WAGO DALI Configurator

for configuring the DALI network and the DALI Multi-Master Module

Product manual | Version 4.1.0

WAGO GmbH & Co. KG
Hansastraße 27
D - 32423 Minden
Phone: +49 571/887 – 0
Fax: +49 571/887 – 844169
E-Mail: ✉ **info@wago.com**
Internet: **www.wago.com**

Technical Support
Phone: +49 571/887 – 44555
Fax: +49 571/887 – 844555
E-Mail: ✉ **support@wago.com**

Every conceivable measure has been taken to ensure the accuracy and completeness of this documentation. However, as errors can never be fully excluded, we always appreciate any information or suggestions for improving the documentation.

E-Mail: ✉ **documentation@wago.com**

We wish to point out that the software and hardware terms as well as the trademarks of companies used and/or mentioned in the present manual are generally protected by trademark or patent.

WAGO is a registered trademark of WAGO Verwaltungsgesellschaft mbH.

Table of Contents

1 Terms

1.1 Scope of Applicability

This document applies to the software:

WAGO DALI Configurator

The software must only be installed and operated in accordance with the operating instructions. Knowledge of the operating instructions is required for proper use. You can find all documents and information on the detailed product page.

You can find all documents and information at:

www.wago.com/dali

1.2 Intended Use

WAGO DALI Configurator is a stand-alone PC software solution. It is used to set up, maintain and service a DALI network and to commission the DALI **Multi-Master Module**.

Software operation is only permitted if the system requirements and license conditions are met.

Improper Use

Improper use of the software is not permitted. Specifically, improper use occurs in the following cases:

- Non-observance of the intended use
- Use of the software in areas with special risk that require continuous fault-free operation and in which failure of or operation of the software can result in an imminent risk to life, limb or health or cause serious damage to property or the environment (such as the operation of nuclear power plants, weapons systems, aircraft and motor vehicles)

Warranty and Liability

The provisions of the latest WAGO General Terms and Conditions of Deliveries and Services (GTC) apply as well as the Software License Terms for Standard Software (SW-License) applicable to software products und software embedded in WAGO hardware products, both available at: **www.wago.com**.

In particular, the warranty is void if:

- The software is improperly used.
- The deficiency (hardware and software configurations) is due to special instructions.
- Modifications to the hardware or software have been made by the user or third parties that are not described in this documentation and that has contributed to the fault.

Individual agreements always have priority.

Obligations of Installers/Operators

The installers and operators bear responsibility for the safety of an installation or a system assembled with the software. The installer/operator is responsible for proper construction and safety of the installation. All laws, standards, guidelines, local regulations

and accepted technology standards and practices applicable at the time of installation, and the instructions in the the products' Instructions for Use, must be complied with. In addition, the installment requirements for licensing must be observed. In the event of non-compliance, the products may not be operated within the scope of the approval.

1.3 Typographical Conventions

Number Notation

100	Decimals: Normal notation
0x64	Hexadecimals: C-notation
'100'	Binary: In single quotation marks
'0110.0100'	Nibbles separated by a period

Text Formatting

italic	Names of paths or files
bold	Menu items, entry or selection fields, emphasis
`Code`	Sections of program code
>	Selection of a menu point from a menu
"Value"	Value entries
[F5]	Identification of buttons or keys

Cross References / Links

	Cross references/links to a topic in a document
	Cross references / links to a separate document
	Cross references / links to a website
	Cross references / links to an email address

Sequence of Action

✓ This symbol identifies a precondition.

1. Action step
2. Action step

   ⇨ This symbol identifies an intermediate result.

⇨ This symbol identifies the result of an action.

- Individual action step

Lists

- Lists, first level
  - Lists, second level

Figures

Figures in this documentation are for better understanding and may differ from the actual product design.

Warning Messages

⚠ DANGER

Type and source of hazard

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

- Action step to reduce risk

⚠ WARNING

Type and source of hazard

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

- Action step to reduce risk

⚠ CAUTION

Type and source of hazard

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

- Action step to reduce risk

NOTICE

Type and source of malfunction (property damage only)

Indicates a potentially hazardous situation which, if not avoided, may result in damage to property.

- Action step to reduce risk

Information Notices

ⓘ Note

Information

Indicates information, clarifications, recommendations, referrals, etc.

1.4 Legal Information

Intellectual property

Third-party products are always mentioned without any reference to patent rights. WAGO GmbH & Co. KG, or the manufacturer of third-party products, retains all rights regarding patent, utility model or design registration.

Third-party trademarks are referred to in the product documentation. The "®" and "™" symbols are omitted hereinafter. The trademarks are listed in the Appendix: **Protected Rights [▶ 95]**.

Subject to Change

The instructions, guidelines, standards, etc., in this manual correspond to state of the art at the time the documentation was created and are not subject to updating service. The installer and operator bear sole responsibility to ensure they are complied with in their currently applicable form. WAGO GmbH & Co. KG retains the right to carry out technical changes and improvements of the products and the data, specifications and illustrations of this manual. All claims for change or improvement of products that have already been delivered – excepting change or improvement performed under guarantee agreement – are excluded.

2 Security

2.1 General Safety Regulations

- This documentation is part of the software. Therefore, keep the documentation for the entire service life of the software. Pass on the documentation to the next user of the software. In addition, ensure that any supplement to this documentation is included, if necessary.
- Any actions related to the use of WAGO software may only be performed by qualified staff with sufficient knowledge to use the respective PC system.
  Steps in which files are created or changed on a PC system may only be performed by qualified employees with sufficient knowledge in the administration of the PC system used in addition to file creation or modification.
  Steps that change the PC system's behavior within a network may only be performed by qualified employees with sufficient knowledge of administration of the responsible network.
- Comply with the laws, standards, guidelines, local regulations and accepted technology standards and practices applicable at the time of installation.

2.2 Indirect Safety

- If automation solutions are implemented that can cause personal injury or major property damage in the event of failure, you must take appropriate measures to ensure that the system remains in a safe operating state even in the event of failure.
- Give all products in a network different IP addresses.
- Never connect a PC on which a DHCP server is installed to a global network. In larger networks, there is usually already a DHCP server that can cause collisions and subsequent network failure.
- Use only the latest security software.
- Uninstall or disable all software components or programs on your PC that are not required for the intended use.
- If there are access problems, check whether the ***e!****RUNTIME* runtime system is activated on the connected devices. Use a software tool (depending on the hardware) to perform the check or use the Web-Based Management System.

3 Overview

The WAGO DALI Configurator allows easy commissioning of a **DALI** network via the DALI Multi-Master Module (Item Number 753-647).

The WAGO DALI Configurator provides functions not only for easy startup and configuration, but also for the service, care and maintenance of a DALI network. That includes configuring the entire DALI network offline, including the electronic **Control Gears** (ECGs) and **Control Devices** (sensors), as well as saving and restoring device configurations, so that a replaced device can be reconstructed with database values. You can copy the device settings to another device or to multiple duplicates. If you are replacing an ECG, but keeping the lighting, you can write the hours of operation of the lighting to the DALI Multi-Master Module (The “Logging of operating hours” function is integrated into firmware versions 04 and later. This function is disabled for DALI **Multi-Master** Modules with firmware < 04).

The network overview appears in a tree structure. All online DALI Multi-Master Modules are displayed in the module navigation. The tree structure shows the DALI network of the DALI Multi-Master Module currently selected. Multiple selection of devices ensures an efficient configuration.

Overview of the Essential Functions

- Addressing the DALI bus subscribers
- Scene and group formation
- Configuration of **control gears** (**ECGs**)
- Configuration of control devices (sensors)
- Specific settings for the I/O module
- Diagnostic function
- Import and export function
- Status messages from defective ECGs/lamps
- Manual connection/disconnection
- Communication interruption signaling
- Displaying, resetting and logging*) of operating hours

*) For DALI Multi-Master Module firmware version 04 or higher

4 Requirements

4.1 System Requirements

Hardware

Table 1: Required minimum PC hardware

Components	Requirements
Memory	512 MB or higher
Free hard disk space	Min. 20 MB for the WAGO DALI Configurator and 4.5 GB for the .NET Framework 4.6.2
Processor	1 GHz or higher
Other	Installed network card, .NET Framework 4.6.2 (redistributables are included)

Software

Table 2: Required PC software

Components	Source
Operating system	Windows 8 / 10 / 11
.NET Framework 4.6.2	Microsoft (free download at: https://microsoft.com)
WAGO DALI Configurator	WAGO Stand-alone tool, download at: https://downloadcenter.wago.com

Table 3: Optional PC software

Components	Source
e!COCKPIT	WAGO https://wago.com
CODESYS	WAGO https://downloadcenter.wago.com
WAGO-I/O-PRO	
WAGO I/O Check	
WAGO Solution Builder Plug-in	

Network ports

Table 4: Network ports

Network port	Description
6626	Network port for the default connection for the ”I/O Check Service” interface.
	Used primarily in normal circumstances.
502	Network port for the replacement connection for ”PLC mode.”
	Used only when the default connection is not available.

WAGO I/O System 750/753

Table 5: Required Components of the WAGO I/O System 750/753

Components		Item Number
Fieldbus Controller/PLC WAGO I/O System 750/753		Example:
	PFC ETHERNET or	750-891
	PFC200 ETHERNET	750-8212
DALI Multi-Master		753-647
End Module		750-600
Power supply for indirect power to the DALI network subscribers via the DALI Multi-Master Module		Example:
	DALI Multi-Master DC/DC Converter	753-620
	Switched-Mode Power Supply	787-1007

Compatibility of head stations

The list of compatible WAGO head stations is available in the manual for the **DALI Multi-Master (Item Number 753-647)**.

