

User Manual

Revision 1.000
English

DALI / RS485 - Converter

(Order Code: HD67831-4-B2-Y, HD67831-4-B2-N)

for Website information:

www.adfweb.com?Product=HD67831

for Price information:

www.adfweb.com?Price=HD67831-4-B2

Benefits and Main Features:

- ✚ Very easy to configure
- ✚ Electrical isolation
- ✚ Temperature range: -40°C/85°C (-40°F/185°F)



For others DALI products, see also the following links:

Converter DALI to

www.adfweb.com?Product=HD67822
www.adfweb.com?Product=HD67832
www.adfweb.com?Product=HD67833
www.adfweb.com?Product=HD67834
www.adfweb.com?Product=HD67835
www.adfweb.com?Product=HD67836
www.adfweb.com?Product=HD67837
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www.adfweb.com?Product=HD67840
www.adfweb.com?Product=HD67842
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www.adfweb.com?Product=HD67848
www.adfweb.com?Product=HD67849
www.adfweb.com?Product=HD67850

(KNX)
 (BACnet/IP Master)
 (BACnet/IP Slave)
 (CAN)
 (CANopen)
 (DeviceNet Master)
 (DeviceNet Slave)
 (DMX)
 (Ethernet)
 (EtherNet/IP)
 (Modbus Master)
 (Modbus Slave)
 (Modbus TCP Master)
 (Modbus TCP Slave)
 (PROFINET)
 (SNMP Manager)
 (SNMP Agent)

Do you have an your customer protocol?

www.adfweb.com?Product=HD67003

Do you need to choose a device? do you want help?

www.adfweb.com?Cmd=helpme



User Manual

INDEX:

	Page
INDEX	2
UPDATED DOCUMENTATION	2
REVISION LIST	2
WARNING	2
TRADEMARKS	2
SECURITY ALERT	3
EXAMPLE OF CONNECTION	4
CONNECTION SCHEME	5
CHARACTERISTICS	6
CONFIGURATION	6
POWER SUPPLY	7
FUNCTION MODES	8
LEDS	9
DALI	10
RS485	11
ETHERNET	12
USE OF COMPOSITOR SW67831	13
NEW PROJECT / OPEN PROJECT	14
SOFTWARE OPTIONS	15
SET COMMUNICATION	17
DALI ACCESS	18
UPDATE DEVICE	19
USE OF DALI CONSOLE SOFTWARE	21
STRUCTURE OF THE SOFTWARE	22
SETUP	23
NETWORK SETTING	24
SERIAL PROTOCOL	29
MECHANICAL DIMENSIONS	33
ORDERING INFORMATIONS	34
ACCESSORIES	34
DISCLAIMER	35
OTHER REGULATIONS AND STANDARDS	35
WARRANTIES AND TECHNICAL SUPPORT	36
RETURN POLICY	36

UPDATED DOCUMENTATION:

Dear customer, we thank you for your attention and we remind you that you need to check that the following document is:

- ✚ Updated
- ✚ Related to the product you own

To obtain the most recently updated document, note the “document code” that appears at the top right-hand corner of each page of this document.

With this “Document Code” go to web page www.adfweb.com/download/ and search for the corresponding code on the page. Click on the proper “Document Code” and download the updates.

REVISION LIST:

Revision	Date	Author	Chapter	Description
1.000	05/04/2017	Ff	All	First Release

WARNING:

ADFweb.com reserves the right to change information in this manual about our product without warning.

ADFweb.com is not responsible for any error this manual may contain.

TRADEMARKS:

All trademarks mentioned in this document belong to their respective owners.

SECURITY ALERT:**GENERAL INFORMATION**

To ensure safe operation, the device must be operated according to the instructions in the manual. When using the device, legal and safety regulation are required for each individual application. The same applies also when using accessories.

INTENDED USE

Machines and systems must be designed so the faulty conditions do not lead to a dangerous situation for the operator (i.e. independent limit switches, mechanical interlocks, etc.).

QUALIFIED PERSONNEL

The device can be used only by qualified personnel, strictly in accordance with the specifications. Qualified personnel are persons who are familiar with the installation, assembly, commissioning and operation of this equipment and who have appropriate qualifications for their job.

RESIDUAL RISKS

The device is state-of-the-art and is safe. The instruments can represent a potential hazard if they are inappropriately installed and operated by untrained personnel. These instructions refer to residual risks with the following symbol:

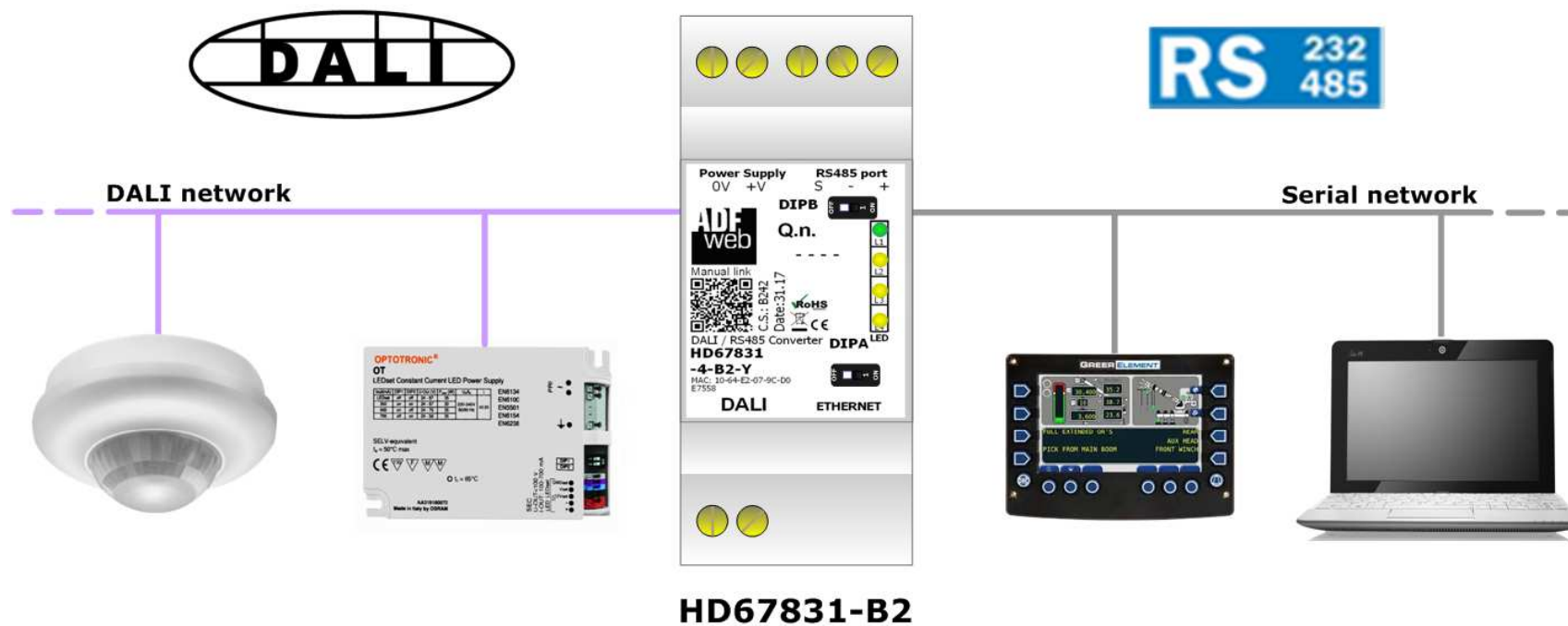


This symbol indicates that non-observance of the safety instructions is a danger for people that could lead to serious injury or death and / or the possibility of damage.

CE CONFORMITY

The declaration is made by our company. You can send an email to support@adfweb.com or give us a call if you need it.

EXAMPLE OF CONNECTION:



CONNECTION SCHEME:

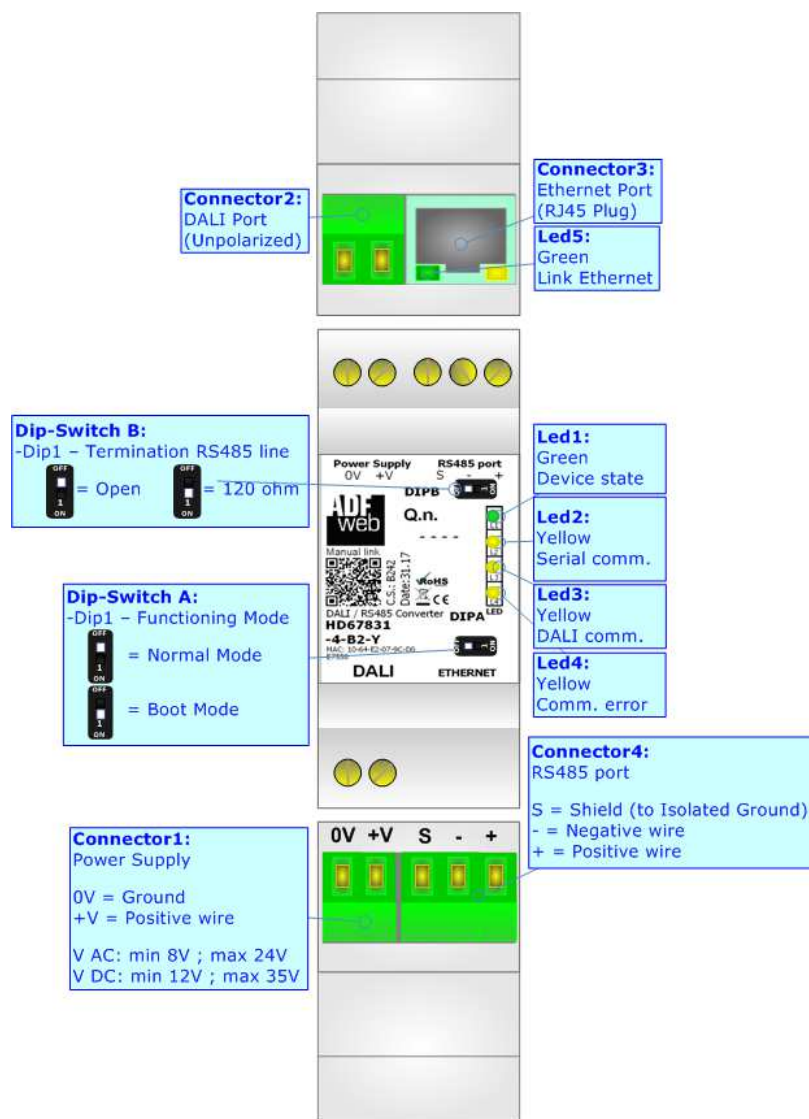


Figure 1: Connection scheme for HD67831-4-B2

CHARACTERISTICS:

The HD67831 is a DALI / RS485 - Converter.

