. Toolbar

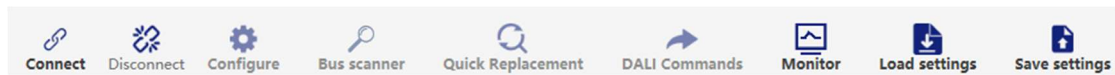
1) Project Toolbar



- **Add new project:** Add a new project.
- **Load project:** Load an existed file in format *.proj.
- **Save project:** Save the currently selected project file in the format *.proj.
- **Add Virtual Main Device:** Add a currently supported virtual device, such as a timer or gateway, DALI USB.
- **Search main device:** Find all main devices in the same IP segment. The default IP address of a gateway is 192.168.0.254.

Note: If you connect one gateway directly to a computer, please ensure to disable Wifi and set a static IP address of your computer.

2) Main Device Toolbar



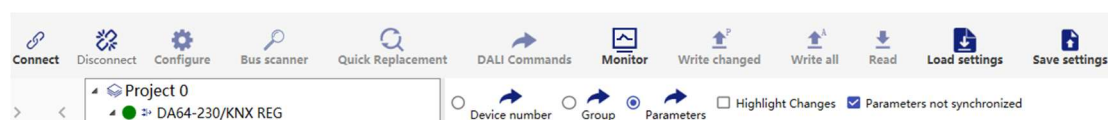
- **Connect:** Create a connection to the selected main device.
- **Disconnect:** Disconnect the connection with the selected main device.
- **Configure:** Enabled if the selected main device with Ethernet ports. Change the IP address and if DHCP.
- **Bus scanner:** Find DALI device after successful connection.
- **Quick Replacement:** Quickly replace damaged DALI devices.
- **DALI Commands:** Opens DALI command center. Only for experienced integrators to send individual commands to the DALI line.
- **Monitor:** Open monitor window, show all DALI logs on the connected DALI line.
- **Load Settings:** Load an existed file in format *.dev, *.bin, *.beglnk.
- **Save Settings:** Save the currently selected main device file in the format *.dev, including all DALI devices and its parameters.

3) DALI Channel Toolbar



- **Add Virtual DALI Device:** Add virtual DALI devices, so that parameters can be configured in advance.

4) DALI Device Toolbar



- **Sync DALI/KNX Binding** (Select radio button “*Device number*”): Download the binding device number to DALI/KNX GATEWAY.
- **Write group** (Select radio button “*Group*”): Write group info of all devices.
- **Write scene** (Select radio button “*Group*”): Write scene info of all devices.
- **Write changed**: Write changed parameters to all selected devices.
- **Write all**: Write all parameters to all selected devices.
- **Read**: Read all parameters to all selected devices.
- **Load Settings**: Load an existed file in format *.dali.
- **Save Settings**: Save the currently selected DALI device file in the format *.dali.
- **Radio Button Group**: Switch to the interface for quick setting Group and Scene.
- **Radio Button Device Number**: Switch to the interface for quick setting KNX device number.
- **Radio Button Parameters**: Switch to parameter setting interface.
- **Checkbox Hight Changes**: The background will be set to yellow if a parameter’s value is different with its default value. This function can be used to quick check parameters you have changed.
- **Checkbox Parameters not synchronized**: The foreground will be set to saddle brown if the parameter values are changed but not synchronized.

B. Common Operations

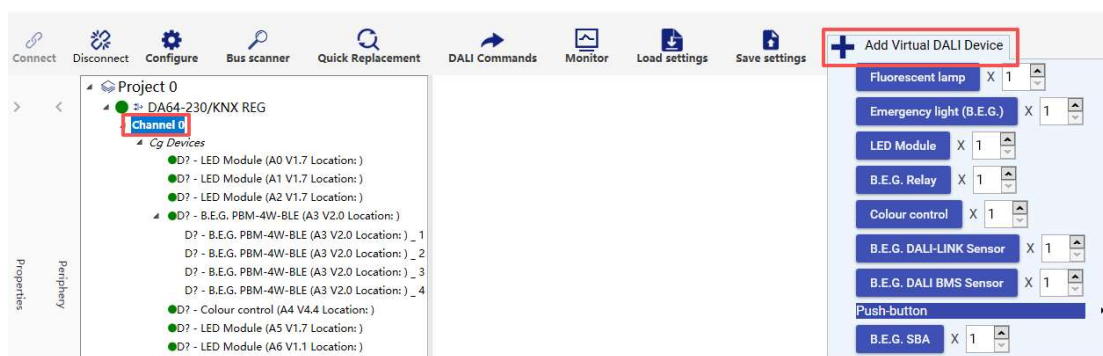
-  Gray indicates virtual devices;
-  Yellow indicates a real device that is not sure if it is online;
-  Green indicates existing or connectable devices.

The indicate status can be changed after operations *addressing devices* and *check existing devices*.

1. Suggestions for build a new project

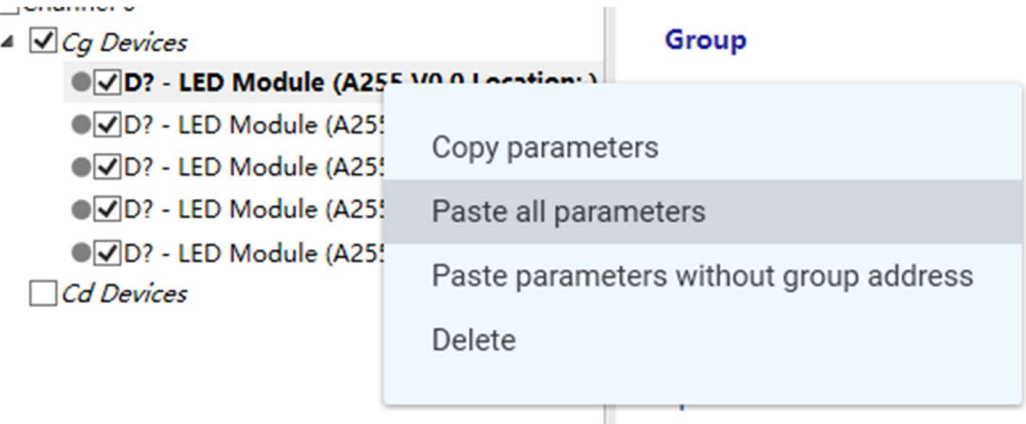
Add Virtual devices offline, and then replace them with actual devices online.

- (1) Click on the project and select “*Add Virtual Main Device*” to add a gateway or DALI USB.
- (2) Click on “Channel”, and then click “*Add Virtual DALI Device*” button.
Support adds multiple virtual DALI devices at a time.



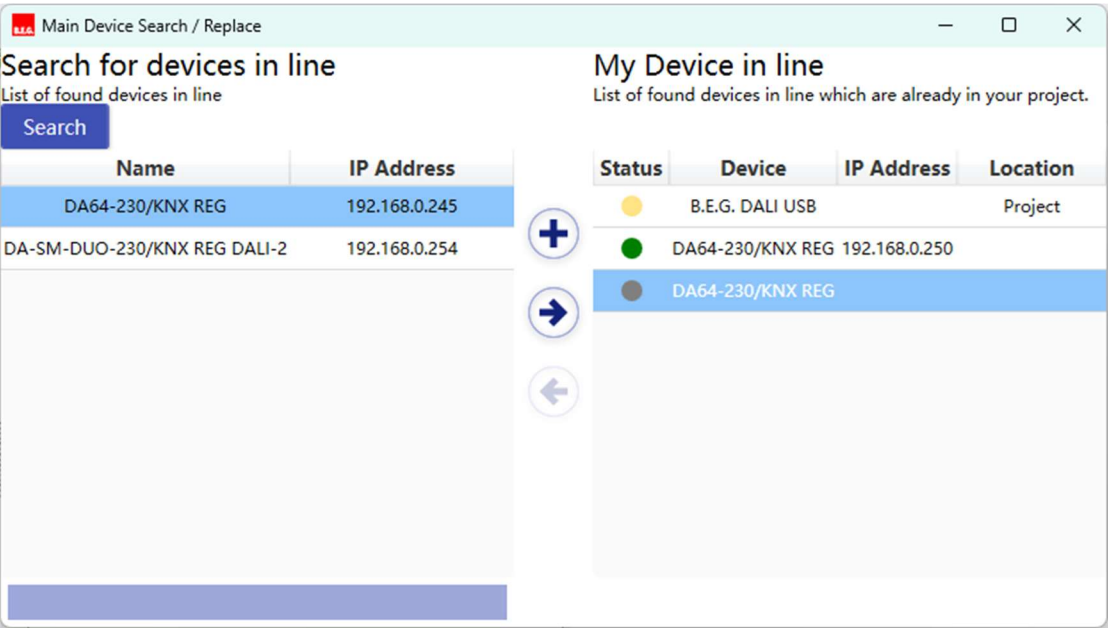
- (3) Configure parameters. Right click can copy and paste parameters. If you need to configure multiple devices of the same device type with similar parameters, you can first configure a device parameter, right-click “*Copy parameters*”, select all the devices that need to be configured, right-click “*Paste all parameters*” or “*Paste parameters without group address*” as you needed.
Only support copy and paste between devices with the same device type.

Tips: Check “Enable Multiselect of DALI Devices”, you can paste parameters to multi devices at one time.



(4) After connecting the main devices and DALI devices, replace the main device at first.

Click on the project, click on **"Search main devices"**, and the following interface will pop up. Select the main device to be connected in the left column, select the virtual device in the right column, click →, close the interface to complete the replacement.