Note

Limit PLC cycle time to a maximum of 60 ms

To communicate with the WAGO DALI Configurator, the DALI function blocks in the PLC program must be run through at least every 60 ms.

5 Installing

5.1 Installing WAGO DALI Configurator

You can download the WAGO DALI Configurator as a stand-alone tool from the WAGO website: **https://downloadcenter.wago.com**

The WAGO DALI Configurator is installed as a stand-alone tool from a ”Setup.exe” file with a user-guided wizard.

6 Starting

6.1 Starting the WAGO DALI Configurator from WAGO-I/O-CHECK

If available, you can launch the WAGO DALI Configurator process from the WAGO-I/O-*CHECK* startup tool.

✓ The hardware configuration of your fieldbus node is correct.

✓ The DALI network is installed and wired without errors.

✓ The WAGO DALI Configurator is available on your PC (as a stand-alone tool or as part of the WAGO-I/O-*CHECK* software).

1. Read the hardware configuration of your fieldbus node from the WAGO-I/O-*CHECK* startup tool.
2. Right-click on the icon for the DALI Multi-Master Module.
3. Select the **Settings** item in the context menu.

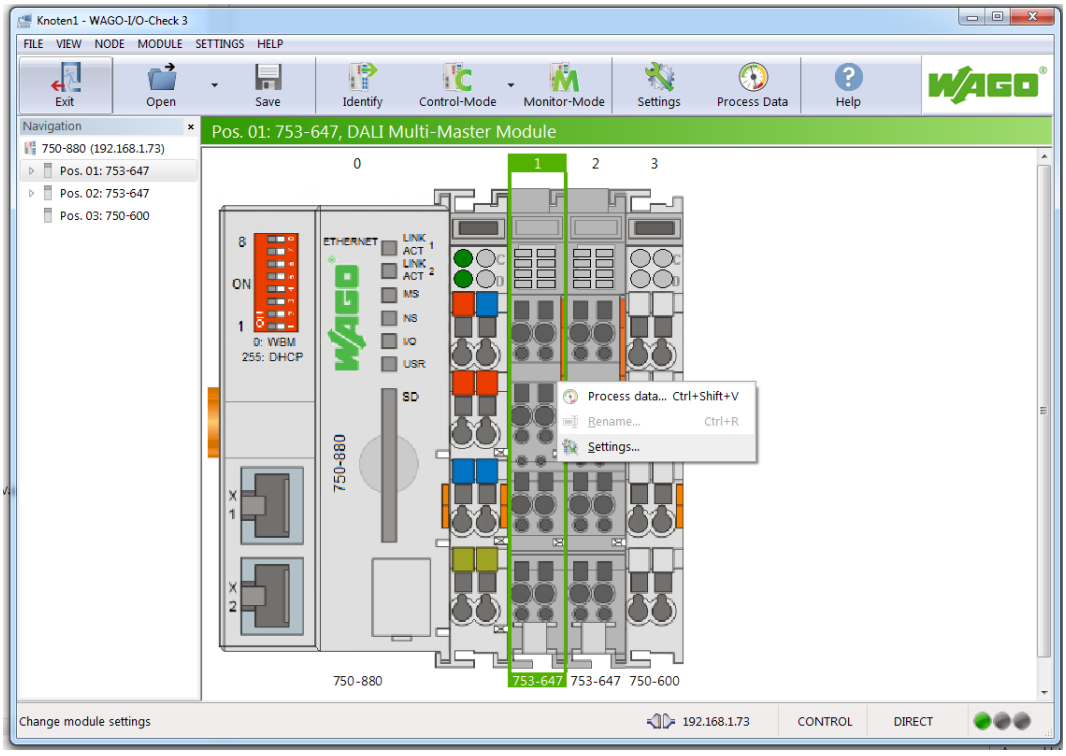


Figure 1: Starting WAGO DALI Configurator from WAGO-I/O-CHECK

⇨ The WAGO DALI Configurator is executed.

6.2 Launching the WAGO DALI Configurator as a Stand-Alone Tool

✓ The hardware configuration of your fieldbus node is correct.

✓ The DALI network is installed and wired without errors.

✓ The WAGO DALI Configurator is available on your PC (as a stand-alone tool or as part of the WAGO-I/O-*CHECK* software).

- Launch the WAGO DALI Configurator by double-clicking the .exe file.

  ⇨ The WAGO DALI Configurator opens and the ”START” tab is displayed.

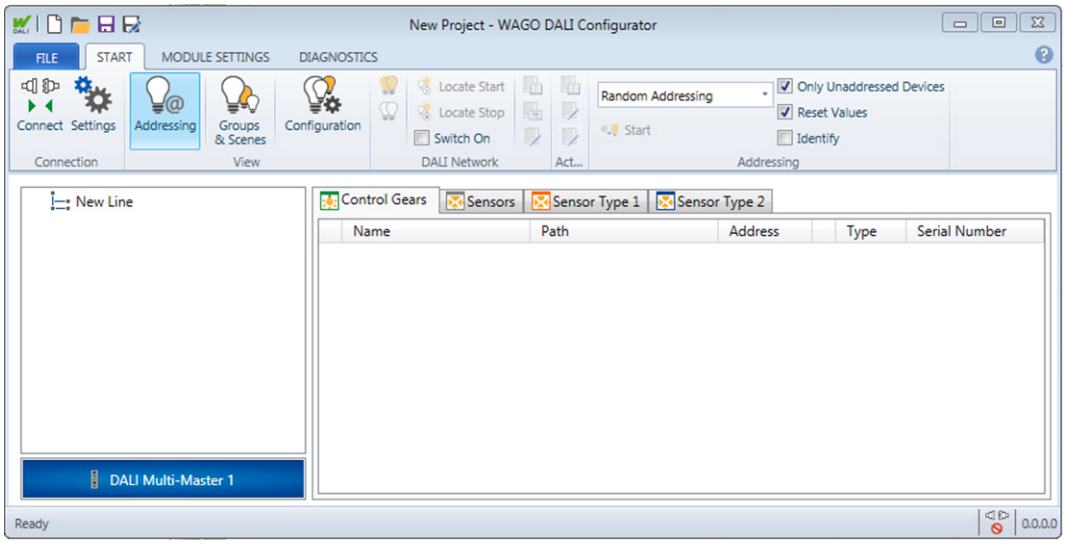


Figure 2: Start Screen

⇨ The WAGO DALI Configurator is executed.

6.3 Changing the Language of the User Interface

The WAGO DALI Configurator supports German, English and French.

By default, the WAGO DALI Configurator launches in the operating system language or, if not supported, in English. You can change the language of the user interface by starting the WAGO DALI Configurator with the following command line argument for the respective language in the Windows command prompt:

✓ The hardware configuration of your fieldbus node is correct.

✓ The DALI network is installed and wired without errors.

✓ The WAGO DALI Configurator is available on your PC (as a stand-alone tool or as part of the WAGO-I/O-*CHECK* software).

1. Open the command prompt.

   ⇨ To do this, enter the command ”cmd” in the input field under **Start** > **Windows System** > **Run** and press **[Enter]**.

2. Enter one of the following commands at the command prompt according to the required language:

   ⇨ **For German:** <Installation path>*“WAGO.DaliConfigurator.exe” /Language:de*

   ⇨ **For English:** <Installation path>*“WAGO.DaliConfigurator.exe” /Language:en*

   ⇨ **For French:** <Installation path>*“WAGO.DaliConfigurator.exe” /Language:fr*

3. Press **[Enter]** to confirm.

⇨ The required language is configured.

7 Graphical User Interface

7.1 Overview

The graphical user interface can be divided into seven main sections, which can display different content depending at times on the selected options. The graphical user interface has the following structure:

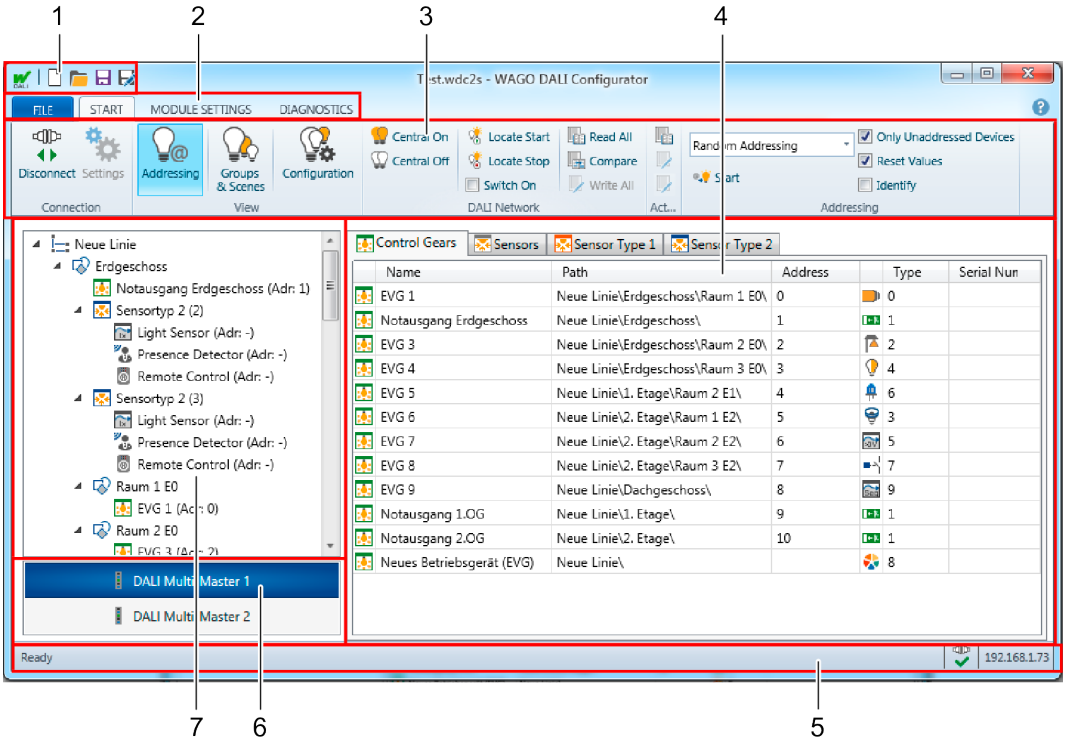


Figure 3: Basic Structure of the Graphical User Interface - Main Areas

Position	Description
1	Quick Access **Toolbar**
2	**Tab**
3	**Ribbon** with Context-Dependent Buttons The description of the ”Connection” ribbon section is available at **“Connection” Menu Ribbon Section [▶ 18]**. The other context-sensitive ribbon sections are described in the respective tabs.
4	**Configuration area** with context-dependent content
5	**Status bar**
6	**Module navigation**
7	**Topology Tree**

