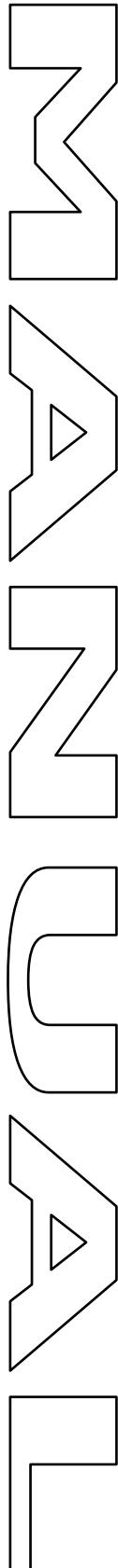


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# **RESI-DALI-ASCII**

# **RESI-DALI-PS**



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RESI Informatik & Automation GmbH	Datum:	<b>14.02.15</b>	Kunde:		Seiten
	Version:	<b>03.40</b>			
	Bearbeitet von:	<b>DI HC SIGL</b>	Titel:	<b>Manual RESI-DALI-ASCII</b>	
	Geprüft von:	<b>DI HC SIGL</b>			89
	Geprüft von:	-	Projekt:		

## 1 History

Date	Editor	Description
14.02.15	DI HC Sigl	First version

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### 3 IMPORTANT SECURITY NOTES



#### Danger to life through electrical current!

Only skilled personal trained in electro-engineering should perform the described steps in the following chapters. Please observe the country specific rules and standards. Do not perform any electrical work while the device is connected to power.

#### Pay attention to the following rules:

1. Disconnect the system from power
2. Secure the system against automatic power on
3. Check that the system is de-energized
4. Cover other energized parts of the system

**IMPORTANT HINT: Before you start with the installation and the initial setup of the device, you have to read this document and the attached installation guide and the actual manual for the device very carefully. You have to follow all the herein given information very accurate!**

- Only authorized and qualified personnel are allowed to install and setup the device!
- The connection of the device must be done in de-energized state!
- Do not perform any electrical work while the device is connected to power!
- Disable and secure the system against any automatic restart or power on procedure!
- The device must be operated with the defined voltage level!
- Supply voltage jitters must not exceed the technical specifications and tolerances given in the technical manuals for the product. If you do not obey this issue, the proper performance of the device cannot be guaranteed. This can lead to fail functions of the device and in worst case to a complete breakdown of the device!
- You have to obey the current EMC regulations for wiring!
- All signal, control and supply voltage cables must be wired in a way, that no inductive or capacitive interference or any other severe electrical noise disturbance may interfere with the device. Wrong wiring can lead to a malfunction of the device!
- For signal or sensor cables you have to use shielded cables, to avoid damages through induction!
- You have to obey and to apply the current safety regulations given by the ÖVE, VDE, the countries, their control authorities, the TÜV or the local energy supply company!
- Obey country-specific laws and standards!
- The device must be used for the intended purpose of the manufacturer!
- No warranties or liabilities will be accepted for defects and damages resulting from improper or incorrect usage of the device!
- Subsequent damages, which results from faults of this device, are excluded from warranty and liability!
- Only the technical data, wiring diagrams and operation instructions, which are part to the product shipment are valid!
- The information on our homepage, in our datasheets, in our manuals, in our catalogues or published by our partners can deviate from the product documentation and is not necessarily always actual, due to constant improvement of our products for technical progress!
- In case of modification of our devices made by the user, all warranty and liability claims are lost!
- The installation has to fulfil the technical conditions and specifications (e.g. operating temperatures, power supply ...) given in the devices documentation!
- Operating our device close to equipment, which do not comply with EMC directives, can influence the functionality of our device, leading to malfunction or in worst case to a breakdown of our device!

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- Our devices must not be used for monitoring applications, which solely serve the purpose of protecting persons against hazards or injury, or as an emergency stop switch for systems or machinery, or for any other similar safety-relevant purposes!
- Dimensions of the enclosures or enclosures accessories may show slight tolerances on the specifications provided in these instructions!
- Modifications of this documentation is not allowed!
- In case of a complaint, only complete devices returned in original packing will be accepted!

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## 4 General Information

Up to 64 DALI lamps can be controlled with the RESI-DALI-ASCII converter via simple ASCII text strings or via MODBUS/RTU master protocol. But also lamps using the older DSI protocol can be controlled.

To control our converter, you will need an intelligent unit with a build in serial interface (RS232 or RS485). The unit must be able to send and receive ASCII text messages. This is available in almost every media control system like CRESTRON®, AMX® or CONTROL4®. But also almost every PLC can send and receive serial ASCII text messages. So you can integrate our converter almost everywhere.

Additionally with the RESI configuration tool a DALI network can be configured and be put in operation.

- connection of up to 64 DALI/DSI- lamps (depending on the current consumption)
- galvanic isolated DALI Bus from ASCII serial interface
- ASCII port: RS232 or RS485, 9600 to 57600 bps, 8 data bits, no parity, 1 stop bit
- selectable ASCII address, configurable via software
- supply voltage 24 Vdc

Type	Description	Voltage	Power	Weight
<b>RESI-DALI-ASCII</b>	ASCII and MODBUS/RTU slave to DALI converter with RS232 or RS485 port, supports up to 64 DALI ballasts, DIP switch for settings	24 V=	<0.5W	55 g
<b>RESI-DALI-PS</b>	Power supply for DALI system with 24V= input voltage and 200mA output current for up to 64 DALI ballasts	24 V=	<5W	65 g

<b>Technical Data</b>			
<b>Power supply</b>			
Supply voltage	24 V= +/-10%	Storage temperature	-20...85 °C
Power LED	Yes	Operating Temperature	0...60°C
Power consumption		Humidity	25...90 % rH non-condensing
RESI-DALI-ASCII	<0.5W	Protection Class	IP20 (EN 60529)
RESI-DALI-PS	<5W	Dimensions LxWxH	17,5mm x 90mm x 58mm
		Weight	
		RESI-DALI-MODBUS	55g
		RESI-DALI-PS	65g
		Mounting	on DIN EN50022 rail
<b>only RESI-DALI-ASCII:</b>			
<b>ASCII/Modbus Interface</b>		<b>Factory settings</b>	
Protocol	ASCII or Modbus/RTU	ASCII/Modbus address	255
Type	RS232 or RS485	ASCII/Modbus baud rate	9600
Baud rates	9600 to 57600/8/N or E/1	ASCII/Modbus interface	RS232
Cable Connection	Via clamps	DALI baud rate	1200
LED indicator	Yes		
Galvanic insulation to MBUS interface	Yes		
<b>DALI Interface</b>		<b>DALI bus cabling</b>	
Protocol	DALI/DSI	Cable type	JYStY 2 x 1,5mm <sup>2</sup>
Maximum amount of devices on the bus	64		
DALI baud rate	1200bd		
Cable connection	Via clamps		
Galvanic insulation to MODBUS interface	Yes		
LED indicator	Yes		
<b>Only RESI-DALI-PS:</b>			
<b>DALI power supply</b>			
DALI output voltage	Max. 15Vdc, typ. 14Vdc		
DALI output current	Max. 200mA		
Cable connection	Via clamps		
Galvanic insulation to primary power supply			
LED indicator	Yes		
<b>Clamps</b>			
Clamp wire cross section	Max. 1,5 mm <sup>2</sup>		
Tightening torque	Max. 0.5Nm	CE conformity	Yes

**IT Accessories**

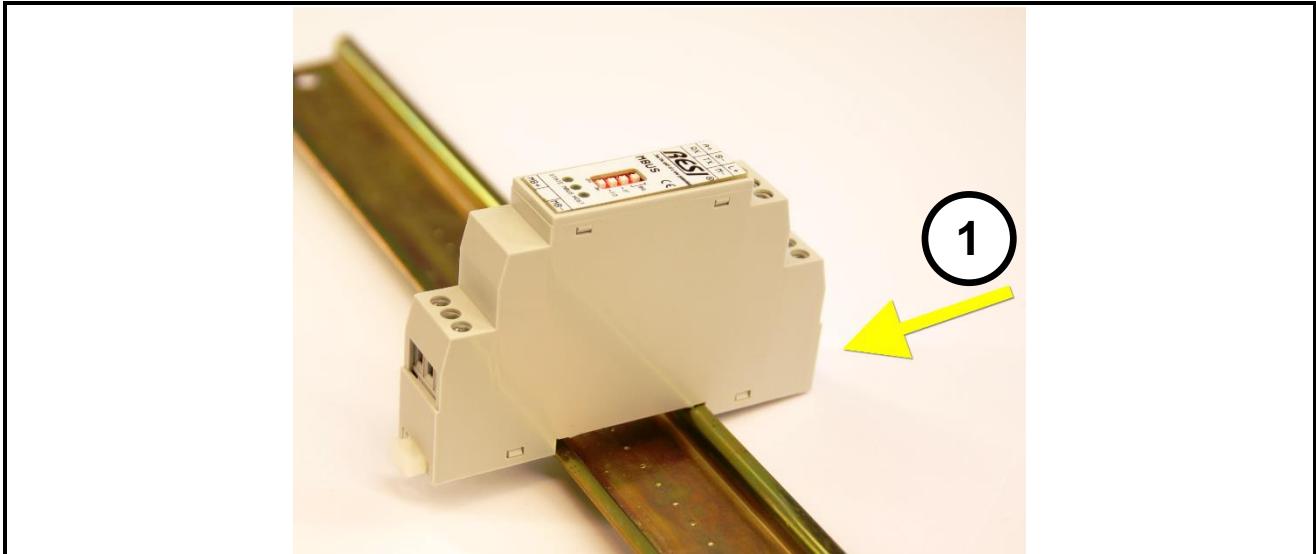
**RESI-MODBUS-Configurator** Free configuration software for RESI devices. Download this software from [www.RESI.cc](http://www.RESI.cc)

## 5 Mounting and Connections

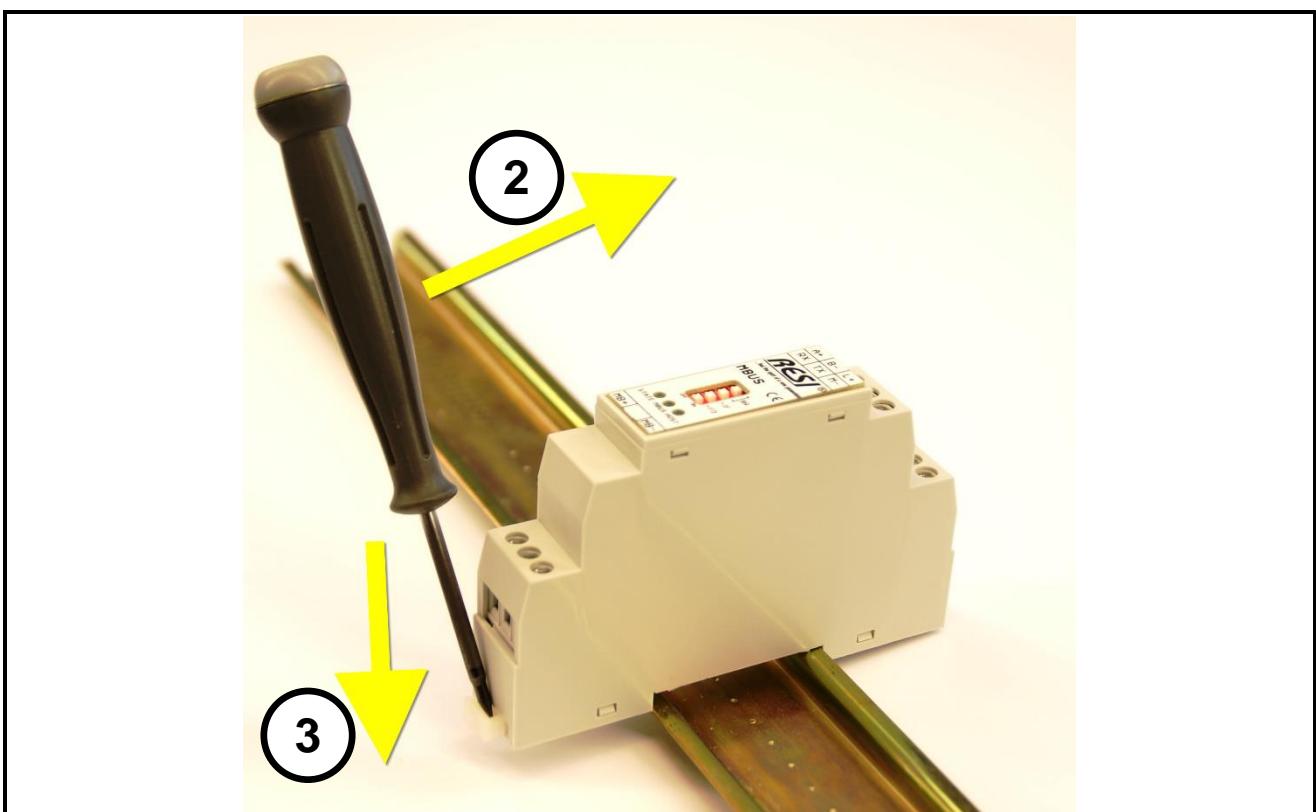
### 5.1 Assembling

Our RESI-DALI-ASCII converters and our RESI-DALI-PS power supplies are designed for mounting on a 35mm DIN-EN50022 rail. Please note, that there are symbol photos used in the mounting pictures below.

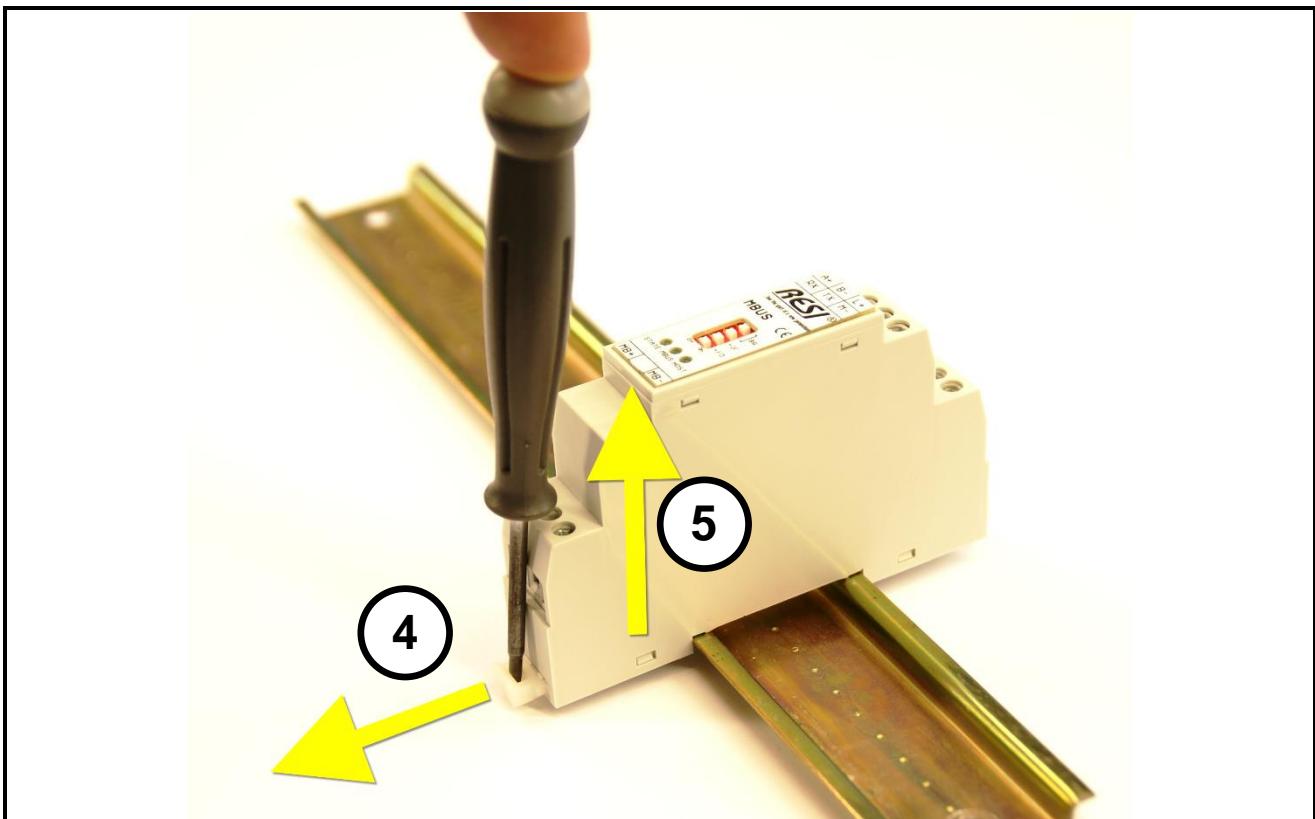
At first, put the converter with the top side on the DIN rail (1).



Then open the clamp lever on the bottom side with a screw driver (2) and press the device on the DIN rail (3). Release the clamp lever. The module is now placed correctly on the DIN rail.



To dismount the module from the DIN rail first open the clamp lever with a screwdriver on the bottom side (4). Hold the clamp lever opened while you lift the module from the DIN rail (5). Then remove the converter from the bar with while pulling it on the top side.



## 5.2 Clamps

	<b>RESI-DALI-ASCII</b>
L+ M-	Power supply L+: 24 V= M-: Ground
A B	RS485 ASCII or Modbus/RTU slave interface A: DATA+ B: DATA-
RX TX M-	RS232 ASCII or Modbus/RTU slave interface RX: serial receive TX: serial transmit M-: Ground for RS232
D+ D-	Interface to DALI devices
STATE	State-LED, flashes fast, when no DALI bus is connected, flashes slow, when DALI bus is connected and OK
DALI	DALI activity LED, is permanent on, flashes short when DALI telegrams are on the bus
HOST	HOST-LED, flashes, when host sends/receive MODBUS/RTU telegrams

Table: Description of connectors and LEDs of the RESI-DALI-ASCII converter

RESI-DALI-PS	
L+	Power supply
M-	L+: 24 V=
	M-: Ground
D+	Interface to DALI devices
D-	
POWER	Power-LED, is ON when the power supply has input voltage
ERR	Error LED of Power supply, is short on, when a DALI telegram is on the bus, when permanent on, the power supply has a malfunction or there is a bus error in the DALI system
DALI	DALI activity LED, is permanent on. When transmitting a DALI telegram the LED switches off of a few milliseconds.