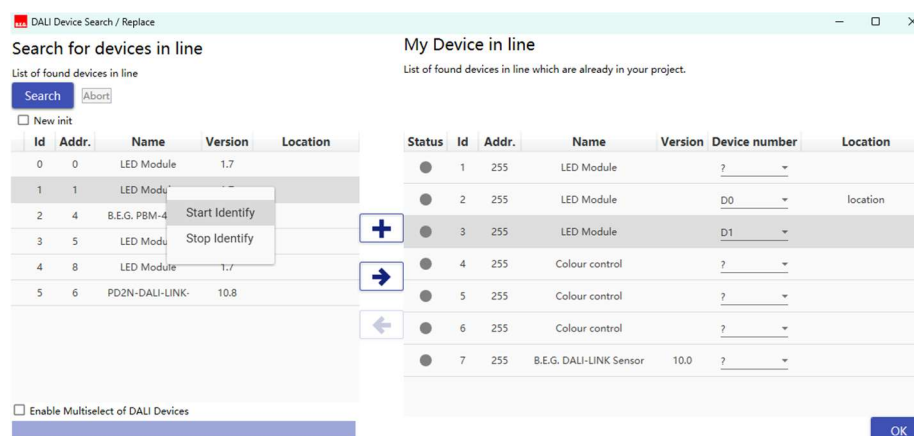
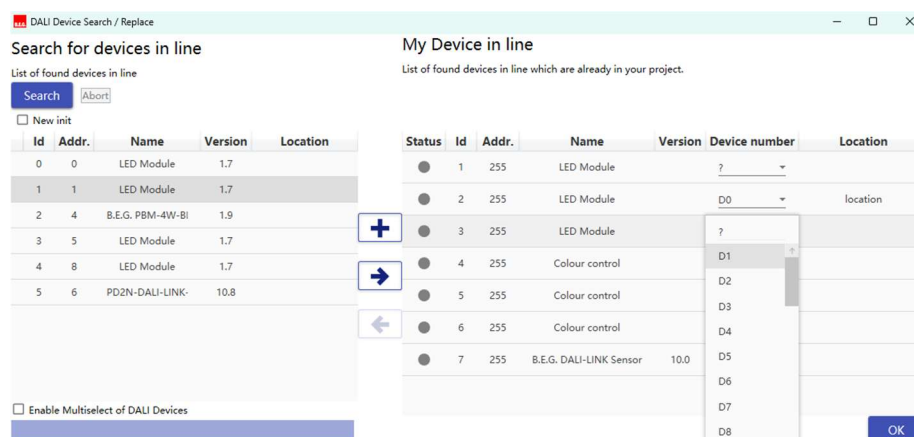


(5) Addressing devices, right click **"Start Identify"** to identify devices, and

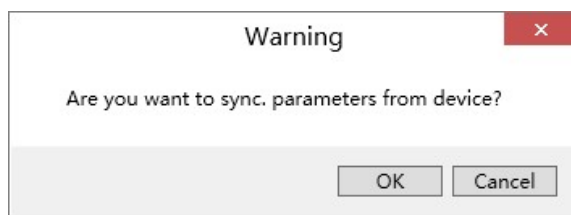
quickly set device number and location info. Identify applicable to devices in the left column and yellow or green light devices in the right column.

After replace devices, it keeps the parameters as the parameters of the right column of devices, and **needs to write all parameters to make them effective.**

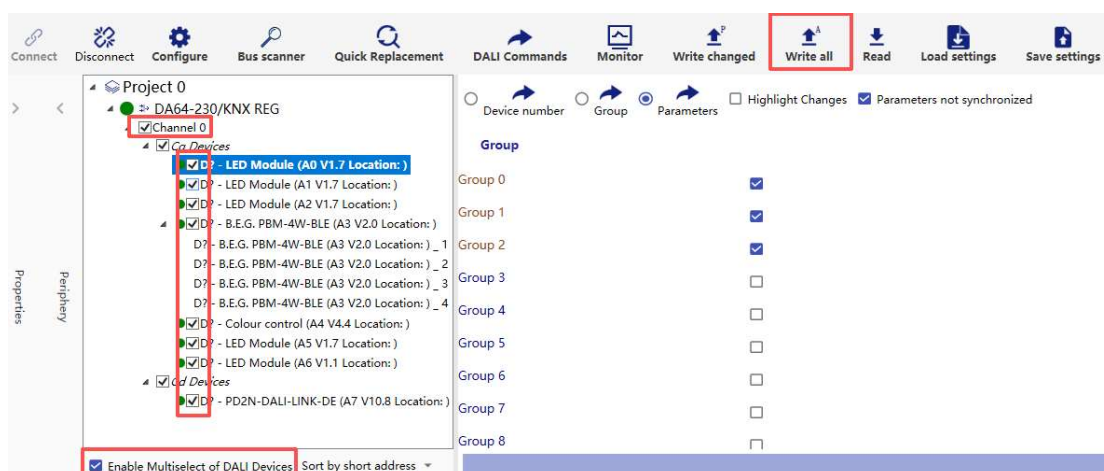
If there is a binding error, you can click ← to unbind. After unbinding, the device on the right will turn gray and the parameters will remain unchanged. The unbound device will be displayed on the left and the parameters will become default values.



- (6) After click “OK” or close the above addressing window, If there is an operation to replace the device, the following pop-up will be displayed, click “OK” the device number and replaced device’s parameters will be synchronized automatically.



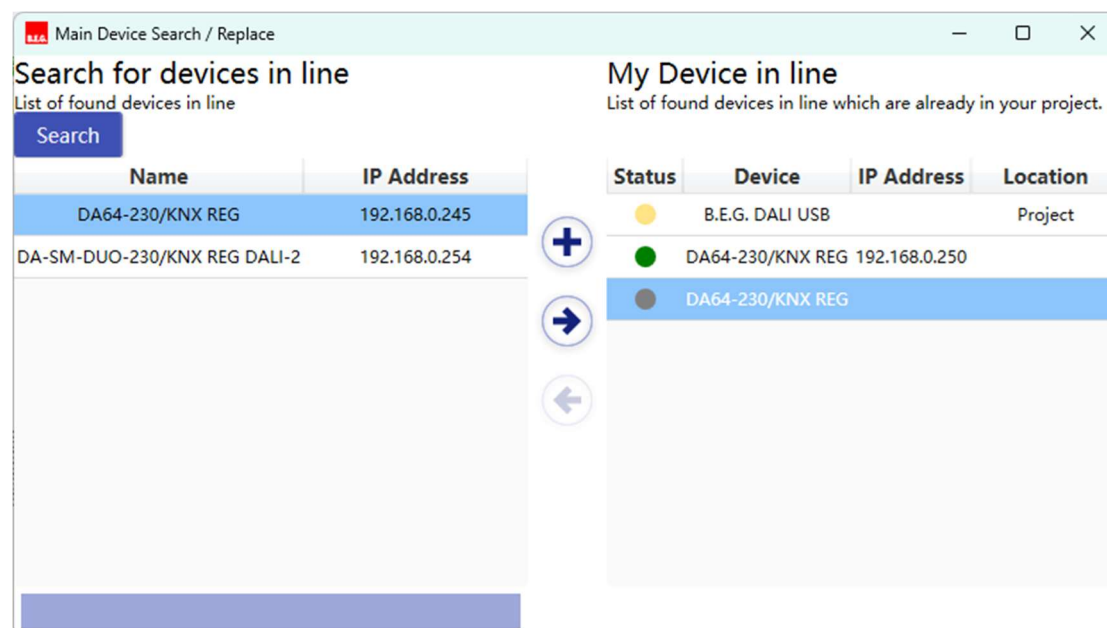
- (7) If you click “Cancel” on the warning prompt, you can click on a device, and multi select devices, write all parameters.



2. Add a main device

- Select a project, click “***Search main device***”, the following interface appears:
- Currently connectable devices are displayed on the left, and devices existing in the current project are displayed on the right, including connected and the added virtual main devices.
- Select the device on the left and click + to add it to the current project.
- Select the device on the left, then select a same type device on the right, and click → to bind the virtual device to the selected device on the left.
- Select the equipment on the right and click ← to remove the bound equipment in the current project.

- Click “**Search**” to find the currently connectable devices.

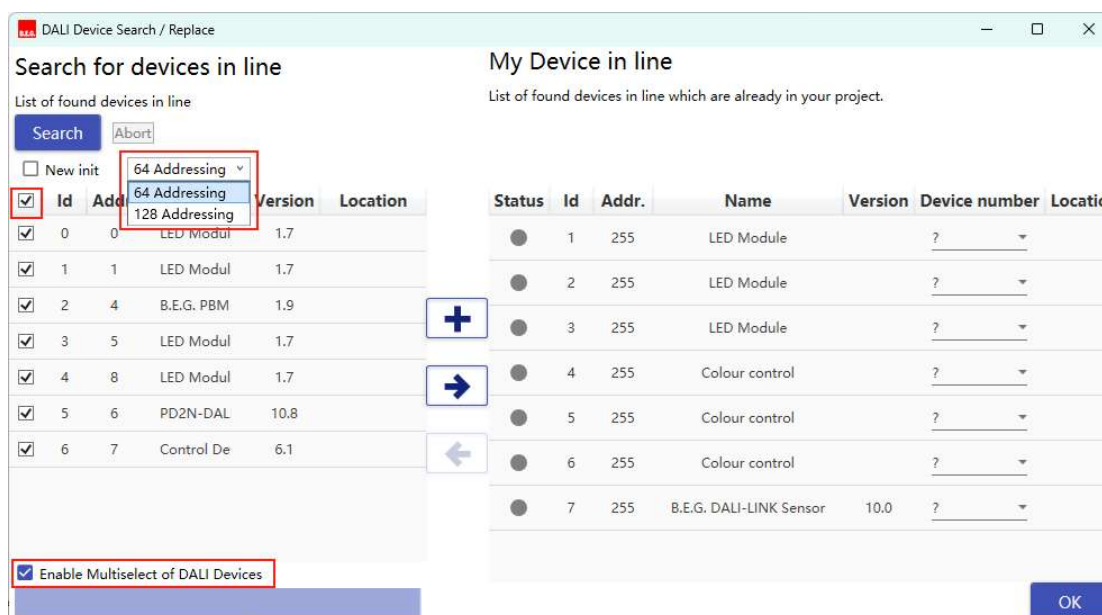


3. Addressing DALI Devices

- Select a connectable DA64-230/KNX REG or DALI USB, click **Bus scanner**, the following interface appears:
- Click **Search** to find all DALI devices on the current line.
- New init: assign new short addresses to DALI devices. **Note: selecting this action will delete all information of all DALI devices.**
- For DALI USB, you need to select the addressing method,
 - 64 Addressing: CG devices and CD devices have different short address.
 - 128 Addressing: CG devices and CD devices may have same short address.
- Select All devices: check **Enable Multiselect of DALI Devices**, check the top left selection box can select all DALI devices on the left, and click + to add them to the right with one click.
- All DALI devices under the current main device are displayed on the right. Bind

from left to right, the parameters of the Dali device on the left will be changed to the parameters of the device in the right column. All parameters take effect after the write operation.