7.1.1 “Connection” Menu Ribbon Section

With the exception of the ”FILE” tab, the ”Connection” section is identical on all tabs and always visible.

Table 6: “Connection” Menu Ribbon Section

Icon	Designation	Description
	**[Connect]**	(Only visible when not connected) Establishes the connection to the DALI Multi-Master Module.
	**[Disconnect]**	(Only visible when connected) Disconnects from the DALI MultiMaster Module.
	**[Settings]**	Opens the ”Communication Settings” dialog. You can find more information at: • “Settings” button [▶ 18] • Make Communication Settings [▶ 67]

7.1.1.1 “Settings” button

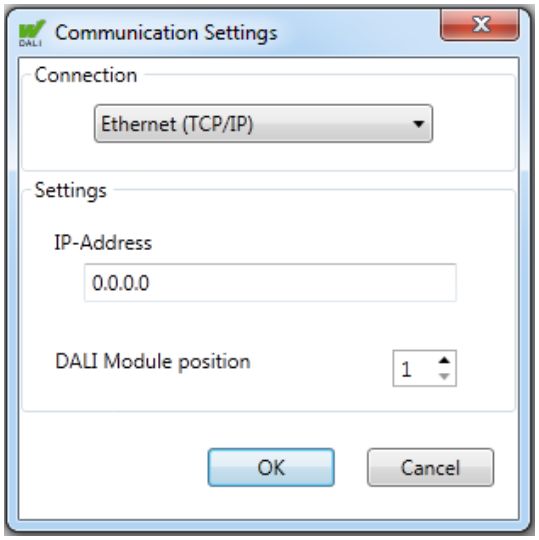


Figure 4: “Communication Settings” Dialog

Section	Element	Description
Connection	**ETHERNET (TCP/IP)**	Select the connection type.
	Serial connection	
Settings	Context-dependent on selected **connection**	
	IP Address	If the connection type ”ETHERNET (TCP/IP)” is selected: Entering the IP address
	Port	When selecting the connection type ”serial connection“: Selecting the COM port
	DALI module position	Selecting the module position.

7.1.2 Topology Tree

The ECGs and sensors are listed in a topology tree (tree structure) on the left side of the configuration area. The individual levels and sublevels can be expanded and collapsed using the adjacent arrow.

The topology tree is always visible in any view except for the ”FILE” tab.

Deselecting/selecting the devices within the topology tree

- **Select device:** To select an individual device, click the required device to select it.
- **Select multiple devices:** To select multiple devices, press and hold the [Ctrl] key and click the required devices to select them.
  Alternatively, you can select multiple successive devices by holding down the Shift key ([Shift] key) and clicking on the first and last of these devices.
- **Deselect device:** To deselect a selected device, press and hold the [Ctrl] key and click the respective device again. The selection is removed.

Order of devices within the topology tree

The order of the devices can be changed by dragging and dropping them. The drag-and-drop function is not for sorting areas. The context function mentioned below must be used for sorting areas.

You can also move the order of a device up or down using the context menu (see “Topology Tree” Context Menu [▶ 20]).

Building/Room Structures

To assign the ECGs and sensors in a clear manner, areas and subareas can be created in the topology tree and named as required.

You can find more information in:

Setting up Building/Room Structure [▶ 83]

Assigning Devices to ”Rooms”

The ECGs/sensors can be distributed to the required topology tree level via drag-and-drop. In the example figure “Setting up the Tree Structure,” these tree levels have been named as floors or rooms.

Assignment to Groups and Scenes

In addition to the name and address of an ECG, the topology tree also indicates whether the ECG is already assigned to a group and/or scene.

- A hyphen (-) means that the ECG is not yet assigned to a group/scene.
- A value indicates that the ECG is assigned to exactly this one group/scene.
- Three dots (...) mean that the ECG is assigned to more than one group/scene.

A tooltip can be used to display a complete list of the groups and/or scenes to which the ECG is assigned. The tooltip is displayed when you point the mouse at the relevant ECG.

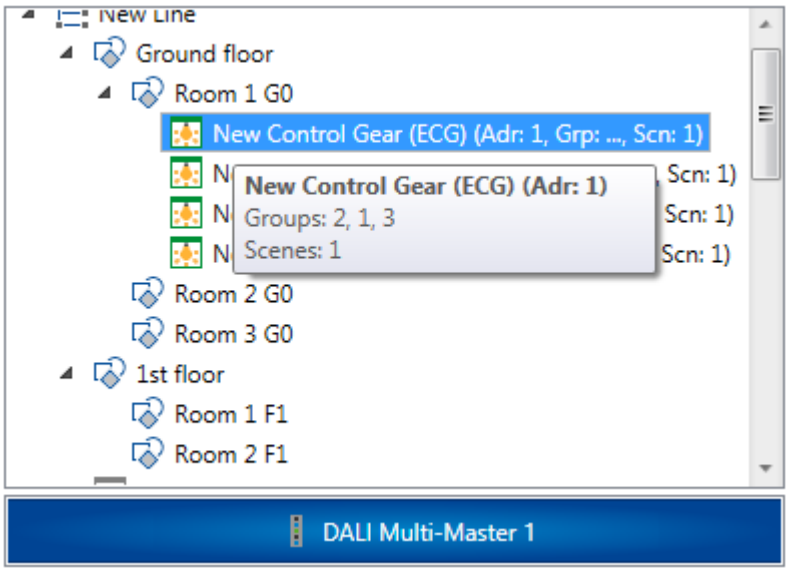


Figure 5: Topology Tree: ToolTip – Displaying Group/Scene Assignments

7.1.2.1 "Topology Tree" Context Menu

Right-click on a level in the topology tree or on a device in the sublevels to open the context menu for the relevant selection. The following menu items are available:

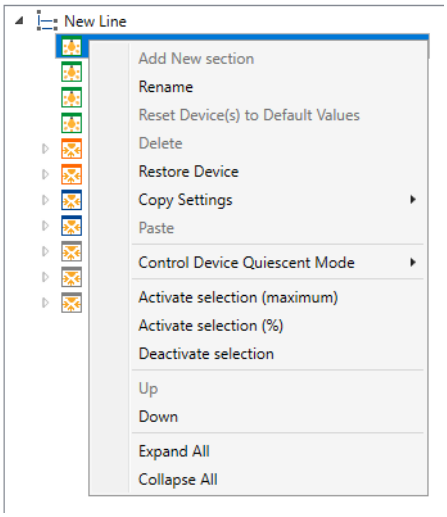
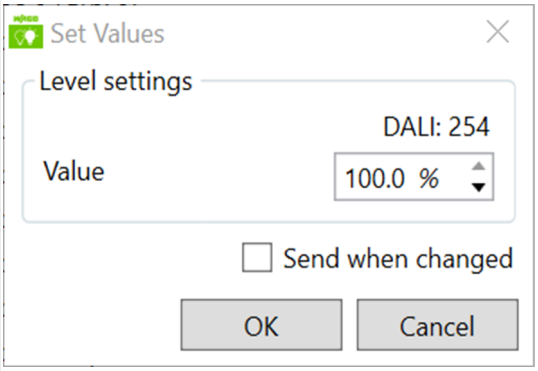


Figure 6: Topology Tree: Context Menu Items

Table 7: Topology Tree: Context Menu Items

Menu Item	Description
Add New Area	Creates a new area to which devices can be assigned by drag-and-drop.
Rename	This menu item allows you to change the respective node into an input field in which you can enter the required name.
Reset Device(s) to Default Values	Resets the device parameters to their default values (factory settings). For ECGs, groups and scenes are also reset.
Remove	Removes the selected area from the topology tree. This menu item is only enabled for areas.
Restore Device	Transfers the configuration settings of the selected device to a new replacement device if it has the same address as the previous one.