It has the following characteristics:

- Up to 64 devices on DALI bus;
- Configurator for DALI network/devices;
- Isolation between DALI – RS485, Power Supply – RS485. Additional isolation Power Supply – DALI for HD67831-4-B2-N version;
- Two-directional information between DALI bus and RS485 bus;
- Mountable on 35mm Rail DIN;
- Wide power supply input range: 8...24V AC or 12...35V DC;
- Wide temperature range: -40°C / 85°C [-40°F / +185°F].

CONFIGURATION:

You need “DALI Console” software on your PC in order to perform the following:


- Configure the DALI network;
- Setup the DALI devices (groups, scenes, IDs, ...);
- Test DALI communication.

You need Compositor SW67831 software on your PC in order to perform the following:

- Define the parameter of RS485 line;
- Define the parameter of DALI line;
- Update the device.

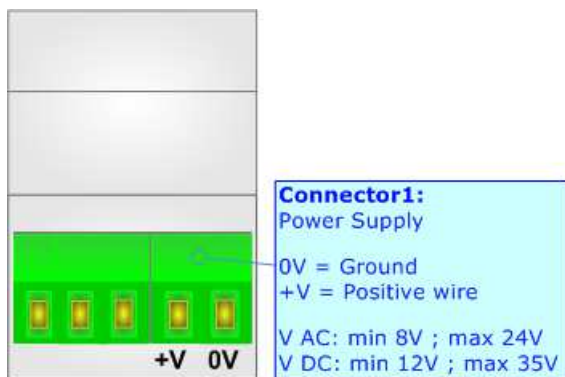
POWER SUPPLY:

The devices can be powered at 8...24V AC and 12...35V DC. For more details see the two tables below.

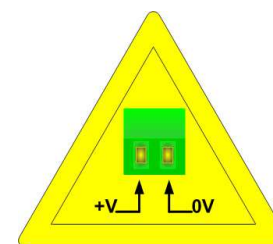
VAC 		VDC 	
Vmin	Vmax	Vmin	Vmax
8V	24V	12V	35V

Consumption at 24V DC:

Device	Consumption [W/VA]
HD67831-4-B2	3.5



Caution: Not reverse the polarity power



HD67831-4-B2

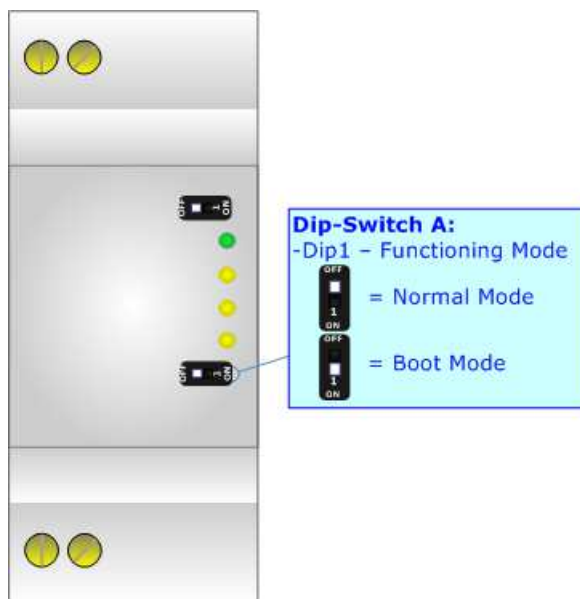
FUNCTION MODES:

The device has got two functions mode depending of the position of the 'Dip1 of Dip-Switch A':

- The first, with 'Dip1 of Dip-Switch A' at "OFF" position, is used for the normal working of the device.
- The second, with 'Dip1 of Dip-Switch A' at "ON" position, is used for upload the Project and/or Firmware.

For the operations to follow for the updating, see 'UPDATE DEVICE' section.

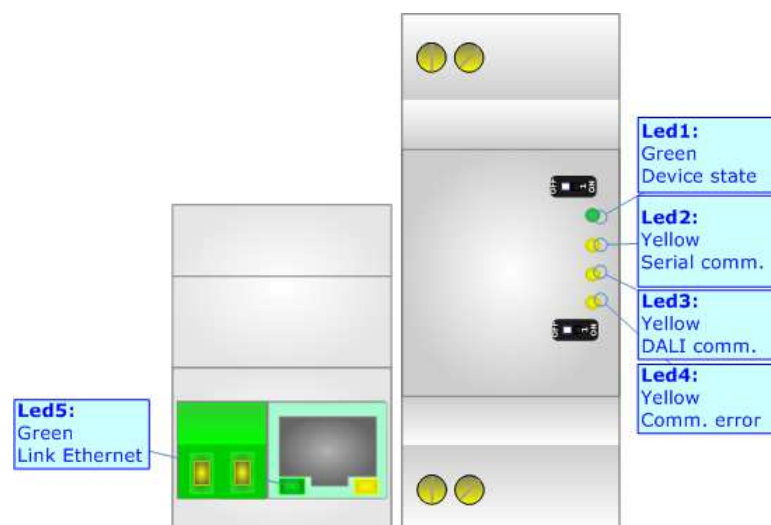
According to the functioning mode, the LEDs will have specifics functions, see 'LEDS' section.



LEDS:

The device has got five LEDs that are used to give information of the functioning status.
The various meanings of the LEDs are described in the table below.

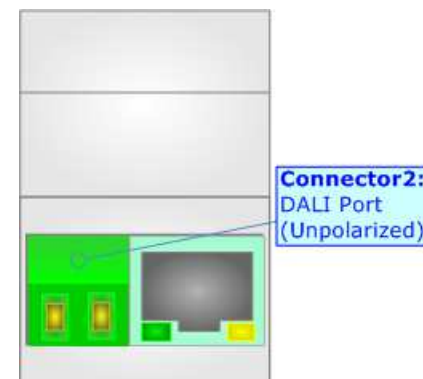
LED	Normal Mode	Boot Mode
1: Device State (green)	Blinks slowly ($\sim 1\text{Hz}$)	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
2: Serial communication (yellow)	Blinks when RS485 communication is running	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
3: DALI communication (yellow)	Blinks when DALI communication is running	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
4: Comm. error (yellow)	Turns ON when DALI is in error	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
5: Ethernet Link (green)	ON: Ethernet cable connected OFF: Ethernet cable disconnected	ON: Ethernet cable connected OFF: Ethernet cable disconnected



DALI:

DALI stands for “Digital Addressable Lighting Interface” and it is an interface protocol for digital communication between electronic lighting equipment (electronic ballasts, transformers, etc.).

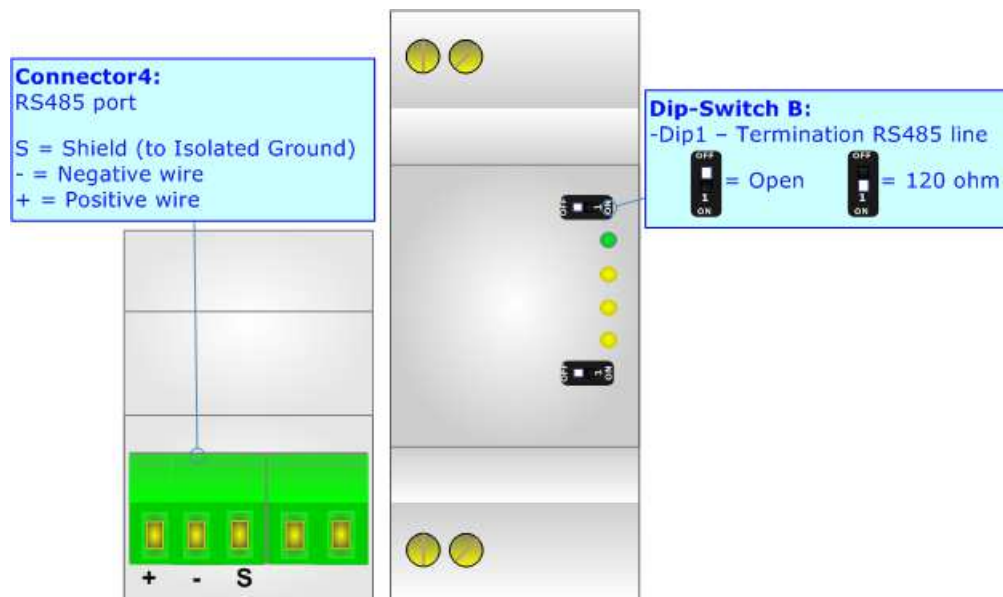
With the right choice of individual DALI components an extremely wide range of requirements can be met, from operating the lighting system from a simple light switch to lighting management systems for entire office complexes with thousands of light sources. Using ADFweb.com’s DALI converters, any light source, including incandescent lamps, fluorescent lamps, high-intensity discharge lamps and even LEDs, can be controlled irrespective of whether they are installed in an office, a restaurant or a street light.



Characteristics	Description
Medium	Shielded Twisted Pair
Topology	Linear, Star or mixed
Device power consumption	Max 250 mA
DALI voltage	9.5 V – 22.5 V (typical 16 V)
Maximum cable length	300 m (1.5 mm ² wire)
Maximum number of DALI devices	64
Baud rate	1200 bps
Maximum number of DALI groups	16
Maximum number of DALI scenes	16

RS485:

For terminate the RS485 line with a 120Ω resistor it is necessary to put ON dip 1, like in figure.