Table: Description of connectors of the RESI-DALI-PS module

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### 5.3 DIP switch settings

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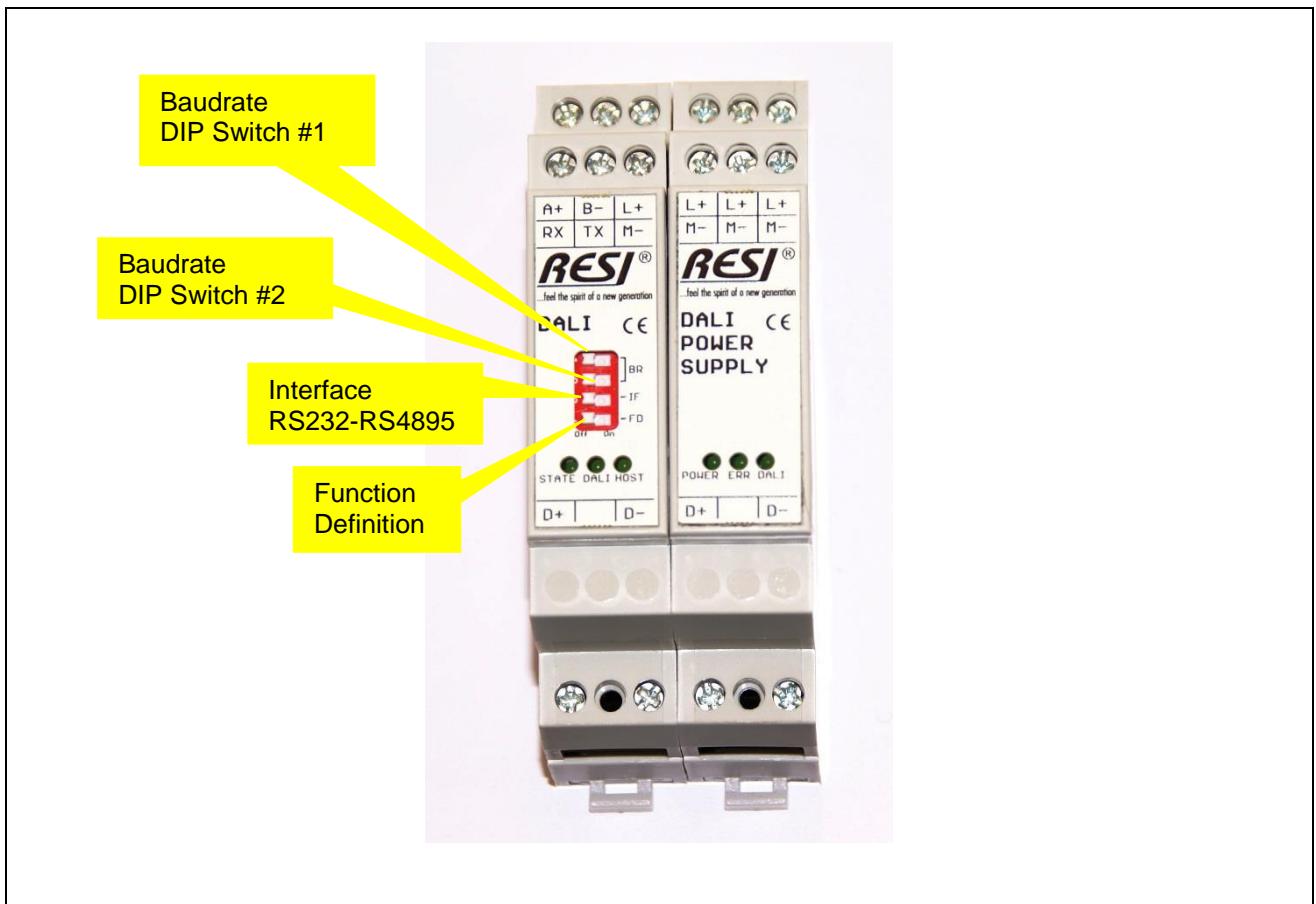


Illustration: Description of the DIP switch settings and LED status displays

DIP Switch	Description
Baudrate BR	Use DIP Switches 1+2 to select baud rate: OFF OFF: 9600Bd ON OFF: 19200Bd OFF ON: 38400Bd ON ON: 57600Bd <b>HINT:</b> The correct parity (NONE, EVEN or ODD) is configured with the PC software, not via DIP switches!
Interface IF	Select serial interface for MODBUS/RTU Slave OFF=RS232 ON=RS485
Function Definition FD	Selects special Functions OFF=Use Modbus RTU slave bus address from FLASH memory ON=Use always Slave address 255
HINT	After changing the DIP switches the converter reboots immediately, so no power off or on is necessary. After reboot all the LEDs are on for half a second to signal the power on sequence.

Table: Description of DIP Switch functions

## 5.4 Wiring diagram

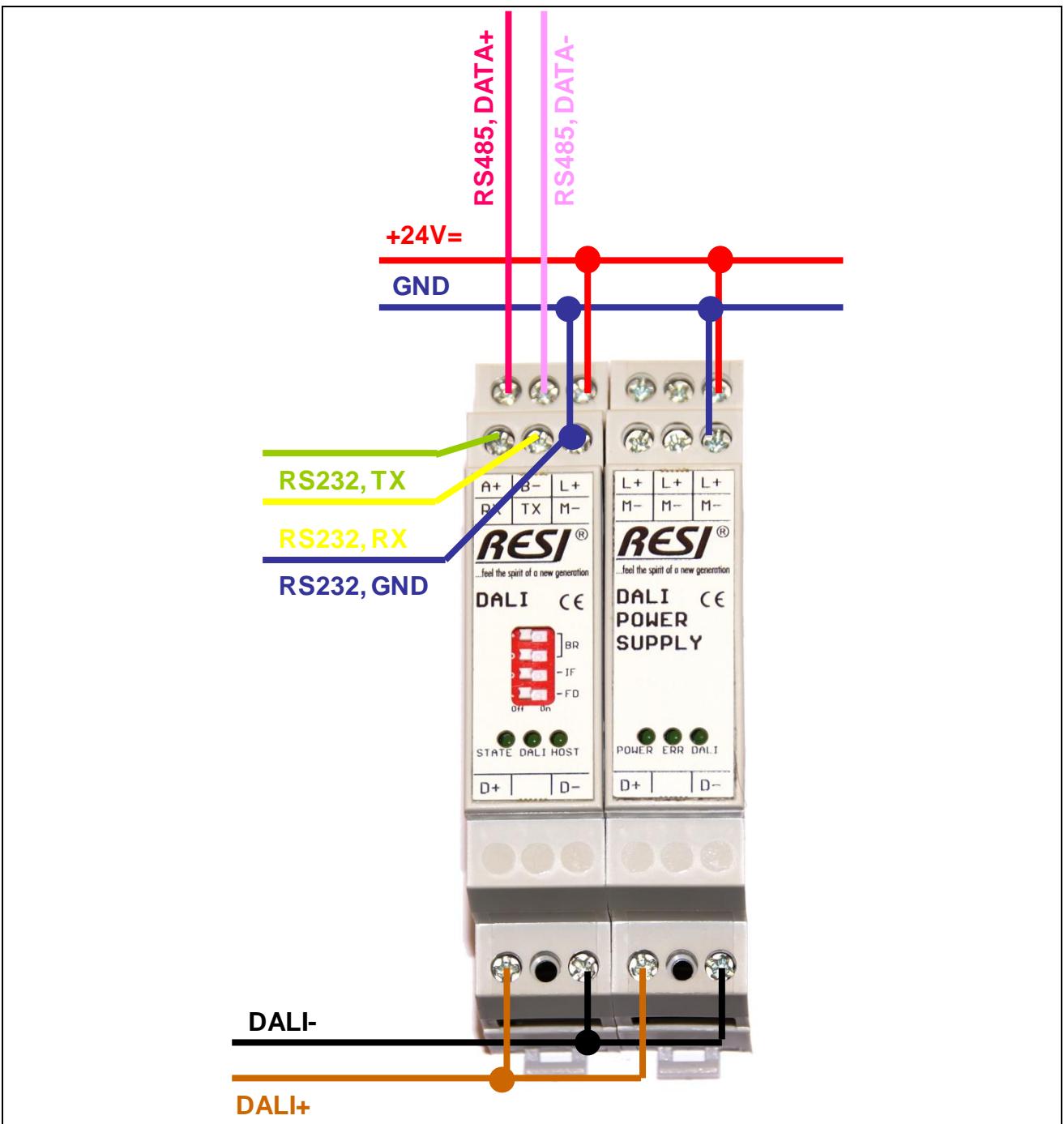


Illustration: Wiring diagram of the RESI-DALI-ASCII converter and RESI-DALI-PS power supply

## 6 Function description

The RESI-DALI-ASCII converter is used to integrate a DALI light bus system into an automation system, which has a serial interface (RS232 or RS485) and can handle a simple ASCII text based protocol. The converter offers also the possibility to use the MODBUS/RTU master protocol instead of the ASCII text strings. Both protocols are supported by the converter.

Required is a lamp ballast (dimmer, EVG, etc.) compatible to the DALI standard.

To learn more about the detailed mode of function of the DALI bus please refer to the appropriate standards (see EN60929).

For the communication via ASCII text strings, all ASCII messages start with a special character # (0x23,35dec) and end with the special character CARRIAGE RETURN (0x0d,13dec). The converter sends also its messages with this special start and end characters. For further information, consult the chapter ASCII Command Description.

In the case of proper function the converter the status LED flashes once per second. In case of an error at the DALI bus side (e.g. lacking DALI power supply) the status LED flashes faster.

For communication via MODBUS the following MODBUS functions are available:

- READ HOLDING REGISTER (function code: 3)
- PRESET SINGLE REGISTER (function code: 6)
- PRESET MULTIPLE REGISTERS (function code: 16)

**Note:** The functions READ HOLDING REGISTER and PRESET MULTIPLE REGISTERS are limited to max. 50 register per query!

The functions of the converter can be divided into three different groups:

- „conventional“ MODBUS DALI/DSI control
- DALI start up
- DALI configuration

The process of starting up and configuring a DALI system is described in detail in the DALI-MODBUS addressing tool user manual.

The process of starting up and configuring a DALI system is described in detail in the online manual of our configuration software. Or consult our online WIKI information system under [http://www.resi.cc/resiwiki/index.php/Main\\_Page](http://www.resi.cc/resiwiki/index.php/Main_Page)

## 7 ASCII Command Description

### 7.1 Overview

The RESI-DALI-ASCII converter communicate with simple ASCII text commands. The following special characters are used in this documentation:

# stands for the ASCII character 35dec or 0x23

: stands for the ASCII character 58dec or 0x3A

= stands for the equal symbol 61dec or 0x3D

- stands for the minus symbol 45dec or 0x2D

, stands for the colon with the ASCII code 44dec or 0x2C

<CR> stands for the CARRIAGE RETURN character with the ASCII code 13dec or 0x0D. In advance we will use the symbol `CR` for that character.

<SP> stands for the SPACE character with the ASCII code 32dec or 0x20. In advance we will use the symbol `□` for this character.

<ADR> will be used for the current configured bus address. You can send the bus address either as decimal or as hexadecimal number followed by a colon (ASCII character 44dec or 0x2C), which separates the bus address from the command. Hexadecimal numbers start always with an ASCII 0x sequence. Only the ASCII characters ,0'-'9' 48dec to 57dec, 0x30 to 0x39 and ,A' to ,F', 65dec to 70dec, 0x41 to 0x46 are allowed as hexadecimal numbers. All converters on the bus react to the broadcast bus number 0 and to its own configured bus number. With an external DIP switch you can switch very fast between the fixed bus address 255 and the pre-programmed bus address, stored into the system FLASH of the converter. Please consult the DIP Switch description in this manual.

### 7.2 Communication sequence

The RESI-DALI-ASCII converter is a slave on the bus. This means, the converter do not send any characters on the bus, unit it receives a valid message from a bus master and want to answer to this telegram. So the host controls the communication. If you use only the RS232 mode of the converter, you can send commands without a bus address. In the RS485 mode you can use more than one converter with one host. There you will have to send the bus address, to identify the converter, which the current command belongs to.

The structure of the command looks like this:

The host sends a command or a command with parameters without any bus address:  
`#<Command><CR>` or `#<Command>:<Parameters><CR>`

The converter answers, if it feels affected with the following telegram:

`#<Answer><CR>`

If the host uses the bus address, the command structure looks like this:

`#<Address>,<Command><CR>` or `#<Address>,<Command>:<Parameters><CR>`

The answer of the converter looks like this:

`#<Address>,<Answer><CR>`

The bus address is in the range of 0 to 255 decimal or 0x00 to 0xFF hexadecimal. The setup of the converters bus address is done with our MODBUS configurator software tool. Each converter reacts always also to the broadcast bus address 0 or 0x00 hexadecimal.

For each command we support two different writings. One long version to clearly identify the meaning of the command and one short version to use less letters in the command. For example you can request the current software version with the command VERSION or with the command VER.

### 7.3 Request VERSION

This command returns the current software version of the converter.

Host long version:

#VERSION<CR> or #<ADR>,VERSION<CR>

Host short version:

#VER<CR> or #<ADR>,VER<CR>

Answer:

#VERSION:<HIGH>.<MED>.<LOW><CR> or #<ADR>,VERSION:<HIGH>,<MED>,<LOW><CR>

<HIGH>.<MED>.<LOW> describe the current software version e.g.: 3.0.0

Samples:

→ #VERSION<sub>CR</sub>

← #VERSION:3.0.0<sub>CR</sub>

With broadcast address in decimal and long version of command

→ #0,VERSION<sub>CR</sub>

← #0,VERSION:3.0.0<sub>CR</sub>

With broadcast address in hexadecimal and short version of command

→ #0x00,VER<sub>CR</sub>

← #0x00,VERSION:3.0.0<sub>CR</sub>

With bus address 255 in decimal

→ #255,VER<sub>CR</sub>

← #255,VERSION:3.0.0<sub>CR</sub>

With bus address 255 in hexadecimal

→ #0xFF,VERSION<sub>CR</sub>

← #0xFF,VERSION:3.0.0<sub>CR</sub>

With bus address 43 in decimal

→ #43,VER<sub>CR</sub>

← #43,VERSION:3.0.0<sub>CR</sub>

With bus address 43 in hexadecimal

→ #0x2B,VER<sub>CR</sub>

← #0x2B,VERSION:3.0.0<sub>CR</sub>

### 7.4 Request TYPE

This command returns the current type of the converter.

Host long version:

#TYPE<CR> or #<ADR>,TYPE<CR>

Host short version:

#TYP<CR> or #<ADR>,TYP<CR>

Answer:

#TYPE:<TYP><CR> or #<ADR>,TYPE:<TYP><CR>

<TYP> represents the current type of the converter. Currently RESI-DALI-ASCII

Samples:

→ #TYPE<sub>CR</sub>

← #TYPE:RESI-DALI-ASCII<sub>CR</sub>

→ #255,TYP<sub>CR</sub>

← #255,TYP:RESI-DALI-ASCII<sub>CR</sub>

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## 7.5 Redefine brightness of all lamps

This command redefines the brightness of all lamps. This command uses the DALI command DIRECT ARC LEVEL.

Host long version:

#ALL<SP>LEVEL:<LEVEL><CR> or #<ADR>,ALL<SP>LEVEL:<LEVEL><CR>

Host short version:

#AL:<LEVEL><CR> or #<ADR>,AL:<LEVEL><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LEVEL> represents the new brightness value according to the DALI standard. You can use brightness levels between 0 (=0%) and 254 (=100%). 255 is defined in the DALI standard as a mask.

Samples:

Brightness to 100%:

→ #ALL□LEVEL:254CR

← #OKCR

→ #255,AL:0xFECR

← #255,OKCR

## 7.6 Redefine brightness of a lamp group

This command redefines the brightness of a lamp group. This command uses the DALI command DIRECT ARC LEVEL. The DALI standard can handle 16 DALI groups.

Host long version:

#GROUP<SP>LEVEL:<GROUP>=<LEVEL><CR> or  
#<ADR>,GROUP<SP>LEVEL:<GROUP>=<LEVEL><CR>

Host short version:

#GL:<GROUP>=<LEVEL><CR> or #<ADR>,GL:<GROUP>=<LEVEL><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

<LEVEL> represents the new brightness value according to the DALI standard. You can use brightness levels between 0 (=0%) and 254 (=100%). 255 is defined in the DALI standard as a mask.

Samples:

Brightness of the group 0 to 100%:

→ #GROUP□LEVEL:0=254CR

← #OKCR

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→ #255,GL:0x00=0xFE<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Brightness of the group 3 to 50%:

→ #GROUP□LEVEL:3=128<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GL:0x03=0x80<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.7 Redefine brightness of a single lamp

This command redefines the brightness of a single lamp. This command uses the DALI command DIRECT ARC LEVEL. The DALI standard can handle 64 DALI lamps.

Host long version:

#LAMP<SP>LEVEL:<LAMP>=<LEVEL><CR> or  
 #<ADR>,LAMP<SP>LEVEL:<LAMP>=<LEVEL><CR>

Host short version:

#LL:<LAMP>=<LEVEL><CR> or #<ADR>,LL:<LAMP>=<LEVEL><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with  
 #ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<LEVEL> represents the new brightness value according to the DALI standard. You can use brightness levels between 0 (=0%) and 254 (=100%). 255 is defined in the DALI standard as a mask.

Samples:

Brightness of the 27 to 100%:

→ #LAMP□LEVEL:27=254<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LL:0x1B=0xFE<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Brightness of the lamp 15 to 50%:

→ #LAMP□LEVEL:15=128<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LL:0xF=0x80<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.8 Switch off all lamps

This command sends the DALI command OFF to all connected DALI lamps.

Host long version:

#ALL<SP>OFF<CR> or #<ADR>,ALL<SP>OFF<CR>

Host short version:

#AOF<CR> or #<ADR>,AOF<CR>

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Answer:

If everything was ok with the command, the converter answers with  
**#OK<CR>** or **#<ADR>,OK<CR>**

If the DALI bus has no power, the converter answers with  
**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with  
**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

Samples:

Switch off all lamps:

→ #ALL□OFF<sub>CR</sub>← #OK<sub>CR</sub>→ #255,AOF<sub>CR</sub>← #255,OK<sub>CR</sub>

## 7.9 Switch off all lamps of a group

This command sends the DALI command OFF to a DALI lamp group. The DALI standard supports 16 DALI lamp groups.