Menu Item	Description
Copy Settings • Groups • Scenes • General Device Configuration • Device Type Specific • All	Copies the relevant settings of the currently selected device to the cache to then transfer the settings to another device.
Paste	Transfers saved settings from the cache (see menu item ”Copy Settings”) to the currently selected device.
Quiescent Mode for the Control Device • Start Quiescent Mode • Stop Quiescent Mode	Puts the currently selected control device into or out of Quiescent mode. If no control devices are selected or no control devices are connected, the menu items are grayed out.
Activate Selection (Maximum)[*)]	Switches the currently selected ECG on. If multiple ECGs are selected, they are all activated. If no ECG is selected or no ECG is connected, the menu item is grayed out.
Activate Selection (%)[*)]	Opens a dialog for entering the activation value of the currently selected ECG:  If no ECG is selected or no ECG is connected, the menu item is grayed out.
Deactivate Selection[*)]	Deactivates the currently selected ECG. If multiple ECGs are selected, they are all deactivated. If no ECG is selected or no ECG is connected, the menu item is grayed out.
Up	Changes the order of the selected area (or device). The selection is moved up one position. Selections can only be moved within an area (or within a device section). An area and a device section cannot be moved into each other. If your selection is in the top position of the area in question (or the device section in question), the menu item is grayed out.
Down	Changes the order of the selected area (or device). The selection is moved down one position. Selections can only be moved within an area (or within a device section). An area and a device section cannot be moved into each other. If your selection is in the bottom position of the area in question (or the device section in question), the menu item is grayed out.
Expand All	Fully expands the topology tree.
Collapse All	Fully collapses the topology tree.

[*)] *Only ECGs*

Activating/Deactivating Individual Devices, Groups or Scenes

Individual ECGs, entire groups or scenes can be activated or deactivated. The ”Activate Selection (%)” item in the context menu opens a dialog in which the activation value of a device can be set.

7.2 “FILE” Tab

On the ”FILE” tab, there is a backstage view for some buttons, as known from MS Office, among other things.

The following actions can be performed on this tab:

- Save project
- Save project under a different name
- Open an existing project
- Create a new project or project folder
- Import project data (XML or CSV)
- Export device data to a format that can be imported by CODESYS
- Save project data in PDF format
- Export project data in CSV format
- Display WAGO contact information
- Exit WAGO DALI Configurator

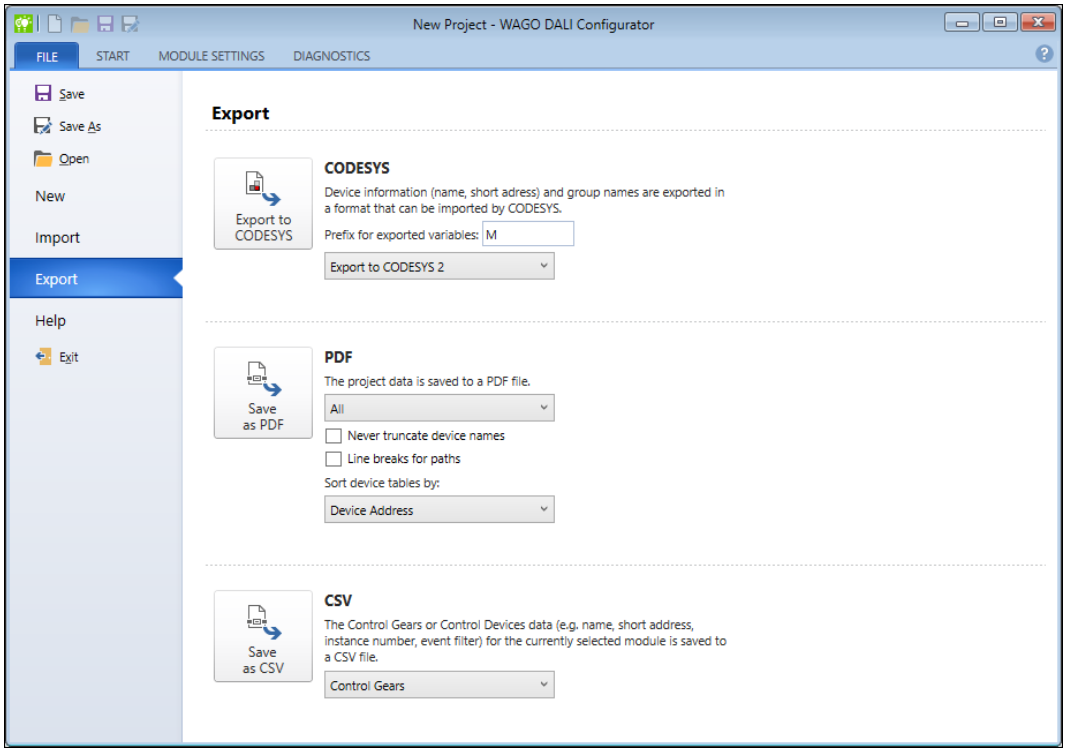
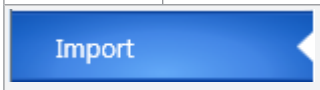


Figure 7: “FILE” Tab

Table 8: “FILE” Tab – Buttons

Icon	Designation	Description
	**[Save]**	Saves the configuration of the current project as a project folder. File format: “wdc2s” (“WAGO DALI Configurator 2 Solution”). **Note:** For a new project, the required storage location must be selected in the directory structure, a file name must be assigned and the process confirmed by clicking **[Save]**.
	**[Save as]**	Opens the default Windows dialog for selecting a storage location and assigning a new file name for the .wdc2s file of the current project.
	**[Open]**	Opens the default Windows dialog for selecting an existing .wdc2s file.

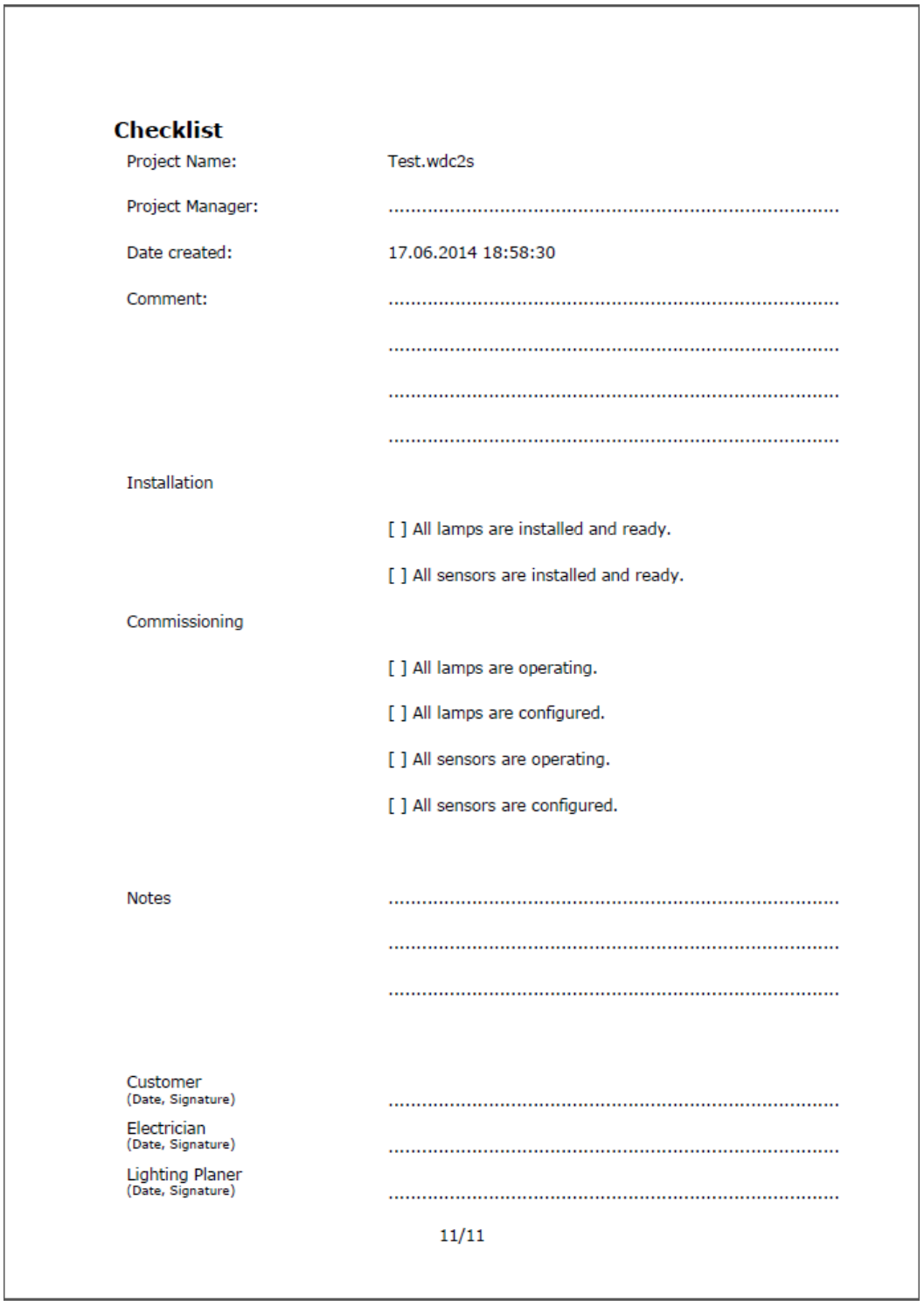
Icon	Designation	Description
		**This button displays a Backstage view. This contains additional buttons for creating a new project or project folder.**
	**[New Project]**	Creates a new, empty project for the selected DALI Multi-Master Module. The project data of the other DALI Multi-Master Modules remains unchanged. After a new project is created, the program switches to the ”START” tab.
	**[New Project Folder]**	Creates a new, empty project folder. A project folder contains the project data of all DALI Multi-Master Modules. After a new project folder is created, the program switches to the ”START” tab.
		**This button displays a Backstage view. This tab contains additional buttons for importing old project files (XML format) or project data (CSV format) of the selected DALI Multi-Master Module.**
	**[Old Project File]**	Opens an old project file (WAGO DALI Configurator version 1 or higher). This project replaces the project data for the selected DALI Multi-Master Module.
	**[Import CSV File]**	Imports control gears (ECGs) and control devices (sensors) from a CSV file and adds them to the project data of the selected DALI Multi-Master Module.
		**This button displays a Backstage view. This tab contains additional buttons for exporting project data.**
	**[Export to CODESYS]**	Exports device information (name, short address) and group names of all connected DALI Multi-Master Modules in a format that can be imported by CODESYS. The associated selection field can be used to select between ”Export to CODESYS 2” (default) and ”Export to CODESYS 3.” In addition, a prefix for the exported variables can be assigned.
	**[Save as PDF]**	Generates the project documentation for the project or project folder as a PDF file. An associated selection field can be used to select between ”All” (default) and ”Selected I/O Module.” An associated selection box can be used to optionally select whether the device names should be displayed completely in the table cell. Depending on the length of the device name, the name is displayed in the table cell takes on multiple lines when the option is enabled. **Example:** Option is disabled: *Test_Name_Test_Na...* Option is enabled: *Test_Name_Test_Name_Test_Name_Test_Name*