The maximum length of the cable should be 1200m (4000 feet).

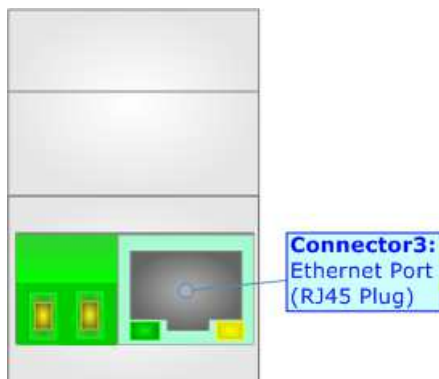
Here some codes of cables:

- Belden: p/n 8132 - 2x 28AWG stranded twisted pairs conductor + foil shield + braid shield;
- Belden p/n 82842 - 2x 24AWG stranded twisted pairs conductor + foil shield + braid shield;
- Tasker: p/n C521 - 1x 24AWG twisted pair conductor + foil shield + braid shield;
- Tasker: p/n C522 - 2x 24AWG twisted pairs conductor + foil shield + braid shield.

ETHERNET:

The Ethernet port is used for programming DALI network and for programming the device.

The Ethernet connection must be made using Connector2 of HD67831-4-B2 with at least a Category 5E cable. The maximum length of the cable should not exceed 100m. The cable has to conform to the T568 norms relative to connections in cat.5 up to 100 Mbps. To connect the device to an Hub/Switch is recommended the use of a straight cable, to connect the device to a PC is recommended the use of a cross cable.



USE OF COMPOSITOR SW67831:

To configure the Converter, use the available software that runs with Windows called SW67831. It is downloadable on the site www.adfweb.com and its operation is described in this document. *(This manual is referenced to the last version of the software present on our web site)*. The software works with MSWindows (XP, Vista, Seven, 8, 10; 32/64bit).

When launching the SW67831, the window below appears (Fig. 2).

**Note:**

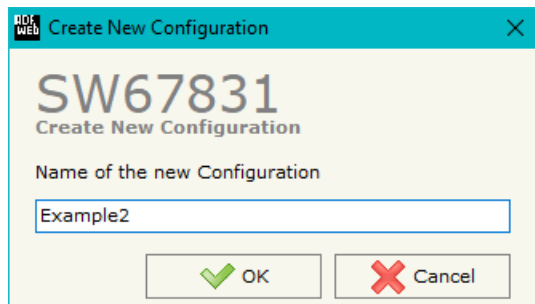
It is necessary to have installed .Net Framework 4.



Figure 2: Main window for SW67831

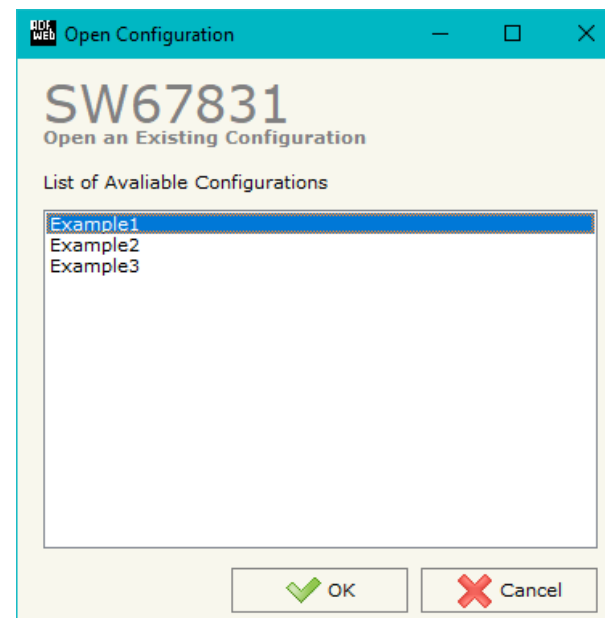
NEW CONFIGURATION / OPEN CONFIGURATION:

The “**New Configuration**” button creates the folder which contains the entire device’s configuration.




A device’s configuration can also be imported or exported:

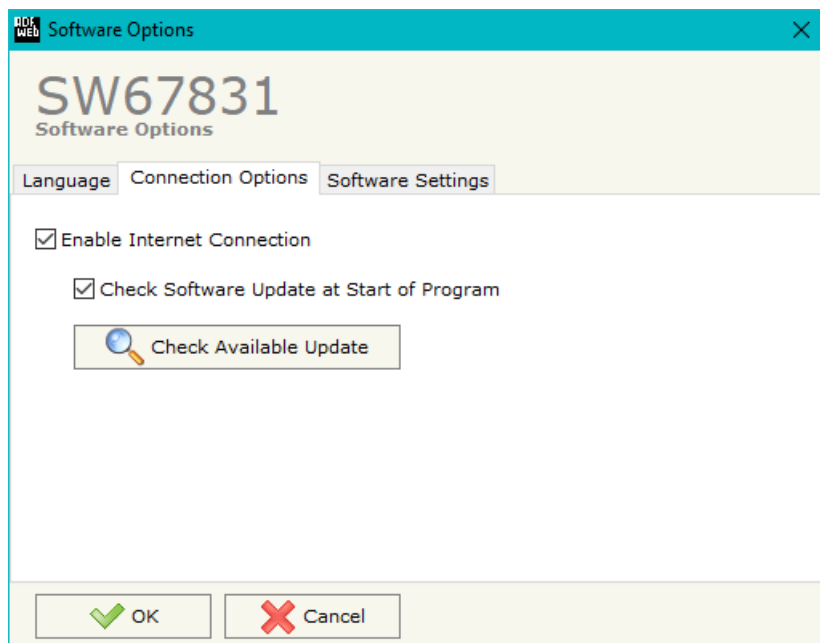
- To clone the configurations of a Programmable “DALI / RS485 - Converter” in order to configure another device in the same manner, it is necessary to maintain the folder and all its contents;
- To clone a project in order to obtain a different version of the project, it is sufficient to duplicate the project folder with another name and open the new folder with the button “**Open Configuration**”.



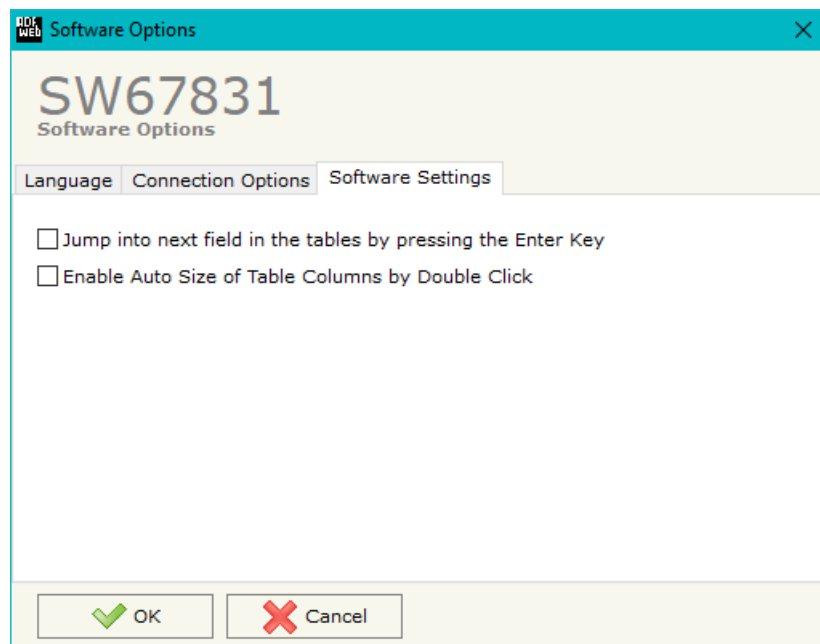
SOFTWARE OPTIONS:

By pressing the “**Settings**” () button there is the possibility to change the language of the software and check the updatings for the compositor.

In the section “Language” it is possible to change the language of the software.



In the section “Connection Options”, it is possible to check if there are some updatings of the software compositor in ADFweb.com website. Checking the option “**Check Software Update at Start of Program**”, the SW67831 check automatically if there are updatings when it is launched.



In the section "Software Settings", it is possible to enable/disable some keyboard's commands for an easier navigation inside the tables contained in the different sections of the software.

SET COMMUNICATION:

This section define the fundamental communication parameters of RS485 and DALI bus.

By Pressing the "**Set Communication**" button from the main window for SW67831 (Fig. 2) the window "Set Communication" appears (Fig. 3).

The means of the fields for the "Serial" section are:

- In the field "**Baudrate**" the baudrate for the serial line is defined;
- In the field "**Parity**" the parity of the serial line is defined.

The means of the fields for the "DALI" section are:

- In the field "**DALI Console Port**" the UDP port used for the communication with 'DALI Console' software is defined.