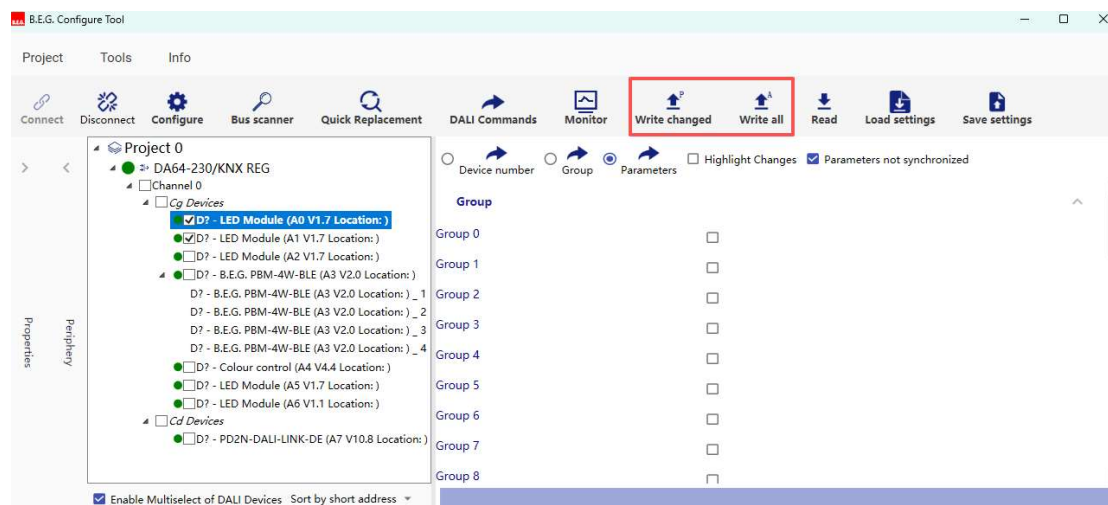
- If there is a binding error, you can click ← to unbind. After unbinding, the device on the right will turn gray and the parameters will remain unchanged. The unbound device will be displayed on the left and the parameters will become default values.



4. Configure DALI Devices

- Select a DALI device and click **parameters**, parameters can be configured in the parameter configuration area. Some basic information, such as version number and name, will be displayed in the basic attribute area. Location and device number information can also be set.
- If the current DALI device is a real exist device (which has short address) and a DALI connection has been established, you will be asked whether to synchronize the device parameters.
- Check the box in front of DALI device to read and write multiple devices at the

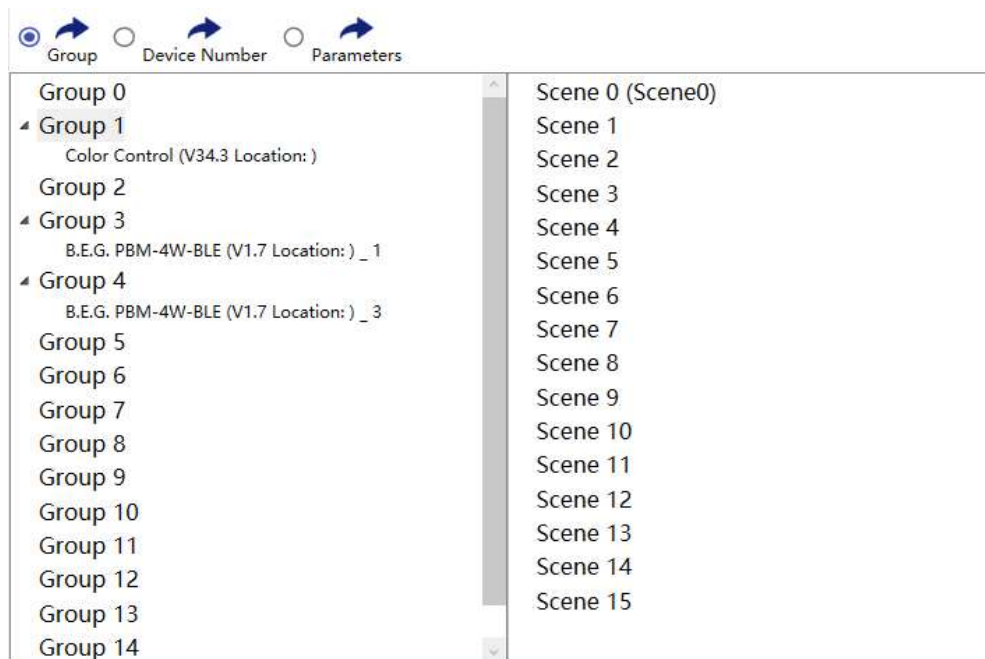
same time.



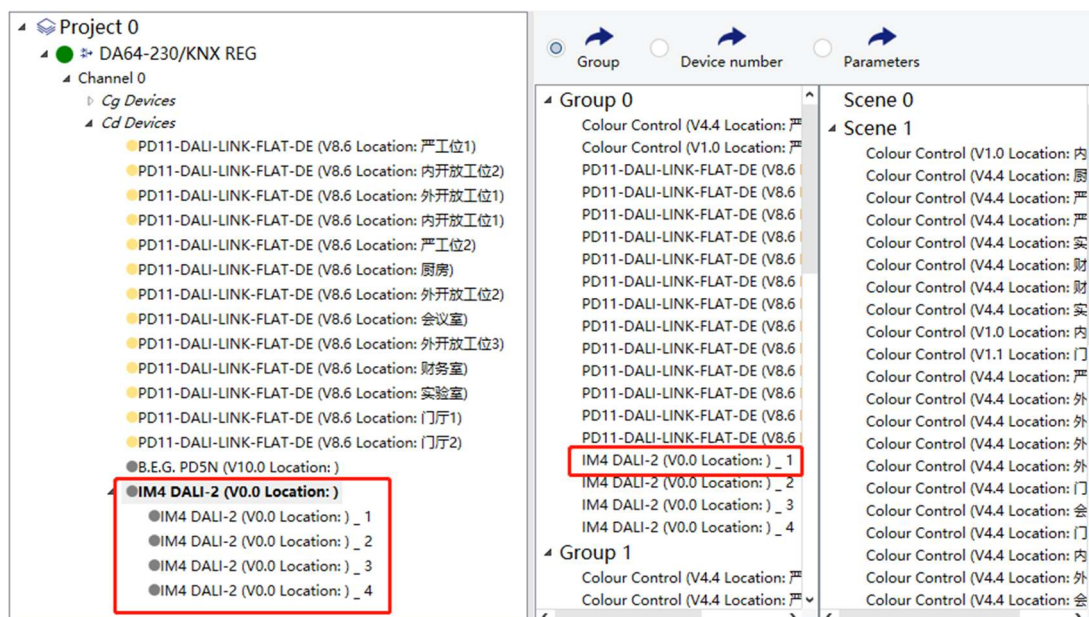
(1) Drag & Drop Group and Scene

You need to click on *write group* and *write scene* to enable the drag and drop parameters.

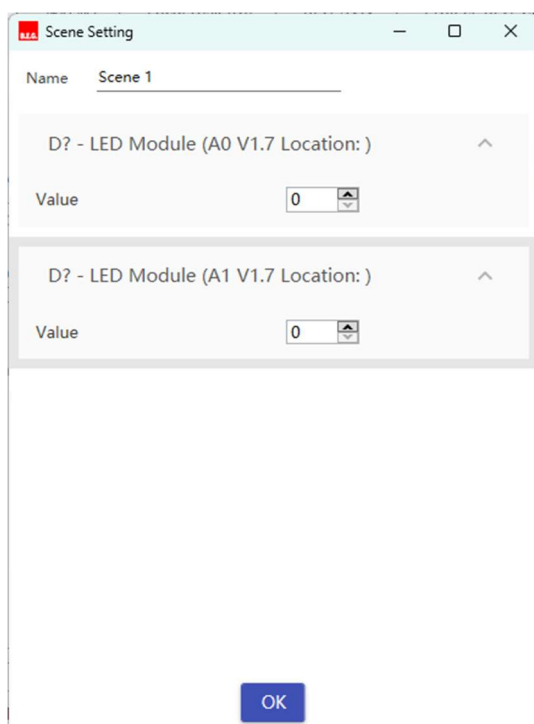
- Click **Group**, you can quickly drag and drop a device to set its group and scene.



Note: For DALI devices with multi-channels, such as PB, it will show all channel numbers under the device, you need to drag and drop branches other than the father node to Group panel. Click the father node to change parameters.



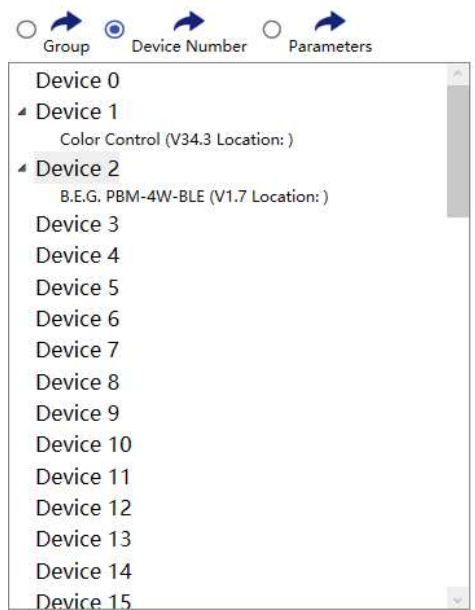
- Select multiple devices, and drag and drop them to one group or scene.
- Double click **Scene** to set the scene value and edit the scene name.