Host long version:

**#GROUP<SP>OFF:<GROUP><CR>** or  
**#<ADR>,GROUP<SP>OFF:<GROUP><CR>**

Host short version:

**#GOF:<GROUP><CR>** or **#<ADR>,GOF:<GROUP><CR>**

Answer:

If everything was ok with the command, the converter answers with  
**#OK<CR>** or **#<ADR>,OK<CR>**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with  
**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Switch off group 0:

→ #GROUP□OFF:0<sub>CR</sub>← #OK<sub>CR</sub>→ #255,GOF:0x00<sub>CR</sub>← #255,OK<sub>CR</sub>

Switch off group 7:

→ #GROUP□OFF:7<sub>CR</sub>← #OK<sub>CR</sub>→ #255,GOF:0x07<sub>CR</sub>← #255,OK<sub>CR</sub>

## 7.10 Switch off a single lamp

This command sends the DALI command OFF to a single DALI lamp. The DALI standard supports 64 DALI lamps (short addresses).

Host long version:

```
#LAMP<SP>OFF:<LAMP><CR> or  
#<ADR>,LAMP<SP>OFF:<LAMP><CR>
```

Host short version:

```
#LOF:<LAMP><CR> or #<ADR>,LOF:<LAMP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Switch off lamp 27:  
→ #LAMP□OFF:27<sub>CR</sub>  
← #OK<sub>CR</sub>

→ #255,LOF:0x1B<sub>CR</sub>  
← #255,OK<sub>CR</sub>

Switch off lamp 63:  
→ #LAMP□OFF:63<sub>CR</sub>  
← #OK<sub>CR</sub>

→ #255,LOF:0x3F<sub>CR</sub>  
← #255,OK<sub>CR</sub>

## 7.11 Dim up all lamps

This command dims up all lamps a little bit with the DALI command UP. It is very important, that the lamps have to be on, before you send this command. Otherwise this command is ignored by the lamp. Each lamp can be dimmed up to their maximum brightness value.

Host long version:

```
#ALL<SP>UP<CR> or #<ADR>,ALL<SP>UP<CR>
```

Host short version:

```
#AUP<CR> or #<ADR>,AUP<CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

Samples:

Dim up all lamps:

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→ #ALL□UP<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,AUP<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.12 Dim up a group of lamps

This command dims up a group of lamps a little bit with the DALI command UP. It is very important, that the lamps have to be on, before you send this command. Otherwise this command is ignored by the lamp. Each lamp can be dimmed up to their maximum brightness value. The DALI standard supports 16 DALI groups.

Host long version:

#GROUP<SP>UP:<GROUP><CR> or  
 #<ADR>,GROUP<SP>UP:<GROUP><CR>

Host short version:

#GUP:<GROUP><CR> or #<ADR>,GUP:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Dim up group 4:  
 → #GROUP□UP:4<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GUP:0x04<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Dim up group 32:  
 → #GROUP□UP:32<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GUP:0x20<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.13 Dim up a single lamp

This command dims up a group of lamps a little bit with the DALI command UP. It is very important, that the lamps have to be on, before you send this command. Otherwise this command is ignored by the lamp. Each lamp can be dimmed up to their maximum brightness value. The DALI standard supports 64 DALI lamps.

Host long version:

#LAMP<SP>UP:<LAMP><CR> or  
 #<ADR>,LAMP<SP>UP:<LAMP><CR>

Host short version:

#LUP:<LAMP><CR> or #<ADR>,LUP:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

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If the DALI bus has no power, the converter answers with  
**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with  
**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Dim up lamp 47:  
**→ #LAMP□UP:47<sub>CR</sub>**  
**← #OK<sub>CR</sub>**

**→ #255,LUP:0x2F<sub>CR</sub>**  
**← #255,OK<sub>CR</sub>**

Dim up lamp 58:  
**→ #LAMP□UP:58<sub>CR</sub>**  
**← #OK<sub>CR</sub>**

**→ #255,LUP:0x3A<sub>CR</sub>**  
**← #255,OK<sub>CR</sub>**

## 7.14 Dim down all lamps

This command dims down all lamps a little bit with the DALI command DOWN. It is very important, that the lamps have to be on, before you send this command. Otherwise this command is ignored by the lamp. Each lamp can be dimmed down to their minimum brightness value, but they will not be switched off by this command.

Host long version:

**#ALL<SP>DOWN<CR>** or **#<ADR>,ALL<SP>DOWN<CR>**

Host short version:

**#ADO<CR>** or **#<ADR>,ADO<CR>**

Answer:

If everything was ok with the command, the converter answers with  
**#OK<CR>** or **#<ADR>,OK<CR>**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with

**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

Samples:

Dim down all lamps:  
**→ #ALL□DOWN<sub>CR</sub>**  
**← #OK<sub>CR</sub>**

**→ #255,ADO<sub>CR</sub>**  
**← #255,OK<sub>CR</sub>**

## 7.15 Dim down a lamp group

This command dims down a group of lamps a little bit with the DALI command DOWN. It is very important, that the lamps have to be on, before you send this command. Otherwise this command is ignored by the lamp. Each lamp can be dimmed down to their minimum brightness value, but they will not be switched off by this command. The DALI standard supports 16 DALI lamp groups.

Host long version:

```
#GROUP<SP>DOWN:<GROUP><CR> or  
#<ADR>,GROUP<SP>DOWN:<GROUP><CR>
```

Host short version:

```
#GDO:<GROUP><CR> or #<ADR>,GDO:<GROUP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with  
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Dim down group 4:

```
→ #GROUP□DOWN:4CR  
← #OKCR
```

```
→ #255,GDO:0x04CR  
← #255,OKCR
```

Dim down group 32:

```
→ #GROUP□DOWN:32CR  
← #OKCR
```

```
→ #255,GDO:0x20CR  
← #255,OKCR
```

## 7.16 Dim down a single lamp

This command dims down a single lamp a little bit with the DALI command DOWN. It is very important, that the lamp has to be on, before you send this command. Otherwise this command is ignored by the lamp. Each lamp can be dimmed down to their minimum brightness value, but it will not be switched off by this command. The DALI standard supports 64 DALI lamps.

Host long version:

```
#LAMP<SP>DOWN:<LAMP><CR> or  
#<ADR>,LAMP<SP>DOWN:<LAMP><CR>
```

Host short version:

```
#LDO:<LAMP><CR> or #<ADR>,LDO:<LAMP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

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#ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt; or #&lt;ADR&gt;,ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt;

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Dim down lamp 47:

→ #LAMP□DOWN:47<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,LDO:0x2F<sub>CR</sub>

← #255,OK<sub>CR</sub>

Dim down lamp 58:

→ #LAMP□DOWN:58<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,LDO:0x3A<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.17 Switch on and dim up all lamps

This command dims up all lamps a little bit with the DALI command ON AND STEP UP. If the lamps are off, this commands switches on the lamps first. Each lamp can be dimmed up to their maximum brightness value.

Host long version:

#ALL<SP>ON<SP>AND<SP>STEP<SP>UP<CR> or #<ADR>,ALL ON<SP>AND<SP>STEP<SP>UP<CR>

Host short version:

#AOSUP<CR> or #<ADR>,AOSUP<CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Switch on and dim up all lamps:

→ #ALL□ON□AND□STEP□UP<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,AOSUP<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.18 Switch on and dim up a group of lamps

This command dims up a group of lamps a little bit with the DALI command ON AND STEP UP. If the lamps are off, this commands switches on the lamps first. Each lamp can be dimmed up to their maximum brightness value. The DALI standard supports 16 DALI groups.

Host long version:

#GROUP<SP>ON<SP>AND<SP>STEP<SP>UP:<GROUP><CR> or  
#<ADR>,GROUP<SP>ON<SP>AND<SP>STEP<SP>UP:<GROUP><CR>

Host short version:

#GOSUP:<GROUP><CR> or #<ADR>,GOSUP:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with

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#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Switch on and dim up group 4:

→ #GROUP□ON□AND□STEP□UP:4<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GOSUP:0x04<sub>CR</sub>

← #255,OK<sub>CR</sub>

Switch on and dim up group 32:

→ #GROUP□ON□AND□STEP□UP:32<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GOSUP:0x20<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.19 Switch on and dim up a single lamp

This command dims up a single lamp a little bit with the DALI command ON AND STEP UP. If the lamp is off, this command switches on the lamp first. The lamp can be dimmed up to its maximum brightness value. The DALI standard supports 64 DALI lamps.

Host long version:

#LAMP<SP>ON<SP>AND<SP>STEP<SP>UP:<LAMP><CR> or  
 #<ADR>,LAMP<SP>ON<SP>AND<SP>STEP<SP>UP:<LAMP><CR>

Host short version:

#LOSUP:<LAMP><CR> or #<ADR>,LOSUP:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Switch on and dim up lamp 47:

→ #LAMP□ON□AND□STEP□UP:47<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LOSUP:0x2F<sub>CR</sub>

← #255,OK<sub>CR</sub>

Switch on and dim up lamp 58:

→ #LAMP□ON□AND□STEP□UP:58<sub>CR</sub>  
 ← #OK<sub>CR</sub>

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→ #255,LOSUP:0x3ACR  
 ← #255,OK<sub>CR</sub>

## 7.20 Dim down and switch off all lamps

This command dims down all lamps a little bit with the DALI command STEP DOWN AND OFF. If the lamps dim below their current minimum brightness, this commands switches off the lamps.

Host long version:

#ALL<SP>STEP<SP>DOWN<SP>AND<SP>OFF<CR> or  
 #<ADR>,ALL<SP>STEP<SP>DOWN<SP>AND<SP>OFF<CR>

Host short version:

#ASDOO<CR> or #<ADR>,ASDOO<CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Dim down and switch off all:

→ #ALL□STEP□DOWN□AND□OFF<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,ASDOO<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.21 Dim down and switch off a group of lamps

This command dims down a group of lamps a little bit with the DALI command STEP DOWN AND OFF. If the lamps dim below their current minimum brightness, this commands switches off the lamps. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>STEP<SP>DOWN<SP>AND<SP>OFF:<GROUP><CR> or  
 #<ADR>,GROUP<SP>STEP<SP>DOWN<SP>AND<SP>OFF:<GROUP><CR>

Host short version:

#GSDOO:<GROUP><CR> or #<ADR>,GSDOO:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Dim down and switch off group 4:

→ #GROUP□STEP□DOWN□AND□OFF:4<sub>CR</sub>  
 ← #OK<sub>CR</sub>

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→ #255,GSDOO:0x04<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Dim down and switch off group 32:

→ #GROUP□STEP□DOWN□AND□OFF:32<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GSDOO:0x20<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.22 Dim down and switch of a single lamp

This command dims down a single lamp a little bit with the DALI command STEP DOWN AND OFF. If the lamp dim below its current minimum brightness, this commands switches off the lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>STEP<SP>DOWN<SP>AND<SP>OFF:<LAMP><CR> or  
 #<ADR>,LAMP<SP>STEP<SP>DOWN<SP>AND<SP>OFF:<LAMP><CR>

Host short version:

#LSDOO:<LAMP><CR> or #<ADR>,LSDOO:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with  
 #ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Dim down and switch off lamp 47:

→ #LAMP□STEP□DOWN□AND□OFF:47<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LSDOO:0x2F<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Dim down and switch off lamp 58:

→ #LAMP□STEP□DOWN□AND□OFF:58<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LSDOO:0x3A<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.23 Dim up immediately all lamps

This command sends the DALI command STEP UP to all lamps and dims up immediately all lamps.

Host long version:

#ALL<SP>STEP<SP>UP<CR> or  
#<ADR>,ALL<SP>STEP<SP>UP<CR>

Host short version:

#ASUP<CR> or #<ADR>,ASUP<CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Dim up all lamps immediately:

→ #ALL□STEP□UP<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,ASUP<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.24 Dim up immediately a group of lamps

This command sends the DALI command STEP UP to a group of lamps and dims up immediately the affected lamp group. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>STEP<SP>UP:<GROUP><CR> or  
#<ADR>,GROUP<SP>STEP<SP>UP:<GROUP><CR>

Host short version:

#GSUP:<GROUP><CR> or #<ADR>,GSUP:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Dim up immediately lamp group 4:

→ #GROUP□STEP□UP:4<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,GSUP:0x04<sub>CR</sub>

← #255,OK<sub>CR</sub>

Dim up immediately lamp group 32:

→ #GROUP□STEP□UP:32<sub>CR</sub>

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← #OK<sub>CR</sub>  
 → #255,GSUP:0x20<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.25 Dim up immediately a single lamp

This command sends the DALI command STEP UP to a single lamp and dims up immediately the affected lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>STEP<SP>UP:<LAMP><CR> or  
 #<ADR>,LAMP<SP>STEP<SP>UP:<LAMP><CR>

Host short version:

#LSUP:<LAMP><CR> or #<ADR>,LSUP:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Dim up immediately lamp 47:  
 → #LAMP□STEP□UP:47<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LSUP:0x2F<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Dim up immediately lamp 58:  
 → #LAMP□STEP□UP:58<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LSUP:0x3A<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.26 Dim down immediately all lamps

This command sends the DALI command STEP DOWN to all lamps and dims down immediately all lamps.

Host long version:

#ALL<SP>STEP<SP>DOWN<CR> or  
 #<ADR>,ALL<SP>STEP<SP>DOWN<CR>

Host short version:

#ASDO<CR> or #<ADR>,ASDO<CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

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#ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt; or #&lt;ADR&gt;,ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt;

Samples:

Dim down immediately all lamps:

→ #ALL□STEP□DOWN<sub>CR</sub>← #OK<sub>CR</sub>→ #255,ASDO<sub>CR</sub>← #255,OK<sub>CR</sub>

## 7.27 Dim down immediately a group of lamps

This command sends the DALI command STEP DOWN to a group of lamps and dims down immediately the affected lamp group. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>STEP<SP>DOWN:<GROUP><CR> or  
#<ADR>,GROUP<SP>STEP<SP>DOWN:<GROUP><CR>

Host short version:

#GSDO:&lt;GROUP&gt;&lt;CR&gt; or #&lt;ADR&gt;,GSDO:&lt;GROUP&gt;&lt;CR&gt;

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI&lt;SP&gt;BUS&lt;SP&gt;ERROR&lt;CR&gt; or #&lt;ADR&gt;,ERR:DALI&lt;SP&gt;BUS&lt;SP&gt;ERROR&lt;CR&gt;

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt; or #&lt;ADR&gt;,ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt;

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Dim down immediately lamp group 4:

→ #GROUP□STEP□DOWN:4<sub>CR</sub>← #OK<sub>CR</sub>→ #255,GSDO:0x04<sub>CR</sub>← #255,OK<sub>CR</sub>

Dim down immediately lamp group 32

→ #GROUP□STEP□DOWN:32<sub>CR</sub>← #OK<sub>CR</sub>→ #255,GSDO:0x20<sub>CR</sub>← #255,OK<sub>CR</sub>

## 7.28 Dim down immediately a single lamp

This command sends the DALI command STEP DOWN to a single lamp and dims down immediately the affected lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>STEP<SP>DOWN:<LAMP><CR> or  
#<ADR>,LAMP<SP>STEP<SP>DOWN:<LAMP><CR>

Host short version:

#LSDO:&lt;LAMP&gt;&lt;CR&gt; or #&lt;ADR&gt;,LSDO:&lt;LAMP&gt;&lt;CR&gt;

Answer:

If everything was ok with the command, the converter answers with

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#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Dim down immediately lamp 47:

→ #LAMP□STEP□DOWN:47<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LSDO:0x2F<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Dim down immediately lamp 58:

→ #LAMP□STEP□DOWN:58<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LSDO:0x3A<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.29 Recall maximum level in all lamps

This command sends the DALI command RECALL MAXIMUM LEVEL to all DALI lamps. All lamps dim up to their individual stored maximum brightness values. If the lamps are off, they are switched on by this command.

Host long version:

#ALL<SP>RECALL<SP>MAX<SP>LEVEL<CR> or  
 #<ADR>,ALL<SP>RECALL<SP>MAX<SP>LEVEL<CR>

Host short version:

#ARMAXL<CR> or #<ADR>,ARMAXL<CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Recall maximum level in all lamps:

→ #ALL□RECALL□MAX□LEVEL<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,ARMAXL<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.30 Recall maximum level in a lamp group

This command sends the DALI command RECALL MAXIMUM LEVEL to a DALI lamp group. All lamps of the affected group dim up to their individual stored maximum brightness values. If the lamps are off, they are switched on by this command. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>RECALL<SP>MAX<SP>LEVEL:<GROUP><CR> or

Titel:	Manual RESI-DALI-ASCII	Datum	Seite	Von
		14.02.2015	32	89

#<ADR>,GROUP<SP>RECALL<SP>MAX<SP>LEVEL:<GROUP><CR>

Host short version:

#GRMAXL:<GROUP><CR> or #<ADR>,GRMAXL:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Recall maximum level in group 4:

→ #GROUP□RECALL□MAX□LEVEL:4<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,GRMAXL:0x04<sub>CR</sub>

← #255,OK<sub>CR</sub>

Recall maximum level in group 32:

→ #GROUP□RECALL□MAX□LEVEL:32<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,GRMAXL:0x20<sub>CR</sub>

← #255,OK<sub>CR</sub>

### 7.31 Recall maximum level in a single lamp

This command sends the DALI command RECALL MAXIMUM LEVEL to a single DALI lamp. The affected lamp dim up to its individual stored maximum brightness value. If the lamp is off, it is switched on by this command. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>RECALL<SP>MAX<SP>LEVEL:<LAMP><CR> or  
#<ADR>,LAMP<SP>RECALL<SP>MAX<SP>LEVEL:<LAMP><CR>

Host short version:

#LRMAXL:<LAMP><CR> or #<ADR>,LRMAXL:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Recall maximum level in lamp 47:

→ #LAMP□RECALL□MAX□LEVEL:47<sub>CR</sub>

← #OK<sub>CR</sub>

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→ #255,LRMAXL:0x2F<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Recall maximum level in lamp 58:

→ #LAMP□RECALL□MAX□LEVEL:58<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LRMAXL:0x3A<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

### 7.32 Recall maximum level in all lamps

This command sends the DALI command RECALL MIMIMUM LEVEL to all DALI lamps. All lamps dim down to their individual stored minimum brightness values. If the lamps are off, they are switched on by this command.