The means of the fields for the "Ethernet" section are:

- In the field "**IP ADDRESS**" the IP address of the converter is defined;
- In the field "**SUBNET Mask**" the SubNet Mask is defined;
- In the field "**GATEWAY**" the default gateway of the Ethernet network is defined. This feature can be enabled or disabled pressing the Check Box field. This feature is used for going out of the net;

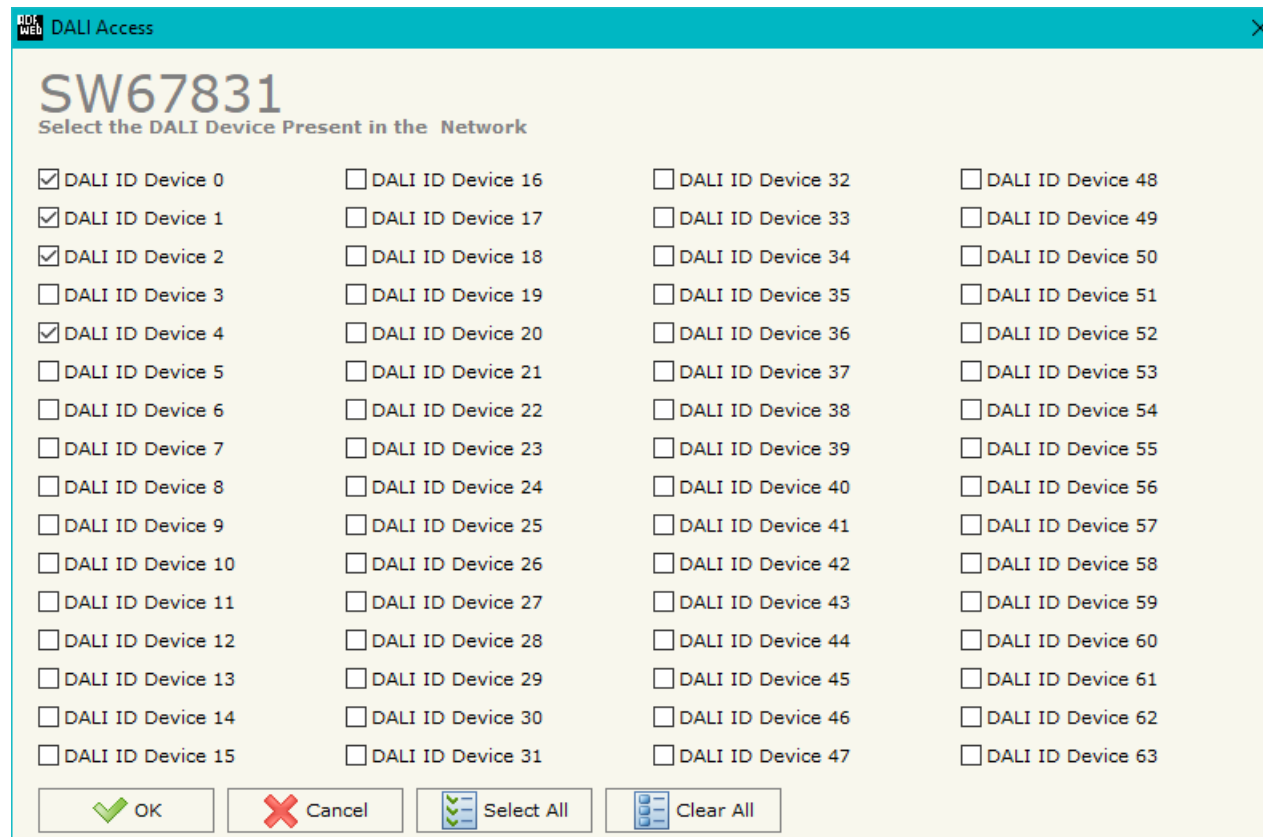
The screenshot shows a web-based configuration window titled "Set Communication" for device "SW67831". The window is organized into three main sections: "Serial", "DALI", and "Ethernet". The "Serial" section includes a "Baudrate" dropdown set to "115200" and a "Parity" dropdown set to "NONE". The "DALI" section has a "DALI Console Port" text input field containing "10001". The "Ethernet" section contains an "IP ADDRESS" field with four sub-inputs (192, 168, 0, 10), a "SUBNET Mask" field with four sub-inputs (255, 255, 255, 0), and a "GATEWAY" section with an unchecked checkbox and a corresponding four-part input field (192, 168, 0, 1). At the bottom of the window are "OK" and "Cancel" buttons.

Figure 3: "Set Communication" window

DALI ACCESS:

By pressing the “**DALI Access**” button from the main window for SW67831 (Fig. 2) the window “Select the DALI Device Present in the Network” appears (Fig. 4).

This section is used to define the DALI devices connected to the converter. It is enough to check/uncheck the connected/unconnected DALI devices.



DALI Access

SW67831

Select the DALI Device Present in the Network

<input checked="" type="checkbox"/> DALI ID Device 0	<input type="checkbox"/> DALI ID Device 16	<input type="checkbox"/> DALI ID Device 32	<input type="checkbox"/> DALI ID Device 48
<input checked="" type="checkbox"/> DALI ID Device 1	<input type="checkbox"/> DALI ID Device 17	<input type="checkbox"/> DALI ID Device 33	<input type="checkbox"/> DALI ID Device 49
<input checked="" type="checkbox"/> DALI ID Device 2	<input type="checkbox"/> DALI ID Device 18	<input type="checkbox"/> DALI ID Device 34	<input type="checkbox"/> DALI ID Device 50
<input type="checkbox"/> DALI ID Device 3	<input type="checkbox"/> DALI ID Device 19	<input type="checkbox"/> DALI ID Device 35	<input type="checkbox"/> DALI ID Device 51
<input checked="" type="checkbox"/> DALI ID Device 4	<input type="checkbox"/> DALI ID Device 20	<input type="checkbox"/> DALI ID Device 36	<input type="checkbox"/> DALI ID Device 52
<input type="checkbox"/> DALI ID Device 5	<input type="checkbox"/> DALI ID Device 21	<input type="checkbox"/> DALI ID Device 37	<input type="checkbox"/> DALI ID Device 53
<input type="checkbox"/> DALI ID Device 6	<input type="checkbox"/> DALI ID Device 22	<input type="checkbox"/> DALI ID Device 38	<input type="checkbox"/> DALI ID Device 54
<input type="checkbox"/> DALI ID Device 7	<input type="checkbox"/> DALI ID Device 23	<input type="checkbox"/> DALI ID Device 39	<input type="checkbox"/> DALI ID Device 55
<input type="checkbox"/> DALI ID Device 8	<input type="checkbox"/> DALI ID Device 24	<input type="checkbox"/> DALI ID Device 40	<input type="checkbox"/> DALI ID Device 56
<input type="checkbox"/> DALI ID Device 9	<input type="checkbox"/> DALI ID Device 25	<input type="checkbox"/> DALI ID Device 41	<input type="checkbox"/> DALI ID Device 57
<input type="checkbox"/> DALI ID Device 10	<input type="checkbox"/> DALI ID Device 26	<input type="checkbox"/> DALI ID Device 42	<input type="checkbox"/> DALI ID Device 58
<input type="checkbox"/> DALI ID Device 11	<input type="checkbox"/> DALI ID Device 27	<input type="checkbox"/> DALI ID Device 43	<input type="checkbox"/> DALI ID Device 59
<input type="checkbox"/> DALI ID Device 12	<input type="checkbox"/> DALI ID Device 28	<input type="checkbox"/> DALI ID Device 44	<input type="checkbox"/> DALI ID Device 60
<input type="checkbox"/> DALI ID Device 13	<input type="checkbox"/> DALI ID Device 29	<input type="checkbox"/> DALI ID Device 45	<input type="checkbox"/> DALI ID Device 61
<input type="checkbox"/> DALI ID Device 14	<input type="checkbox"/> DALI ID Device 30	<input type="checkbox"/> DALI ID Device 46	<input type="checkbox"/> DALI ID Device 62
<input type="checkbox"/> DALI ID Device 15	<input type="checkbox"/> DALI ID Device 31	<input type="checkbox"/> DALI ID Device 47	<input type="checkbox"/> DALI ID Device 63

☒ OK ☐ Cancel ☒ Select All ☐ Clear All

Figure 4: "DALI Access" window

UPDATE DEVICE:

By pressing the “**Update Device**” button, it is possible to load the created Configuration into the device; and also the Firmware, if necessary.

If you don't know the actual IP address of the device you have to use this procedure:

- Turn OFF the Device;
- Put Dip1 of 'Dip-Switch A' in ON position;
- Turn ON the device
- Connect the Ethernet cable;
- Insert the IP “**192.168.2.205**”;
- Select which operations you want to do;
- Press the “**Execute update firmware**” button to start the upload;
- When all the operations are “OK”, close the windows;
- Put Dip1 of 'Dip-Switch A' at OFF position.

If you know the actual IP address of the device, you have to use this procedure:

- Turn ON the Device with the Ethernet cable inserted;
- Insert the actual IP of the Converter;
- Select which operations you want to do;
- Press the “**Execute update firmware**” button to start the upload;
- When all the operations are “OK”, the device automatically goes at Normal Mode.

At this point the configuration/firmware on the device is correctly update.

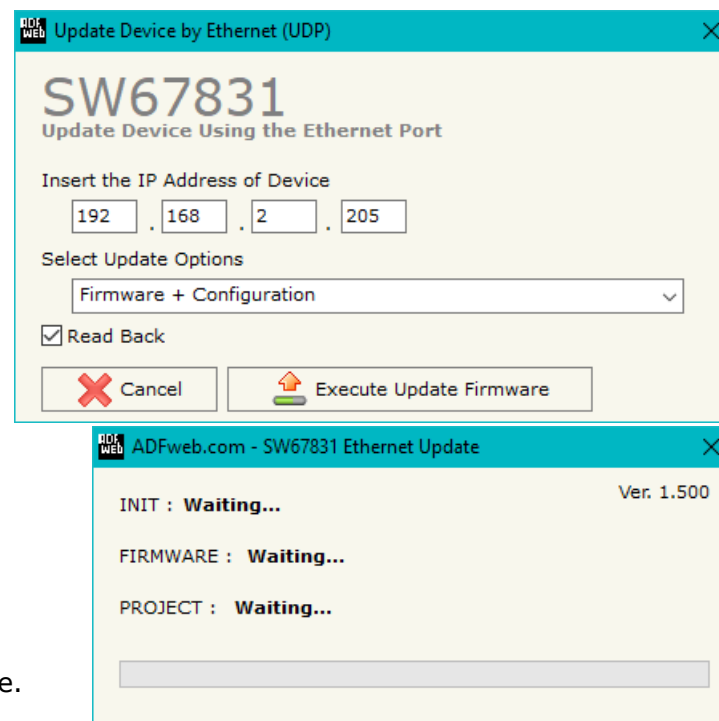


Figure 5: "Update device" windows



Note:

When you install a new version of the software, if it is the first time it is better you do the update of the Firmware in the HD67831 device.