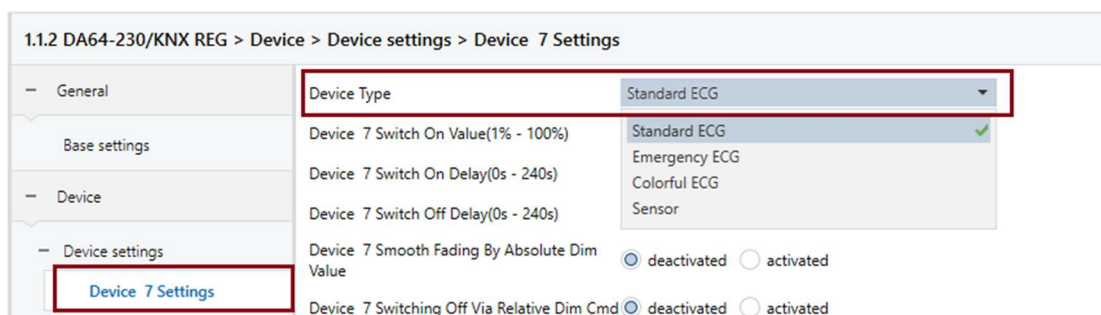
(2) Drag & Drop Device number

- Click **Device number** to quickly drag the device to set the KNX device number.

Click **Sync DALI/KNX Binding** to synchronize.



In ETS, note that the device number and equipment type must correspond to the settings here one by one!



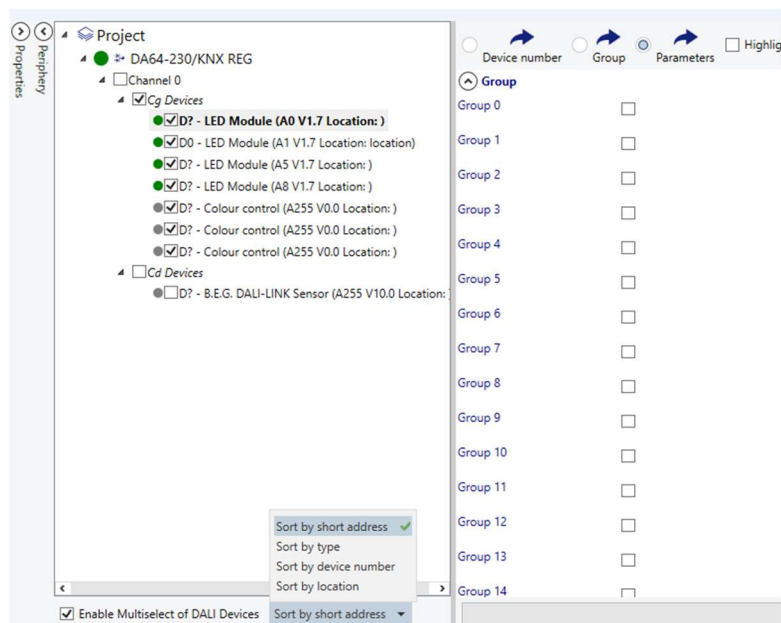
(3) Write to single or multiple DALI device(s)

➤ Click **Write** to write the parameters of the currently selected device. Be sure to write when the parameters change, otherwise it will be invalid.

- ◆ **Write all:** Write all parameters of the currently selected device (s).
- ◆ **Write partial:** Write the changed parameters of the currently selected device(s). Please ensure that the parameters are consistent with the actual device parameters (read the parameters).

- **Write to multiple DALI devices:** Check the *Enable Multiselect of DALI Devices* checkbox first, then choose any DALI devices you want to write, click *Write* to write all or changed parameters of multiple devices at the same time.

Click on a device means selecting it when enable multiselect. Uncheck the checkbox to deselect the device.



(4) Read single or multiple DALI device(s)

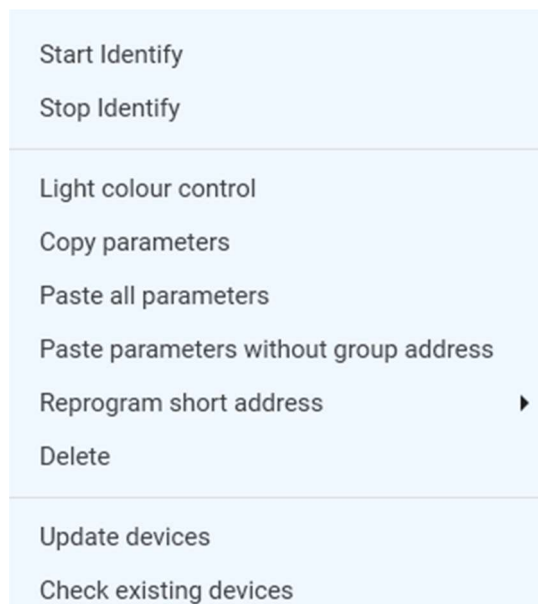
Click **Read** to update the parameters of the currently selected device.

(5) Sort devices

Devices can be sorted by several properties.

(6) Right click menu

If the current main device is connected, right-click a DALI device, and a menu will pop up, as shown below:



- **Note:**

Items will vary according to the type of the selecting DALI device.

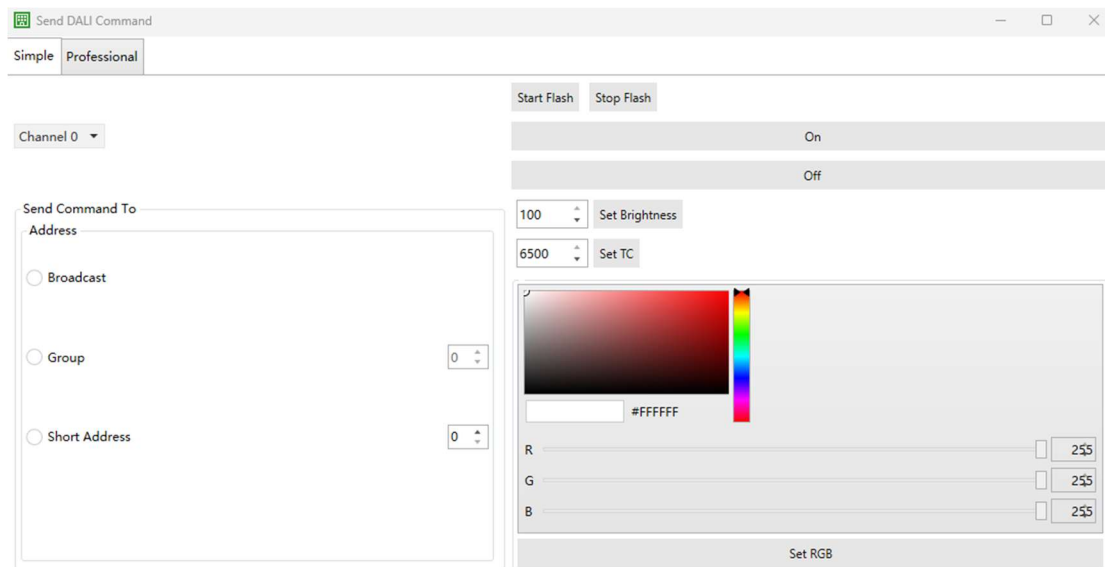
If the current main device is not connected or selecting DALI device is a virtual device, right-click to delete the current device will only delete from the device list tree and the short address of Dali device still exists.

- Start/Stop Identify: For Locating, the selected lamp / switch will be on / off continuously, and the three LEDs of the B.E.G. Multi Sensor will flash together.
- Delete: Deleting the short address of the selected DALI device, this will not affect the device number.
- Check existing devices: check if this device is online, it changes to green status if online.
- Copy and paste parameters.
- Reprogram short address.

The device number will be lost after change short address!!!

- Update Firmware: Update the version of the selected DALI device.

(7) DALI Commands



Start / stop Flash: same as start / stop identify at the right click menu.

On / Off: Switch on / off devices to the specific address.

Set Brightness: Send absolute dimming value to the specific address.

Set TC: Send absolute TC value to the specific address.

Set RGB: Send absolute RGB value to the specific address.

5. Quick Replacement

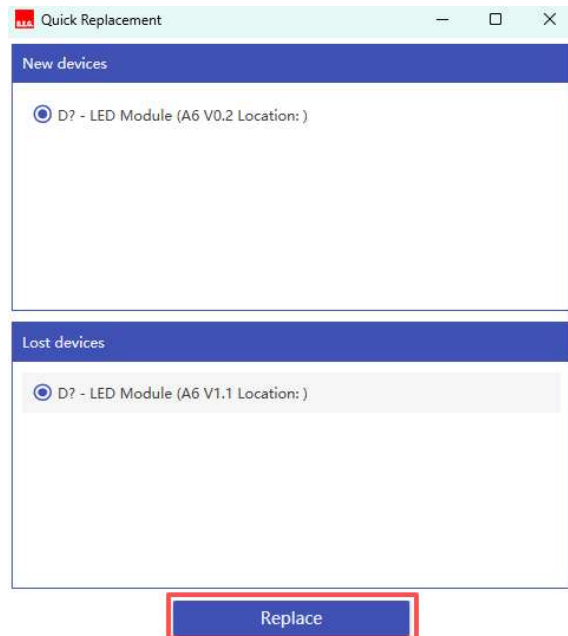
If there is a damaged device on the current DALI line, after replacing a new device, click **“Quick Replacement”** to quickly replace it, regardless of whether the new device has short address.



