HDL®

User Manual

KNX/EIB<-->HDL Buspro Converter

SB-DN-EIB

buspro

www.hdlautomation.com

INDEX

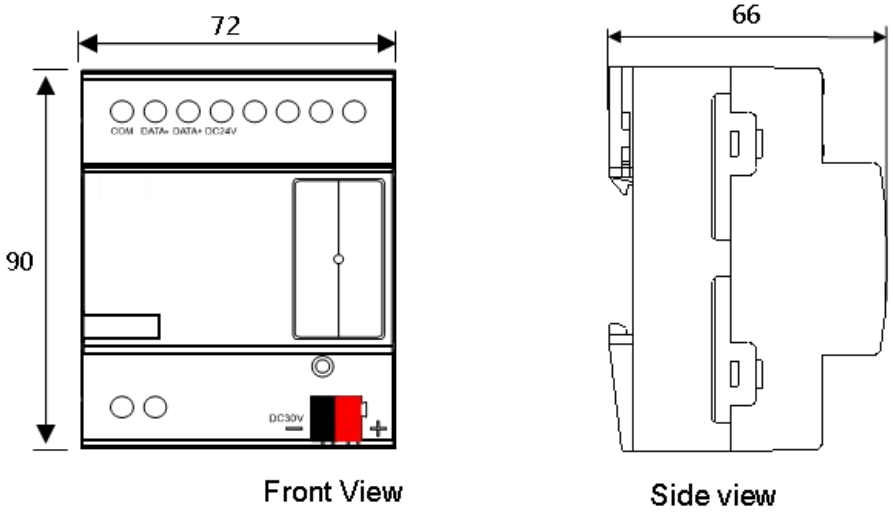
1. Overview

1.1 General Information

1.1.1 Description

SB-DN-EIB is a gateway between HDL Buspro system and KNX/EIB system, it can realize the function that control HDL Buspro system from KNX/EIB and vice versa. It supports 254 commands totally, which is mainly for lighting control, curtain control, temperature report, etc.

1.1.2 Dimension



- Standard 35mm Din Rail Installation
- Inside Distribution Box (DB)

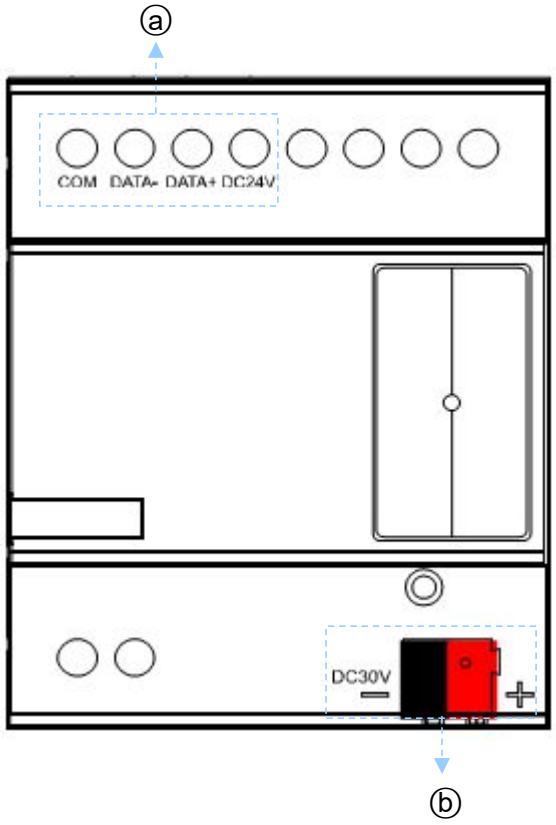
1.2 Functions

- Two-way communication for HDL Buspro and KNX/EIB
- Control up to 254 targets
- Support various Data Point:

Scene switch (1byte), Scene dimming (4bits), Sequence switch (1byte), Universal Switch (1bit), Single

Channel switch (1bit), Single Channel dimming (4bits), Broadcast Scene (1byte), Broadcast Channel switch (1bit), Broadcast Channel dimming (4bits), Curtain on/off (1bit), Curtain stop(1bit), Absolute dimming (1byte), Actual temperature (2bytes), Channel status report (1bit), Channel level report(1byte), Message:1byte (not ready for use), String:14 bytes (not ready for use).

1.3 Device Description



ⓐ HDL Buspro

ⓑ KNX/EIB Bus

2. Safety precautions

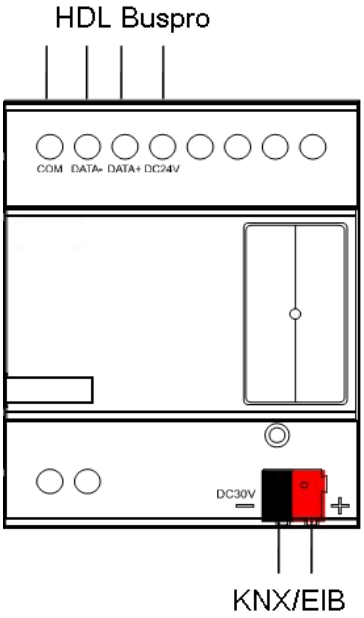
- Screw down strength is less than 0.4Nm
- Installation Position: Distribution Box (DB)
- Do not make wrong connection on Bus interface, it will damage the Bus interface of this module
- Never let liquids get into the module, it will damage this device
- Do connect the module to AC power as this will irreversibly damage all devices in the system.
- Avoid contact with liquids and aggressive gas

3. Technical Data

Electrical Parameters	
HDL Buspro input voltage	DC15~30V
HDL Buspro input current	5mA/DC24V
KNX/EIB input voltage	DC21~30V
KND/EIB input current	<6mA
Communication	HDL Buspro, KNX/EIB
Software programming	HDL Buspro Setup Tool
Environmental Conditions	
Working temperature	0℃~45℃
Working relative humidity	Up to 90%
Storage temperature	-20℃~+60℃
Storage relative humidity	Up to 93%
Approved	
CE	
RoHS	
Product Information	
Dimensions	72×90×66 (mm)
Weight	174(g)
Housing material	Nylon, PC
Installation	35mm DIN rail installation
Installation Position	Distribution box (DB)
Protection degree	IP20

4. Installation

4.1 Wiring



4.2 KNX/EIB Description

Connector Information

KNX/EIB BUS	
DC24V	Red
COM	Black

5. Software Configuration

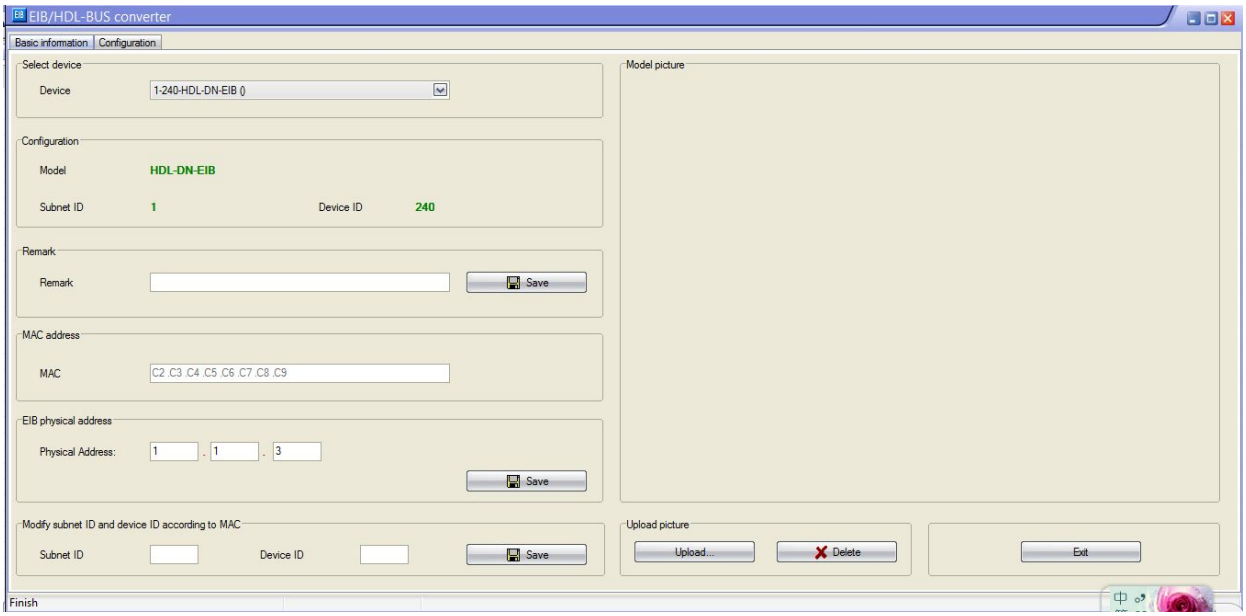
5.1 Basic Information

Subnet/Device ID:

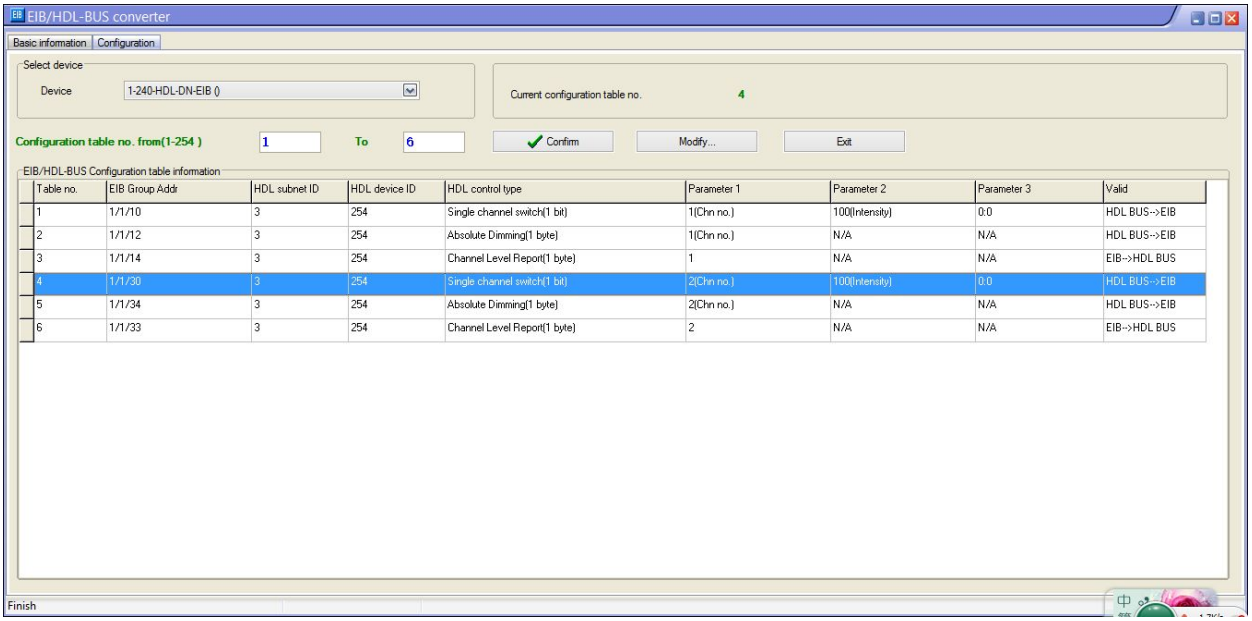
The converter has one Subnet/Device ID. The Device ID should be unique in its subnet, and the Subnet ID should be kept consistent with the Buspro Gateway (SB-DN-1IP or HDL-MBUS01IP.431).

Physical address:

Its physical address is useless so far, can ignore this setting.



5.2 Configuration



- EIB Group Address

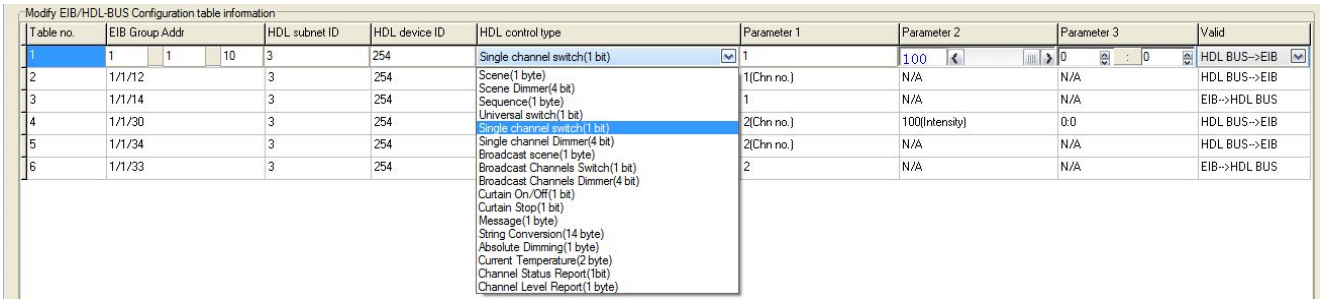
Set the group address of KNX/EIB object which will send out the command to control HDL Buspro device(EIB->HDL BUS direction) or receive the command from HDL Buspro device(HDL BUS->EIB direction)

- HDL Subent/Device ID

Set the Subnet/Device ID of HDL Buspro device which will send out the command to control KNX/EIB device(HDL BUS->EIB direction) or receive the command from KNX/EIB device(EIB->HDL BUS direction)

- HDL Control Type

Supported control type: scene, sequence, UV switch, single channel switch, curtain control, etc.



- Valid

Set the command direction:

EIB->HDL BUS:

The command is transferring from KNX/EIB system to HDL Buspro system

HDL BUS->EIB:

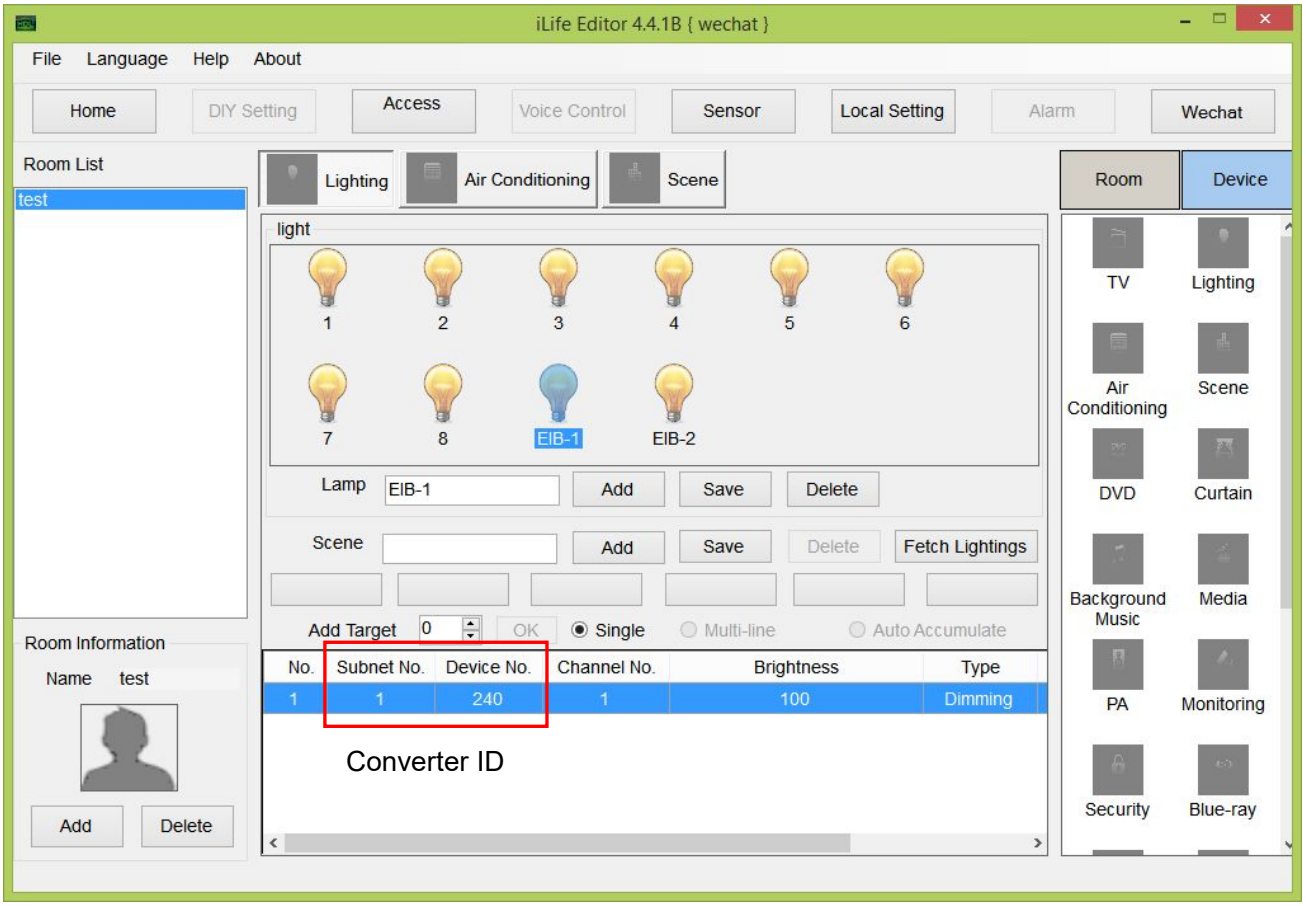
The command is transferring from HDL Buspro system to KNX/EIB system