Note:

When you receive the device, for the first time, you also have to update the Firmware in the HD67831 device.



Warning:

If Fig. 6 appears when you try to do the Update try these points before seeking assistance:

- Try to repeat the operations for the updating;
- Try with another PC;
- Try to restart the PC;
- Check the LAN settings;
- Check the Wi-Fi settings;
- If you are using the program inside a Virtual Machine, try to use in the main Operating System;
- If you are using Windows Seven, Vista, 8 or 10 make sure that you have the administrator privileges;
- In case you have to program more than one device, using the "UDP Update", you have to cancel the ARP table every time you connect a new device on Ethernet. For do this you have to launch the "Command Prompt" and write the command "arp -d". Pay attention that with Windows Vista, Seven, 8, 10 you have to launch the "Command Prompt" with Administrator Rights;
- Pay attention at Firewall lock.

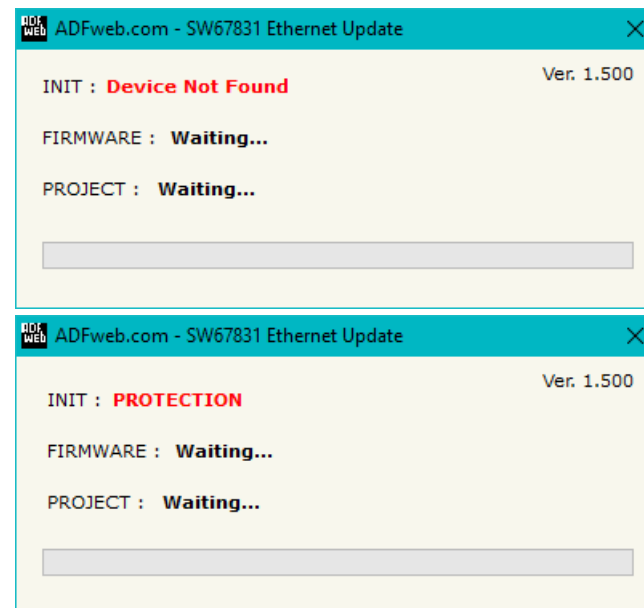


Figure 6: "Protection" window



In the case of HD67831 you have to use the software "SW67831": www.adfweb.com/download/filefold/SW67831.zip.

USE OF DALI CONSOLE SOFTWARE:

To configure DALI network and test the communication, it is possible to use the available software that runs with Windows called "DALI Console". It is downloadable on the site www.adfweb.com and its operation is described in this document. *(This manual is referenced to the last version of the software present on our web site).* The software works with MSWindows (XP, Vista, Seven, 8, 10; 32/64bit).

When launching the DALI Console, the window below appears (Fig. 7).

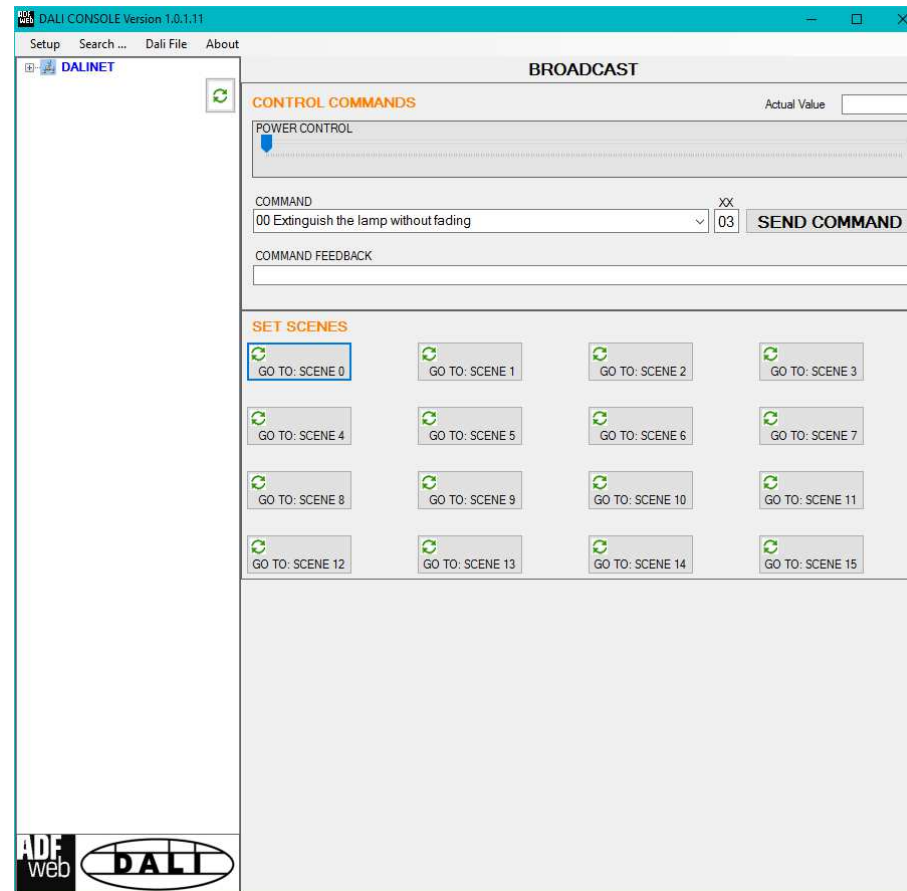
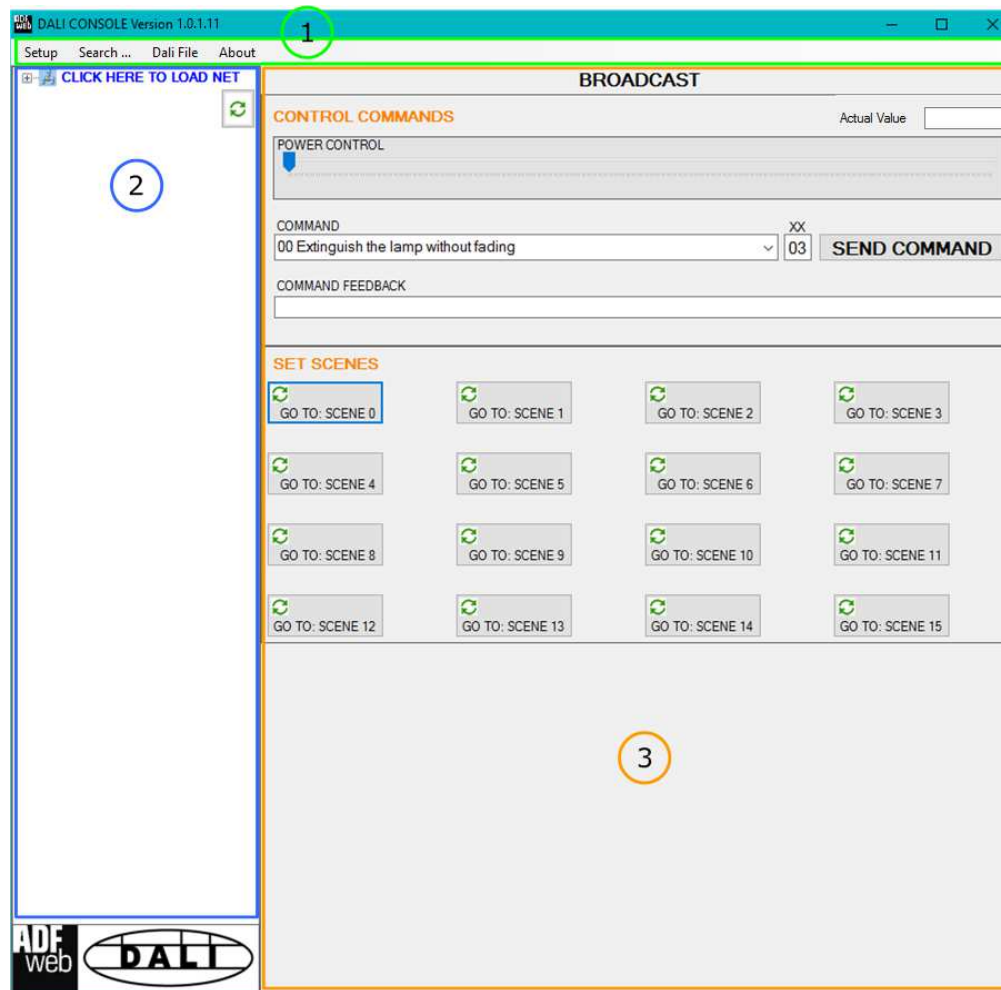


Figure 7: Main window for DALI Console

STRUCTURE OF THE SOFTWARE:

The software layout is very simple and it is structured in this way:

- **"Menu bar"** (Fig. 8, Point 1): it is possible to open the setup window ("Setup" menu), scan the DALI network and program automatically the IDs ("Search..." menu), export/import the results of the communication ("Dali File" menu) and see the informations about the DALI Console software ("About" menu).
- **"Network view"** (Fig. 8, Point 2): it is possible to see all the DALI devices connected to the HD67831 converter, the groups and the scenes set;
- **"Settings / commands view"** (Fig. 8, Point 3): it is possible to set and manage the parameters to the single DALI device, to the groups or for the full network.



(1) Menu bar

(2) Network view

(3) Settings / commands view

Figure 8: Structure of DALI Console software

SETUP:

This section defines the connection's parameters to the Ethernet side of the HD67831 converter.

By Pressing the "**Setup**" button from the menu bar of the DALI Console software, the "SETUP" window appears (Fig. 9).

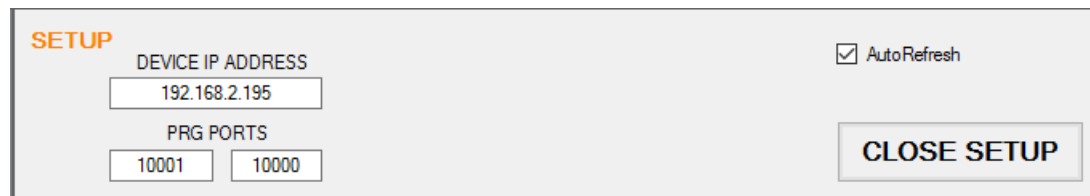



Figure 9: "Setup" window

The means of the fields for the "SETUP" window are:

- In the field "**DEVICE IP ADDRESS**" the IP address set inside the converter is defined;
- In the field "**PRG PORT**" the communication ports used for the Ethernet communication with the converter is defined: the one on the left must be equal to the DALI Port programmed with SW67831, the one on the right must be fixed to '10000'.