Host long version:

#ALL<SP>RECALL<SP>MIN<SP>LEVEL<CR> or  
 #<ADR>,ALL<SP>RECALL<SP>MIN<SP>LEVEL<CR>

Host short version:

#ARMINL<CR> or #<ADR>,ARMINL<CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Recall minimum level in all lamps:

→ #ALL□RECALL□MIN□LEVEL<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,ARMINL<sub>CR</sub>

← #255,OK<sub>CR</sub>

### 7.33 Recall minimum level in a lamp group

This command sends the DALI command RECALL MINIIMUM LEVEL to a DALI lamp group. All lamps of the affected group dim down to their individual stored minimum brightness values. If the lamps are off, they are switched on by this command. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>RECALL<SP>MIN<SP>LEVEL:<GROUP><CR> or  
 #<ADR>,GROUP<SP>RECALL<SP>MIN<SP>LEVEL:<GROUP><CR>

Host short version:

#GRMINL:<GROUP><CR> or #<ADR>,GRMINL:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

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<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Recall minimum level in lamp group 4:  
 → #GROUP□RECALL□MIN□LEVEL:4<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GRMINL:0x04<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Recall minimum level in lamp group 32:  
 → #GROUP□RECALL□MIN□LEVEL:32<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GRMINL:0x20<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

### 7.34 Recall minimum level in a single lamp

This command sends the DALI command RECALL MINIMUM LEVEL to a single DALI lamp. The affected lamp dim down to its individual stored minimum brightness value. If the lamp is off, it is switched on by this command. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>RECALL<SP>MIN<SP>LEVEL:<LAMP><CR> or  
 #<ADR>,LAMP<SP>RECALL<SP>MIN<SP>LEVEL:<LAMP><CR>

Host short version:

#LRMINL:<LAMP><CR> or #<ADR>,LRMINL:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with  
 #ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Recall minimum level in lamp 47:  
 → #LAMP□RECALL□MIN□LEVEL:47<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LRMINL:0x2F<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

Recall minimum level in lamp 58:

→ #LAMP□RECALL□MIN□LEVEL:58<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LRMINL:0x3A<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.35 Send command with answer to all lamps

This command sends a DALI command to all DALI lamps. The answer of the lamps is returned as a number.

Host long version:

```
#ALL<SP>COMMAND<SP>ANSWER:<COMMAND><CR> or  
#<ADR>,ALL<SP>COMMAND<SP>ANSWER:<COMMAND><CR>
```

Host short version:

```
#ACMDA:<COMMAND><CR> or #<ADR>,ACMDA:<COMMAND><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
**#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>** or  
**#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>**

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

```
#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>
```

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<COMMAND> defines a valid 8 bit DALI command

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Query status of all lamps:

```
→ #ALL□COMMAND□ANSWER:0x90CR  
← #OK:0,0,0CR
```

```
→ #255,ACMDA:0x90CR
```

```
← #255,OK:0,0,0CR
```

## 7.36 Send command with answer to a group of lamps

This command sends a DALI command to a DALI group of lamps. The answer of the lamps is returned as a number. The DALI standard supports 16 lamp groups.

Host long version:

```
#GROUP<SP>COMMAND<SP>ANSWER:<GROUP>=<COMMAND><CR> or  
#<ADR>,GROUP<SP>COMMAND<SP>ANSWER:<GROUP>=<COMMAND><CR>
```

Host short version:

```
#GCMDA:<GROUP>=<COMMAND><CR> or #<ADR>,GCMDA:<GROUP>=<COMMAND><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
**#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>** or  
**#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>**

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

```
#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>
```

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

<COMMAND> defines a valid 8 bit DALI command

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Query status of lamp group 2:

→ #GROUP□COMMAND□ANSWER:2=0x90CR  
 ← #OK:1,132,0x84CR

→ #255,GCMDA:0x02=0x90CR

← #255,OK:1,132,0x84CR

### 7.37 Send command with answer to a single lamp

This command sends a DALI command to a single DALI lamp. The answer of the lamp is returned as a number. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>COMMAND<SP>ANSWER:<LAMP>=<COMMAND><CR> or  
 #<ADR>,LAMP<SP>COMMAND<SP>ANSWER:<LAMP>=<COMMAND><CR>

Host short version:

#LCMDA:<LAMP>=<COMMAND><CR> or #<ADR>,LCMDA:<LAMP>=<COMMAND><CR>

Answer:

If everything was ok with the command, the converter answers with

#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or

#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or

#<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<COMMAND> defines a valid 8 bit DALI command

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Query status of lamp 2:

→ #LAMP□COMMAND□ANSWER:2=0x90CR  
 ← #OK:1,132,0x84CR

→ #255,LCMDA:0x2=0x90CR

← #255,OK:1,132,0x84CR

Query actual brightness of lamp 2:

→ #LAMP□COMMAND□ANSWER:2=0xA0CR  
 ← #OK:1,254,0xFECR

→ #255,LCMDA:0x2=0xA0CR

← #255,OK:1,254,0xFECR

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### 7.38 Send command twice with answer to all lamps

This command sends a DALI command to all DALI lamps twice within 100ms. The answer of the lamps is returned as a number.

Host long version:

```
#ALL<SP>COMMAND<SP>REPEAT<SP>ANSWER:<COMMAND><CR> or  
#<ADR>,ALL<SP>COMMAND<SP>REPEAT<SP>ANSWER:<COMMAND><CR>
```

Host short version:

```
#ACMDRA:<COMMAND><CR> or #<ADR>,ACMDRA:<COMMAND><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
 #OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
 #<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

```
#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>
```

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<COMMAND> defines a valid 8 bit DALI command

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Store current brightness value into DTR register in all lamps:

```
→ #ALL□COMMAND□REPEAT□ANSWER:0x31CR  
← #OK:0,0,0x0CR
```

```
→ #255,ACMDRA:0x31CR
```

```
← #255,OK:0,0,0x0CR
```

### 7.39 Send command twice with answer to a group of lamps

This command sends a DALI command to a group of DALI lamps twice within 100ms. The answer of the lamps is returned as a number. The DALI standard supports 16 lamp groups.

Host long version:

```
#GROUP<SP>COMMAND<SP>REPEAT<SP>ANSWER:<GROUP>=<COMMAND><CR> or  
#<ADR>,GROUP<SP>COMMAND<SP>REPEAT<SP>ANSWER:<GROUP>=<COMMAND><CR>
```

Host short version:

```
#GCMDRA:<GROUP>=<COMMAND><CR> or #<ADR>,GCMDRA:<GROUP>=<COMMAND><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
 #OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
 #<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

```
#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>
```

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

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#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

<COMMAND> defines a valid 8 bit DALI command

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Store current brightness value into DTR register for lamp group 4:

→ #GROUP□COMMAND□REPEAT□ANSWER:4=0x31<sub>CR</sub>

← #OK:0,0,0x0<sub>CR</sub>

→ #255,LCMDRA:0x04=0xFF<sub>CR</sub>

← #255,OK:0,0,0x0<sub>CR</sub>

#### 7.40 Send command twice with answer to a single lamp

This command sends a DALI command to a single lamp twice within 100ms. The answer of the lamp is returned as a number. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>COMMAND<SP>REPEAT<SP>ANSWER:<LAMP>=<COMMAND><CR> or

#<ADR>,LAMP<SP>COMMAND<SP>REPEAT<SP>ANSWER:<LAMP>=<COMMAND><CR>

Host short version:

#LCMDRA:<LAMP>=<COMMAND><CR> or #<ADR>,LCMDRA:<LAMP>=<COMMAND><CR>

Answer:

If everything was ok with the command, the converter answers with

#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or

#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or

#<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<COMMAND> defines a valid 8 bit DALI command

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Store current brightness value into DTR register in lamp 47:

→ #LAMP□COMMAND□REPEAT□ANSWER:47=255<sub>CR</sub>

← #OK:0,0,0x0<sub>CR</sub>

→ #255,LCMDRA:0x2F=0xFF<sub>CR</sub>

← #255,OK:0,0,0x0<sub>CR</sub>

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## 7.41 Send command without answer to all lamps

This command sends a DALI command to all DALI lamps.

Host long version:

```
#ALL<SP>COMMAND:<COMMAND><CR> or  
#<ADR>,ALL<SP>COMMAND:<COMMAND><CR>
```

Host short version:

```
#ACMD:<COMMAND><CR> or #<ADR>,ACMD:<COMMAND><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<COMMAND> defines a valid 8 bit DALI command

Samples:

Recall maximum level in all lamps:

```
→ #ALL□COMMAND:0x05CR  
← #OKCR
```

```
→ #255,ACMD:0x05CR
```

```
← #255,OKCR
```

## 7.42 Send command without answer to a group of lamps

This command sends a DALI command to a group of lamps. The DALI standard supports 16 lamp groups.

Host long version:

```
#GROUP<SP>COMMAND:<GROUP>=<COMMAND><CR> or  
#<ADR>,GROUP<SP>COMMAND:<GROUP>=<COMMAND><CR>
```

Host short version:

```
#GCMD:<GROUP>=<COMMAND><CR> or #<ADR>,GCMD:<GROUP>=<COMMAND><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

<COMMAND> defines a valid 8 bit DALI command

Samples:

Recall minimum level in lamp group 4:

```
→ #GROUP□COMMAND:4=0x06CR  
← #OKCR
```

```
→ #255,GCMD:0x04=0x06CR
```

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← #255,OK<sub>CR</sub>

#### 7.43 Send command without answer to a single lamp

This command sends a DALI command to a single lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>COMMAND:<LAMP>=<COMMAND><CR> or  
#<ADR>,LAMP<SP>COMMAND:<LAMP>=<COMMAND><CR>

Host short version:

#LCMD:<LAMP>=<COMMAND><CR> or #<ADR>,LCMD:<LAMP>=<COMMAND><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<COMMAND> defines a valid 8 bit DALI command

Samples:

Recall minimum level in lamp 47:

→ #LAMP□COMMAND:47=6<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,LCMD:0x2F=0x06<sub>CR</sub>

← #255,OK<sub>CR</sub>

#### 7.44 Send command without answer twice to all lamps

This command sends a DALI command to all DALI lamps twice within 100ms.

Host long version:

#ALL<SP>COMMAND<SP>REPEAT:<COMMAND><CR> or  
#<ADR>,ALL<SP>COMMAND<SP>REPEAT:<COMMAND><CR>

Host short version:

#ACMDR:<COMMAND><CR> or #<ADR>,ACMDR:<COMMAND><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or  
#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<COMMAND> defines a valid 8 bit DALI command

Samples:

Do a reset in all lamps:

→ #ALL□COMMAND□REPEAT:0x20<sub>CR</sub>

← #OK<sub>CR</sub>

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→ #255,ACMDR:0x20<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

#### 7.45 Send command without answer twice to a group of lamps

This command sends a DALI command to a group of lamps twice within 100ms. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>COMMAND<SP>REPEAT:<GROUP>=<COMMAND><CR> or  
 #<ADR>,GROUP<SP>COMMAND<SP>REPEAT:<GROUP>=<COMMAND><CR>

Host short version:

#GCMRD:<GROUP>=<COMMAND><CR> or #<ADR>,GCMRD:<GROUP>=<COMMAND><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

<COMMAND> defines a valid 8 bit DALI command

Samples:

Store DTR as maximum brightness for all lamps:

→ #GROUP□COMMAND□REPEAT:4=0x2A<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GCMRD:0x04=0x2A<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

#### 7.46 Send command without answer twice to a lamp

This command sends a DALI command to a lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>COMMAND<SP>REPEAT:<LAMP>=<COMMAND><CR> or  
 #<ADR>,LAMP<SP>COMMAND<SP>REPEAT:<LAMP>=<COMMAND><CR>

Host short version:

#LCMDR:<LAMP>=<COMMAND><CR> or #<ADR>,LCMDR:<LAMP>=<COMMAND><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<COMMAND> defines a valid 8 bit DALI command

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**Samples:**

Store DTR as System Failure Level for lamp 47:

→ #LAMP□COMMAND□REPEAT:47=0x2C<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LCMDR:0x2F=0x2C<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

### 7.47 New brightness for all lamps

This command sends a new brightness value (Arc power) for all lamps.

Host long version:

#ALL<SP>ARC<SP>POWER:<ARCPower><CR> or  
 #<ADR>,ALL<SP>ARC<SP>POWER:<ARCPower><CR>

Host short version:

#AARC:<ARCPower><CR> or #<ADR>,AARC:<ARCPower><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or  
 #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<ARCPower> defines the new brightness value for the lamps (0x00-0xFE or 0..254, 255 0xFF is used as a mask value, refer to the DALI standard)

**Samples:**

Set all lamps to maximum brightness level:

→ #ALL□ARC□POWER:0xFE<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,AARC:0xFE<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

### 7.48 New brightness for a group of lamps

This command sends a new brightness value (Arc power) for a group of lamps. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>ARC<SP>POWER:<GROUP>=<ARCPower><CR> or  
 #<ADR>,GROUP<SP>ARC<SP>POWER:<GROUP>=<ARCPower><CR>

Host short version:

#GARC:<GROUP>=<ARCPower><CR> or #<ADR>,GARC:<GROUP>=<ARCPower><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or  
 #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

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<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

<ARCPower> defines the new brightness value for the lamps (0x00-0xFE or 0..254, 255 0xFF is used as a mask value, refer to the DALI standard)

Samples:

Set lamp group 4 to maximum brightness level:

→ #GROUP□ARC:4=0xFE<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,GARC:4=0xFE<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.49 New brightness for a single lamp

This command sends a new brightness value (Arc power) for a single lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>ARC<SP>POWER:<LAMP>=<ARCPower><CR> or  
 #<ADR>,LAMP<SP>ARC<SP>POWER:<LAMP>=<ARCPower><CR>

Host short version:

#LARC:<LAMP>=<ARCPower><CR> or #<ADR>,LARC:<LAMP>=<ARCPower><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or  
 #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<ARCPower> defines the new brightness value for the lamp (0x00-0xFE or 0..254, 255 0xFF is used as a mask value, refer to the DALI standard)

Samples:

Set maximum brightness for lamp 23:

→ #LAMP□ARC:23=0xFE<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LARC:23=0xFE<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.50 Recall scene in all lamps

This command recalls a previous stored scene in all lamps. The DALI standard supports 16 DALI scene per lamp.

Host long version:

#ALL<SP>GOTO<SP>SCENE:<SCENE><CR> or  
 #<ADR>,ALL<SP>GOTO<SP>SCENE:<SCENE><CR>

Host short version:

#AGS:<SCENE><CR> or #<ADR>,AGS:<SCENE><CR>

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Answer:

If everything was ok with the command, the converter answers with  
**#OK<CR>** or  
**#<ADR>,OK<CR>**

If the DALI bus has no power, the converter answers with  
**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with  
**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

**<SCENE>** defines the new scene for the affected lamps (0x00-0x0F or 0..15)

Samples:

Recall scene 15 in all lamps:  
**→ #ALL□GOTO□SCENE:15<sub>CR</sub>**  
**← #OK<sub>CR</sub>**

**→ #255,AGS:0x0F<sub>CR</sub>**  
**← #255,OK<sub>CR</sub>**

## 7.51 Recall scene in a group of lamps

This command recalls a previous stored scene in a group of lamps. The DALI standard supports 16 lamp groups and 16 DALI scene per lamp.

Host long version:

**#GROUP<SP>GOTO<SP>SCENE:<GROUP>=<SCENE><CR>** or  
**#<ADR>,GROUP<SP>GOTO<SP>SCENE:<GROUP>=<SCENE><CR>**

Host short version:

**#GGS:<GROUP>=<SCENE><CR>** or **#<ADR>,GGS:<GROUP>=<SCENE><CR>**

Answer:

If everything was ok with the command, the converter answers with  
**#OK<CR>** or  
**#<ADR>,OK<CR>**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with

**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

**<GROUP>** defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

**<SCENE>** defines the new scene for the affected lamps (0x00-0x0F or 0..15)

Samples:

Recall scene 5 for lamp group 4:  
**→ #GROUP□GOTO□SCENE:4=5<sub>CR</sub>**  
**← #OK<sub>CR</sub>**

**→ #255,GGS:4=0x05<sub>CR</sub>**  
**← #255,OK<sub>CR</sub>**

## 7.52 Recall scene in a single lamp

This command recalls a previous stored scene in a single lamp. The DALI standard supports 64 lamps and 16 DALI scene per lamp.

Host long version:

**#LAMP<SP>GOTO<SP>SCENE:<LAMP>=<SCENE><CR>** or  
**#<ADR>,LAMP<SP>GOTO<SP>SCENE:<LAMP>=<SCENE><CR>**

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Host short version:

#LGS:<LAMP>=<SCENE><CR> or #<ADR>,LGS:<LAMP>=<SCENE><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or  
#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<SCENE> defines the new scene for the affected lamps (0x00-0x0F or 0..15)

Samples:

Recall scene 15 in lamp 40:

→ #LAMP□GOTO□SCENE:40=15<sub>CR</sub>  
← #OK<sub>CR</sub>

→ #255,LGS:0x28=0x0F<sub>CR</sub>  
← #255,OK<sub>CR</sub>

### 7.53 Do RESET in all lamps

This command sends the DALI command RESET to all lamps twice within 100ms.

Host long version:

#ALL<SP>RESET<CR> or  
#<ADR>,ALL<SP>RESET<CR>

Host short version:

#ARESET<CR> or  
#<ADR>,ARESET<CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or  
#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Do a RESET in all lamps:

→ #ALL□RESET<sub>CR</sub>  
← #OK<sub>CR</sub>

→ #255,ARESET<sub>CR</sub>  
← #255,OK<sub>CR</sub>

### 7.54 Do RESET in a group of lamps

This command sends the DALI command RESET to a group of lamps twice within 100ms. The DALI standard supports 16 lamp groups.