Select a new device and a damaged device, click replace, the parameters and device number will be synchronized automatically.

After replacing all new devices and completing the replacement process, the window will close.

Click on a new device, it will start identify.

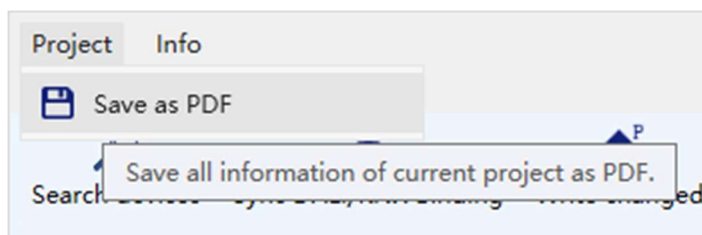


6. Send to B.E.G. DALI-LINK APP

Click on a main device, save settings, modify the extension of the saved file to .beglnk, and then you can send it to B.E.G. DALI-LINK APP.



7. Save PDF



Save all devices parameters as PDF.

8. Update B.E.G. Devices

Upgrade file in *.beg format, provided by the manufacturer.

1) Single sensor upgrade

For upgradeable devices, right clicking the device and click **Update Firmware** to update the firmware. The following interface appears:



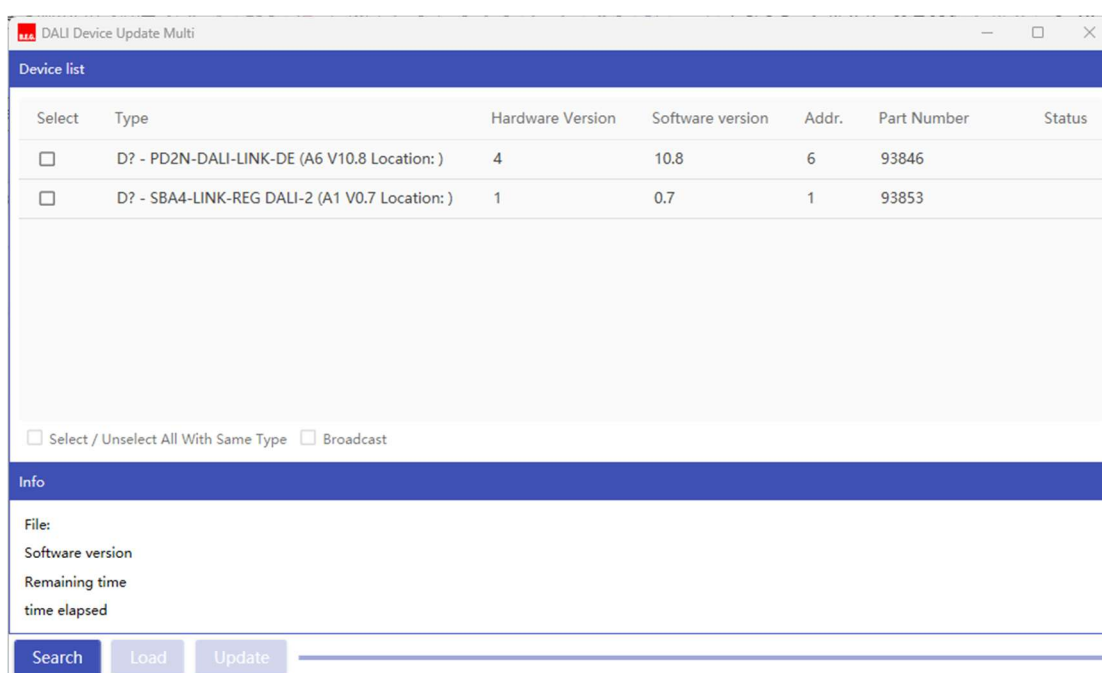
Click Load and select the file provided by the manufacturer, click **Update** and wait patiently for the progress bar to complete. After the upgradation done, the DALI device's parameters keep unchanged.

2) Multiple sensor upgrades

Select the corresponding DA64-230/KNX REG or DALI USB, make sure you have addressed devices firstly, and then select **Update DALI Device** in the menu bar, and click **Search** in the pop-up box to find all devices that supported upgraded. For

devices of the same type and with the same hardware version number, check **Select / Unselect All With Same Type** to complete the upgrade at one time. Other operations are the same as upgrading a single device.

If there are multiple devices to upgrade, choosing broadcast can save time, but please confirm with the integrator before use whether the devices support broadcast upgrade.



9. Update Main Devices

DA64-230/KNX REG series and Timer can be upgraded only for the connectable main devices. The upgrade file is *.beg format, provided by the manufacturer.

Select the corresponding main device, select **Update Main Device** in the menu bar, and the currently connected main device will automatically appear in the pop-up box.

Click **Load** and select one upgrade file (.beg) provided by the manufacturer, and then click **Update** to view the current upgrade status by observing the **Status** column. If the upgrade fails, you will be prompted with "update failed", and you can try to upgrade again.

Main device update

Device List

Select	Name	Instance Num	Software version	Hardware Version	Status
☐	DA64-230/KNX REG	245	V3.2	V1.1	OK
☐	DA-SM-DUO-230/KNX REG DALI-2	254	V0.1	V2.1	OK
☐	DA64-230/KNX REG	250	V6.0	V1.2	OK

☐ Select / Unselect All With Same Type

Info

File:

Search

Load

Update

10. Timer Parameters Configuration

- Refer to **Add Main Device**, add a Timer, save and import the file in format *.dev.
- Click holiday to configure holidays information, and description to add notes.
- Load settings: import the previously saved backup file (*.holi).
- Save settings: save the current settings as *.holi format.

Project 0

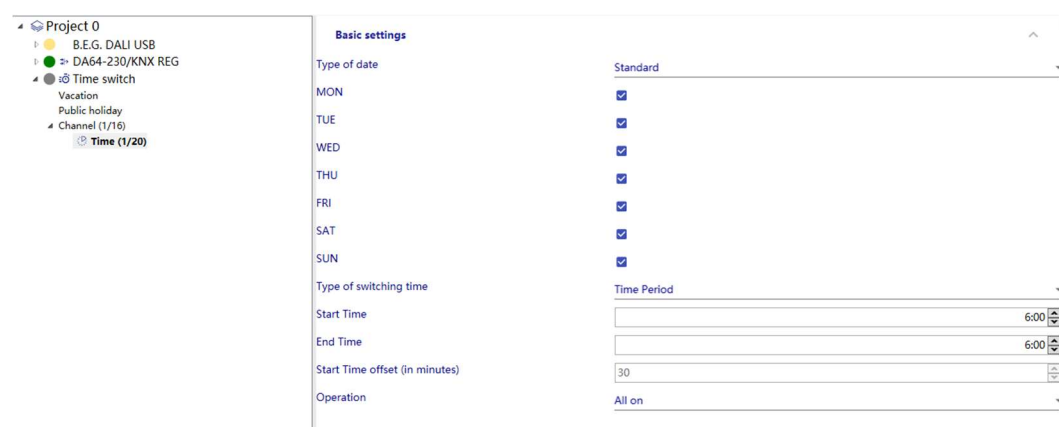
- B.E.G. DALI USB
- DA64-230/KNX REG
- Time switch
 - Vacation
 - Public holiday

	Id	Active	Start Date	End Date	Description
	0	☐	2025/8/4	2025/8/5	
	1	☐	2025/8/4	2025/8/5	
	2	☐	2025/8/4	2025/8/5	
	3	☐	2025/8/4	2025/8/5	
	4	☐	2025/8/4	2025/8/5	
	5	☐	2025/8/4	2025/8/5	
	6	☐	2025/8/4	2025/8/5	
	7	☐	2025/8/4	2025/8/5	
	8	☐	2025/8/4	2025/8/5	
	9	☐	2025/8/4	2025/8/5	
	10	☐	2025/8/4	2025/8/5	
	11	☐	2025/8/4	2025/8/5	
	12	☐	2025/8/4	2025/8/5	
	13	☐	2025/8/4	2025/8/5	
	14	☐	2025/8/4	2025/8/5	
	15	☐	2025/8/4	2025/8/5	
	16	☐	2025/8/4	2025/8/5	
	17	☐	2025/8/4	2025/8/5	
	18	☐	2025/8/4	2025/8/5	
	19	☐	2025/8/4	2025/8/5	

- The configuration of special day is as same as above, and the format of saving

and importing files is *.spec.

- Select a Timer and click **Add Channel** in the toolbar to add a channel. The file format saved and imported is *.channel.
- Select an added channel and click **Add Time** in the toolbar to add a time parameter setting. The configurable parameters are shown in the following figure:



C. Device Parameters Description

1. Value

- **Fade time:** Fading is a linear transition in time from "actualLevel" to "targetLevel". This sets a time to use for the fade process.
- **Fade rate:** This sets a speed to use for the fade process.
- **Min Level:** If "actualLevel" > 0 and "actualLevel" smaller than "minLevel" as a result of setting a new min level, "targetLevel" shall be re-calculated on the basis of the new "minLevel". "actualLevel" shall be changed to "targetLevel" immediately and the light output shall be adjusted as quickly as possible.
- **Max Level:** Max Level should larger than min level. If "actualLevel" > "maxLevel" as a result of setting a new max level, "targetLevel" shall be recalculated on the basis of the new "maxLevel". "actualLevel" shall be changed to "targetLevel" immediately and the light output shall be adjusted as quickly as possible.
- **PowerOn Level:** After an external power cycle, devices shall activate the power on level immediately.
- **System Failure Level:** If the control gear detects system failure and "systemFailureLevel" is not MASK, "targetLevel" shall be calculated on the basis of "systemFailureLevel". The transition from "actualLevel" to "targetLevel" shall take place immediately and the light output shall be adjusted as quickly as possible. If "systemFailureLevel" is MASK, the control gear shall not react to a system failure.