NETWORK SETTING:

By pressing the  button in the Network view, it is possible to scan the full DALI network and find all the DALI devices, the groups set and the scenes configured.

By selecting the single DALI devices found, the single groups, the single scene or the entire DALI network, it is possible to manage and test the functioning of the network.

DEVICES:

The means of the fields for "DEVICE INFO" are:

- In the field "**Device Type**" the type of DALI device is printed;
- In the field "**Software version**" the software version of the DALI device is printed;
- In the fields "**Power Range**" Min value, Actual value, Max value, System Fail value, Power On value, Fade Time and Fade Rate of the DALI device is defined. It is possible to read the actual value and set a new value;
- In the fields "**DEVICE STATUS**" the actual status of the DALI device is printed;
- In the field "**SET NEW ADDRESS**" it is possible to program a new ID to the DALI node;
- In the field "**REMOVE ADDRESS**" it is possible to delete the ID from the DALI node.

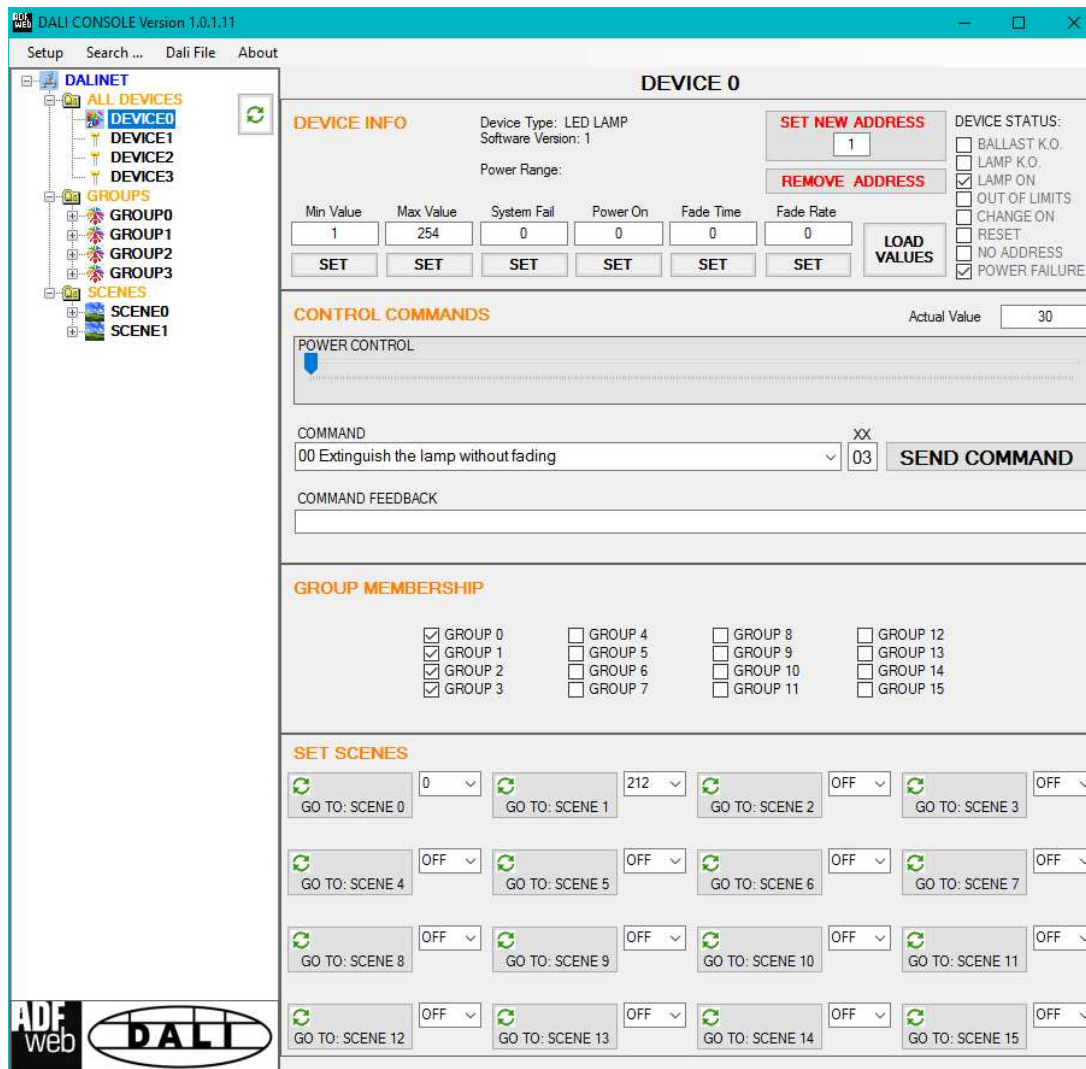


Figure 10: "Device settings" window

The means of the fields for the "CONTROL COMMANDS" section are:

- In the "**POWER CONTROL**" bar it is possible to change the actual ADV of the selected DALI device;
- In the field "**COMMAND**" it is possible to select a DALI command to send to the selected DALI device. For set commands, it is possible to insert the value to set in the field "**xx**". As soon as the command to send is selected, the command is sent: in order to send the same command more times, it is possible to press the "**SEND COMMAND**" button;
- In the field "**COMMAND FEEDBACK**" the response from the DALI device is printed.



Note:

This section is used to test the functioning of the DALI device in the network and to set specific parameters if needed (like new Minimum or Maximum ADV value).

In the "GROUP MEMBERSHIP" section it is possible to see the Groups which the selected DALI device is in. The checked checkboxes mean that the device is in the correspondent groups, the unchecked checkboxes mean that the device is not included in the correspondent groups. It is possible to change the group settings for the selected DALI device by checking/unchecking the correspondent checkboxes.

In the "SET SCENES" section it is possible to see the programmed scenes of the selected DALI device, program new ones and activate them:

- By pressing the buttons "**GO TO: SCENE X**" it is possible to activate the correspondent scene inside the selected DALI device; the programmed ADV for the selected scene is defined in the drop-down list on the right;
- By selecting a value into the drop-down lists next to the "GO TO: SCENE x" buttons, it is possible to set the ADV associated to the correspondent scene. It is possible to select:
 - Value between 0 and 255: the scene will have the defined value of ADV;
 - ACT: the scene will take the programmed ADV value into the "POWER CONTROL" bar;
 - OFF: the scene is disabled.

GROUPS:

The means of the fields for the "CONTROL COMMANDS" section are:

- In the "**POWER CONTROL**" bar it is possible to change the actual ADV of the selected DALI group;
- In the field "**COMMAND**" it is possible to select a DALI command to send to the selected DALI group. For set commands, it is possible to insert the value to set in the field "**xx**". As soon as the command to send is selected, the command is sent: in order to send the same command more times, it is possible to press the "**SEND COMMAND**" button;
- In the field "**COMMAND FEEDBACK**" the response from the DALI group is printed.



Note:

This section is used to test the functioning of the DALI groups in the network.

In the "SET SCENES" section it is possible to activate the programmed scenes to the selected group:

- By pressing the buttons "**GO TO: SCENE X**" it is possible to activate the correspondent scene inside the selected DALI group.

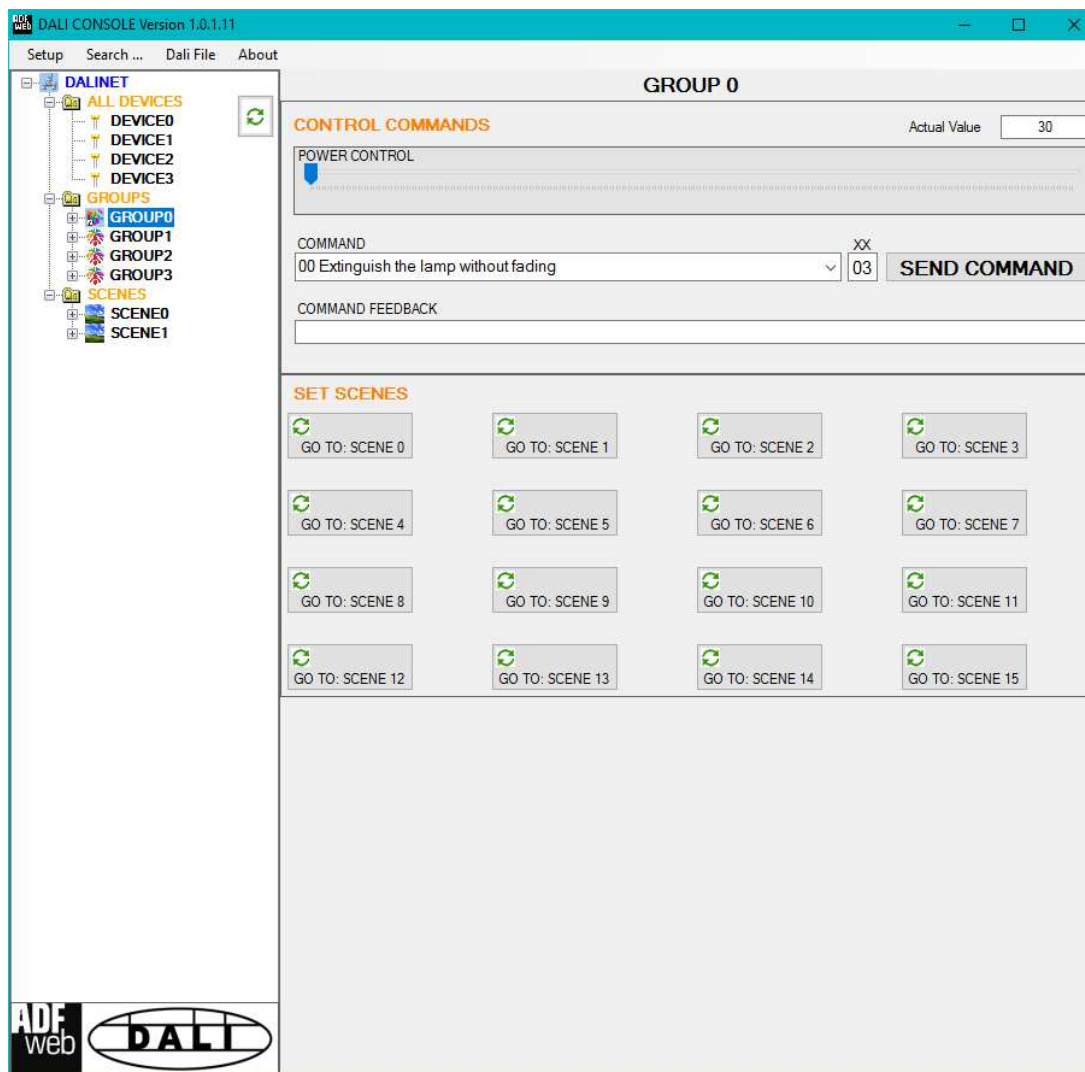


Figure 11: "Groups settings" window

SCENES:

By selecting a DALI scene from the Network view, it is possible to see the devices that have programmed the selected scene.