Host long version:

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#GROUP<SP>RESET:<GROUP><CR> or  
#<ADR>,GROUP<SP>RESET:<GROUP><CR>

Host short version:

#GRESET:<GROUP><CR> or  
#<ADR>,GRESET:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Do a RESET in lamp group 4:

→ #GROUP□RESET:4<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,GRESET:0x04<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.55 Do RESET in a single lamp

This command sends the DALI command RESET to a single lamp twice within 100ms. The DALI standard supports 64 lamps

Host long version:

#LAMP<SP>RESET:<LAMP><CR> or  
#<ADR>,LAMP<SP>RESET:<LAMP><CR>

Host short version:

#LRESET:<LAMP><CR> or  
#<ADR>,LRESET:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Do a RESET in lamp 47:

→ #LAMP□RESET:47<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,LRESET:0x2F<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.56 Do STORE ACTUAL LEVEL IN DTR command in all lamps

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This command send the DALI command STORE ACTUAL LEVEL IN DTR to all lamps twice within 100ms.

Host long version:

#ALL<SP>STORE<SP>ACTUAL<SP>LEVEL<SP>IN<SP>DTR<CR> or  
#<ADR>,ALL<SP>STORE<SP>ACTUAL<SP>LEVEL<SP>IN<SP>DTR<CR>

Host short version:

#ASALD<CR> or  
#<ADR>,ASALD<CR>

Answer:

If everything was ok with the command, the converter answers with

#OK<CR> or

#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Do STORE ACTUAL LEVEL IN DTR in all lamps:

→ #ALL□STORE□ACTUAL□LEVEL□IN□DTR<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,ASALD<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.57 Do STORE ACTUAL LEVEL IN DTR command in a group of lamps

This command send the DALI command STORE ACTUAL LEVEL IN DTR to a group of lamps twice within 100ms. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>STORE<SP>ACTUAL<SP>LEVEL<SP>IN<SP>DTR:<GROUP><CR> or  
#<ADR>,GROUP<SP>STORE<SP>ACTUAL<SP>LEVEL<SP>IN<SP>DTR:<GROUP><CR>

Host short version:

#GSALD:<GROUP><CR> or  
#<ADR>,GSALD:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with

#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Do STORE ACTUAL LEVEL IN DTR in lamp group 4:

→ #GROUP□STORE□ACTUAL□LEVEL□IN□DTR:4<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,GSALD:0x04<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.58 Do STORE ACTUAL LEVEL IN DTR command in a single lamp

This command send the DALI command STORE ACTUAL LEVEL IN DTR to a single lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

```
#LAMP<SP>STORE<SP>ACTUAL<SP>LEVEL<SP>IN<SP>DTR:<LAMP><CR> or  
#<ADR>,LAMP<SP>STORE<SP>ACTUAL<SP>LEVEL<SP>IN<SP>DTR:<LAMP><CR>
```

Host short version:

```
#LSALD:<LAMP><CR> or  
#<ADR>,LSALD:<LAMP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Do STORE ACTUAL LEVEL IN DTR in lamp 47:

```
→ #LAMP□STORE□ACTUAL□LEVEL□IN□DTR:47CR  
← #OKCR
```

```
→ #255,LSALD:0x2FCR  
← #255,OKCR
```

## 7.59 Do STORE DTR AS MAX LEVEL command in all lamps

This command send the DALI command STORE DTR AS MAX LEVEL to all lamps twice within 100ms.

Host long version:

```
#ALL<SP>STORE<SP>DTR<SP>AS<SP>MAX<SP>LEVEL<CR> or  
#<ADR>,ALL<SP>STORE<SP>DTR<SP>AS<SP>MAX<SP>LEVEL<CR>
```

Host short version:

```
#ASDMAXL<CR> or  
#<ADR>,ASDMAXL<CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or  
#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

Samples:

Do STORE DTR AS MAX LEVEL command in all lamps:

```
→ #ALL□STORE□DTR□AS□MAX□LEVELCR  
← #OKCR
```

```
→ #255,ASDMAXLCR  
← #255,OKCR
```

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## 7.60 Do STORE DTR AS MAX LEVEL command in a group of lamps

This command send the DALI command STORE DTR AS MAX LEVEL to a group of lamps twice within 100ms. The DALI standard supports 16 lamp groups.

Host long version:

```
#GROUP<SP>STORE<SP>DTR<SP>AS<SP>MAX<SP>LEVEL:<GROUP><CR> or  
#<ADR>,GROUP<SP>STORE<SP>DTR<SP>AS<SP>MAX<SP>LEVEL:<GROUP><CR>
```

Host short version:

```
#GSDMAXL:<GROUP><CR> or  
#<ADR>,GSDMAXL:<GROUP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Do STORE DTR AS MAX LEVEL command in lamp group 4:

```
→ #GROUP□STORE□DTR□AS□MAX□LEVEL:4<CR>
```

```
← #OK<CR>
```

```
→ #255,GSDMAXL:0x04<CR>
```

```
← #255,OK<CR>
```

## 7.61 Do STORE DTR AS MAX LEVEL command in a single lamp

This command send the DALI command STORE DTR AS MAX LEVEL to a single lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

```
#LAMP<SP>STORE<SP>DTR<SP>AS<SP>MAX<SP>LEVEL:<LAMP><CR> or  
#<ADR>,LAMP<SP>STORE<SP>DTR<SP>AS<SP>MAX<SP>LEVEL:<LAMP><CR>
```

Host short version:

```
#LSDMAXL:<LAMP><CR> or  
#<ADR>,LSDMAXL:<LAMP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Do STORE DTR AS MAX LEVEL command in lamp 47:

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→ #LAMP□STORE□DTR□AS□MAX□LEVEL:47<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LSDMAXL:0x2F<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.62 Do STORE DTR AS MIN LEVEL command in all lamps

This command send the DALI command STORE DTR AS MIN LEVEL to all lamps twice within 100ms.

Host long version:

#ALL<SP>STORE<SP>DTR<SP>AS<SP>MIN<SP>LEVEL<CR> or  
 #<ADR>,ALL<SP>STORE<SP>DTR<SP>AS<SP>MIN<SP>LEVEL<CR>

Host short version:

#ASDMINL<CR> or  
 #<ADR>,ASDMINL<CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or  
 #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Do STORE DTR AS MIN LEVEL command in all lamps:

→ #ALL□STORE□DTR□AS□MIN□LEVEL<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,ASDMINL<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.63 Do STORE DTR AS MIN LEVEL command in a group of lamps

This command send the DALI command STORE DTR AS MIN LEVEL to a group of lamps twice within 100ms.  
 The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>STORE<SP>DTR<SP>AS<SP>MIN<SP>LEVEL:<GROUP><CR> or  
 #<ADR>,GROUP<SP>STORE<SP>DTR<SP>AS<SP>MIN<SP>LEVEL:<GROUP><CR>

Host short version:

#GSDMINL:<GROUP><CR> or  
 #<ADR>,GSDMINL:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Do STORE DTR AS MIN LEVEL command in lamp group 4:

→ #GROUP<sub>□</sub>STORE<sub>□</sub>DTR<sub>□</sub>AS<sub>□</sub>MIN<sub>□</sub>LEVEL:4<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,GSDMINL:0x04<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.64 Do STORE DTR AS MIN LEVEL command in a single lamp

This command send the DALI command STORE DTR AS MIN LEVEL to a single lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>STORE<SP>DTR<SP>AS<SP>MIN<SP>LEVEL:<LAMP><CR> or

#<ADR>,LAMP<SP>STORE<SP>DTR<SP>AS<SP>MIN<SP>LEVEL:<LAMP><CR>

Host short version:

#LSDMINL:<LAMP><CR> or

#<ADR>,LSDMINL:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with

#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Do STORE DTR AS MIN LEVEL command in lamp 46:

→ #LAMP<sub>□</sub>STORE<sub>□</sub>DTR<sub>□</sub>AS<sub>□</sub>MIN<sub>□</sub>LEVEL:47<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,LSDMINL:0x2F<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.65 Do STORE DTR AS SYSTEM FAILURE LEVEL command in all lamps

This command send the DALI command STORE DTR AS SYSTEM FAILURE LEVEL to all lamps twice within 100ms.

Host long version:

#ALL<SP>STORE<SP>DTR<SP>AS<SP>SYSTEM<SP>FAILURE<SP>LEVEL<CR> or

#<ADR>,ALL<SP>STORE<SP>DTR<SP>AS<SP>SYSTEM<SP>FAILURE<SP>LEVEL<CR>

Host short version:

#ASDSFL<CR> or

#<ADR>,ASDSFL<CR>

Answer:

If everything was ok with the command, the converter answers with

#OK<CR> or

#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

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#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Do STORE DTR AS SYSTEM FAILURE LEVEL command in all lamps:

→ #ALL□STORE□DTR□AS□SYSTEM□FAILURE□LEVEL□CR

← #OK<sub>CR</sub>

→ #255,ASDSFL<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.66 Do STORE DTR AS SYSTEM FAILURE LEVEL command in a group of lamps

This command send the DALI command STORE DTR AS SYSTEM FAILURE LEVEL to a group of lamps twice within 100ms. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>STORE<SP>DTR<SP>AS<SP>SYSTEM<SP>FAILURE<SP>LEVEL:<GROUP><CR> or  
#<ADR>,GROUP<SP>STORE<SP>DTR<SP>AS<SP>SYSTEM<SP>FAILURE<SP>LEVEL:<GROUP><CR>

Host short version:

#GSDSFL:<GROUP><CR> or  
#<ADR>,GSDSFL:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Do STORE DTR AS SYSTEM FAILURE LEVEL in lamp group 4:

→ #GROUP□STORE□DTR□AS□SYSTEM□FAILURE□LEVEL:4□CR

← #OK<sub>CR</sub>

→ #255,GSDSFL:0x04<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.67 Do STORE DTR AS SYSTEM FAILURE LEVEL command in a single lamp

This command send the DALI command STORE DTR AS SYSTEM FAILURE LEVEL to a single lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>STORE<SP>DTR<SP>AS<SP>SYSTEM<SP>FAILURE<SP>LEVEL:<LAMP><CR> or  
#<ADR>,LAMP<SP>STORE<SP>DTR<SP>AS<SP>SYSTEM<SP>FAILURE<SP>LEVEL:<LAMP><CR>

Host short version:

#LSDSFL:<LAMP><CR> or  
#<ADR>,LSDSFL:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

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If there is a syntax problem with the command, the converter answers with  
**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Do STORE DTR AS SYSTEM FAILURE LEVEL in lamp 47:

→ #LAMP□STORE□DTR□AS□SYSTEM□FAILURE□LEVEL:47<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,LSDSFL:0x2F<sub>CR</sub>

← #255,OK<sub>CR</sub>

## **7.68 Do STORE DTR AS POWER ON LEVEL command in all lamps**

This command send the DALI command STORE DTR AS POWER ON LEVEL to all lamps twice within 100ms.

Host long version:

**#ALL<SP>STORE<SP>DTR<SP>AS<SP>POWER<SP>ON<SP>LEVEL<CR>** or

**#<ADR>,ALL<SP>STORE<SP>DTR<SP>AS<SP>POWER<SP>ON<SP>LEVEL<CR>**

Host short version:

**#ASDPOL<CR>** or

**#<ADR>,ASDPOL<CR>**

Answer:

If everything was ok with the command, the converter answers with

**#OK<CR>** or

**#<ADR>,OK<CR>**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with

**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

Samples:

Do STORE DTR AS POWER ON LEVEL in all lamps:

→ #ALL□STORE□DTR□AS□POWER□ON□LEVEL<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,ASDPOL<sub>CR</sub>

← #255,OK<sub>CR</sub>

## **7.69 Do STORE DTR AS POWER ON LEVEL command in a group of lamps**

This command send the DALI command STORE DTR AS POWER ON LEVEL to a group of lamps twice within 100ms. The DALI standard supports 16 lamp groups.

Host long version:

**#GROUP<SP>STORE<SP>DTR<SP>AS<SP>POWER<SP>ON<SP>LEVEL:<GROUP><CR>** or

**#<ADR>,GROUP<SP>STORE<SP>DTR<SP>AS<SP>POWER<SP>ON<SP>LEVEL:<GROUP><CR>**

Host short version:

**#GSDPOL:<GROUP><CR>** or

**#<ADR>,GSDPOL:<GROUP><CR>**

Answer:

If everything was ok with the command, the converter answers with

**#OK<CR>** or **#<ADR>,OK<CR>**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

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If there is a syntax problem with the command, the converter answers with  
**#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Do STORE DTR AS POWER ON LEVEL in lamp group 4:  
**→ #GROUP□STORE□DTR□AS□POWER□ON□LEVEL:4CR**  
**← #OKCR**  
**→ #255,GSDPOL:0x04CR**  
**← #255,OKCR**

## 7.70 Do STORE DTR AS POWER ON LEVEL command in a single lamp

This command send the DALI command STORE DTR AS POWER ON LEVEL to a single lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

**#LAMP<SP>STORE<SP>DTR<SP>AS<SP>POWER<SP>ON<SP>LEVEL:<LAMP><CR> or**  
**#<ADR>,LAMP<SP>STORE<SP>DTR<SP>AS<SP>POWER<SP>ON<SP>LEVEL:<LAMP><CR>**

Host short version:

**#LSDPOL:<LAMP><CR> or**  
**#<ADR>,LSDPOL:<LAMP><CR>**

Answer:

If everything was ok with the command, the converter answers with  
**#OK<CR> or #<ADR>,OK<CR>**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with

**#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Do STORE DTR AS POWER ON LEVEL in lamp 47:  
**→ #LAMP□STORE□DTR□AS□POWER□ON□LEVEL:47CR**  
**← #OKCR**  
**→ #255,LSDPOL:0x2FCR**  
**← #255,OKCR**

## 7.71 Do STORE DTR AS FADE TIME command in all lamps

This command send the DALI command STORE DTR AS FADE TIME to all lamps twice within 100ms.

Host long version:

**#ALL<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>TIME<CR> or**  
**#<ADR>,ALL<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>TIME<CR>**

Host short version:

**#ASDFT<CR> or**  
**#<ADR>,ASDFT<CR>**

Answer:

If everything was ok with the command, the converter answers with  
**#OK<CR> or**

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#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Do STORE DTR AS FADE TIME in all lamps:

→ #ALL□STORE□DTR□AS□FADE□TIME<CR>

← #OK<CR>

→ #255,ASDFT<CR>

← #255,OK<CR>

## 7.72 Do STORE DTR AS FADE TIME command in a group of lamps

This command send the DALI command STORE DTR AS FADE TIME to a group of lamps twice within 100ms. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>TIME:<GROUP><CR> or

#<ADR>,GROUP<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>TIME:<GROUP><CR>

Host short version:

#GSDFT:<GROUP><CR> or

#<ADR>,GSDFT:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with

#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Do STORE DTR AS FADE TIME in lamp group 4:

→ #GROUP□STORE□DTR□AS□FADE□TIME:4<CR>

← #OK<CR>

→ #255,GSDFT:0x04<CR>

← #255,OK<CR>

## 7.73 Do STORE DTR AS FADE TIME command in a single lamp

This command send the DALI command STORE DTR AS FADE TIME to a single lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>TIME:<LAMP><CR> or

#<ADR>,LAMP<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>TIME:<LAMP><CR>

Host short version:

#LSDFT:<LAMP><CR> or

#<ADR>,LSDFT:<LAMP><CR>

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Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with  
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with  
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

Do STORE DTR AS FADE TIME in lamp 47:  
→ #LAMP□STORE□DTR□AS□FADE□TIME:47<sub>CR</sub>  
← #OK<sub>CR</sub>

→ #255,LSDFT:0x2F<sub>CR</sub>  
← #255,OK<sub>CR</sub>

## 7.74 Do STORE DTR AS FADE RATE command in all lamps

This command send the DALI command STORE DTR AS FADE RATE to all lamps twice within 100ms.

Host long version:

#ALL<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>RATE<CR> or  
#<ADR>,ALL<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>RATE<CR>

Host short version:

#ASDFR<CR> or  
#<ADR>,ASDFR<CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or  
#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

Samples:

Do STORE DTR AS FADE RATE in all lamps:

→ #ALL□STORE□DTR□AS□FADE□RATE<sub>CR</sub>  
← #OK<sub>CR</sub>

→ #255,ASDFR<sub>CR</sub>  
← #255,OK<sub>CR</sub>

## 7.75 Do STORE DTR AS FADE RATE command in a group of lamps

This command send the DALI command STORE DTR AS FADE RATE to a group of lamps twice within 100ms.  
The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>RATE:<GROUP><CR> or  
#<ADR>,GROUP<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>RATE:<GROUP><CR>

Host short version:

#GSDFR:<GROUP><CR> or  
#<ADR>,GSDFR:<GROUP><CR>

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**Answer:**

If everything was ok with the command, the converter answers with #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

**Samples:**

Do STORE DTR AS FADE RATE in lamp group 4:

→ #GROUP□STORE□DTR□AS□FADE□RATE:4<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,GSDFR:0x04<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.76 Do STORE DTR AS FADE RATE command in a single lamp

This command send the DALI command STORE DTR AS FADE RATE to a single lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>RATE:<LAMP><CR> or  
#<ADR>,LAMP<SP>STORE<SP>DTR<SP>AS<SP>FADE<SP>RATE:<LAMP><CR>

Host short version:

#LSDFR:<LAMP><CR> or

#<ADR>,LSDFR<LAMP><CR>

**Answer:**

If everything was ok with the command, the converter answers with #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

**Samples:**

Do STORE DTR AS FADE RATE in lamp 47:

→ #LAMP□STORE□DTR□AS□FADE□RATE:47<sub>CR</sub>

← #OK<sub>CR</sub>

→ #255,LSDFR:0x2F<sub>CR</sub>

← #255,OK<sub>CR</sub>

## 7.77 Do STORE DTR AS SCENE command in all lamps

This command send the DALI command STORE DTR AS SCENE to all lamps twice within 100ms.

Host long version:

#ALL<SP>STORE<SP>DTR<SP>AS<SP>SCENE:<SCENE><CR> or

#<ADR>,ALL<SP>STORE<SP>DTR<SP>AS<SP>SCENE:<SCENE><CR>

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Host short version:

#ASDS:<SCENE><CR> or  
#<ADR>,ASDS:<SCENE><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or  
#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<SCENE> defines the number of the scene, into which the DTR register is stored as brightness value. Valid is 0 to 15 for the 16 possible scenes.