Icon	Designation	Description
		An associated selection box can be used to optionally select whether the paths should be separated by line breaks. If this option is enabled, one line break occurs per level. Depending on the length of a path, the path is displayed in the table cell over several lines when the option is enabled. **Example:** Option is disabled: *Line1\Floor1\Le…* Option is enabled: *Line1* *Floor1* *Left* *Office147*
		A sorting mechanism can be selected via an associated selection field. You can sort by name, path, device address or serial number.
	**[Save as CSV]**	Exports the project data for control gears (ECGs) and control devices (sensors) of the currently selected DALI Multi-Master Module (e.g., name, short address, groups, instance number and event filter) to a CSV file.
		The associated selection field can be used to select between ”Control Gears” (default) and ”Control Devices.”
		**This button displays a Backstage view with the version number, the WAGO contact address and the contact information for WAGO Support.**
	**[Exit]**	Terminates execution of the program and closes the window.

7.2.1 Project Documentation

The **[Save As PDF]** button is available to you in the Backstage view of the **[Export]** button. This button generates a report of the project or solution in the form of a PDF file. In addition to the project name and creation date, it lists the comprehensive device overview with group association, scene values and device settings.

Furthermore, a checklist for installation and startup is generated in which the project manager is named and comments can be entered. The customer, electrical installers and lighting designers can countersign the report.



Checklist

Project Name: Test.wdc2s

Project Manager: .....

Date created: 17.06.2014 18:58:30

Comment: .....

.....

.....

.....

Installation

[ ] All lamps are installed and ready.

[ ] All sensors are installed and ready.

Commissioning

[ ] All lamps are operating.

[ ] All lamps are configured.

[ ] All sensors are operating.

[ ] All sensors are configured.

Notes .....

.....

.....

Customer (Date, Signature) .....

Electrician (Date, Signature) .....

Lighting Planer (Date, Signature) .....

11/11

Figure 8: Report, Checklist

You can find more information in:

- **Generate Project Documentation [▶ 80]**

7.3 “START” Tab

the menu ribbon is located horizontally under the tabs in the ”START” tab. The buttons, selection boxes and checkboxes arranged there are combined into sections and are partly context-dependent.

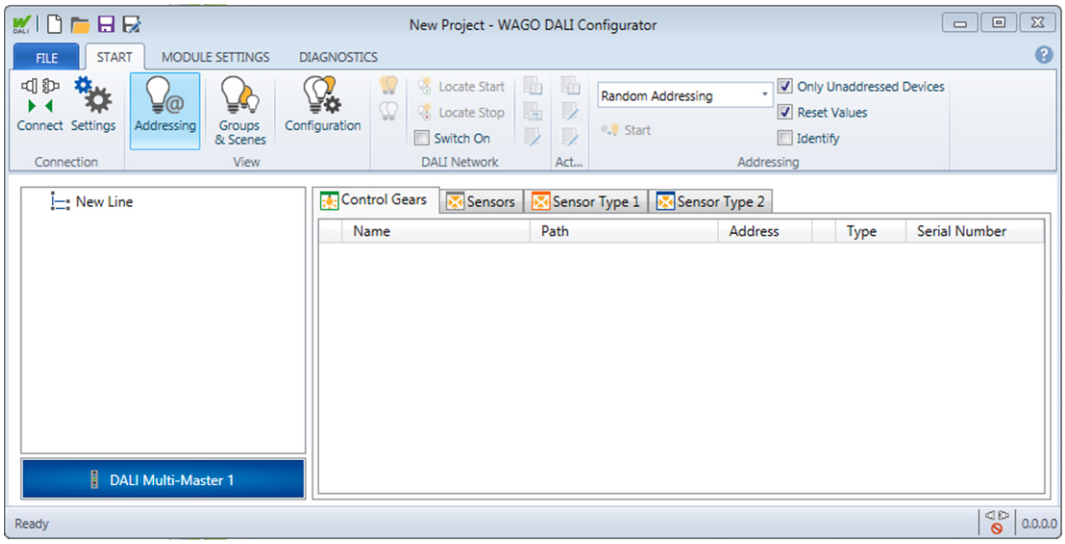


Figure 9: “START” Tab

7.3.1 “Connection” Menu Ribbon Section

You can find the description for this section in the overview under **“Connection” Menu Ribbon Section [▶ 18]**.

7.3.2 “View” Menu Ribbon Section

Table 9: “START” Tab – ”View” Ribbon Section

Icon	Designation	Description
	**[Addressing]**	Switches to the Addressing view. You can find more information at: **“Addressing” View [▶ 26]**.
	**[Groups & Scenes]**	Switches to the view for assigning devices in groups and scenes. You can find more information at: **“Groups and Scenes” View [▶ 32]**.
	**[Configuration]**	Switches to the view for configuring the devices. You can find more information at: **“Configuration” View [▶ 34]**.

7.3.2.1 “Addressing” View

The following actions can be performed in the ”Addressing” view:

- Network topology setting
- Adding DALI network subscribers
- Assigning device designations
- Addressing DALI network subscribers

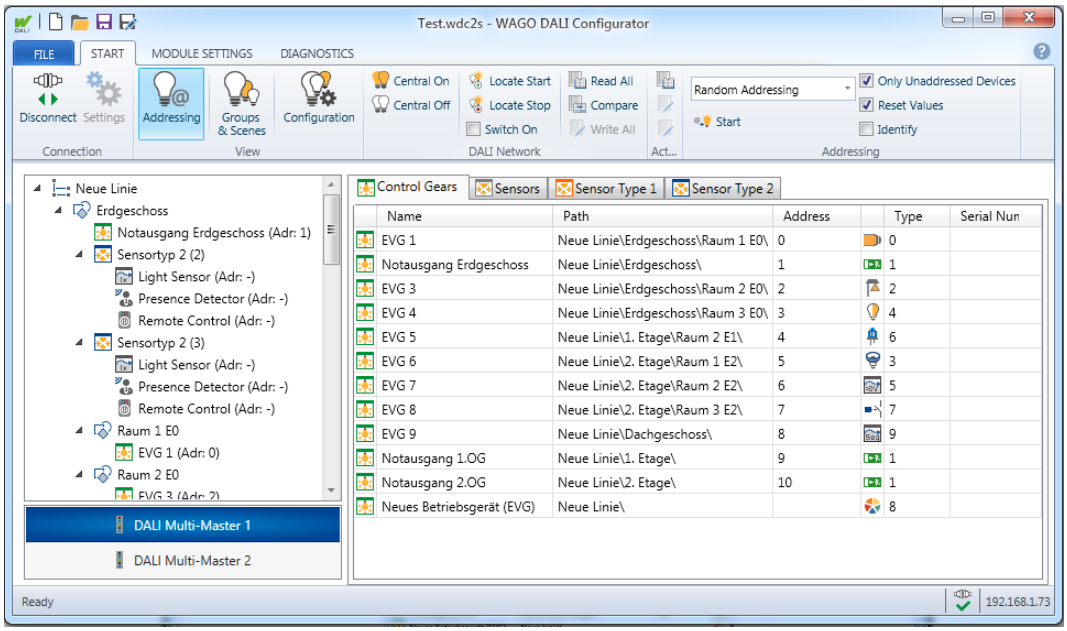


Figure 10: “Addressing” View, ”Control Gears” Tab (Example)

Four additional tabs are available in the configuration area, under which various DALI network subscribers can be added.

Figure 11: “Addressing” View Tab (Example)

Table 10: Overview of Tabs and Sensor Types

Tab	Sensor Type	
Control gears	**ECG**	
Sensors	**DALI 2**	Contains DALI sensors that comply with the DALI 2 standard.
Sensor Type 1	**Push-button couplers and multi-sensors**	
	WAGO DALI Multi-Sensor Kit	Item Number 2851-8201
	WAGO DALI Sensor Coupler	Item Number 2851-8202
	Sensor Adapter OSRAM DALI PROFESSIONAL	Combinable with • Sensor OSRAM DALI HIGHBAY • Sensor OSRAM DALI VISION
	OSRAM DALI PRO PB Coupler Button Coupler	
	Lighting installation sensor OSRAM DALI LS/PD LI	
	Radar Sensor OSRAM DALI Professional Sensor Coupler HF LS LI	
Sensor Type 2	**Push-button couplers and multi-sensors**	
	WAGO DALI MSensor-02 5DPI 41rc (Ceiling Installation)	Item Number 2851-8301
	WAGO DALI MSensor-02 5DPI 41w (Wallbox Mounting)	Item Number 2851-8302
	WAGO DALI MSensor-02 5DPI 41rs (Surface Mounting)	Item Number 2851-8303
	TRIDONIC DALI XC Push-Button Coupler	
	Tridonic MSensor 5DPI 14xx (MSensor Mini)	

The following tables provide an overview of the network devices (subscribers) within the tabs that can be added.