5.2.1 Channel Output Control

1) HDL iLife control KNX/EIB channel output

iLife editor settings:

Subnet/devices ID is the converter's ID, and the channel no. is same as the parameter1(chn no.) in the converter.



Converter settings:

EIB group address:

set the group addresses of the dimmer that you want to control

HDL Subent/Device ID:

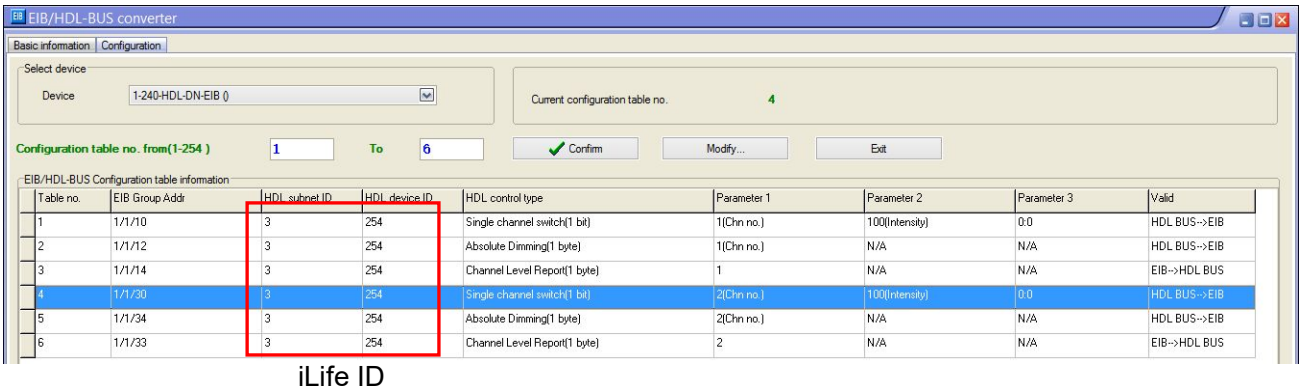
set the ID which will send out command to control the KNX/EIB dimmer, for iLife(iOS), it has the fixed ID 3/254.

HDL Control Type:

for switch control, use ‘single channel switch’, the parameter1(chn no.) is same as the channel no. in the iLife editor, *HDL BUS->EIB*;

for dimming control, use ‘Absolute dimming’, the parameter1(chn no.) is same as the channel no. in the iLife editor, *HDL BUS->EIB*;

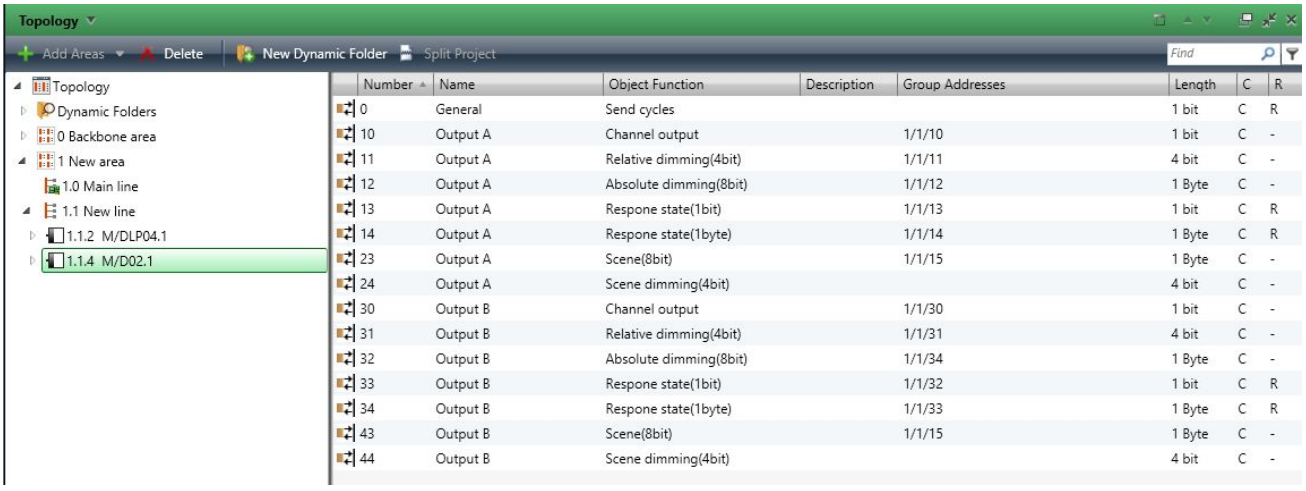
for the feedback from KNX/EIB, use ‘channel level report(1 byte)’, *EIB->HDL BUS*, so that when the channel is controlled by KNX panel, iLife can show the correct state of it.



iLife ID

KNX/EIB dimmer settings：

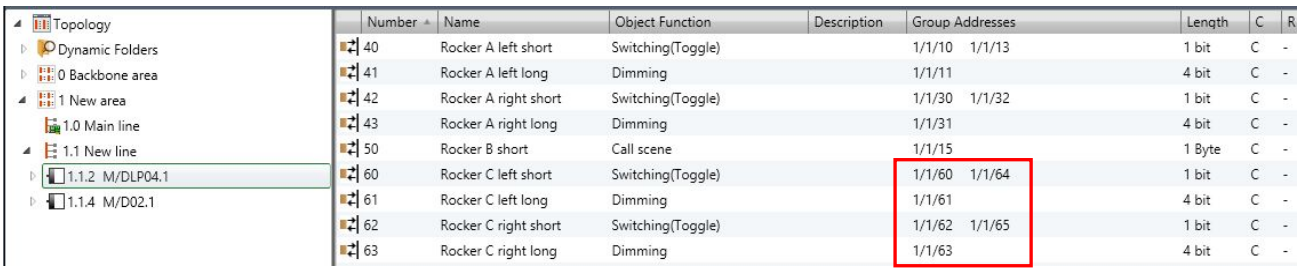
Enable the absolute dimming function and channel state response(1byte), assign the group addresses for them, and set these group addresses in the converter.