Samples:

Do STORE DTR AS SCENE 12 in all lamps:  
→ #ALL□STORE□DTR□AS□SCENE:12<sub>CR</sub>  
← #OK<sub>CR</sub>

→ #255,ASDS:0xC<sub>CR</sub>  
← #255,OK<sub>CR</sub>

## 7.78 Do STORE DTR AS SCENE command in a group of lamps

This command send the DALI command STORE DTR AS SCENE to a group of lamps twice within 100ms. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>STORE<SP>DTR<SP>AS<SP>SCENE:<GROUP>=<SCENE><CR> or  
#<ADR>,GROUP<SP>STORE<SP>DTR<SP>AS<SP>SCENE:<GROUP>=<SCENE><CR>

Host short version:

#GSDS:<GROUP>=<SCENE><CR> or  
#<ADR>,GSDS:<GROUP>=<SCENE><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

<SCENE> defines the number of the scene, into which the DTR register is stored as brightness value. Valid are 0 to 15 for the 16 possible scenes.

Samples:

Do STORE DTR AS SCENE 12 in lamp group 4:  
→ #GROUP□STORE□DTR□AS□SCENE:4=12<sub>CR</sub>  
← #OK<sub>CR</sub>

→ #255,GSDS:0x04=0x0C<sub>CR</sub>  
← #255,OK<sub>CR</sub>

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## 7.79 Do STORE DTR AS SCENE command in a single lamp

This command send the DALI command STORE DTR AS SCENE to a single lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

```
#LAMP<SP>STORE<SP>DTR<SP>AS<SP>SCENE:<LAMP>=<SCENE><CR> or  
#<ADR>,LAMP<SP>STORE<SP>DTR<SP>AS<SP>SCENE:<LAMP>=<SCENE><CR>
```

Host short version:

```
#LSDS:<LAMP>=<SCENE><CR> or  
#<ADR>,LSDS<LAMP>=<SCENE><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<SCENE> defines the number of the scene, into which the DTR register is stored as brightness value. Valid are 0 to 15 for the 16 possible scenes.

Samples:

Do STORE DTR AS SCENE 12 in lamp 47:  
 → #LAMP□STORE□DTR□AS□SCENE:47=12<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LSDS:0x2F=0xC<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.80 Do ENABLE WRITE MEMORY command in all lamps

This command send the DALI command ENABLE WRITE MEMORY to all lamps twice within 100ms.

Host long version:

```
#ALL<SP>ENABLE<SP>WRITE<SP>MEMORY<CR> or  
#<ADR>,ALL<SP>ENABLE<SP>WRITE<SP>MEMORY <CR>
```

Host short version:

```
#AEWM<CR> or  
#<ADR>,AEWM<CR>
```

Answer:

If everything was ok with the command, the converter answers with  
#OK<CR> or  
#<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

Samples:

Do ENABLE WRITE MEMORY in all lamps:  
 → #ALL□ENABLE□WRITE□MEMORY<sub>CR</sub>  
 ← #OK<sub>CR</sub>

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→ #255,AEW<sub>MCR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.81 Do ENABLE WRITE MEMORY command in a group of lamps

This command send the DALI command ENABLE WRITE MEMORY to a group of lamps twice within 100ms. The DALI standard supports 16 lamp groups.

Host long version:

#GROUP<SP>ENABLE<SP>WRITE<SP>MEMORY:<GROUP><CR> or  
 #<ADR>,GROUP<SP>ENABLE<SP>WRITE<SP>MEMORY:<GROUP><CR>

Host short version:

#GEWM:<GROUP><CR> or  
 #<ADR>,GEWM:<GROUP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<GROUP> defines the affected DALI group according to the DALI standard. Group numbers from 0 to 15 are allowed.

Samples:

Do ENABLE WRITE MEMORY in lamp group 4:  
 → #GROUP□ENABLE□WRITE□MEMORY:4<sub>CR</sub>  
 ← #OK<sub>CR</sub>  
 → #255,GEWM:0x04<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

## 7.82 Do ENABLE WRITE MEMORY command in a single lamp

This command send the DALI command ENABLE WRITE MEMORY to a single lamp twice within 100ms. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>ENABLE<SP>WRITE<SP>MEMORY:<LAMP><CR> or  
 #<ADR>,LAMP<SP>ENABLE<SP>WRITE<SP>MEMORY:<LAMP><CR>

Host short version:

#LEWM:<LAMP><CR> or  
 #<ADR>,LEWM:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK<CR> or #<ADR>,OK<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

Samples:

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Do ENABLE WRITE MEMORY in lamp 47:  
 → #LAMP□ENABLED□WRITE□MEMORY:47<sub>CR</sub>  
 ← #OK<sub>CR</sub>

→ #255,LEWM:0x2F<sub>CR</sub>  
 ← #255,OK<sub>CR</sub>

### 7.83 Do QUERY STATUS in a single lamp

This command requests with the DALI command QUERY STATUS the current status of the lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>STATUS:<LAMP><CR> or  
 #<ADR>,LAMP<SP>QUERY<SP>STATUS:<LAMP><CR>

Host short version:

#LQS:<LAMP><CR> or  
 #<ADR>,LQS:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
 #<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
 #<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY STATUS in lamp 47:  
 → #LAMP□QUERY□STATUS:47<sub>CR</sub>  
 ← #OK:1,36,0x24<sub>CR</sub>

The bits of the result value have the following meanings:

Bit 0:	Control gear status:	0=OK, 1=ERROR
Bit 1:	Lamp failure	0=OK, 1=ERROR
Bit 2:	Arc power	0=OFF, 1=ON
Bit 3:	Range check Min-Max	0=OFF or between MIN-MAX, 1=Outside MIN-MAX
Bit 4:	Is Fading active	0=Fading is finished, 1=Fading is active
Bit 5:	Query RESET STATE	0=NO, 1=YES
Bit 6:	Query no short address	0=NO, short address is programmed 1=YES, no short address is programmed
Bit 7:	Query power failure	0=NO, 1=RESET or ARC POWER CONTROL since last power on

→ #255,LQS:0x2F<sub>CR</sub>  
 ← #255,OK:1,36,0x24<sub>CR</sub>

## 7.84 Do QUERY CONTROL GEAR in a single lamp

This command checks with the DALI command QUERY CONTROL GEAR, if the lamp ballast is existing on the DALI bus. If so, the return value will be YES. DALI supports a maximum of 64 lamps.

Host long version:

```
#LAMP<SP>QUERY<SP>CONTROL<SP>GEAR:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>CONTROL<SP>GEAR:<LAMP><CR>
```

Host short version:

```
#LQCG:<LAMP><CR> or  
#<ADR>,LQCG:<LAMP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
**#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>** or  
**#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>**

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

```
#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>
```

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY CONTROL GEAR in lamp 47:  
→ #LAMP□QUERY□CONTROL□GEAR:47<sub>CR</sub>  
← #OK:1,255,0xFF<sub>CR</sub>

The result value of 255,0xFF is interpreted as YES. Otherwise the lamps sends no answer and the result will be a timeout (9,99,0x63).

```
→ #255,LQCG:0x2FCR  
← #255,OK:1,255,0xFFCR
```

## 7.85 Do QUERY LAMP FAILURE in a single lamp

This command checks with the DALI command QUERY LAMP FAILURE, if the lamp illumination in the ballast is ok. If so, the return value will be YES. DALI supports a maximum of 64 lamps.

Host long version:

```
#LAMP<SP>QUERY<SP>LAMP<SP>FAILURE:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>LAMP<SP>FAILURE:<LAMP><CR>
```

Host short version:

```
#LQLF:<LAMP><CR> or  
#<ADR>,LQLF:<LAMP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
**#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>** or  
**#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>**

If there is no valid answer within 1 second on the DALI bus, the converter answers with:  
**#OK:9,99,0x63<CR>** or

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#&lt;ADR&gt;,OK:9,99,0x63&lt;CR&gt;

If the DALI bus has no power, the converter answers with

#ERR:DALI&lt;SP&gt;BUS&lt;SP&gt;ERROR&lt;CR&gt; or #&lt;ADR&gt;,ERR:DALI&lt;SP&gt;BUS&lt;SP&gt;ERROR&lt;CR&gt;

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt; or #&lt;ADR&gt;,ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt;

&lt;LAMP&gt; represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

&lt;RESULTDEC&gt; is the 8 bit answer value of the DALI bus as decimal number

&lt;RESULTHEX&gt; is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY LAMP FAILURE in lamp 47:

→ #LAMP□QUERY□LAMP□FAILURE:47<sub>CR</sub>← #OK:1,255,0xFF<sub>CR</sub>

The result value of 255,0xFF is interpreted as YES. Otherwise the lamps sends no answer and the result will be a timeout (9,99,0x63).

→ #255,LQLF:0x2F<sub>CR</sub>← #255,OK:1,255,0xFF<sub>CR</sub>

## 7.86 Do QUERY LAMP POWER ON in a single lamp

This command checks with the DALI command QUERY LAMP POWER ON, if the lamp illumination in the ballast is on. If so, the return value will be YES. DALI supports a maximum of 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>LAMP<SP>POWER<SP>ON:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>LAMP<SP>POWER<SP>ON:<LAMP><CR>

Host short version:

#LQLPO:<LAMP><CR> or  
#<ADR>,LQLPO:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with

#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63&lt;CR&gt; or

#&lt;ADR&gt;,OK:9,99,0x63&lt;CR&gt;

If the DALI bus has no power, the converter answers with

#ERR:DALI&lt;SP&gt;BUS&lt;SP&gt;ERROR&lt;CR&gt; or #&lt;ADR&gt;,ERR:DALI&lt;SP&gt;BUS&lt;SP&gt;ERROR&lt;CR&gt;

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt; or #&lt;ADR&gt;,ERR:SYNTAX&lt;SP&gt;ERROR&lt;CR&gt;

&lt;LAMP&gt; represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

&lt;RESULTDEC&gt; is the 8 bit answer value of the DALI bus as decimal number

&lt;RESULTHEX&gt; is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY LAMP POWER ON in lamp 47:

→ #LAMP□QUERY□LAMP□POWER□ON:47<sub>CR</sub>← #OK:1,255,0xFF<sub>CR</sub>

The result value of 255,0xFF is interpreted as YES. Otherwise the lamps sends no answer and the result will be a timeout (9,99,0x63).

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→ #255,LQLPO:0x2F<sub>CR</sub>  
 ← #255,OK:1,255,0xFF<sub>CR</sub>

## 7.87 Do QUERY LIMIT ERROR in a single lamp

This command checks with the DALI command QUERY LIMIT ERROR, if the last received brightness value in the lamp ballast lies outside the current minimum and maximum brightness values of the lamp setup. If so, the return value will be YES. DALI supports a maximum of 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>LIMIT<SP>ERROR:<LAMP><CR> or  
 #<ADR>,LAMP<SP>QUERY<SP>LIMIT<SP>ERROR:<LAMP><CR>

Host short version:

#LQLE:<LAMP><CR> or  
 #<ADR>,LQLE:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
 #<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
 #<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with  
 #ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY LIMIT ERROR in lamp 47:  
 → #LAMP□QUERY□LIMIT□ERROR:47<sub>CR</sub>  
 ← #OK:1,255,0xFF<sub>CR</sub>

The return value of 255,0xFF means, that there is a min max limit error in the ballast. If the value is correct, no answer is transmitted and the return value will be timeout (9,99,0x63).

→ #255,LQLE:0x2F<sub>CR</sub>  
 ← #255,OK:1,255,0xFF<sub>CR</sub>

## 7.88 Do QUERY RESET STATE in a single lamp

This command requests with the DALI command QUERY RESET STATE, if the lamp ballast is currently in the RESET state. If yes, the result value will be YES. Otherwise a timeout is generated. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>RESET<SP>STATE:<LAMP><CR> or  
 #<ADR>,LAMP<SP>QUERY<SP>RESET<SP>STATE:<LAMP><CR>

Host short version:

#LQRS:<LAMP><CR> or  
 #<ADR>,LQRS:<LAMP><CR>

Answer:

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If everything was ok with the command, the converter answers with  
**#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>** or  
**#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>**

If there is no valid answer within 1 second on the DALI bus, the converter answers with:  
**#OK:9,99,0x63<CR>** or  
**#<ADR>,OK:9,99,0x63<CR>**

If the DALI bus has no power, the converter answers with  
**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with  
**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY RESET STATE in lamp 47:  
**→ #LAMP<SP>QUERY<SP>RESET<SP>STATE:47<CR>**  
**← #OK:1,255,0xFF<CR>**

The return value of 255,0xFF means YES, the lamp is in the RESET state. Otherwise no answer is transmitted by the ballast and the return value will be a timeout (9,99,0x63).

**→ #255,LQLE:0x2F<CR>**  
**← #255,OK:1,255,0xFF<CR>**

## 7.89 Do QUERY VERSION NUMBER in a single lamp

This command retrieves with the DALI command QUERY VERSION NUMBER the current version nuber of the DALI ballast. The DALI standard supports 64 lamps.

Host long version:

**#LAMP<SP>QUERY<SP>VERSION<SP>NUMBER:<LAMP><CR>** or  
**#<ADR>,LAMP<SP>QUERY<SP>VERSION<SP>NUMBER:<LAMP><CR>**

Host short version:

**#LQVN:<LAMP><CR>** or  
**#<ADR>,LQVN:<LAMP><CR>**

Answer:

If everything was ok with the command, the converter answers with  
**#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>** or  
**#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>**

If there is no valid answer within 1 second on the DALI bus, the converter answers with:  
**#OK:9,99,0x63<CR>** or  
**#<ADR>,OK:9,99,0x63<CR>**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with  
**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

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Do QUERY VERSION NUMBER in lamp 47:  
 → #LAMP□QUERY□VERSION□NUMBER:47CR  
 ← #OK:1,1,0x1CR

The return value represents the current version number of the lamp ballast. If there is no lamp on the DALI bus, a timeout will appear (9,99,0x63).

→ #255,LQVN:0x2FCR  
 ← #255,OK:1,1,0x1CR

## 7.90 Do QUERY DEVICE TYPE in a single lamp

This command requests with the DALI command QUERY DEVICE TYPE the current DALI device type of the lamp ballast. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>DEVICE<SP>TYPE:<LAMP><CR> or  
 #<ADR>,LAMP<SP>QUERY<SP>DEVICE<SP>TYPE:<LAMP><CR>

Host short version:

#LQDT:<LAMP><CR> or  
 #<ADR>,LQDT:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
 #<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
 #<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY DEVICE TYPE in lamp 47:  
 → #LAMP□QUERY□DEVICE□TYPE:47CR  
 ← #OK:1,0,0x0CR

The return value represents the current device type of the ballast. If there is no ballast on the DALI bus, a timeout will occur (9,99,0x63).

→ #255,LQDT:0x2FCR  
 ← #255,OK:1,1,0x1CR

## 7.91 Do QUERY CONTENT DTR in a single lamp

This command requests with the DALI command QUERY CONTENT DTR the current content of the DTR register. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>CONTENT<SP>DTR:<LAMP><CR> or  
 #<ADR>,LAMP<SP>QUERY<SP>CONTENT<SP>DTR:<LAMP><CR>

Host short version:

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#LQCD:<LAMP><CR> or  
#<ADR>,LQCD:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY CONTENT DTR in lamp 47:  
→ #LAMP□QUERY□CONTENT□DTR:47CR  
← #OK:1,0,0x0CR

The return value represents the current value of the DTR register of the affected lamp ballast. If there is no ballast on the DALI bus, a timeout will occur (9,99,0x63).

→ #255,LQCD:0x2FCR  
← #255,OK:1,1,0x1CR

## 7.92 Do QUERY CONTENT DTR1 in a single lamp

This command requests with the DALI command QUERY CONTENT DTR1 the current content of the DTR register. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>CONTENT<SP>DTR1:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>CONTENT<SP>DTR1:<LAMP><CR>

Host short version:

#LQCD1:<LAMP><CR> or  
#<ADR>,LQCD1:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

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<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number  
 <RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY CONTENT DTR1 in lamp 47:  
 → #LAMP□QUERY□CONTENT□DTR1:47CR  
 ← #OK:1,0,0x0CR

The return value represents the current value of the DTR1 register of the affected lamp ballast. If there is no ballast on the DALI bus, a timeout will occur (9,99,0x63).

→ #255,LQCD1:0x2FCR  
 ← #255,OK:1,1,0x1CR

### 7.93 Do QUERY CONTENT DTR2 in a single lamp

This command requests with the DALI command QUERY CONTENT DTR2 the current content of the DTR register. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>CONTENT<SP>DTR2:<LAMP><CR> or  
 #<ADR>,LAMP<SP>QUERY<SP>CONTENT<SP>DTR2:<LAMP><CR>

Host short version:

#LQCD2:<LAMP><CR> or  
 #<ADR>,LQCD2:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
 #<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
 #<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY CONTENT DTR2 in lamp 47:  
 → #LAMP□QUERY□CONTENT□DTR2:47CR  
 ← #OK:1,0,0x0CR

The return value represents the current value of the DTR2 register of the affected lamp ballast. If there is no ballast on the DALI bus, a timeout will occur (9,99,0x63).

→ #255,LQCD2:0x2FCR  
 ← #255,OK:1,1,0x1CR

### 7.94 Do QUERY PHYSICAL MINIMUM LEVEL in a single lamp

This command reads out with the DALI command QUERY PHYSICAL MINIMUM LEVEL the brightness level, which is used by the lamp as the lowest possible brightness level. The DALI standard supports 64 lamps.

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Host long version:

```
#LAMP<SP>QUERY<SP>PHYSICAL<SP>MINIMUM<SP>LEVEL:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>PHYSICAL<SP>MINIMUM<SP>LEVEL:<LAMP><CR>
```

Host short version:

```
#LQPMINL:<LAMP><CR> or  
#<ADR>,LQPMINL:<LAMP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
 #OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
 #<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

```
#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>
```

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with

```
#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>
```

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY PHYSICAL MINIMUM LEVEL in lamp 47:  
 → #LAMP□QUERY□PHYSICAL□MINIMUM□LEVEL:47<sub>CR</sub>  
 ← #OK:1,85,0x55<sub>CR</sub>

The return value represents a brightness value between 0 and 254. This brightness level is used as the physical minimum brightness value by the lamp. No beyond this value is physically possible. If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

```
→ #255,LQPMINL:0x2FCR  

← #255,OK:1,85,0x55CR
```

## 7.95 Do QUERY MINIMUM LEVEL in a single lamp

This command reads out with the DALI command QUERY MINIMUM LEVEL the brightness level, which is used by the lamp as a minimum brightness level. The DALI standard supports 64 lamps.