It is also possible to activate it by pressing the "ACTIVATE SCENE X" button.

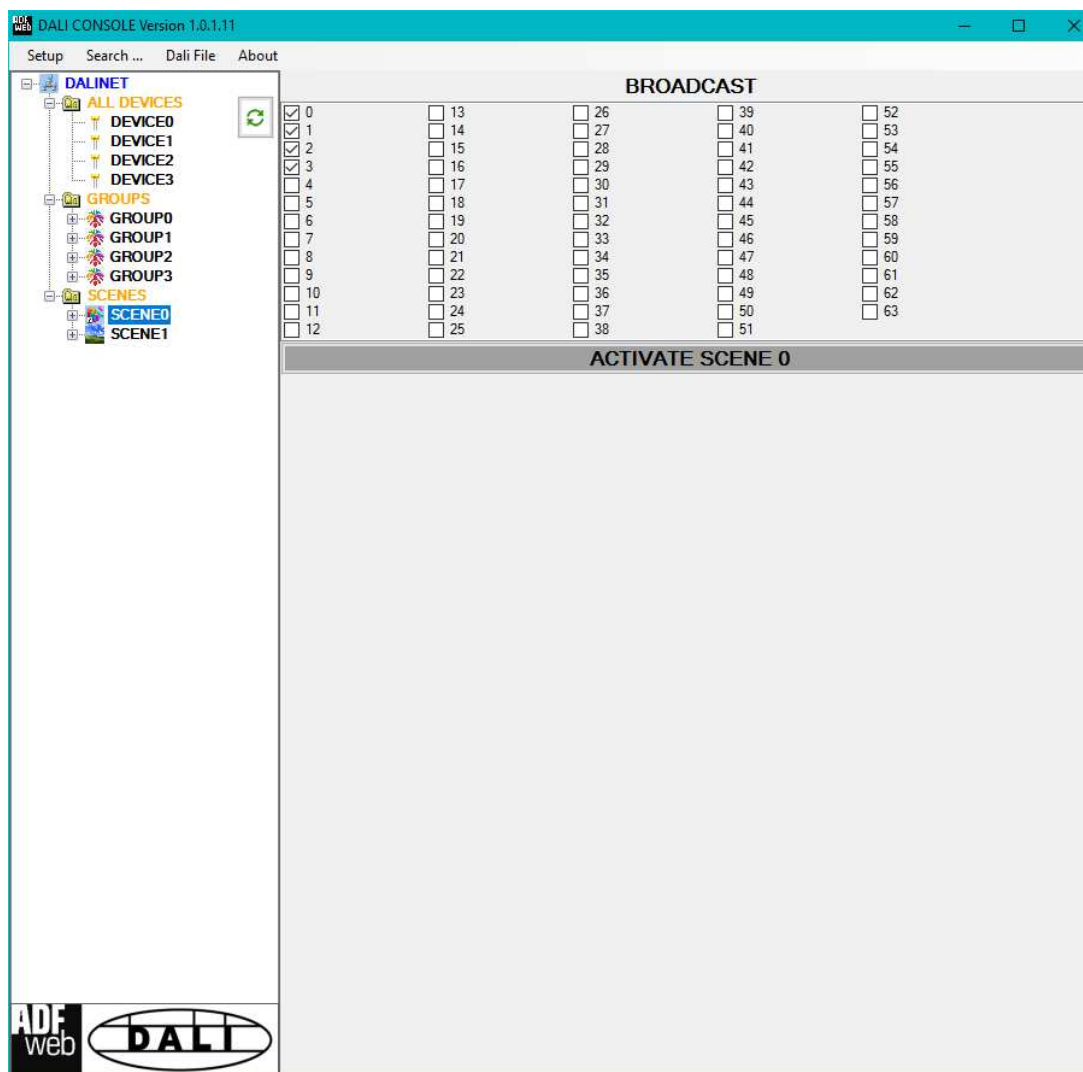


Figure 12: "Scenes settings" window

ALL DEVICES (BROADCAST):

The means of the fields for the "CONTROL COMMANDS" section are:

- In the "**POWER CONTROL**" bar it is possible to change the actual ADV of the entire DALI network;
- In the field "**COMMAND**" it is possible to select a DALI command to send to the entire DALI network. For set commands, it is possible to insert the value to set in the field "**xx**". As soon as the command to send is selected, the command is sent: in order to send the same command more times, it is possible to press the "**SEND COMMAND**" button;
- In the field "**COMMAND FEEDBACK**" the response from the DALI network is printed.

**Note:**

This section is used to test the functioning of the DALI network.

In the "SET SCENES" section it is possible to activate the programmed scenes into all the DALI devices that have them:

- By pressing the buttons "**GO TO: SCENE X**" it is possible to activate the correspondent scene in the DALI network. Only the devices that have it will accept the command.

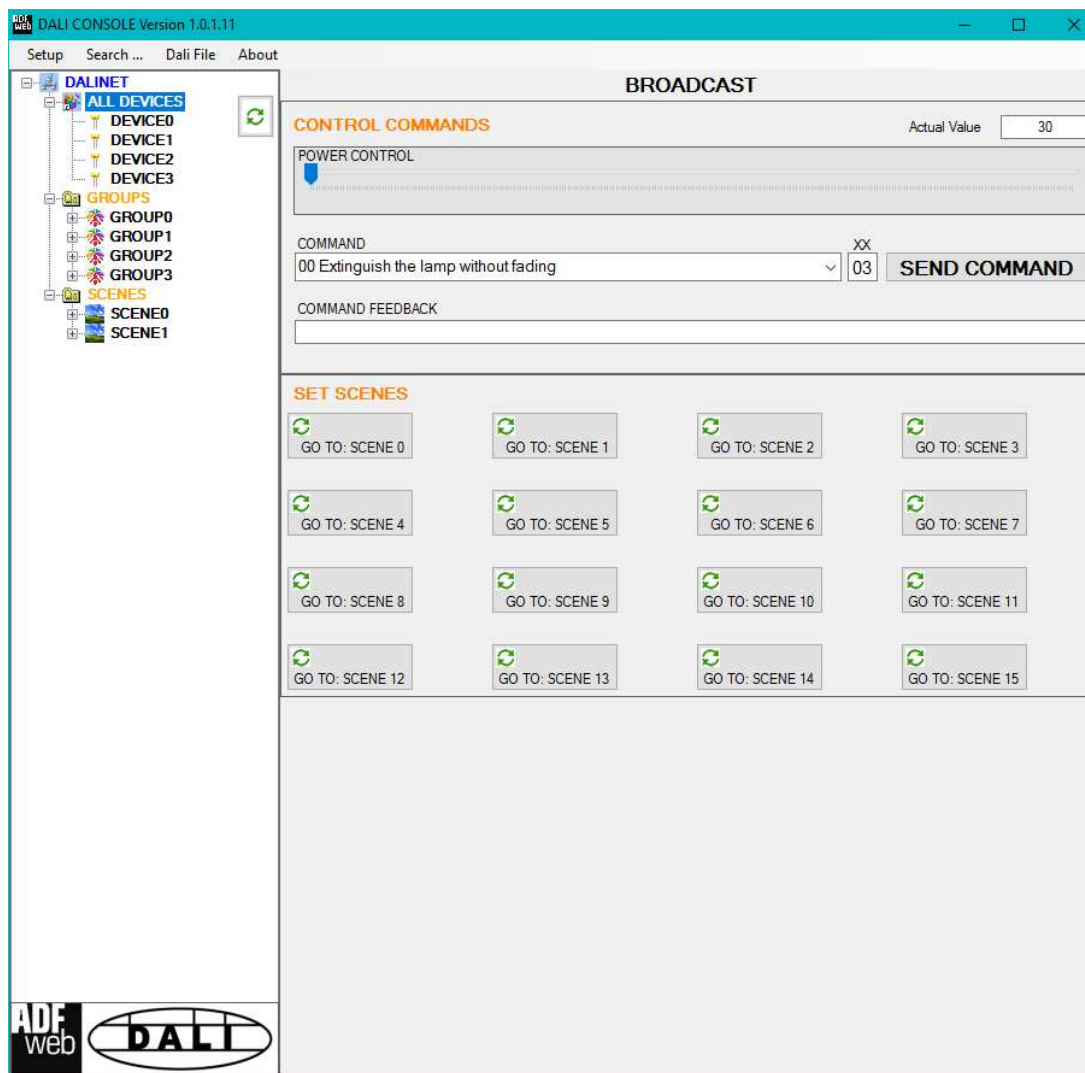


Figure 13: "Broadcast settings" window

SERIAL PROTOCOL

In order to get and set the data from/to DALI side, it is necessary to send simple ASCII commands.