2) KNX/EIB DLP control HDL dimmer

KNX DLP settings：

Use rocker C left button and right button to control channel1 and channel2 of HDL Buspro dimmer respectively. 1/1/60 & 1/1/62 are for switch control, 1/1/61 & 1/1/63 are for dimming control and 1/1/64 & 1/1/65 are for status report.



Converter settings:

EIB Group address:

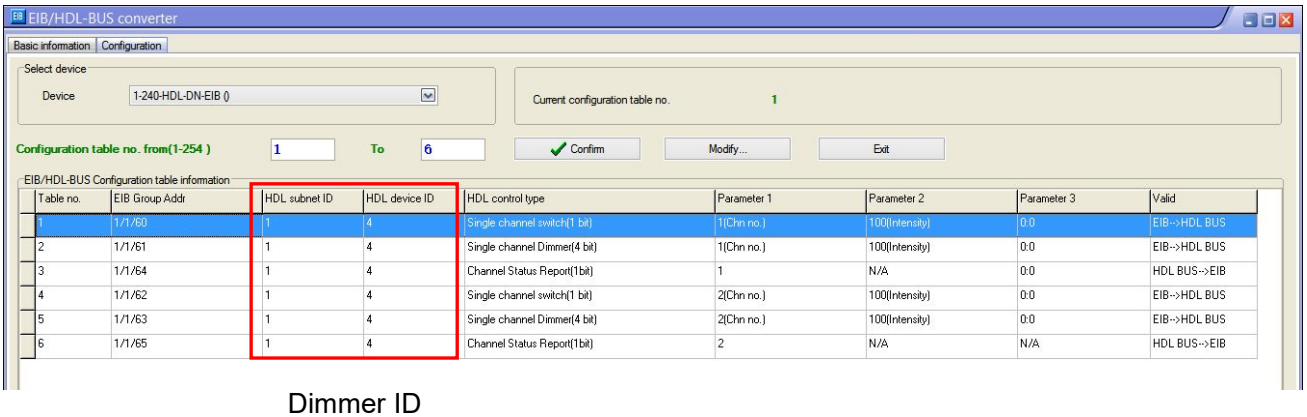
set the group addresses of KNX DLP which will control the dimmer

HDL Control Type:

for switch control, use ‘single channel switch’, parameter1 is the channel no. of dimmer, *EIB->HDL BUS;*

for dimming control, use ‘single channel dimmer’ (relative dimming), parameter1 is the channel no. of dimmer, *EIB->HDL BUS;*

for status report, use ‘channel status report(1 bit)’, *HDL BUS->EIB*.



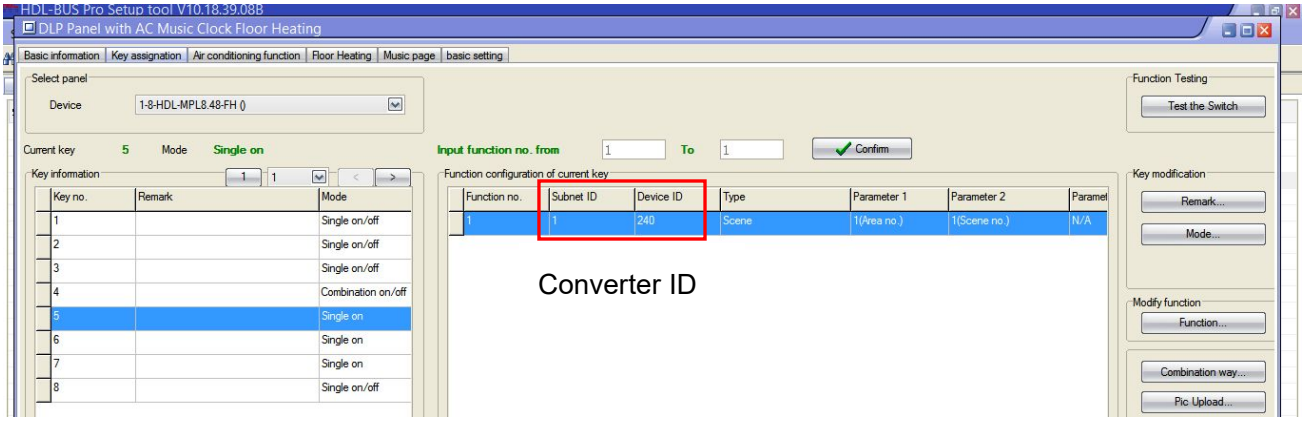
Dimmer ID

5.2.2 Scene Control

1) HDL DLP control KNX/EIB scene

HDL DLP settings:

Set the subnet/device ID of converter for the controlled target, parameter1 is area no., parameter2 is scene no., control mode is single on/combination on.



Converter ID

Converter settings:

EIB group address:

set the scene group address that you want to control

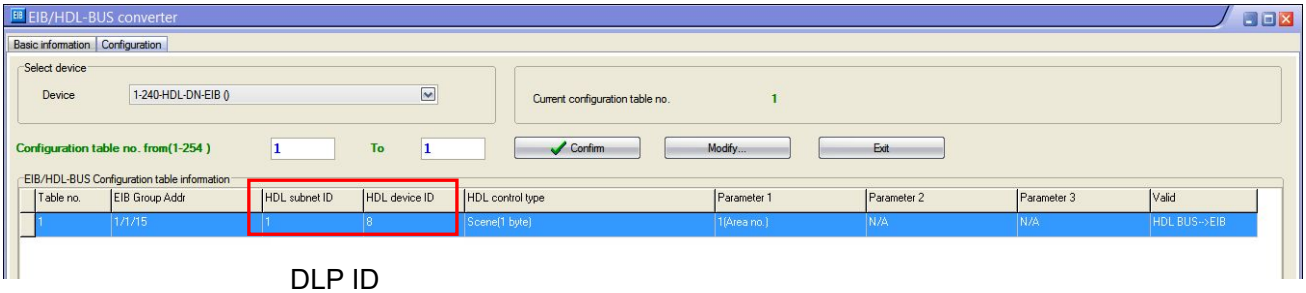
HDL Subent/Device ID:

set the DLP ID which will send out command to control the KNX/EIB scene

HDL Control Type:

Scene(1 byte)

Parameter1: it is same area no. which you have set in the DLP

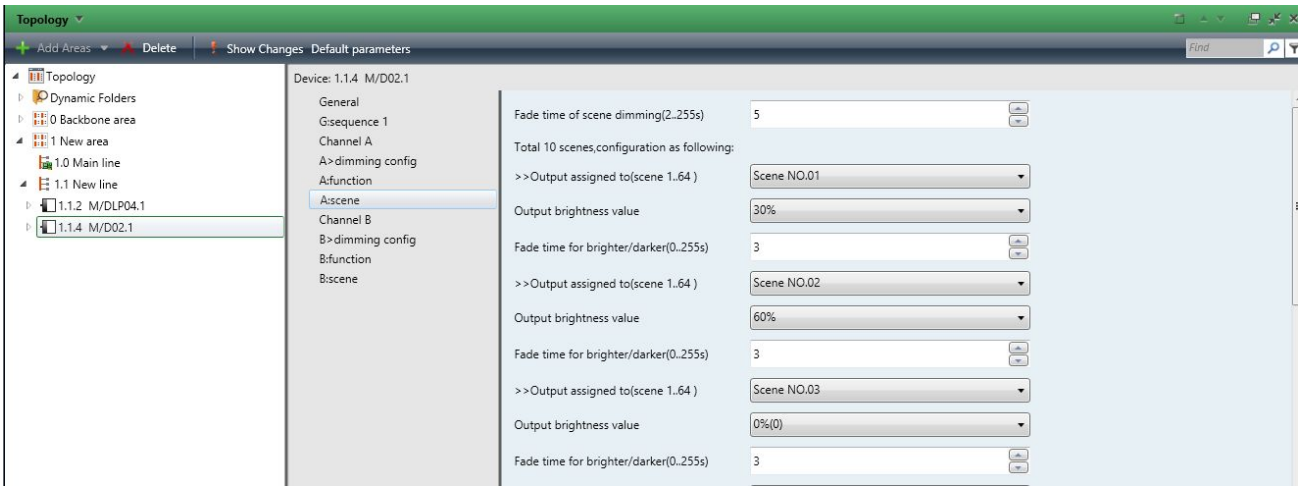


DLP ID

KNX/EIB scene settings:

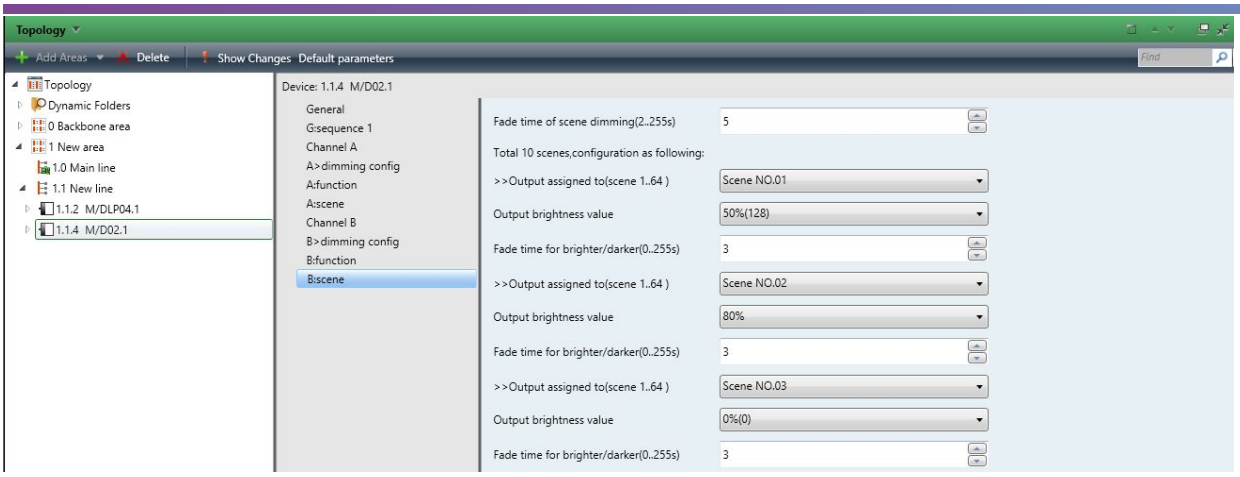
Channel1:

Set the channel1 brightness for different scenes, e.g. Scene1 is 30%, scene2 is 60%, scene3 is 0%;



Channel2:

Set the channel2 brightness for different scenes, e.g. Scene1 is 50%, scene2 is 80%, scene3 is 0%;



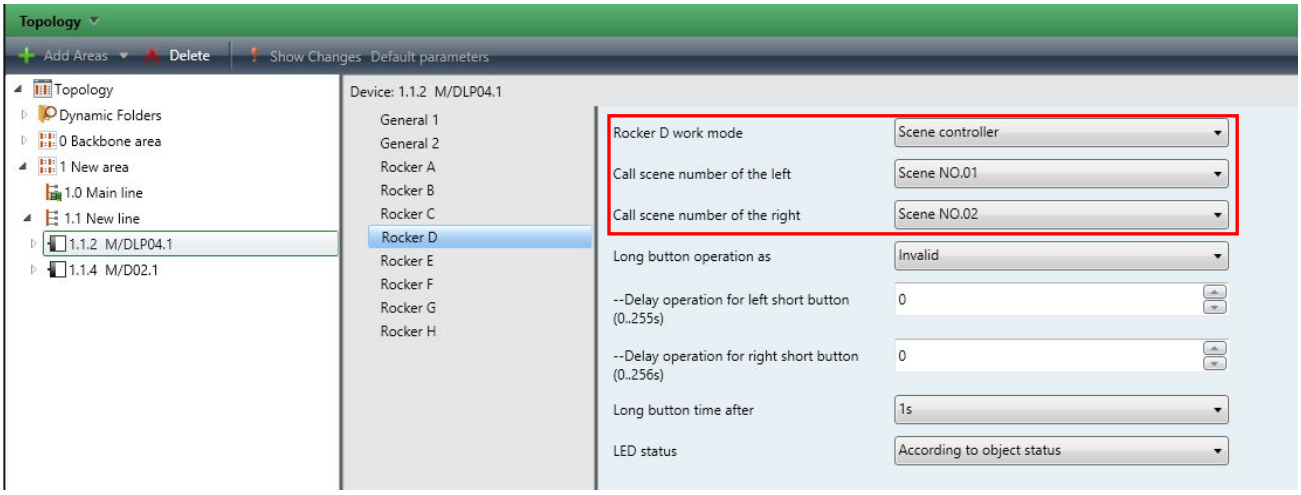
Group address:

Assign group address 1/1/15 for channel1 and channel2 scene object, so when it receives command to call scene1, channel 1 will go to 30%, channel 2 will go to 60%; call scene2, channel 1 will go to 50%, channel 2 will go to 80%; call scene3, channel 1 and 2 will go to 0%.

2) KNX/EIB DLP control HDL scene

KNX/EIB DLP setting:

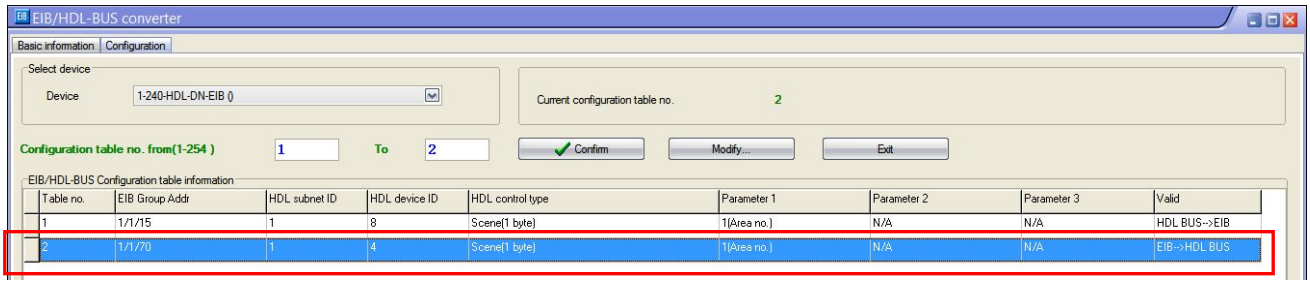
Select ‘scene controller’ for the work mode, and set the scene no. of HDL scene you want to control, e.g. Rocker D left button will call scene1 and right button will call scene2.



Group address:

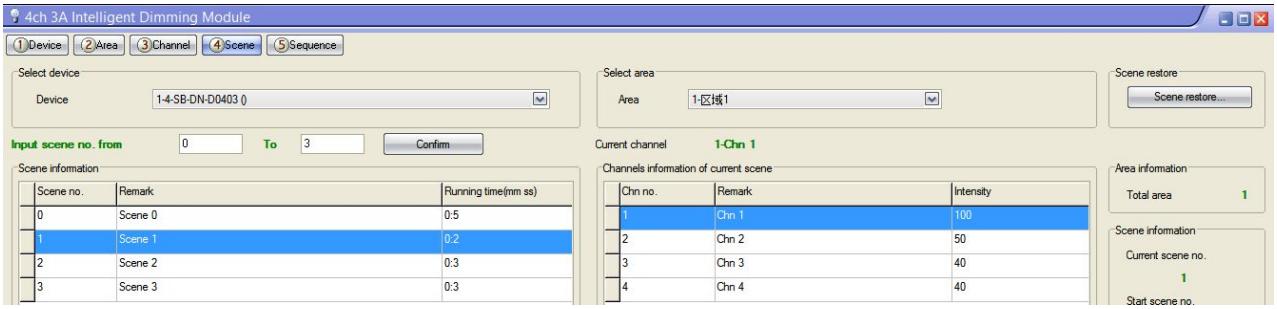
Assign group address for rocker D scene control object, e.g. 1/1/70.