Host long version:

```
#LAMP<SP>QUERY<SP>MINIMUM<SP>LEVEL:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>MINIMUM<SP>LEVEL:<LAMP><CR>
```

Host short version:

```
#LQMINL:<LAMP><CR> or  
#<ADR>,LQMINL:<LAMP><CR>
```

Answer:

If everything was ok with the command, the converter answers with  
 #OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
 #<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

```
#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>
```

If the DALI bus has no power, the converter answers with

```
#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>
```

If there is a syntax problem with the command, the converter answers with  
**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY MINIMUM LEVEL in lamp 47:  
**→ #LAMP□QUERY□ MINIMUM□LEVEL:47**  
**← #OK:1,85,0x55**  
**CR**

The return value represents a brightness value between 0 and 254. This brightness level is used as the minimum possible brightness value by the lamp. If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

**→ #255,LQMINL:0x2F**  
**← #255,OK:1,85,0x55**  
**CR**

## 7.96 Do QUERY MAXIMUM LEVEL in a single lamp

This command reads out with the DALI command QUERY MAXIMUM LEVEL the brightness level, which is used by the lamp as a maximum brightness level. The DALI standard supports 64 lamps.

Host long version:

**#LAMP<SP>QUERY<SP>MAXIMUM<SP>LEVEL:<LAMP><CR>** or  
**#<ADR>,LAMP<SP>QUERY<SP>MAXIMUM<SP>LEVEL:<LAMP><CR>**

Host short version:

**#LQMAXL:<LAMP><CR>** or  
**#<ADR>,LQMAXL:<LAMP><CR>**

Answer:

If everything was ok with the command, the converter answers with  
**#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>** or  
**#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>**

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

**#OK:9,99,0x63**  
**CR** or  
**#<ADR>,OK:9,99,0x63**  
**CR**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR**  
**<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR**  
**<CR>**

If there is a syntax problem with the command, the converter answers with

**#ERR:SYNTAX<SP>ERROR**  
**<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR**  
**<CR>**

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY MAXIMUM LEVEL in lamp 47:  
**→ #LAMP□QUERY□ MAXIMUM□LEVEL:47**  
**← #OK:1,254,0xFE**  
**CR**

The return value represents a brightness value between 0 and 254. This brightness level is used as the maximum possible brightness value by the lamp. If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

**→ #255,LQMAXL:0x2F**  
**CR**

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← #255,OK:1,254,0xFE<sub>CR</sub>

### 7.97 Do QUERY ACTUAL LEVEL in a single lamp

This command reads out with the DALI command QUERY ACTUAL LEVEL the brightness level, which is currently used by the lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>ACTUAL<SP>LEVEL:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>ACTUAL<SP>LEVEL:<LAMP><CR>

Host short version:

#LQAL:<LAMP><CR> or  
#<ADR>,LQAL:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY ACTUAL LEVEL in lamp 47:  
→ #LAMP□QUERY□ ACTUAL□LEVEL:47<sub>CR</sub>  
← #OK:1,192,0xC0<sub>CR</sub>

The return value represents a brightness value between 0 and 254. This brightness level is currently used by the lamp. If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

→ #255,LQAL:0x2F<sub>CR</sub>  
← #255,OK:1,192,0xC0<sub>CR</sub>

### 7.98 Do QUERY POWER ON LEVEL in a single lamp

This command reads out with the DALI command QUERY POWER ON LEVEL the brightness level, which is used by the lamp in case of a power on. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>POWER<SP>ON<SP>LEVEL:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>POWER<SP>ON<SP>LEVEL:<LAMP><CR>

Host short version:

#LQPOL:<LAMP><CR> or  
#<ADR>,LQPOL:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

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If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY POWER ON LEVEL in lamp 47:

→ #LAMP□QUERY□POWER□ON□LEVEL:47<sub>CR</sub>  
← #OK:1,254,0xFE<sub>CR</sub>

The return value represents a brightness value between 0 and 254. This brightness level is used in case of a power on by the lamp. If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

→ #255,LQPOL:0x2F<sub>CR</sub>  
← #255,OK:1,254,0xFE<sub>CR</sub>

## 7.99 Do QUERY SYSTEM FAILURE LEVEL in a single lamp

This command reads out with the DALI command QUERY SYSTEM FAILURE LEVEL the brightness level, which is used by the lamp in case of a system failure. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>SYSTEM<SP>FAILURE<SP>LEVEL:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>SYSTEM<SP>FAILURE<SP>LEVEL:<LAMP><CR>

Host short version:

#LQSFL:<LAMP><CR> or  
#<ADR>,LQSFL:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY SYSTEM FAILURE LEVEL in lamp 47:

→ #LAMP□QUERY□SYSTEM□FAILURE□LEVEL:47<sub>CR</sub>  
← #OK:1,254,0xFE<sub>CR</sub>

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The return value represents a brightness value between 0 and 254. This brightness level is used in case of a system failure by the lamp. If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

→ #255,LQSLF:0x2F<sub>CR</sub>  
 ← #255,OK:1,254,0xFF<sub>CR</sub>

### 7.100 Do QUERY POWER FAILURE in a single lamp

This command checks with the DALI command QUERY POWER FAILURE the status of the lamp. If there was no communication since the reset of the lamp, this command returns YES, otherwise a timeout. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>POWER<SP>FAILURE:<LAMP><CR> or  
 #<ADR>,LAMP<SP>QUERY<SP>POWER<SP>FAILURE:<LAMP><CR>

Host short version:

#LQPF:<LAMP><CR> or  
 #<ADR>,LQPF:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
 #OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
 #<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
 #<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY POWER FAILURE in lamp 47:  
 → #LAMP□QUERY□POWER□FAILURE:47<sub>CR</sub>  
 ← #OK:1,255,0xFF<sub>CR</sub>

The return value is YES (255,0xFF), if there was no communication since last power on of the lamp. If there was DALI communication, the lamp send no answer and the return value will be timeout. (9,99,0x63).

→ #255,LQPF:0x2F<sub>CR</sub>  
 ← #255,OK:1,255,0xFF<sub>CR</sub>

### 7.101 Do QUERY FADE TIME FADE RATE in a single lamp

This command requests with the DALI command QUERY FADE TIME FADE RATE the current settings for the fading of the lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>FADE<SP>TIME<SP>FADE<SP>RATE:<LAMP><CR> or  
 #<ADR>,LAMP<SP>QUERY<SP>FADE<SP>TIME<SP>FADE<SP>RATE:<LAMP><CR>

Host short version:

#LQFTFR:<LAMP><CR> or  
 #<ADR>,LQFTFR:<LAMP><CR>

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Answer:

If everything was ok with the command, the converter answers with  
**#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>** or  
**#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>**

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

**#OK:9,99,0x63<CR>** or  
**#<ADR>,OK:9,99,0x63<CR>**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with

**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY FADE TIME FADE RATE in lamp 47:

→ #LAMP<SP>QUERY<SP>FADE<SP>TIME<SP>FFADE<SP>RATE:47<CR>

← #OK:1,7,0x7<CR>

The return value is an 8 bit value representing the current configuration of the fade time and fade rate of the selected lamp. If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

Bits 0-3 define the fade rate and bits 4-7 define the fade time according to the DALI standard.

→ #255,LQFTFR:0x2F<CR>

← #255,OK:1,7,0x7<CR>

## 7.102 Do QUERY SCENE LEVEL in a single lamp

This command requests with the DALI command QUERY SCENE LEVEL the current brightness value for a scene in the lamp. The DALI standard supports 16 scenes and 64 lamps.

Host long version:

**#LAMP<SP>QUERY<SP>SCENE<SP>LEVEL:<LAMP>=<SCENE><CR>** or  
**#<ADR>,LAMP<SP>QUERY<SP>SCENE <SP>LEVEL:<LAMP>=<SCENE><CR>**

Host short version:

**#LQSL:<LAMP>=<SCENE><CR>** or  
**#<ADR>,LQSL:<LAMP>=<SCENE><CR>**

Answer:

If everything was ok with the command, the converter answers with  
**#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>** or  
**#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>**

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

**#OK:9,99,0x63<CR>** or  
**#<ADR>,OK:9,99,0x63<CR>**

If the DALI bus has no power, the converter answers with

**#ERR:DALI<SP>BUS<SP>ERROR<CR>** or **#<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>**

If there is a syntax problem with the command, the converter answers with

**#ERR:SYNTAX<SP>ERROR<CR>** or **#<ADR>,ERR:SYNTAX<SP>ERROR<CR>**

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

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<SCENE> represents the number of the scene, which brightness value is queried by this command. Valid is a number between 0 and 15.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY SCENE LEVEL of scene 5 in lamp 47:

→ #LAMP□QUERY□SCENE □LEVEL:47=5<sub>CR</sub>

← #OK:1,254,0x<sub>FE</sub><sub>CR</sub>

The return value is an 8 bit value representing the current configured brightness value of the selected scene. The value is in the range of 0 to 254. The value 255 defines, that the scene is not used (deactivated). If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

→ #255,LQSL:0x<sub>2F</sub><sub>CR</sub>

← #255,OK:1,254,0x<sub>FE</sub><sub>CR</sub>

### 7.103 Do QUERY GROUPS 0-7 in a single lamp

This command request with the DALI command QUERY GROUPS 0-7 the current participation to the groups 0 to 7 for the selected lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>GROUPS<SP>0-7:<LAMP><CR> or

#<ADR>,LAMP<SP>QUERY<SP>GROUPS<SP>0-7:<LAMP><CR>

Host short version:

#LQG07:<LAMP><CR> or

#<ADR>,LQG07:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with

#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or

#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or

#<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY GROUPS 0-7 with lamp 47:

→ #LAMP□QUERY□GROUPS□0-7:47=5<sub>CR</sub>

← #OK:1,0,0x<sub>00</sub><sub>CR</sub>

The return value is a8 it number representing the group participation of the lamp for the groups 0 to 7. Each bit stand for one group: Bit 0 stands for group 0, bit 1 for group 1 and so forth. Is the lamp a part of the affected group, the bit will be 1. If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

→ #255,LQG07:0x<sub>2F</sub><sub>CR</sub>

← #255,OK:1,0,0x<sub>00</sub><sub>CR</sub>

### 7.104 Do QUERY GROUPS 8-15 in a single lamp

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This command request with the DALI command QUERY GROUPS 8-15 the current participation to the groups 8 to 15 for the selected lamp. The DALI standard supports 64 lamps.

Host long version:

#LAMP<SP>QUERY<SP>GROUPS<SP>8-15:<LAMP><CR> or  
#<ADR>,LAMP<SP>QUERY<SP>GROUPS<SP>8-15:<LAMP><CR>

Host short version:

#LQG815:<LAMP><CR> or  
#<ADR>,LQG815:<LAMP><CR>

Answer:

If everything was ok with the command, the converter answers with  
#OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR> or  
#<ADR>,OK:<BYTES>,<RESULTDEC>,<RESULTHEX><CR>

If there is no valid answer within 1 second on the DALI bus, the converter answers with:

#OK:9,99,0x63<CR> or  
#<ADR>,OK:9,99,0x63<CR>

If the DALI bus has no power, the converter answers with

#ERR:DALI<SP>BUS<SP>ERROR<CR> or #<ADR>,ERR:DALI<SP>BUS<SP>ERROR<CR>

If there is a syntax problem with the command, the converter answers with

#ERR:SYNTAX<SP>ERROR<CR> or #<ADR>,ERR:SYNTAX<SP>ERROR<CR>

<LAMP> represents the affected short address of the lamp according to the DALI standard. The short address range 0 to 63 is allowed.

<RESULTDEC> is the 8 bit answer value of the DALI bus as decimal number

<RESULTHEX> is the 8 bit answer value of the DALI bus as hexadecimal number

Samples:

Do QUERY GROUPS 8-15 with lamp 47:  
→ #LAMPQUERYGROUPS8-15:47=5<sub>CR</sub>  
← #OK:1,0,0x0<sub>CR</sub>

The return value is a8 it number representing the group participation of the lamp for the groups 8 to 15. Each bit stand for one group: Bit 0 stands for group 8, bit 1 for group 9 and so forth. Is the lamp a part of the affected group, the bit will be 1. If there is no lamp on the DALI bus, the return value will be 9,99,0x63 (Timeout).

→ #255,LQG815:0x2F<sub>CR</sub>  
← #255,OK:1,0,0x0<sub>CR</sub>

## 8 MODBUS – register description:

### 8.1 Overview

Register Group	Function
4x00500	DALI commands
4x00599	
4x00600	inoperable
4x05999	
4x06000	converter internally
4x06009	
4x06010	inoperable
4x59999	
4x60000	converter internally
4x65536	

**Note:**

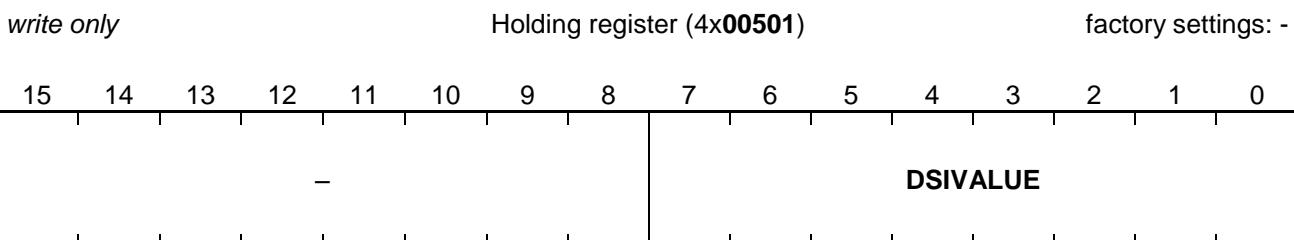
Registers that are not described in detail below, but are not explicitly stated as inoperable in this table, are reserved for internal commands and updates as well as program extensions in the future and therefore must not be read or written.

All inoperable registers return the value 0 when access read.

## 8.2 MODBUS Register

Be aware that this manual indexes the MODBUS registers starting with 1 in accordance to the MODBUS standard.

### 8.2.1 DS1 value



bit	description
<b>DS1VALUE</b>	<b>send value – DS1 mode</b> sends a value in DS1 mode (8Bit – no addressing)

**Note:**

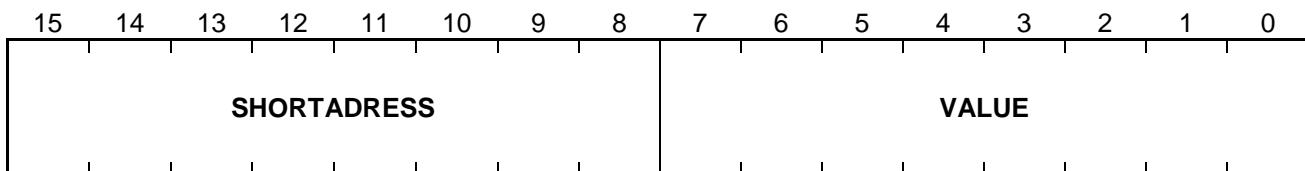
Although a mixed DS1 and DALI light system might be controlled by one converter, we advice not to do so as the light may work unpredictable (feedbacks of DALI slaves are equal to DS1 light values!)

## 8.2.2 DALI – brightness value for a single lamp

write only

holding register (4x00511)

factory setting: -



bit	description
<b>SHORTADRESS</b>	<b>short address</b> number of the lamp to be controlled (0..63)
<b>VALUE</b>	<b>value</b> brightness value that should be send

**Note:**

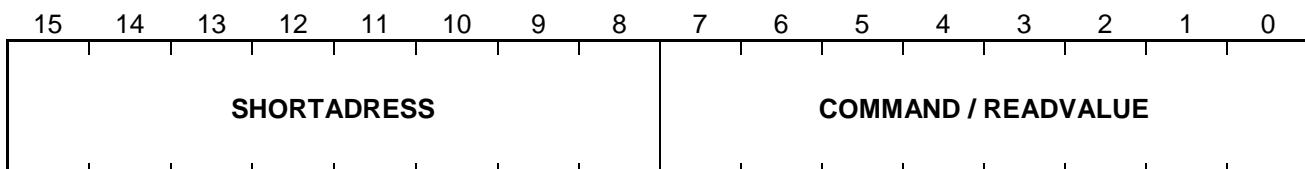
According to the standard norm DALI lamps accept 254 (0xFEh) as upper threshold for the brightness value. Therefore the value 255 (0xFFh) will be ignored and designated as threshold error. For more detailed information please contact the manufacturer of the DALI unit or standard EN60929.

## 8.2.3 DALI – command for a single lamp

(read / )write

holding register (4x00512,4x00513)

factory setting: -



bit	description
<b>SHORTADRESS</b>	<b>short address</b> number of the lamp to be controlled (0..63)
<b>COMMAND</b> (fast access)	<b>command</b> defines which command is send
<b>READVALUE</b> (read access)	<b>feedback signal</b> If a command returns a value it can be read here when reading authorisation is given. As long as no feedback signal is received 0x8000h is returned.

**Note:**

Writing into register 4x00512 sends the command only once (appropriate for standard commands). If a command must be send multiple times (special configuration commands) register 4x00513 should be chosen. Please act with caution when using configuration commands.

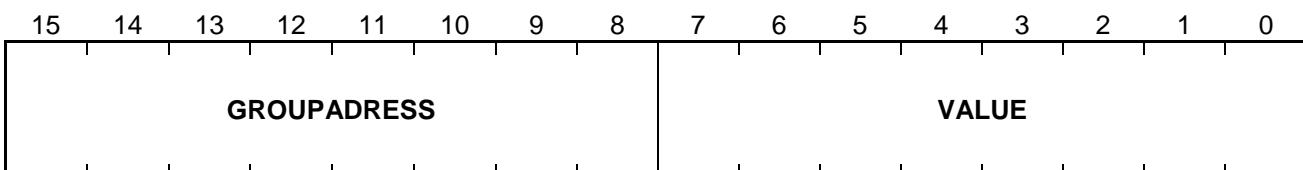
To verify if a command has returned a value or not use bit 0-2 in the status register.