2. LED Module

- **Fast Fade time:** The Fast Fade Time is used instead of the Fade Time if the Fade Time is equal to 0.
- **Current monitor Active:** Protective device switching off the output if the actual LED load differs by more than ΔP from the load detected during the "reference

measurement". Reference measurement, process during which control gear determines the actual LED load with internal procedures and measurements.

3. Converter

- **Linear Dim Curve Active:** The output voltage shall be a linear function of the level given by any of the arc power control commands.
- **0-10V mode active:** If this is a 0-10V product.
- **Internal pull-up on:** The electrical specification of the internal pull-up shall be defined by the converter manufacturer. Converters without this feature shall not react.
- **Physical min level:** Change the physical minimum level.

4. Relay

- **Behaviour upon voltage loss:** Store the relay status when power off.
- **Operation Mode**
 - **Lamp:** The lamp will be normally turn on or off under the corresponding conditions: Higher than "Switch On"-->ON, Lower than "Switch Off"-->OFF.
 - **Cut-Off:** When one of the groups is turn on, turn on relay. When all of the groups are turn off, turn off relay. When meet the delay off conditions, the lamp will be turn off after the delay off time. The minimum delayed off time is 0s.
 - **HVAC:** Delayed On function: At the first 5 minutes, the relay keeps off. Then, it will be turn on if detect "Motion" at the second 5 minutes. Delayed Off function: After the first 5 minutes, relay will be OFF based on the delayed off time if no "Motion" is received. The minimum delayed off time is 1s.
 - **Pulse:** When receive "BEG MOTION" command, turn on relay for 2.5s. Upon receive "BEG MOTION", the 9s delay inactive time begin. In this

time, no action will occur if "BEG MOTION" received. After 9s delay inactive time expires, listen to "BEG MOTION" again. And loop-in.

- **Repeater function:** When relay turn on, the DAPC command send just one time if it is deactivated. If this parameter is active, send DAPC command 3 times (interval 200ms) when relay on.
- **Delayed on:** This parameter is only available if the operation mode is HVAC.
- **Delayed off time:** This parameter is available if the operation mode is Cut-Off or HVAC.
- **Rising edge ON:** Value against which the virtual arc power level is continually compared, the output of the control gear being switched on whenever the virtual arc power level reaches or passes this level whilst increasing.
- **Rising edge OFF:** Value against which the virtual arc power level is continually compared, the output of the control gear being switched off whenever the virtual arc power level reaches or passes this level whilst increasing.
- **Falling edge ON:** Value against which the virtual arc power level is continually compared, the output of the control gear being switched on whenever the virtual arc power level reaches or passes this level whilst decreasing.
- **Falling edge OFF:** Value against which the virtual arc power level is continually compared, the output of the control gear being switched off whenever the virtual arc power level reaches or passes this level whilst decreasing.

5. Emergency Light

- **EM level:** The emergency level shall not be affected by the MIN LEVEL and MAX LEVEL settings.
- **FT Interval & FT Delay:** Function test, test to check the integrity of the circuit and the correct operation of a lamp, a changeover device and the self-contained battery. The test interval is to be set in days, the delay is to be set in minutes.

- **DT Interval & DT Delay:** Duration test, test to check if the self-contained battery supplies the system within the limits of rated duration of emergency operation. The test interval is to be set in weeks, the delay is to be set in minutes.
- **Test timeout:** It is valid for all function and duration tests, whether attempted in response to a command or as a result of an automatic test schedule. If it is set to 0 this shall result in a test timeout interval of 15 min. It's period shall start when a test becomes pending. If the period expires without the test being finished, it shall be flagged as a failure but the test shall remain pending.
- **Prolong time:** It is defined with a resolution of 0,5 min (0 to 255), and shall be used to determine the length of time the control gear shall remain in extended emergency mode. Time the extended emergency mode will last after restoration of the mains supply.
- **Active LED stripes:** Emergency control gear with a physical minimum level below 254 (100 %).

6. Colour Control

- **TC setting:** User-defined color temperature lamp warmest and coldest value. In addition, the colour temperature can be set with PowerOn Level and System Failure Level. All values in Kelvin (K).

7. Push Button

- **Power LED:** If the indication LED on the board is lighting permanently.
- **Application controller:** If this push button active.
- **Control type:** If the device used as push button or switch.
- **Target address:** The current button controls the pointed group lights.
"Broadcast" means all lights are controlled by this button.
- **Short press**
 - **Toggle (Max/Off):** Send "Recall Max Level" command for one press, and send "Off" command for another press.

- Toggle (Max/Soft Off): Send "Recall Max Level" command for one press, and send "Off" command for another press but the lights will switch off depends on its fade time.
- Off: Send "Off" command.
- Recall Max Level: Send "Recall Max Level" command.
- Scene: Send "Go To Scene XX" command.
- Toggle (Scene/Off): Send "Go To Scene XX" command for one press, and send "Off" command for another press.
- Toggle (Scene/Soft Off): Send "Go To Scene XX" command for one press, and send "Off" command for another press but the lights will switch off depends on its fade time.
- Value (%): Send "Dapc XX" command.
- Toggle (%-value/Off): Send "Dapc XX" command for one press, and send "Off" command for another press.
- Toggle (%-value/Soft Off): Send "Dapc XX" command for one press, and send "Off" command for another press but the lights will switch off depends on its fade time.
- Lock: Send "BEG Lock" command.
- Unlock: Send "BEG Unlock" command.
- Toggle(lock/unlock): Send "BEG Lock" command for one press, and send "BEG Unlock" command for another press.
- Central-off: Send "BEG Central Off" command.
- Deactivated: No action.
- Scene sequence: Send "Go To Scene XX" sequentially according to the settings "Scene Number 1-4".
- Last level: Send the last "Dapc XX" command.
- Toggle (Last level/Off): Send the last "Dapc XX" command for one press, and send "Off" command for another press.

- Toggle (Last level/ Soft off): Send the last "Dapc XX" command for one press, and send "Off" command for another press but the lights will switch off depends on its fade time.
- RGBW colour: Send the specified RGBW value.
- Kelvin: Send the specified color temperature value.
- Toggle (Warm/Neutral/Cold): Switch to the program defined colour temperature: warm/neutral/cold.
- Lux set point: Change the brightness set-value of multi sensors.
- SB: step up / stop: For SBA, send "Step up" command. If the shutter/blind moves at the moment of the push button is pressed, this movement can be stopped.
- SB: step down / stop: For SBA, send "Step down" command. If the shutter/blind moves at the moment of the push button is pressed, this movement can be stopped.
- SB: step up and down / stop: For SBA, send "Step up" command within the "SB: steps into same direction" duration, otherwise send "Step down" command. If the shutter/blind moves at the moment of the push button is pressed, this movement can be stopped.
- SB: drive up: For SBA, send "Up" command.
- SB: drive down: For SBA, send "Down" command.
- SB: drive up and down: For SBA, send "Up" command within the "SB: steps into same direction" duration, otherwise send "Down" command.

■ Long press

- Toggle (%-value up/down): Continue sending "Up" command for one press, and continue sending "Down" command for another press. The speed can be set by "Dimming speed".
- %-value up: Continue sending "Up" command until the button is released. The speed can be set by "Dimming speed".

- %-value down: Continue sending "Down" command until the button is released. The speed can be set by "Dimming speed".
- Toggle (step up/down): Continue sending "Step Up" command for one press, and continue sending "Step Down" command for another press. The speed can be set by "Dimming speed".
- Step up: Continue sending "Step Up" command until the button is released. The speed can be set by "Dimming speed".
- Step down: Continue sending "Step Down" command until the button is released. The speed can be set by "Dimming speed".
- RGB colour wheel: Continuously change the colour until the button is released. The speed can be set by "Shifting Speed of Color Wheel (long press)".
- Toggle (warmer/cooler): Dimming the colour temperature warmer or cooler. The speed can be set by "Shifting Speed of Tunable White (long press)".
- Toggle (Dim-2-warm): Dimming the light and colour temperature at the same time. The speed can be set by "Shifting Speed of Tunable White (long press)".
- **Power-on behaviour:** The behaviour of the push button on bus voltage return.
- **Fade time:** This parameter adds prefix ECG FADE TIME [VALUE] to any "GoToScene" or "DAPC" command, except while manual dimming "Dim fast/medium/slow".
- **Lockable:** If it can be locked by "BEG Lock" command.
- **PB LED behaviour**
 - Off: LED will never turn on.
 - On: If not pressed it will stay off, if short pressed it will turn on for 0,5s, if long pressed it will flash quickly as long the button is pressed.
 - Heartbeat: The same as "On" PLUS: the LED turns on if the value of the programmed function block is active. The PB also listens to the bus and if

the same command type (e.g. "GoToScene") with same target group (e.g. "Group 4") and same value (e.g. "Scene 0") was detected, the PB LED turns on. It turns off if the same command type (e.g. "GoToScene") with same target group (e.g. "Group 4" or attention, could also be "Broadcast") and OTHER value (e.g. "Scene 1") was detected.

- **SB: steps into same direction:** This parameter defines how long a shutter/blind moves in the same direction.
- **Long Press Duration:** This parameter defines how long is considered a long press.