Converter settings:

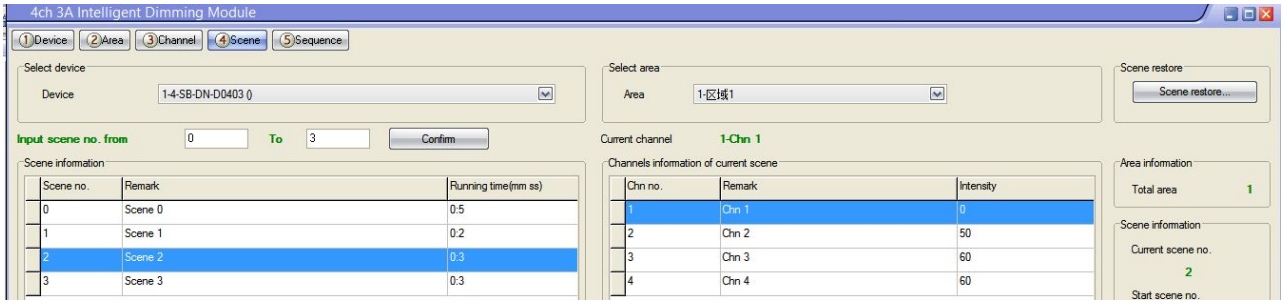


HDL Buspro scene settings:

Scene1:



Scene2:

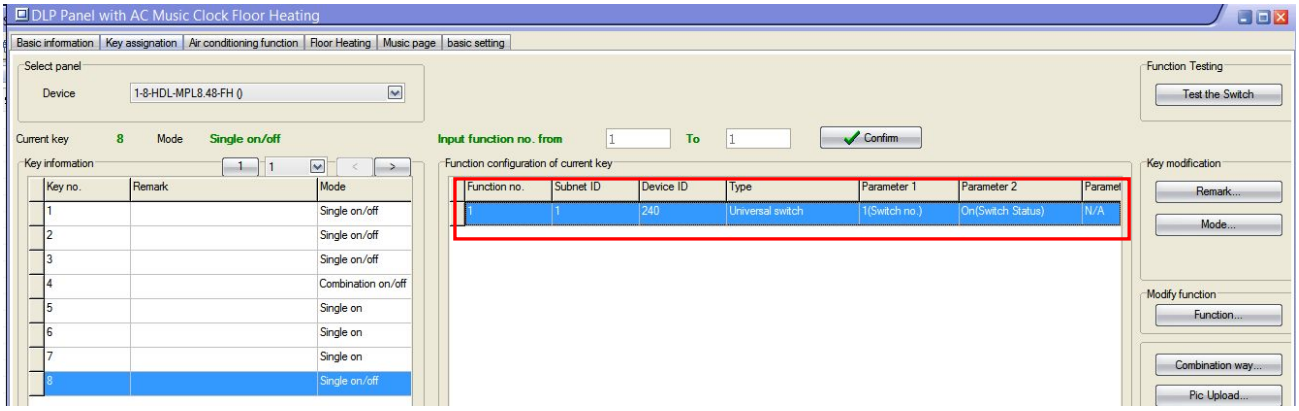


5.2.3 Sequence Control

1) HDL DLP control KNX/EIB sequence

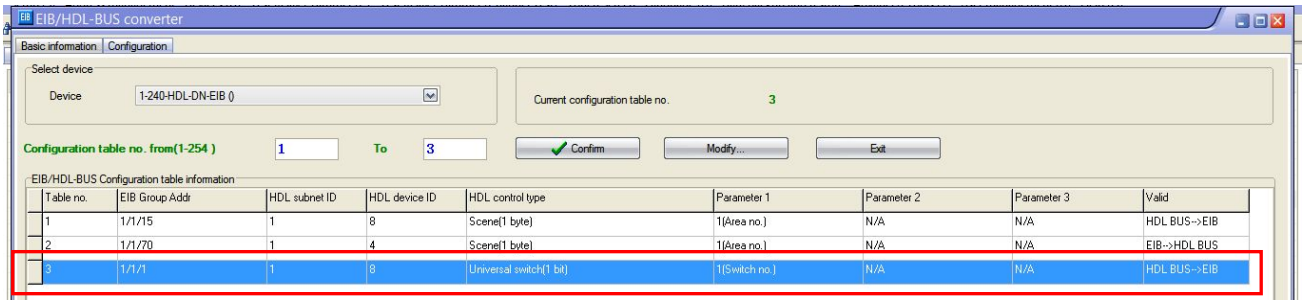
HDL DLP settings:

Set the subnet/device ID of converter for the controlled target, use ‘UV Switch’ command type to control.

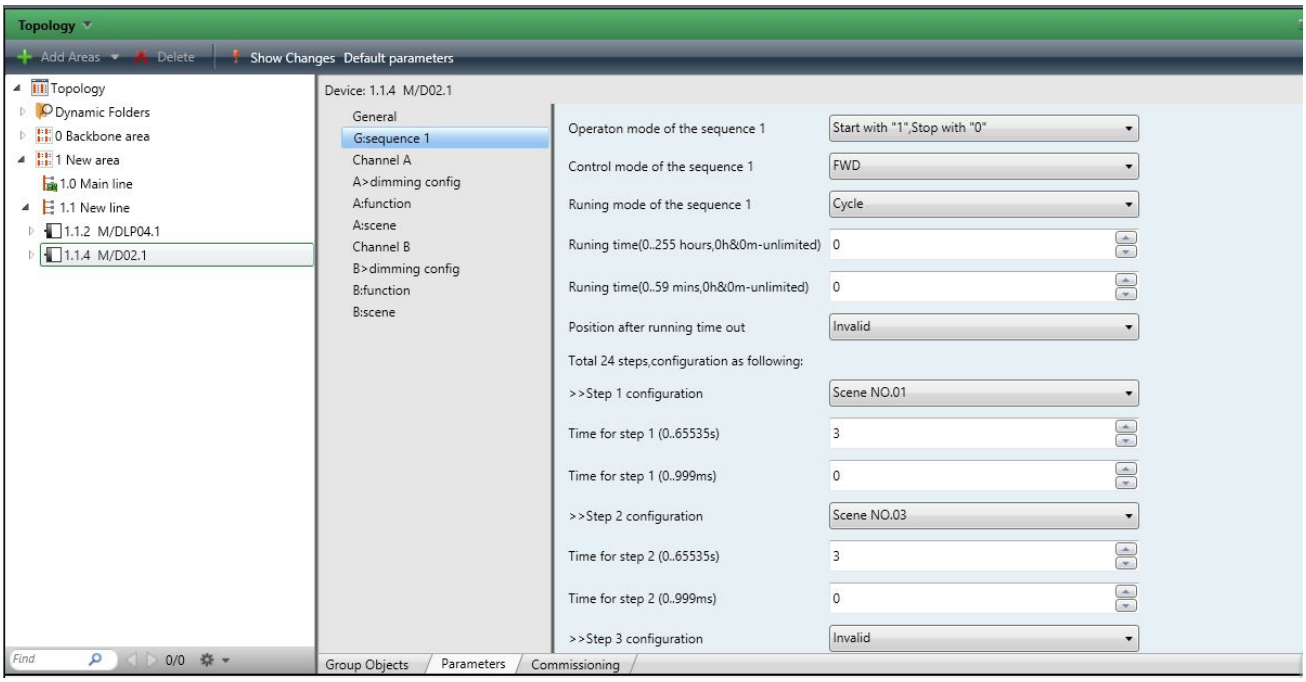


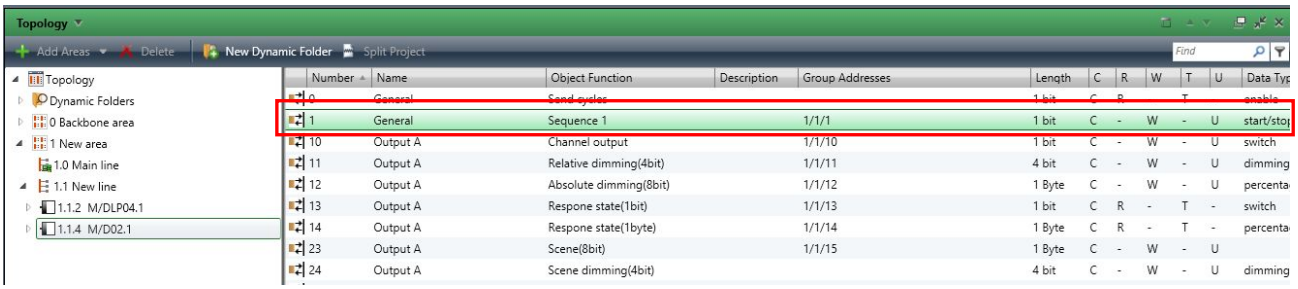
Converter settings:

Control type is ‘UV switch’, switch no. is same as the switch no. which has set in the panel



KNX/EIB sequence settings:

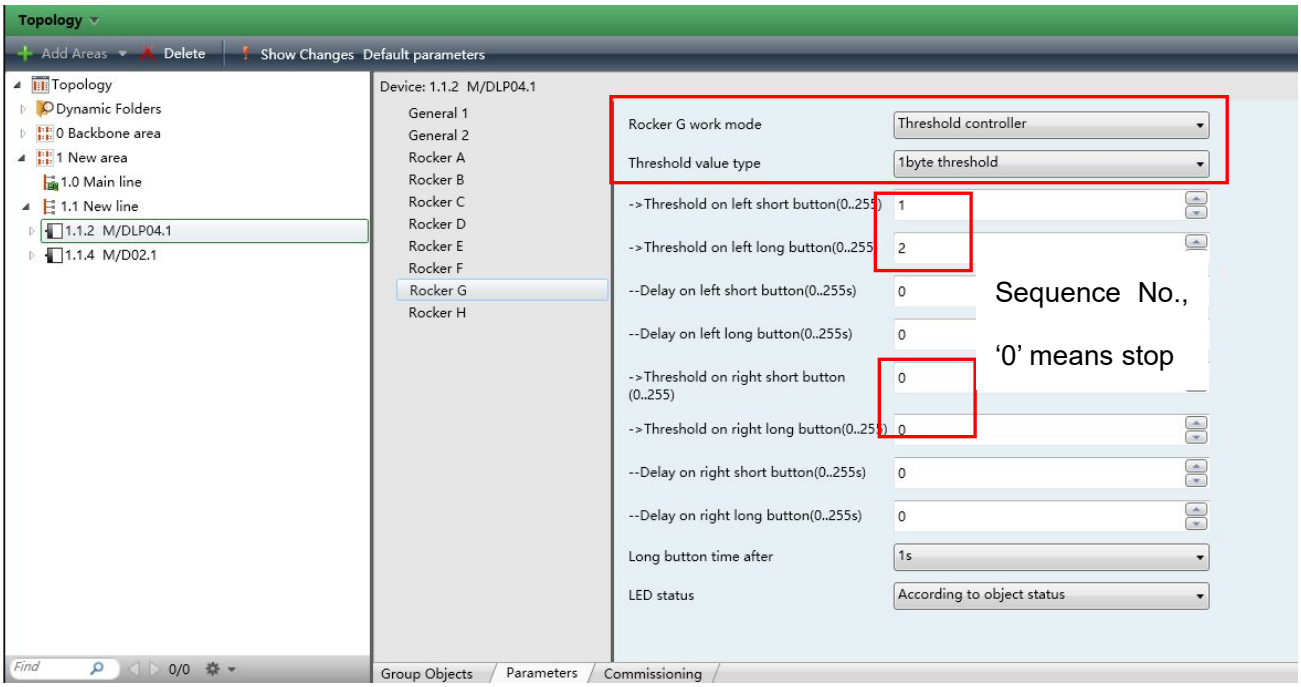


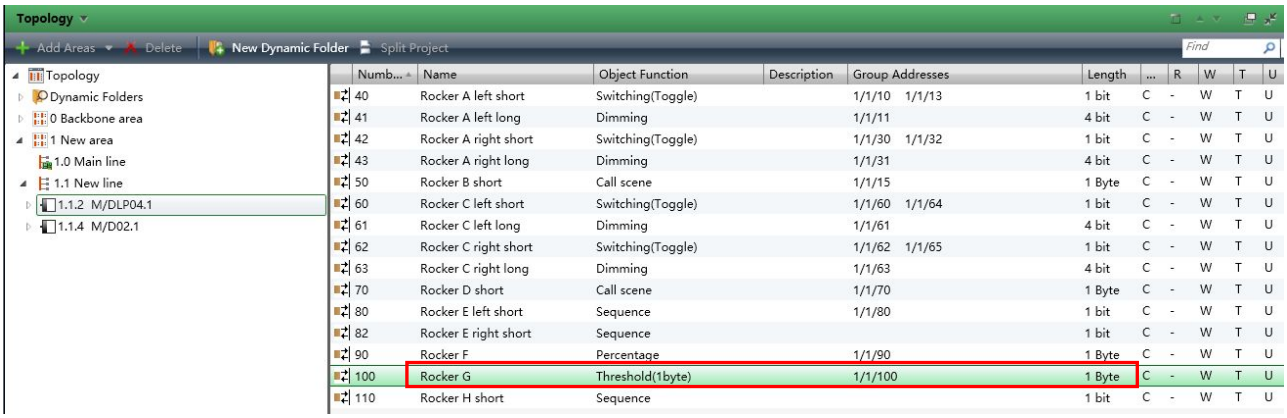


2) KNX/EIB DLP control HDL sequence

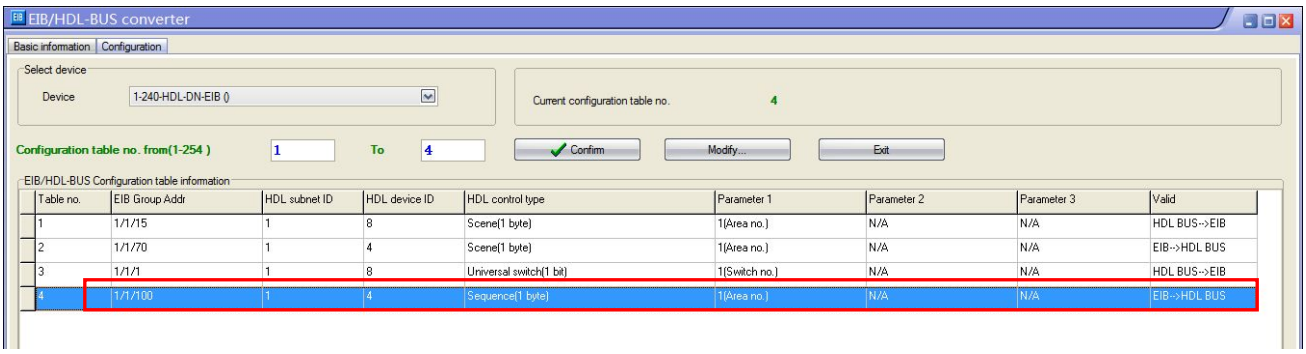
KNX/EIB DLP settings:

Select ‘1 byte threshold’ as control type, the input threshold value is the sequence no. of HDL sequence, ‘0’ means stop running the sequence.