### 8.2.4 DALI – brightness value for a group of lamps

write only

holding register (4x00521)

factory settings: -



bit	description
<b>GROUPADRESS</b>	<b>group address</b> defines the group of lamps that should be controlled (0..15)
<b>VALUE</b>	<b>value</b> brightness value that should be send

**Note:**

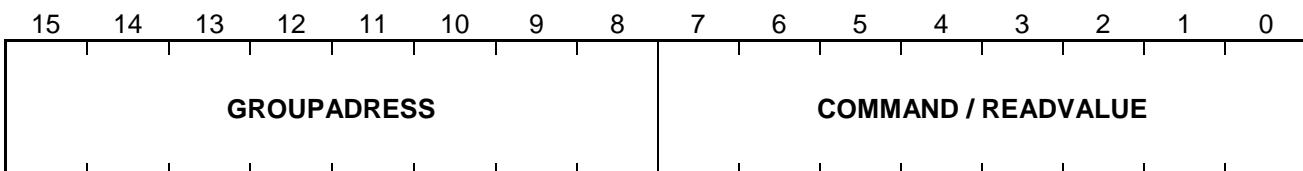
According to the standard norm DALI lamps accept 254 (0xFEh) as upper threshold for the brightness value. Therefore the value 255 (0xFFh) will be ignored and designated as threshold error. For more detailed information please contact the manufacturer of the DALI unit or standard EN60929.

### 8.2.5 DALI – Commando for a group of lamps

(read / )write

holding register (4x00522, 4x00523)

factory settings: -



bit	description
<b>GROUPADRESS</b>	<b>group address</b> Nummer der Leuchte die angesteuert werden soll (0..63)
<b>COMMAND</b>	<b>command</b> defines which command should be sent
<b>READVALUE</b>	<b>feedback signal</b> If a command returns a value it can be read here when reading authorisation is given. As long as no feedback signal is received 0x8000h is returned.

**Note:**

Writing into register 4x00522 sends the command only once (appropriate for standard commands). If a command must be send multiple times (special configuration commands) register 4x00523 should be chosen. Please act with caution when using configuration commands.

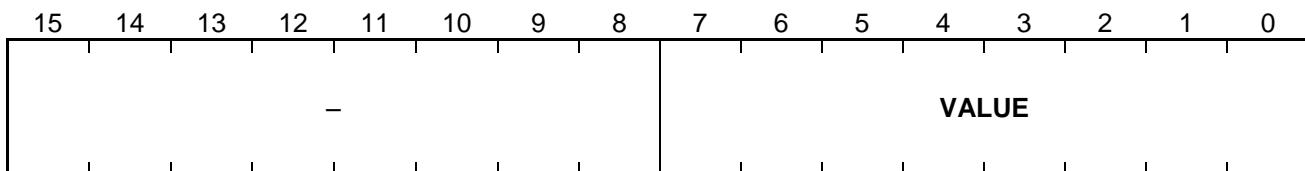
To verify if a command has returned a value or not use bit 0-2 in the status register.

## 8.2.6 DALI – brightness value for all lamps

write Only

holding register (4x00531)

factory settings: -



bit	description
<b>VALUE</b>	<b>brightness value</b>
	defines which brightness value should be send

**Note:**

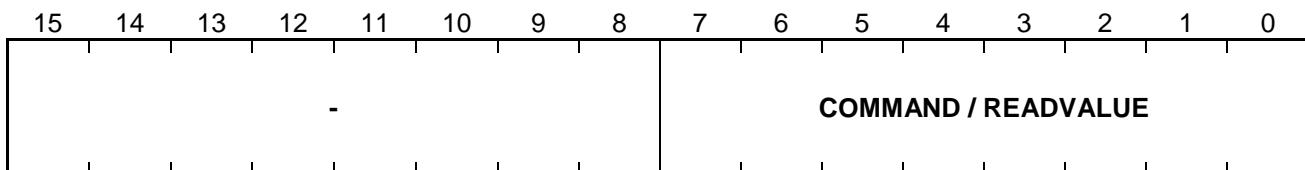
According to the standard norm DALI lamps accept 254 (0xFEh) as upper threshold for the brightness value. Therefore the value 255 (0xFFh) will be ignored and designated as threshold error. For more detailed information please contact the manufacturer of the DALI unit or standard EN60929.

## 8.2.7 DALI – Command for all lamps

(read / )write

holding register (4x00532, 4x00533)

factory settings: -



bit	description
<b>-</b>	<b>COMMAND</b>
<b>COMMAND</b>	<b>command</b> defines which command should be send
<b>READVALUE</b>	<b>feedback signal</b> If a command returns a value it can be read here when reading authorisation is given. As long as no feedback signal is received 0x8000h is returned.

**Note:**

Writing into register 4x00532 sends the command only once (appropriate for standard commands). If a command must be sent multiple times (special configuration commands) register 4x00533 should be chosen. Please act with caution when using configuration commands.

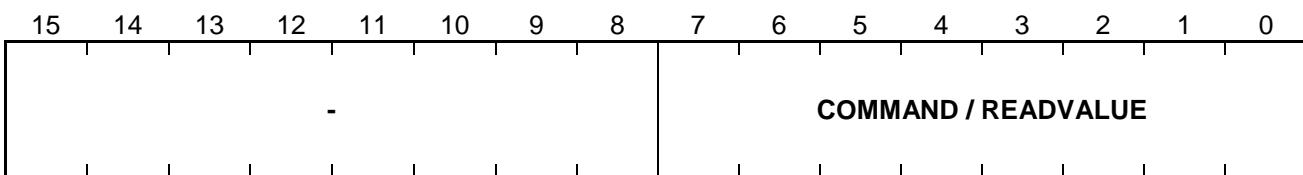
To verify if a command has returned a value or not use bit 0-2 in the status register.

## 8.2.8 DALI – Direct DALI command

(read / )write

holding register (4x00542, 4x00543)

factory settings: -



bit	description
-	<b>COMMAND</b>
	<b>command</b> defines which command should be send as a 16 bit value according to the DALI standard. For example sending an INITIALIZE command means writing 0xA500 to this register.
	<b>EXAMPLE: Physical selection sequence</b> First send RESET command (Write 0xFF20 to this register (4x00542) using write single register) Then send the INITIALIZE command (Write 0xA500 to this register (4x00543), because the command hast to be transmitted twice within 100ms) Now send START PHSICAL SELECTON command (Write 0xBD00 to this register) Poll the physical selection als long as you want to (Write 0xBB00 to this register and read this register back. When you get a value different to -1, the user has selected one lamp). Now program the short address with the command 0xB701+2*ShortAddress (The short address is represented in the bits 1 to 7, Bit 0 is reserve for other purposes. E.g. 0xB701 defines short address 0, 0xB703 defines short address 1, 0xB705 stands for short address 2 and finally 0xB77F stands for short address 63). Write to register 4x00543 to send this command twice.
	<b>READVALUE</b>
	<b>feedback signal</b> If a command returns a value it can be read here when reading authorisation is given. As long as no feedback signal is received 0x8000h is returned.

**Note:**

Writing into register 4x00542 sends the command only once (appropriate for standard commands). If a command must be send multiple times (special configuration commands) register 4x00543 should be chosen. Please act with caution when using configuration commands.  
To verify if a command has returned a value or not use bit 0-2 in the status register.

## Status register

The status register indicates the status of the DALI bus.

Under normal conditions this MODBUS register is not used.

read only

holding register (4x**00551**)

factory settings: -

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
----	----	----	----	----	----	---	---	---	---	---	---	---	---	---	---

**CONVSTAT**

<b>bit</b>	<b>description</b>
<b>CONVSTAT</b>	<b>converter status indication</b> indicates the current status of the DALI/DSI communication

<b>bit</b>	<b>name</b>	<b>bit=0</b>	<b>bit=1</b>
0-2	RXState	number of received bytes	0 as value indicates that no value is received. Under normal DALI conditions a value of 1 indicates a feedback signal from the slave.
3	-	reserved	reserved
4	RXBusy	RX inactive	RX active
5	RXError	no receiving error	receiving error
6	TXBusy	TX inactive	TX active
7	TXError	no sending error	sending error
8	-	-	-
9	-	-	-
10	-	-	-
11	-	-	-
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-

**Note:**

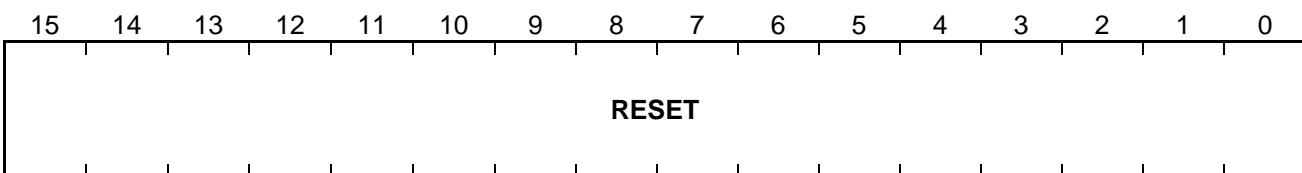
The status register is only relevant for the bits 0..2 under normal MODBUS conditions.

### 8.2.9 Converter reset

WRITE only

holding register (4x06001)

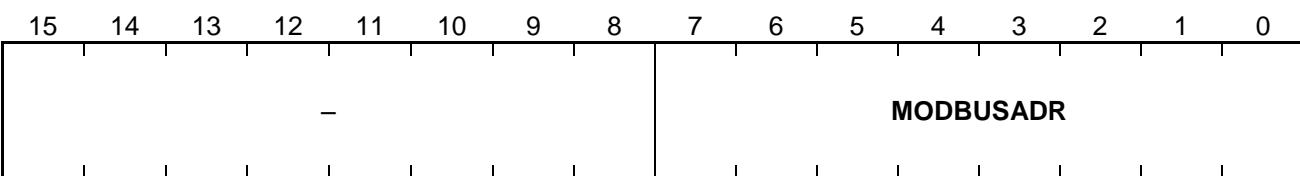
factory settings: 0



<b>bit</b>	<b>description</b>
<b>RESET</b>	<b>reset converter</b> If RESET=1 the converter is restarted and a new configuration is contingently loaded.

### 8.2.10 MODBUS address

*READ / WRITE* holding register (4x65222) factory settings: 255



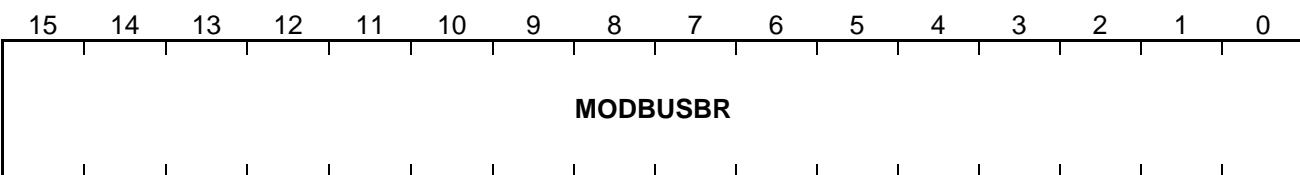
bit	description
<b>MODBUSADR</b>	<b>Modbus address</b> defines the MODBUS address of the converter. Range: 0 to 255

**Note:**

To overwrite the old values the converter must be restarted.

### 8.2.11 MODBUS baud rate

*READ / WRITE* holding register (4x65223) factory settings: 1



bit	description
<b>MODBUSBR</b>	<b>Modbus Baudrate</b> – defines the Modbus baud rate of the converter. 0: 9600 bps 1: 19200 bps 2: 38400 bps 3: 57600 bps

**Note:**

If the set value is greater than 3, the standard baud rate of 19200 bps is used!

To overwrite the old values it is necessary to save the new configuration and to restart the converter.

## 9 Specifications

### 9.1 Dimensions

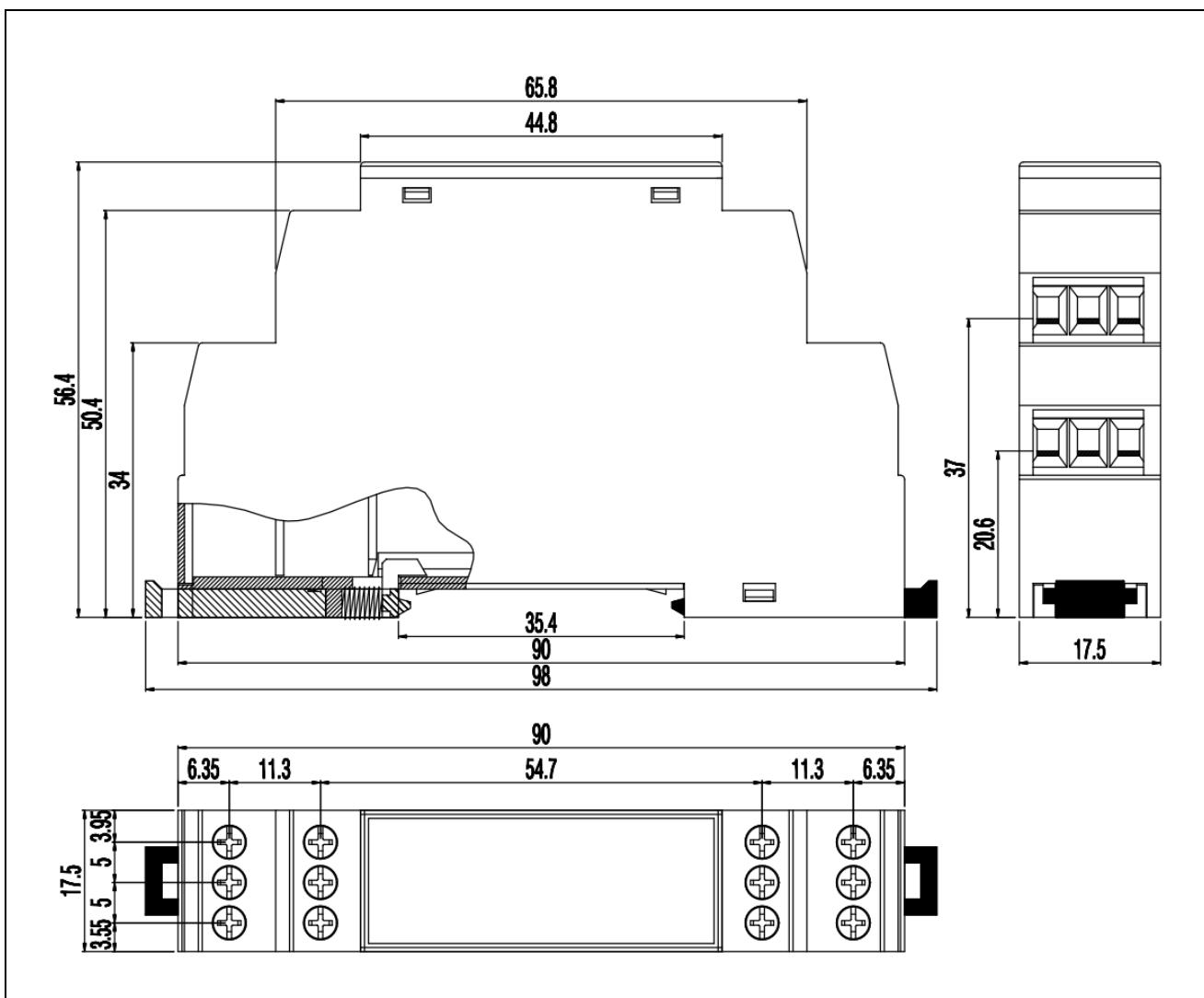


Illustration: dimension illustration in mm

Dimensions	
Enclosure dimensions L x W x H (mm)	17,5 x 90 x 58
Weight	60 g
Colour	Grey RAL7035
Material	PA - UL 94 V0
Protection class	IP20 based on DIN 40050/EN 60529

Table: Data of enclosure

## 10 Important DALI commands

<b>Command</b>	<b>Function</b>
0 (0x00h) OFF	switch off lamp
1 (0x01h) UP	dim lamp up for 200ms If the lamp was switched off it stays switched off.
2 (0x02h) DOWN	dim lamp down for 200ms As soon as the lower brightness threshold level is reached the lamp stays at this value.
3 (0x03h) STEP UP	Lamp switches one step brighter. If the lamp was switched off it stays switched off.
4 (0x04h) STEP DOWN	Lamp switches one step darker. As soon as the lower brightness threshold level is reached the lamp stays at this value.
5 (0x05h) RECALL MAX LEVEL	Set lamp to maximal threshold level.
6 (0x06h) RECALL MIN LEVEL	Set lamp to minimal threshold level.
7 (0x07h) STEP DOWN AND OFF	Lamp switches one step darker. If the lower brightness threshold level is reached the lamp switches off.
8 (0x08h) ON AND STEP UP	Lamp switches one step brighter. If the lamp was switched off it is now switched on.
16 – 31 (0x10h – 0x1Fh) GOTO SCENE	Load scene 0..15
32 (0x20h) RESET	Reset the load
33 (0x21h) STORE ACTUAL LEVEL IN THE DTR	Stores the actual brightness level in the register DTR
42 (0x2Ah) STORE DTR AS MAX LEVEL	Stores the actual register value DTR as maximum level for lamp
43 (0x2Bh) STORE DTR AS MIN LEVEL	Stores the actual register value DTR as minimum level for lamp
44 (0x2Ch) STORE DTR AS SYSTEM FAILURE LEVEL	Stores the actual register value DTR as system failure level for lamp
45 (0x2Dh) STORE DTR AS POWER ON LEVEL	Stores the actual register value DTR as power on level for lamp

46 (0x2Eh) STORE DTR AS FADE TIME	Stores the actual register value DTR as fade time for lamp
47 (0x2Fh) STORE DTR AS FADE RATE	Stores the actual register value DTR as fade rate for lamp
64-79 (0x40h-0x4F) STORE DTR AS SCENE	Stores the actual register value DTR as scene value for scene 0..15
80-95 (0x50h-0x5F) REMOVE FROM SCENE	Removes the actual brightness from scene 0..15
128 (0x80h) STORE DTR AS SHORT ADDRESS	Stores the actual register value DTR as new short address
144 (0x90h)	Query of the status of the lamp  Answer: Bit 0: Status of control gear 0=OK Bit 1: Lamp failure 0=OK Bit 2: Lamp arc power on 0=OFF 1=ON Bit 3: Limit Error 0=Actual level is between MIN and MAX or OFF Bit 4: Fade running 0=Fading is finished 1=Fading is active Bit 5: RESET STATE 0=OK Bit 6: Missing short address 0=No 1=Yes Bit 7: POWER FAILURE 0=No

**Note:**

For further command please refer to standard EN60929.