“Control Gears” Tab

Table 11: “Control Gears” Tab: List of Possible DALI Network Subscribers

Icon	Type	Designation
	0	Fluorescent lamp (standard ECG)
	1	Separate emergency lighting
	2	Discharge lamp
	3	Low voltage halogen lamp
	4	Filament lamp
	5	Converting the digital signal into a DC voltage
	6	LED lamp
	7	Switching function
	8	Color control device
	9	Sequencer
	15	Load referencing
	16	Thermal gear protection
	17	Dimming curve selection
	19	Centrally supplied emergency operation
	20	Load shedding
	21	Thermal lamp protection
	23	Non-replaceable light source
	49	Integrated bus power supply
	50	Memory bank extension

Icon	Type	Designation
	51	Energy report
	52	Diagnostics and maintenance
	250	Error message: duplicate address or undefined response. *)
[List of all detected device types]	255	Multiple device types are supported.

“Sensors” Tab

Table 12: “Sensors” Tab: List of Possible DALI Network Subscribers

Icon	Type	Designation
	0	Universal input
	1	Button
	2	Absolute input
	3	Presence detector
	4	Light sensor
	32	Feedback
	[+ device type]	**Error message:** duplicate address or undefined response You can find further information at “DIAGNOSTICS” Tab [▶ 64].

“Sensor Type 1” Tab

Table 13: “Sensor Type 1” Tab: List of Possible DALI Network Subscribers

Icon	Designation
	Light sensor
	MSensor • Brightness sensor function
	Presence detector
	MSensor • Presence detection function
	Button

Icon	Designation
[+ device type]	**Error message:** duplicate address or undefined response You can find further information at “DIAGNOSTICS” Tab [▶ 64].

“Sensor Type 2” Tab

Table 14: “Sensor Type 2” Tab: List of Possible DALI Network Subscribers

Icon	Designation
	Light sensor
	MSensor • Brightness sensor function
	Presence detector
	MSensor • Presence detection function
	Remote control
	MSensor • Remote control device
	Button
[+ device type]	**Error message:** duplicate address or undefined response You can find further information at “DIAGNOSTICS” Tab [▶ 64].

7.3.2.1.1 “Addressing” Context Menu

Right-click on a row in the results table in the configuration area to open a context menu.

You can select multiple list entries. To do this, select corresponding rows by holding down the Shift key ([Ctrl] key) and clicking on the respective entry. You can select or deselect entries by holding down the Shift key.

The following menu items are available:

Table 15: “Addressing” View > ”Addressing” Context Menu: Context Menu Items

Menu Item	Description	
Delete Device(s)	Removes the selected device(s) from the list.	
Delete Device(s) and Clear Short Address	Removes the selected device(s) from the list. In addition, the short address is also deleted from the respective device.	
Show Device in Tree Structure	Marks the selected device in the tree structure.	
Reset Device(s) to Default Values	Resets the device parameters to their default values (factory settings). For ECGs, groups and scenes are also reset.	
Add ECG	Only displayed in the context menu in the ”Control Gears” tab.	
	Opens the dialog for adding ECGs. The required number of ECGs to be added must be specified.	
Add Sensors	Only displayed in the context menu in the ”Sensors” tab.	
	Opens the ”Add Sensor” dialog. The required number of instances and sensors to be added and their order must be specified.	
Manage Instances	Only displayed in the context menu in the ”Sensors” tab.	
	Opens the ”Manage Instances” dialog for editing sensor instances. Instances can also be added to and deleted from the sensor and their order changed.	
Add Device(s)	Only displayed in the context menu of the ”Sensor Type 1” and ”Sensor Type 2” tabs.	
	Add Pushbutton Coupler	Opens the dialog for adding pushbutton couplers. The required number of pushbutton couplers to be added must be specified.
	Add Multi-Sensor	Opens the dialog for adding multi-sensors. The required number of multi-sensors to be added must be specified.
Swap Name	Opens another submenu that lists the available devices. The name of the selected device can be swapped with a device from the list.	

You can find more information in:

- **Edit Control Gears (ECGs) [▶ 69]**
- **Edit Sensors [▶ 74]**
- **Edit sensor type 1 [▶ 77]**
- **Edit sensor type 2 [▶ 80]**

7.3.2.2 “Groups and Scenes” View

The following actions can be performed in the ”Groups and Scenes” view:

- Assignment of DALI control gears to groups and scenes
- Setting of dimming values, colors and color temperatures

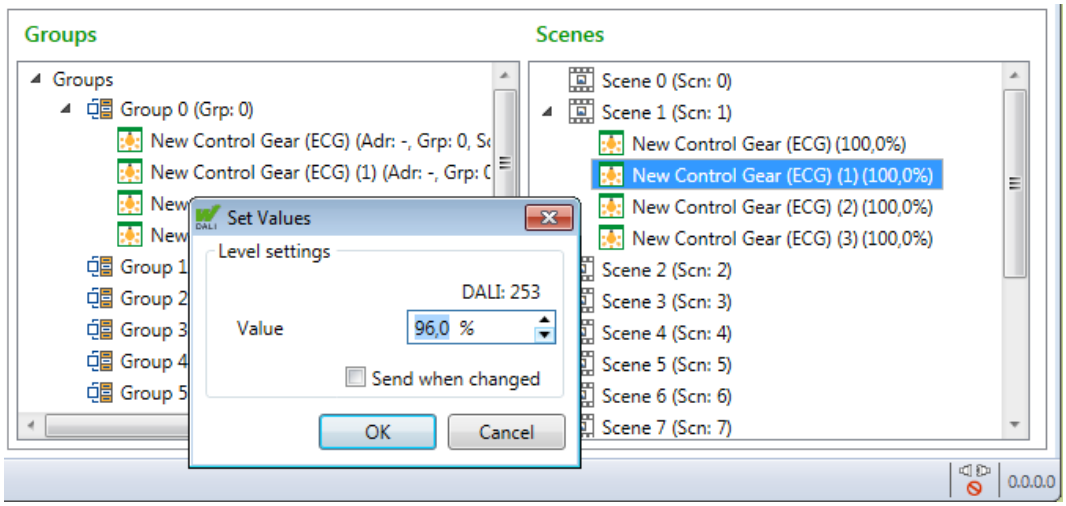


Figure 12: “Groups and Scenes” View, ”Groups and Scenes, Set Scene Value” Section Configuration Area

When the view is started, 2 structure trees for ”Groups” (left) and ”Scenes” (right) open in the configuration area. You can assign devices from the topology tree to the group tree and scene tree by dragging and dropping. You can change the assignment, as well as the change and reordering, at any time by dragging and dropping.

You can change the order of the devices in both tree structures (“Up” or ”Down”) via the context menu, but only within the respective group (or scene).

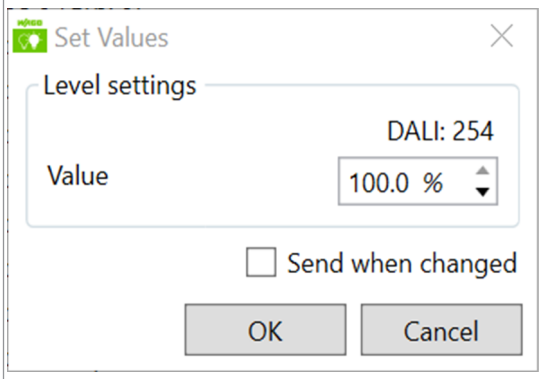
You can find more information in:

- **Assign Groups [▶ 84]**
- **Assigning Scenes [▶ 84]**

7.3.2.2.1 “Groups” Context Menu

Right-clicking on a group or a attached device opens the ”Groups” context menu.

Table 16: “Groups and Scenes” View > ”Groups” Context Menu: Context Menu Items

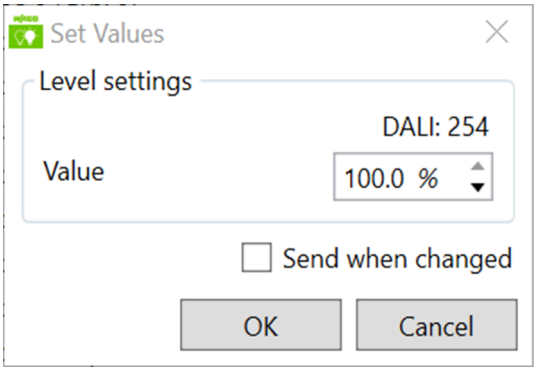
Menu Item	Description
Rename	This menu item allows you to change the respective group into an input field in which you can enter the required name. To exit the input field, you can confirm the entry by pressing the [Return] button or by clicking any other group tree entry.
Remove Device(s) from Group	Removes the attached devices from the group.
Activate Selection (Maximum)*)	Switches the currently selected ECG on. If multiple ECGs are selected, they are all activated. If no ECG is selected or no ECG is connected, the menu item is grayed out.
Activate Selection (%)*)	Opens a dialog for entering the activation value of the currently selected ECG.  If no ECG is selected or no ECG is connected, the menu item is grayed out.
Deactivate Selection*)	Deactivates the currently selected ECG. If multiple ECGs are selected, they are all deactivated. If no ECG is selected or no ECG is connected, the menu item is grayed out.
Up	Changes the order of the selected device. The selection is moved up one position. Devices can only be moved within a group. If your selection is at the top of the respective group, the menu item is grayed out.
Down	Changes the order of the selected device. The selection is moved down one position. Devices can only be moved within a group. If your selection is at the bottom of the respective group, the menu item is grayed out.