8. Multi Sensor

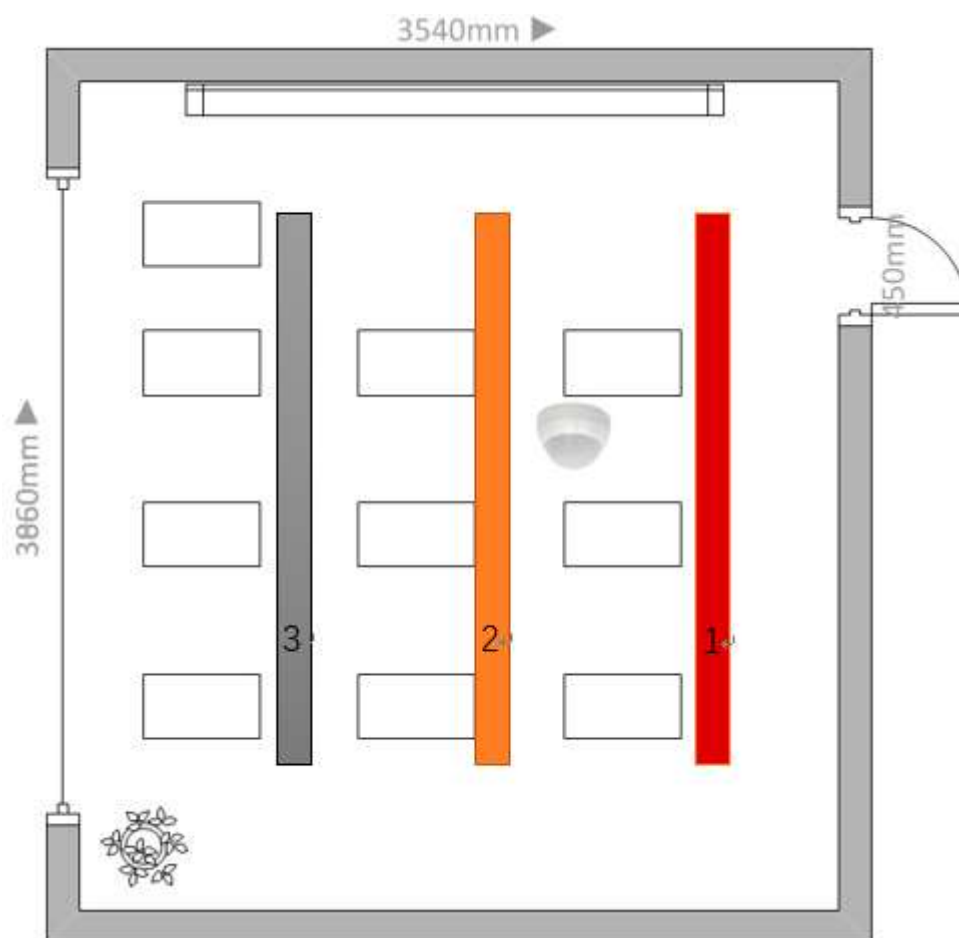
- **Target group:** The sensor controls the pointed group lights. "Broadcast" means all lights are controlled by this sensor.
- **Channel 1**
 - Activated: used as master.
 - Deactivated: used as slave, to expand detection area.
- **Master Operation Mode**
 - Full automatic: Switch on light when detect a person and ambient light lower than setting value automatically.
 - Semi-automatic: Switch on light when detect a person and ambient light lower than setting value manually.
 - Motion-independent: Switching light only depends on light threshold.
- **Follow-up time:** The follow-up time defines the duration during which the connected load remains switched on even if no more movements have been detected. If a new movement is detected during the follow-up time, it is restarted.
- **Regulation**
 - Activated: The sensor can dim the light according the current lux.
 - Deactivated: Lights only switch on as the setting value, related to parameter "Switch-on level".

- **Brightness set-value:** Settings can be configured that relate to the automatic switching on and off of the lights.

The brightness value set here becomes the switch-on threshold. If the brightness level drops below this threshold and the detector detect movement, the lights are switched on.
- **Brightness set-value2:** Brightness set-value can be switched by scene behaviour.
- **Brightness set-value3:** Brightness set-value can be switched by scene behaviour.
- **Brightness set-value4:** Brightness set-value can be switched by scene behaviour.
- **Orientation light:** This is generally set to be a little brighter so that the person present can open the door or find the light switch.
- **Orientation light**
 - Deactivated: If no movement is detected after follow-up time, the lights will be switched off.
 - Permanent: If no movement is detected after follow-up time, the lights will be switched to orientation light value permanently. If a new movement is detected then the follow-up time restarted.
 - Timed: If no movement is detected after follow-up time, the lights will be switched to orientation light value, and then switch off after orientation time expired if there still no movement during orientation time. If a new movement is detected then both the follow-up time and orientation time are restarted.
- **Reflection factor:** The occupancy detector measures the light that is reflected from the floor, work surface or walls. The reflection factor is the ratio between the brightness measured at the ceiling and that measured at the work surface. This gives a reflection factor, which is between 1:2 and 1:3 in normal room conditions. When calculating the reflection factor, the ratio of artificial light to daylight is also considered.
- **Send motion:** If sending "BEG motion" command when detect a motion.
- **Report Time:** This parameter defines the cyclic interval during motion. The time is same as "*Report time*" in section "Instance Number 0 Motion Sensor".

- **Switch-on value:** The switch on level of lights. "Calculated" means switch on as the sensor calculates value depending on the current lux and switch on threshold.
- **Brightness-dependent switch-on:**
 - Activated: The sensor works as normal.
 - Deactivated: In a constantly changing environment, even if the illumination is sufficient, the lights will be turned on (or keep on) when movement is detected.
- **Regulation speed:** Dimming lights by different speed when brightness changing.
- **Power-on behaviour:** Lights action when get power: no action, on or off.
- **Regulation lag time:** This parameter defines the regulate lag time.
- **Fade time:** Turn on the light slowly to the specified brightness (Switch-on level) according to this time.
- **Minimum regulation value:** This parameter defines the minimum regulation value.
- **Maximum regulation value:** This parameter defines the maximum regulation value.
- **Sensitivity motion sensor 1/2/3/4:** This parameter defines the sensitivity of sensing person. Display the number of parameters based on the actual number of PIR.
- **Ambient light measurement:** This parameter is the ratio of the internal light sensor to the external light sensor when the sensor calculates the ambient brightness. It is only used for devices with two light sensors, and if the device only has one light sensor, it will not display.
- **Behaviour when locking:** This parameter defines the behaviour when command "BEG lock" received. Sensor will not work if it is locked.
- **Behaviour when unlocking:** This parameter defines the behaviour when command "BEG unlock" received.
- **Burn-in time (hours):** Before they are dimmed, new fluorescent lamps should be burned in for a certain period, to ensure a long life and flicker-free operation. Burn-in function for fluorescent lamps selectable from 1h till 100h.

- **Switch-off hysteresis (brightness):** Lights will turn off if brightness larger than (brightness set-value + Switch-off hysteresis). This parameter is available if "Regulation" is "Deactivated".
- **Switch-on delay (brightness):** Lights delay on time. This parameter is only available when the operation mode is "Motion-independent".
- **Switch-off delay (brightness):** Lights delay off time.
- **Central-off delay:** Delay time when receiving "BEG Central Off" command.
- **Brightness-dependent switch-off:** Whether turn off the light or not if too bright.
- **LED indication:** If the indication LED on the board is lighting.
- **Channel 2/3:** This parameter defines the offset brightness between channel 1 and channel 2 is activate or deactivate. The channel 2 group address equal to channel 1 group address + 1. This function can be used in classrooms, the light value for the class is preset at the wall side. As the intensity of the artificial light decreases due to the daylight, there is the most daylight at the window side and lighting run 3 is switched off first. Depending on how much daylight enters the room, lighting run 2 is switched off. If the brightness threshold is exceeded throughout the room, all the lights are switched off.



- **Offset Channel 2/3:** A fixed lighting brightness value between two channels. If one channel reach to 100%, the other channel will up to 100% also. If one channel decreases to 0%, the other channel will down to 0% also.
- **Blackboard light:** Parameters enable when Target Group is not Broadcast and Regulation activated. This is applied to classroom blackboard.
- **Joint control group for channels 1-3:** Parameters enable when Target Group is not Broadcast and Regulation activated. Used together with the B.E.G. PB, so that the B.E.G. PB can control 3 channels.
- **Guided Light:** The setting target group will be set as main light. The "orien. Light" is work as guiding light, can be used in places such as stairs, long corridor. Light switches on as orientation level at the location where people will go to.
- **Scene behaviour:** Define the working state of the sensor to prevent the sensor destroys the scenes setting by users.
 - Lock: Sensor be locked

- Unlock: Sensor be unlocked, match lock usage
 - Suspend regulation: Sensor will not work if receive command "Go to scene" until no movement detected and follow up time expired, and lights will be switched off. If a new movement is detected, sensor works as usual.
 - Ignore: Sensor works as usual, switching or dimming lights.
 - Go to brightness set value 1
 - Go to brightness set value 2
 - Go to brightness set value 3
 - Go to brightness set value 4
- **Test active**
- Off: The sensor enters normal working mode.
 - On: The lights in the same group as the sensor will cycle on and off every one second when detecting a person.
- **Lux sensor resolution:** The appropriate resolution can be selected based on the ambient brightness. The default value is 12, corresponding to a maximum ambient brightness of 4096Lux; while 10 results in a maximum value of 1024Lux.

9. Control Device Instance

- **Report time:** If the report timer is set, it shall generate a "repeat" trigger every Treport even if the "inputValue" has not changed. The report timer shall be restarted every time an event is sent.
- **Dead time:** If the deadtime timer is set, the instance shall not send out an event until the deadtime timer has expired. The deadtime timer shall be restarted every time an event is sent.
- **Hold time:** The hold timer is only implemented for movement based sensors.
- **Hysteresis:** Percentage of illuminance level (input level).
- **Hysteresis min:** To calculate "hysteresisBand", which is the maximum of the percentage of input level and hysteresis min.