GETTING DATA FROM DALI NODE

This command is used to read a specific DALI node in the network.

REQUEST

I_BAL_ch_00

(ASCII format)

Where:

'ch' = ID of the DALI ballast to read (0 ÷ 63)



Note:

Just 'ch' is variable, the rest of the ASCII string is fixed.

RESPONSE

CHANNEL ch \r\n

ADV=val \r\n

TYPE=typ \r\n

ANSWER=rs \r\n

MIN=min \r\n

MAX=max \r\n

GRP1=g1 \r\n

GRP2=g2 \r\n

SCENES=scn

(ASCII format)

Where:

'ch' = ID of the DALI ballast read;

'val' = actual ADV set;

'typ' = type of DALI lamp;

'rs' = last response to DALI command;

'min' = minimum settable ADV;

'max' = maximum settable ADV;

'g1' = groups set inside the DALI device (from 0 to 7);

'g2' = groups set inside the DALI device (from 8 to 15);

'scn' = scenes programmed inside the DALI device (1 byte for each scene, total of 16 bytes).



Note:

Just 'ch', 'val', 'typ', 'rs', 'min', 'max', 'g1', 'g2' and 'scn' are variable, the rest of the ASCII string is fixed.



Note:

'\r' and '\n' are respectively 'carriage return' and 'line feed'.



Note:

For scenes not set, the value will be 'FF' (ASCII).

SETTING DATA TO A DALI NODE

This command is used to set a specific ADV value into a single DALI node in the network.

REQUEST**S_BAL_ch_val**

(ASCII format)

Where:

'ch' = ID of the DALI ballast to read ($0 \div 63$)

'val' = value of the ADV to set ($0 \div FF$, Hex representation)

**Note:**

Just 'ch' and 'val' are variable, the rest of the ASCII string is fixed.

SETTING DATA TO A DALI GROUP

This command is used to set a specific ADV value into a DALI group in the network.

REQUEST**S_GRP_ch_val**

(ASCII format)

Where:

'ch' = ID of the DALI group to read ($0 \div 15$)

'val' = value of the ADV to set ($0 \div FF$, Hex representation)

**Note:**

Just 'ch' and 'val' are variable, the rest of the ASCII string is fixed.

SETTING DATA TO ENTIRE DALI NETWORK (BROADCAST)

This command is used to set a specific ADV value into a the entire DALI network (broadcast).

REQUEST**S_BRD_00_val**

(ASCII format)

Where:

'val' = value of the ADV to set (0 ÷ FF, Hex representation)

**Note:**

Just 'val' is variable, the rest of the ASCII string is fixed.

SETTING SCENES

This command is used to activate a specific scene into a DALI device, group or broadcast..

REQUEST**S_SCE_sc_id**

(ASCII format)

Where:

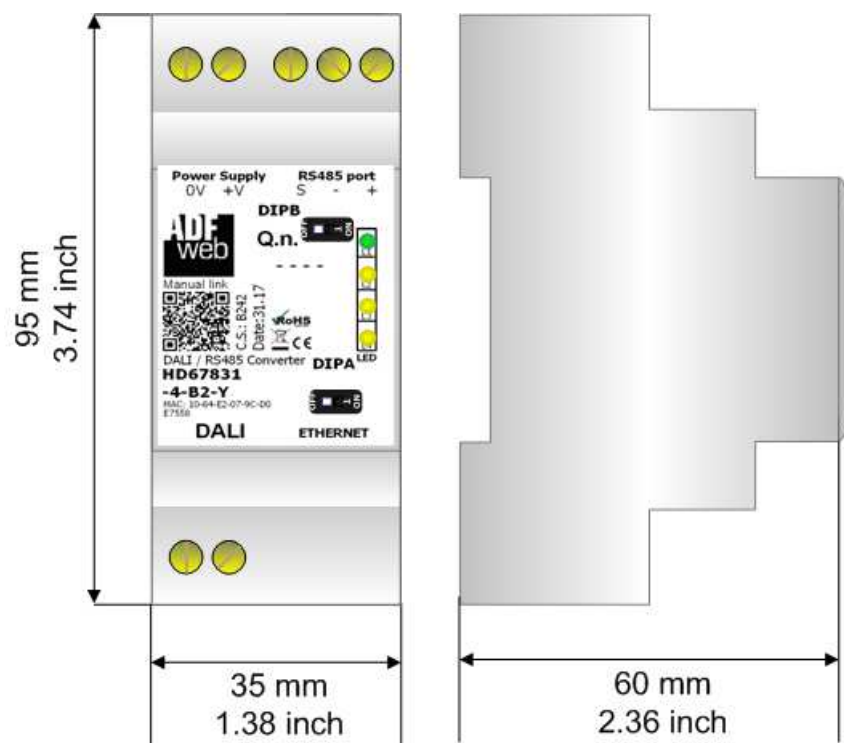
'sc' = scene to activate (0 ÷ 15);

'id' = ID of the DALI node (0 ÷ 63) or group (64 ÷ 79) or broadcast (80).

**Note:**

Just 'sc' and 'id' are variable, the rest of the ASCII string is fixed.

MECHANICAL DIMENSIONS:



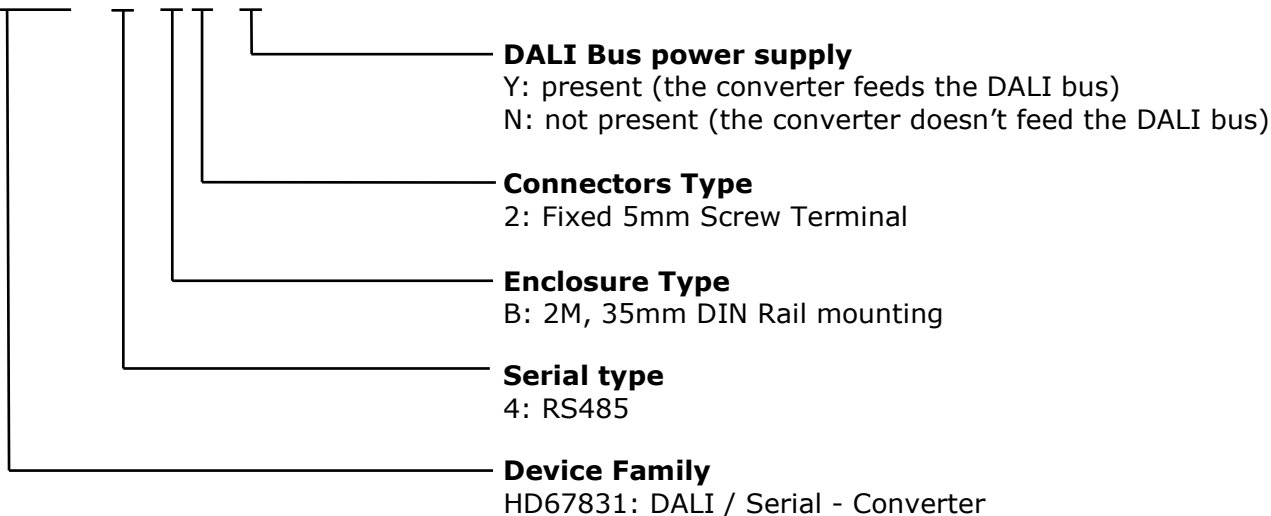
Housing: PVC
Weight: 200g
(Approx)

Figure 14: Mechanical dimensions scheme for HD67831-4-B2-x

ORDERING INFORMATION:

The ordering part number is formed by a valid combination of the following:

HD67831 - 4 - B 2 - x



Order Code: **HD67831-4-B2-Y** - DALI / RS485 – Converter (DALI bus power supply present)
Order Code: **HD67831-4-B2-N** - DALI / RS485 – Converter (DALI bus power supply not present)

ACCESSORIES:

Order Code: **AC34001** - 35mm Rail DIN - Power Supply 220/240V AC 50/60Hz – 12 V AC
Order Code: **AC34002** - 35mm Rail DIN - Power Supply 110V AC 50/60Hz – 12 V AC

DISCLAIMER:

All technical content within this document can be modified without notice. The content of the document is a under continual renewal. For losses due to fire, earthquake, third party access or other accidents, or intentional or accidental abuse, misuse, or use under abnormal conditions repairs are charged to the user. ADFweb.com S.r.l. will not be liable for accidental loss of use or inability to use this product, such as loss of business income. ADFweb.com S.r.l. shall not be liable for consequences of improper use.

OTHER REGULATIONS AND STANDARDS:**WEEE INFORMATION**

Disposal of old electrical and electronic equipment (as in the European Union and other European countries with separate collection systems).

— This symbol on the product or on its packaging indicates that this product may not be treated as household rubbish. Instead, it should be taken to an applicable collection point for the recycling of electrical and electronic equipment. If the product is disposed correctly, you will help prevent potential negative environmental factors and impact of human health, which could otherwise be caused by inappropriate disposal. The recycling of materials will help to conserve natural resources. For more information about recycling this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

RESTRICTION OF HAZARDOUS SUBSTANCES DIRECTIVE

The device respects the 2002/95/EC Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (commonly referred to as Restriction of Hazardous Substances Directive or RoHS).

CE MARKING

The product conforms with the essential requirements of the applicable EC directives.

WARRANTIES AND TECHNICAL SUPPORT:

For fast and easy technical support for your ADFweb.com SRL products, consult our internet support at www.adfweb.com. Otherwise contact us at the address support@adfweb.com

RETURN POLICY:

If while using your product you have any problem and you wish to exchange or repair it, please do the following:

- Obtain a Product Return Number (PRN) from our internet support at www.adfweb.com. Together with the request, you need to provide detailed information about the problem.
- Send the product to the address provided with the PRN, having prepaid the shipping costs (shipment costs billed to us will not be accepted).

If the product is within the warranty of twelve months, it will be repaired or exchanged and returned within three weeks. If the product is no longer under warranty, you will receive a repair estimate.



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