*) *Only ECGs*

7.3.2.2.2 “Scenes” Context Menu

Right-clicking on a scene or an attached device opens the ”Scenes” context menu.

Table 17: “Groups and Scenes” View > ”Scenes” Context Menu: Context Menu Items

Menu Item	Description
Rename	This menu item allows you to change the respective scene into an input field in which you can enter the required name. To exit the input field, you can confirm the entry by pressing the [Return] button or by clicking any other scene tree entry.
Set Scene Values	Opens the ”Set Scene Value” dialog. See also **Assigning Scenes [▶ 84]**.
Delete Device(s) from Scene	Removes the attached devices from the scene.
Recall Scene	Opens the selected scene (broadcast). This menu item is only enabled if a connection has been established and exactly 1 scene is selected.
Activate Selection (Maximum)*)	Switches the currently selected ECG on. If multiple ECGs are selected, they are all activated. If no ECG is selected or no ECG is connected, the menu item is grayed out.
Activate Selection (%)*)	Opens a dialog for entering the activation value of the currently selected ECG.  If no ECG is selected or no ECG is connected, the menu item is grayed out.
Deactivate Selection*)	Deactivates the currently selected ECG. If multiple ECGs are selected, they are all deactivated. If no ECG is selected or no ECG is connected, the menu item is grayed out.
Up	Changes the order of the selected device. The selection is moved up one position. Devices can only be moved within a scene. If your selection is at the top of the respective scene, the menu item is grayed out.
Down	Changes the order of the selected device. The selection is moved down one position. Devices can only be moved within a scene. If your selection is at the bottom of the respective scene, the menu item is grayed out.

*) *Only ECGs*

You can find more information in:

- **Assigning Scenes [▶ 84]**

7.3.2.3 “Configuration” View

In the “Configuration” view, configuration parameters of DALI network devices can be read or written.

If the top level (default name ”New Line”) is selected in the topology tree, corresponding tabs are created for each device type below it.

Parameters that only have read permission (R) are highlighted in blue and cannot be changed. Double-clicking within a cell of the ”Value” or ”Scaled Value” columns enables the respective cell for editing if a parameter has write permissions (R/W).

Additional tabs are available in the configuration area. The tabs displayed depend on which device types are selected in the topology tree (tree structure). All tabs are described individually below.

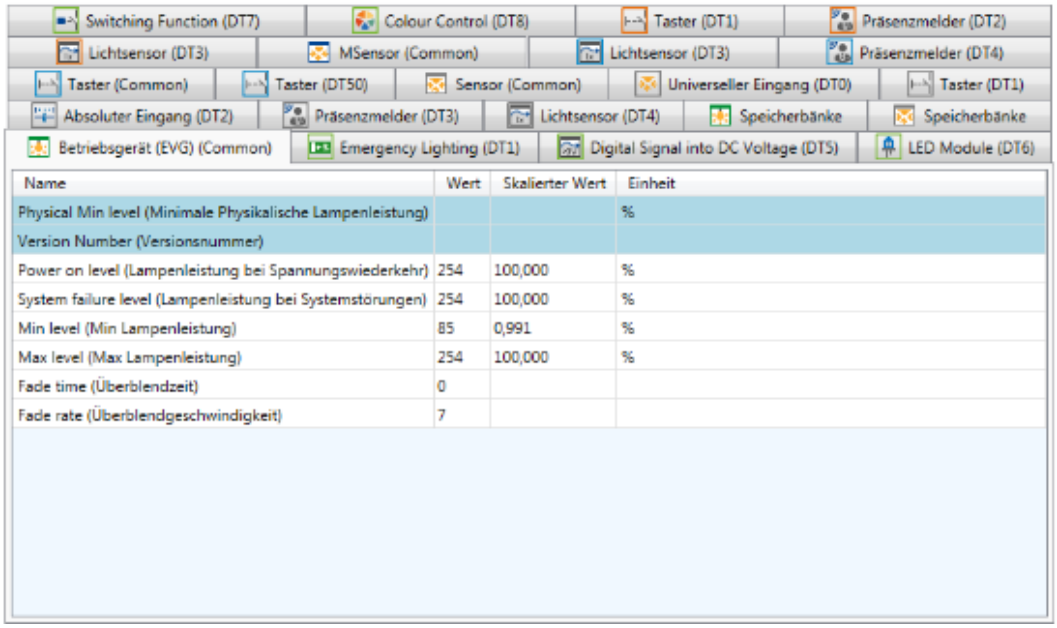


Figure 13: “Configuration” View: Tab Overview (Example)

7.3.2.3.1 “Control Gear (ECG) (General)” Tab

The table in the “Control Gear (ECG) (General)“ tab provides access to the following parameters.

Table 18: “Control Gears (ECG) (General)” Tab

Name	Description	Unit	Read/ Write
Version Number	Version number	-	R
Physical Min level	Minimum physical lamp power	Percent [%]	R
Operating mode *)	Operating mode	-	R/W
Power on level *)	Lamp power at voltage recovery	Percent [%]	R/W
System failure level *)	Lamp output in the event of system faults (e.g., interrupted DALI cable)	Percent [%]	R/W
Min level *)	Minimum lamp power	Percent [%]	R/W
Max level *)	Maximum lamp power	Percent [%]	R/W
Fade time	Fade time (time for the dimming value change)	-	R/W
Fade rate	Fade speed	-	R/W

Name	Description	Unit	Read/ Write
Extended fade time	Extended fade time; used if the value for ”Fade time” is 0 and the value for ”Fast fade time” is also 0 when using the ”LED Module (DT6)” device type.	-	R/W

*) *Parameterization may be disabled if the ECG is also device type 19; see* ***“Central Emergency Operation (DT19)” Tab [▶ 41]****.*

7.3.2.3.2 “Fluorescent Lamp (DT0)” Tab

The table in the ”Fluorescent Lamp (DT0)” tab offers access to the following parameters.

Table 19: “Fluorescent Lamp (DT0)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R

7.3.2.3.3 “Emergency Lighting (DT1)” Tab

The table in the ”Emergency Lighting (DT1)” tab provides access to the following parameters.

Table 20: “Emergency Lighting (DT1)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Emergency Min Level	Minimum lamp output of the emergency lighting: minimum brightness limit for operation of the light in emergency mode; the value can lie between ”1” and ”Emergency Max Level”).	Percent [%]	R
Emergency Max Level	Maximum lamp power of the emergency lighting: maximum brightness limit for operation of the light in emergency mode; the value can lie between ”Emergency Min Level” and ”254.”	Percent [%]	R
Rated Duration	Duration test interval: Duration for which the light can be operated in emergency mode (e.g., due to the battery charge); the value can be between 0 and 255. The value is multiplied by 2 min.	-	R
Features	Functions: Information about ECG type and functionality	-	R
Emergency Level	Lamp output for emergency lighting: Brightness value for operating the light in emergency mode; the value must lie between ”Emergency Min Level” and ”Emergency Max Level.”	Percent [%]	R/W
Function test delay time	Function test delay: maximum time period within which the function test is started again if it could not be started previously at the scheduled time, e.g., due to a low battery charge	Hours [h]	R/W
Function test interval	Function test interval: time after which a function test is executed again	Days [days]	R/W

Name	Description	Unit	Read/ Write
Duration test delay time	Duration test delay: maximum time period within which the light duration test is started again if it could not be started previously at the scheduled time.	Hours [h]	R/W
Duration test interval	Duration test interval: time after which a light duration test is executed again.	Weeks [weeks]	R/W
Test execution timeout	Maximum execution time: indicates when a test could not be performed even after the delay time.	Days [days]	R/W
Prolong time	Emergency mode shutoff delay: time period during which the light remains at the emergency level after returning to normal mode.	Minutes [min]	R/W

7.3.2.3.4 “Discharge Lamp (DT2)” Tab

The table on the ”Discharge Lamp (DT2)” tab provides access to the following parameters.

Table 21: “Discharge Lamp (DT2)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Thermal Overload Time	Duration of the thermal overload	Hours [h]	R
Features	Supported functions per IEC 62386-203	Bits	R

7.3.2.3.5 “Low Voltage Halogen Lamp (DT3)” Tab

The table in the ”Low Voltage Halogen Lamp (DT3)” tab offers access to the following parameters.

Table 22: “Low Voltage Halogen Lamp (DT3)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Features	Supported functions per IEC 62386-204	Bits	R

7.3.2.3.6 “Filament Lamp (DT4)” Tab

The table in the ”Filament Lamp (DT4)” tab provides access to the following parameters.