Converter settings:

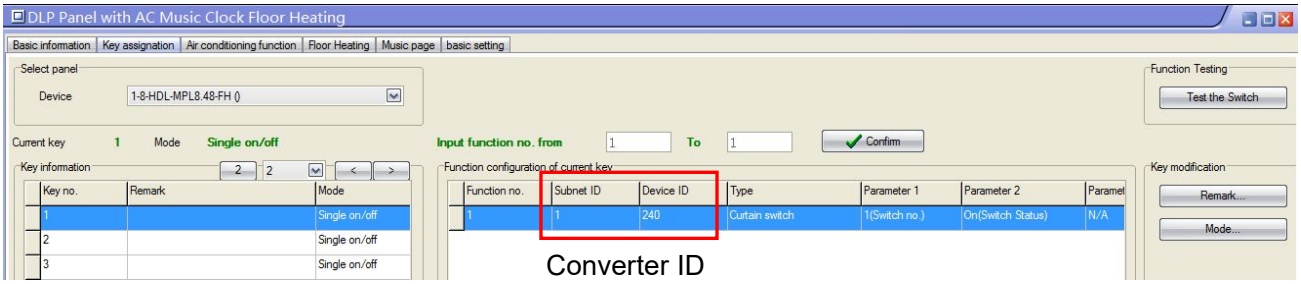


5.2.4 Curtain Control

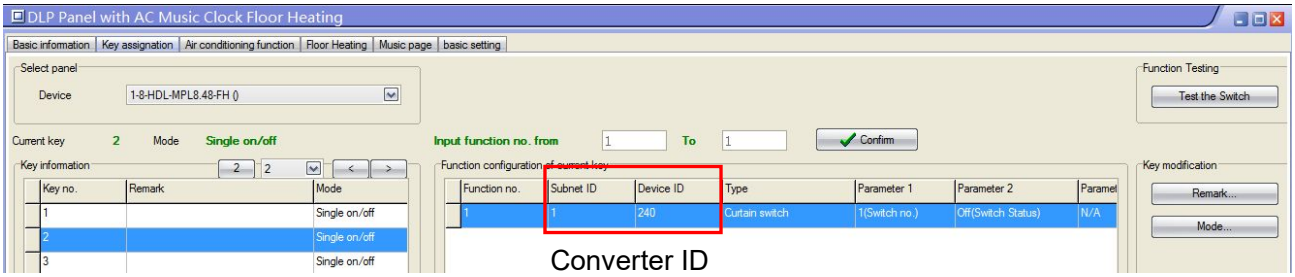
1) HDL DLP control KNX/EIB curtain

HDL DLP settings:

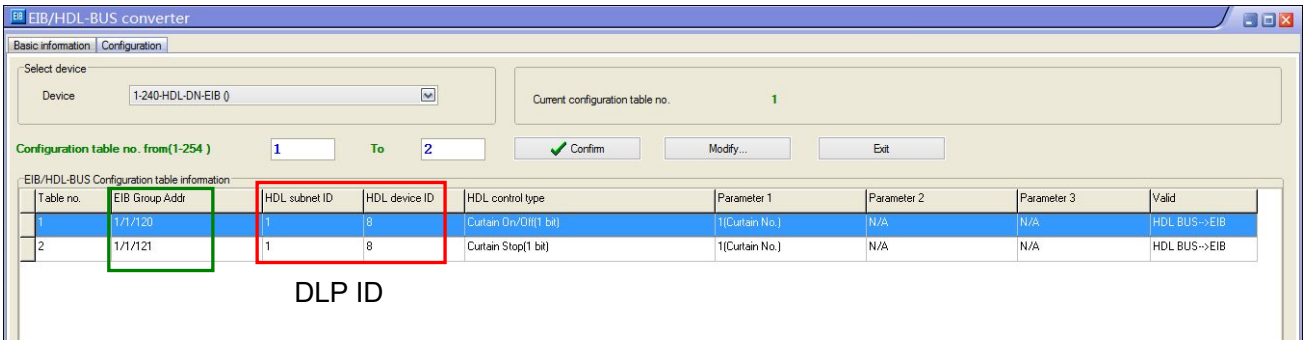
Single on/off control, parameter2 is on, then can open/stop the curtain channel1(parameter1 is ch no.)



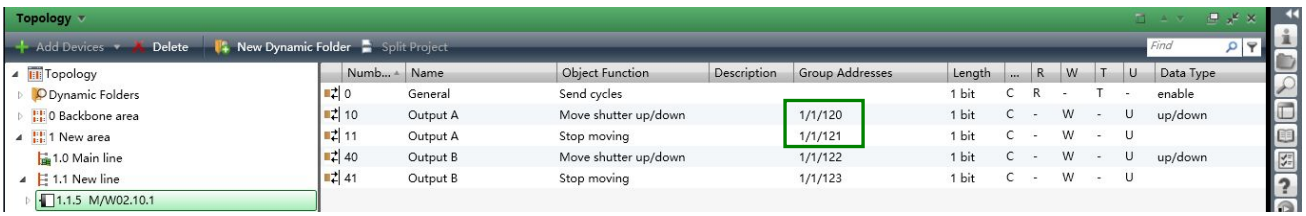
Single on/off control, parameter2 is off, then can close/stop the curtain channel1(parameter1 is ch no.)



Converter settings:

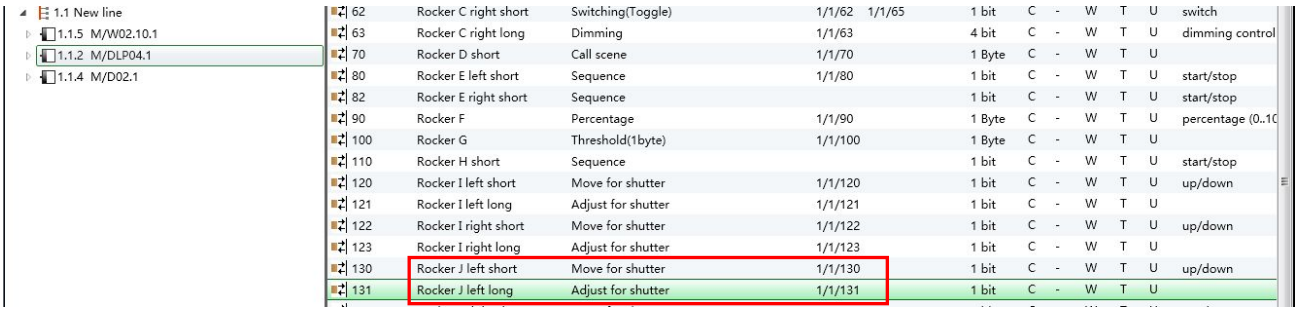


KNX/EIB curtain settings:

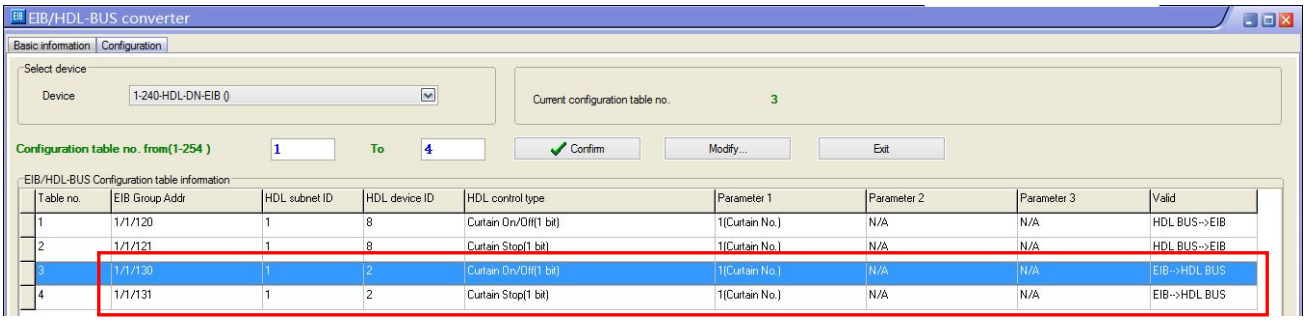


2) KNX/EIB DLP control HDL curtain

KXN/EIB DLP settings:



Converter settings：



Curtain module ID

6. Note