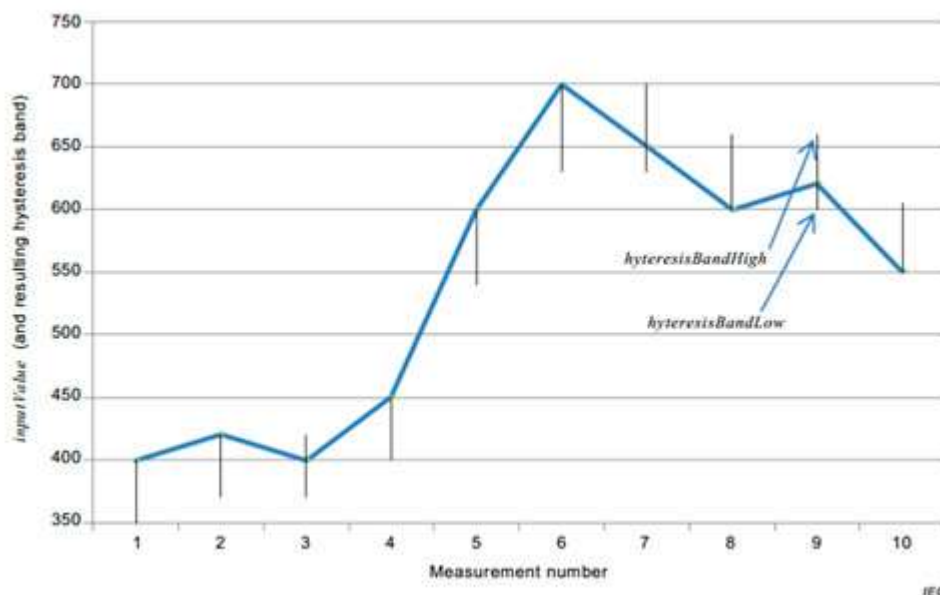
If "inputValue" is greater than "hysteresisBandHigh", then:

→ "hysteresisBandHigh" is set to "inputValue", and "hysteresisBandLow" is set to $\max(\text{"inputValue"} - \text{"hysteresisBand"}, 0)$.

If "inputValue" is less than "hysteresisBandLow", then:

→ "hysteresisBandLow" is set to "inputValue", and "hysteresisBandHigh" is set to $\text{"inputValue"} + \text{"hysteresisBand"}$.

This figure shows an example of "inputValue" changes, together with the resultant hysteresis bands (vertical lines) for the case where "hysteresis" is 10% and "hysteresisMin" is 50. At measurements 1, 2, 4, 5, 6, 8 and 10, the illuminance level event is generated due to the new "inputValue" being outside of the previously calculated range of ["hysteresisBandLow", "hysteresisBandHigh"]. Measurements 3, 7 and 9 do not generate the illuminance level event because the "inputValue" is inside the previously calculated range of ["hysteresisBandLow", "hysteresisBandHigh"]. The initial values for "hysteresisBandLow" and "hysteresisBandHigh" are 0 due to power up of the device.



- **Short time:** The time which differentiates a short press from a long press. If a button is released within short time, either a short or a double press event will follow; a long press event otherwise.
- **Double time:** The time which differentiates a single (short) press from a double press. If a button is not pressed once more within Tdouble, a short press event occurs, a double press event otherwise.
- **Repeat time:** The repetition interval of long press repeat events.
- **Time button lock detection:** If a button is pressed or bouncing longer than stuck time it is considered broken.

10. SBA (Shutter Blind Actuator)

- **Manual Operation:** The actuator's buttons for operating the relay can be enabled and disabled with this parameter.
- **Operation mode:** The channel can be selected either for operating a blind or a roller shutter.
- **Start-up delay:** Some motors cannot deliver full power when being switched on, but only after a few milliseconds. The time it takes for the motor to reach full power can be compensated by setting the motor's start delay.
- **Move time upwards:** Sets the duration for an upwards movement in seconds.
- **Move time downwards:** Sets the duration for a downwards movement in seconds.
- **Pause on change of direction:** The time set here relates to the delay between an upward and a downward movement or vice versa of the blind/roller shutter.
- **Duration of slat adjustment:** This parameter is only available if the operating mode is selected as blind. The duration of slat adjustment sets the time period which is required to drive the slats from 0 % to 100 % or vice versa.
- **Step time:** This parameter is only available if the operating mode is selected as blind. A step is a short movement of the blind triggered by a short push button press.

- **Listen to Broadcast:** If this parameter is activated, the channel is controlled via communication objects 1, 2, 3, 4. If the parameter is deactivated, these objects are ignored.
- **Slat reaction after up/down movement:** This parameter is only available if the operating mode is selected as blind. It defines the position of the slats after up/down movement.
- **Slat position:** This parameter is only available if the operating mode is selected as blind and "Slat reaction after up/down movement" set to the defined position.
- **Behaviour on voltage return:** The behaviour of the blinds/roller shutters on bus voltage return, can be defined.

The option "up" or "down" provokes the blind/roller shutter to be opened or closed, respectively. If the shutter/ blind moves at the moment of bus voltage return, this movement can be stopped.
- **Reaction on system error:** The behaviour of the blinds/roller shutters on bus voltage loss, for example due to power breakdown, can be defined.
- **Behaviour on lock:** The behaviour of the blinds/roller shutters after receiving the "BEG Lock" command, can be defined.
- **Behaviour on unlock:** The behaviour of the blinds/roller shutters after receiving the "BEG Unlock" command, can be defined.
- **Central Off Reaction:** The behaviour of the blinds/roller shutters after receiving the "BEG Central Off" command, can be defined.

D. Attachments

1. Support devices

Device Type	Name	Prod. No.
0	Fluorescent Lamp	
1	Emergency Light	
2	Discharge Lamp	
3	Low Voltage Lamp	
4	Incandescent Lamp	
5	Converter	
6	LED Module	
7	RM-DALI-SYS-1C-REG	92849
7	RM4-SYS-REG DALI-2	93844
7	RM-DALI-LINK-1C-DE	92807
7	RM-DALI-LINK-1C-REG	93807
7	RM1-SYS-REG DALI-2	93082
7	RM1-LINK-REG DALI-2	93083
7	RM4-REG DALI-2	93854
7	Generic switching	
8	Colour Control	
9	Sequencer	
10	Optical Control	
19	PBM-DALI-LINK-4W-BLE	92732
20	B.E.G. Push button (noCD)	
21	B.E.G. Multi-sensor (noCD)	
22	B.E.G. TW Multi-sensor (noCD)	

23	PD4-M-HCL-DE	93006
23	PD4-M-HCL-AP	93007
24	PBM-DALI-LINK-4W-BLE	92732
25	SBA4-SYS-REG DALI-2	93841
25	SBA4-LINK-REG DALI-2	93853
26	B.E.G. 1CH SBA	
100	Control Device	
101	PD11-DALI-LINK-FLAT-DE	93068
101	PD11-DALI-SYS-FLAT-DE	92731
101	B.E.G. DALI-LINK Sensor	
102	PBM-DALI-SYS-4W	92842
102	PBM-DALI-LINK-4W	93396
103	B.E.G. LC-plus (Outdoor)	
104	B.E.G. TW Multi-sensor	
105	PD11-BMS-FLAT-DE DALI-2	93542
105	LC-Mini 120-BMS DALI-2	93541
105	B.E.G. DALI BMS Sensor	
106	PD4-DALI-2-BMS-GH-AP	93025
107	PD2N-DALI-SYS-UP	93368
107	PD2N-DALI-SYS-DE	93369
107	PD2N-DALI-LINK-DE	93846
107	PD2N-DALI-LINK-UP	93847
108	PD4-DALI-SYS-GH-AP	93345
108	PD4-DALI-LINK-GH-AP	93845

109	PD2N-BMS-UP DALI-2	93544
109	PD2N-BMS-DE DALI-2	93543
110	PD4-DALI-SYS-DE	93375
110	PD4N-DALI-LINK	93377
110	PD4-DALI-SYS-AP	93379
110	PD4N-DALI-SYS	93340
110	PD4N-DALI-SYS-UP	93342
110	PD4N-DALI-SYS-K-DE	93352
110	LC-plus-DALI-SYS 280 / braun	93318
110	LC-plus-DALI-SYS 280 / schwarz	93328
111	PD4-DALI-2-BMS-AP-Transition	93325
111	PD4-DALI-2-BMS-DE-Transition	93312
111	PD4-DALI-2-BMS-K-AP-Transition	93357
111	PD4-DALI-2-BMS-K-DE-Transition	93332
111	PD4N-BMS DALI-2	93546
111	PD4-BMS-GH-AP DALI-2	93545
112	PICO-DALI-SYS-DE	93909
112	PICO-DALI-LINK-DE	93908
113	PICO-BMS DALI-2	93547
113	PD9-BMS DALI-2	93548
114	B.E.G. TW DLS	
115	PD5N-LAMELLA-BMS2 DALI-2 WB	93354
115	PD5N-LAMELLA-BMS2 DALI-2 BB	93358
115	Aleum WB BMS2 DALI-2	93555

115	Aleum AD BMS2 DALI-2	93556
115	Aleum Beam WB BMS2 DALI-2	93557
115	Aleum Beam AD BMS2 DALI-2	93558
119	Indoor 180-BMS DALI-2 ohne Rahmen	93540
120	PD4-M-HCL2-DE	93484
120	PD4-M-HCL2-AP	93485
123	PB2-BMS DALI-2	93835
124	PB4-BMS DALI-2	93836
125	PB6-BMS DALI-2	93837
126	PB8-BMS DALI-2	93838
127	LC-plus-DALI-SYS 280	93308
128	Indoor 180 DALI-SYS	93326
128	Indoor 180 DALI-LINK	93848
129	LC-Mini 120-DALI-LINK	93849
129	LC-Mini 120-DALI-SYS	93305
132	IM4-SYS DALI-2	93819
132	IM4-LINK DALI-2	93829
133	PB2-SYS DALI-2	93815
133	PB2-LINK DALI-2	93825
134	PB4-SYS DALI-2	93816
134	PB4-LINK DALI-2	93826
135	PB6-SYS DALI-2	93817
135	PB6-LINK DALI-2	93827
136	PB8-SYS DALI-2	93818

136	PB8-LINK DALI-2	93828
137	PD4-S-DAA4G	92721
138	PD4-M-DAA4G	92591
139	PD2N-BMS-OCCULOG DALI-2	93488
140	IM4-BMS DALI-2	93359
141	IM8-BMS DALI-2	93554