Table 23: “Filament Lamp (DT4)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Features, byte 1	Supported functions per IEC 62386-205	Bits	R
Features, byte 2		Bits	R
Features, byte 3		Bits	R

Name	Description	Unit	Read/ Write
Maximum Load Current Rating	Maximum load current: The value can be between 0 ... 255. The value 255 (= 38.25 A) means “unknown.”	Ampere [A]	R
Dimming Curve	Specification of the scale of the dimming curve: 0 = standard logarithmic 1 = linear	-	R/W

7.3.2.3.7 “Converting the Digital Signal into a DC Voltage (DT5)” Tab

The table in the ”Converting the Digital Signal into a DC Voltage (DT5)” tab offers access to the following parameters.

Table 24: “Converting the Digital Signal into a DC Voltage (DT5)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Converter Features	Converter functions: information about type and functionality of the ECG	-	R

7.3.2.3.8 “LED Module (DT6)” Tab

The table in the ”LED Module (DT6)” tab offers access to the following parameters.

Table 25: “LED Module (DT6)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Min Fast Fade Time	Min. fast fade time: The value can lie between 0 and 27. The value is multiplied by 25 ms.	Milliseconds [ms]	R
Gear Type	Gear type: Information about type and functionality of the ECG	-	R
Features	Features: Information about the functionality of the ECG.	-	R
Fast Fade Time	Fast fade time: the value can lie between 0 and 27. The value is multiplied by 25 ms.	Milliseconds [ms]	R/W
Dimming Curve	Dimming curve: The response indicates which dimming curve is currently being used: • “0” means standard logarithmic dimming curve. • “1” means linear dimming curve.	-	R/W

7.3.2.3.9 “Switching Function (DT7)” Tab

The table in the ”Switching Function (DT7)” tab offers access to the following parameters.

Table 26: “Switching Function (DT7)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Gear Type	Gear type: Information about type and functionality of the ECG	-	R
Features	Features: Information about the functionality of the ECG.	-	R
Up Switch On Threshold	Switch-on threshold, up switch	Percent [%]	R/W
Up Switch Off Threshold	Switch-off threshold, up switch	Percent [%]	R/W
Down Switch On Threshold	Switch-on threshold, down switch	Percent [%]	R/W
Down Switch Off Threshold	Switch-off threshold, down switch	Percent [%]	R/W
Error Hold Off Time	Error hold time: minimum time that an error must exist for it to be displayed: • “0” means error is displayed immediately. • “255” means error is not displayed.	Seconds [s]	R/W

7.3.2.3.10 “Color Control (DT8)” Tab

The table in the ”Color Control (DT8)” tab offers access to the following parameters.

Table 27: “Color Control (DT8)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
xy-Coordinate Capable	Supports xy coordinate.	-	R
Color Temperature Capable	Supports color temperature.	-	R
Number of RGBWAF Channels	Number of supported RGBWAF color channels (0 ... 6)	-	R
Automatic activation	Automatic activation	-	R/W
Color Value and Color Temperature			
Power On Color	Color after power recovery	Color	R/W
System Failure Color	Color for system faults	Color	R/W
Color Temperature			
Color Temperature Tc Physical Coolest	Physically coolest color temperature Tc	Color	R/W
Color Temperature Tc Physical Warmest	Physically warmest color temperature Tc	Color	R/W
Color Temperature Tc Coolest	Coolest color temperature Tc	Color	R/W
Color Temperature Tc Warmest	Hottest color temperature Tc	Color	R/W
Color Temperature Tc step increment	Color temperature Tc (increment)	Color Temperature [Mirek]	R/W
Red channel enabled	Channel Red • 0 = not released • 1 = released	-	R/W

Name	Description	Unit	Read/ Write
Green channel enabled	Channel Green • 0 = not released • 1 = released	-	R/W
Blue channel enabled	Blue Channel • 0 = not released • 1 = released	-	R/W
White channel enabled	Channel Red • 0 = not released • 1 = released	-	R/W
Amber channel enabled	Amber Channel • 0 = not released • 1 = released	-	R/W
Freecolor channel enabled	Channel selected color • 0 = not released • 1 = released	-	R/W

Clicking the ”Scaled Value” table column opens the ”Set Values” dialog. You can set the color value or color temperature.

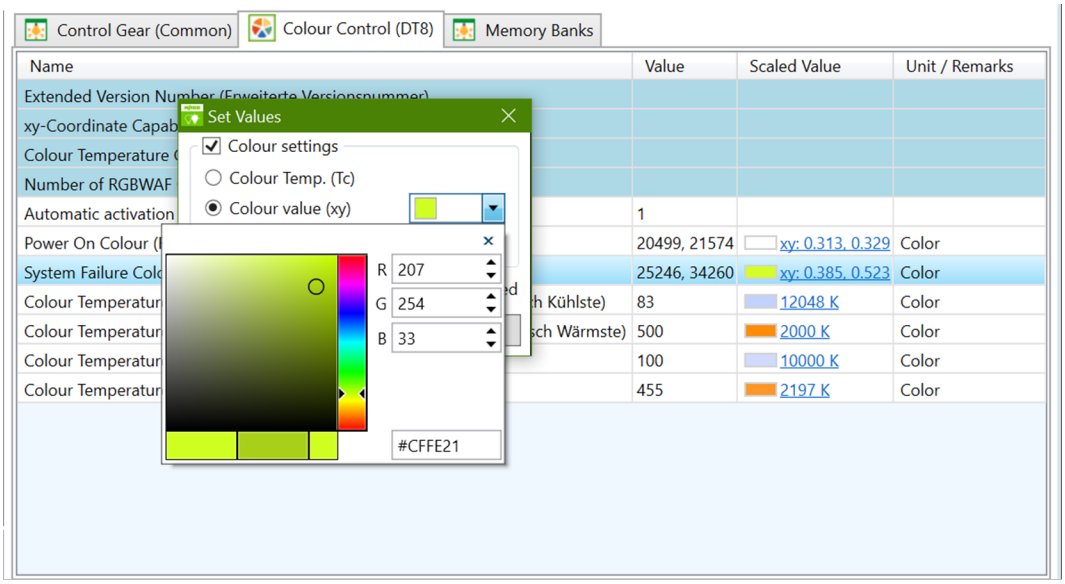


Figure 14: “Set Values” Dialog - Change Color Settings

7.3.2.3.11 “Load Referencing (DT15)” Tab

The table on the ”Load Referencing (DT15)” tab provides access to the following parameters.

Table 28: “Load Referencing (DT15)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Measurement Failed	An error occurred during measurement.	-	R

7.3.2.3.12 “Thermal Device Protection (DT16)” Tab

The table in the ”Thermal Device Protection (DT16)” tab offers access to the following parameters.

Table 29: “Thermal Device Protection (DT16)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Overload Counter	Number of overload events	-	R
Shutdown Counter	Number of shutdown events	-	R

7.3.2.3.13 “Dimming Curve Selection (DT17)” Tab

The table in the ”Dimming Curve Selection (DT17)” tab offers access to the following parameters.

Table 30: “Dimming Curve Selection (DT17)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Dimming Curve	Dimming curve: • 0 = disabled • 1 = enabled	-	R/W

7.3.2.3.14 “Central Emergency Operation (DT19)” Tab

The table in the ”Central Supplied Emergency Operation (DT19)” tab offers access to the following parameters.

Table 31: “Central Emergency Operation (DT19)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Infinite Lock Active	Permanent lock is enabled.	-	R
Emergency Physical Max Level	Maximum physical lamp output of the emergency lighting	-	R
Parameter Locked *)	Locking and unlocking parameters when the corresponding manufacturer code is written and the permanent lock is not enabled (see “Infinite Lock Active”): • 0 = access not blocked • 1 = access blocked	-	R/W
Lock Code *)	Lock code to set “Parameter Locked”	-	R/W
Emergency Level	Lamp output for emergency lighting: The value can lie between 0 … 100 %. Processing of the value may be locked.	Percent [%]	R/W

Name	Description	Unit	Read/ Write
Emergency Mode Condition	Specifies the event whose occurrence enables the emergency lighting: • 0 = short circuit on the DALI bus • 1 = DALI power supply failure Processing of the value may be locked.	-	R/W

*) *The parameters form a grouping, so they are highlighted in yellow, since changing the value of "Parameter Locked" always requires entering the corresponding manufacturer code.*

7.3.2.3.15 "Load Shedding (DT20)" Tab

The table on the "Load Shedding (DT20)" tab provides access to the following parameters.

Table 32: "Load Shedding (DT20)" Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Reduction Factor 1	Reduction factor 1 The value can lie between 0 and 100. 100 % reduction means switching the light off.	Percent [%]	R/W
Reduction Factor 2	Reduction factor 2 The value can lie between 0 and 100. 100 % reduction means switching the light off.	Percent [%]	R/W
Reduction Factor 3	Reduction factor 3 The value can lie between 0 and 100. 100 % reduction means switching the light off.	Percent [%]	R/W

7.3.2.3.16 "Thermal Lamp Protection (DT21)" Tab

The table in the "Thermal Lamp Protection (DT21)" tab offers access to the following parameters.

Table 33: "Thermal Lamp Protection (DT21)" tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Overload Counter	Number of overload events	-	R
Shutdown Counter	Number of shutdown events	-	R

7.3.2.3.17 "Non-Replaceable Light Source (DT23)" Tab

The table on the "Non-Replaceable Light Source (DT23)" tab provides access to the following parameters.

Table 34: “Non-Replaceable Light Source (DT23)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R

7.3.2.3.18 “Integrated Bus Power Supply (DT49)” Tab

The table on the ”Integrated Bus Power Supply (DT49)” tab provides access to the following parameters.

Table 35: “Integrated Bus Power Supply (DT49)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Memory Bank Version	Version of the memory bank	-	R
Guaranteed Supply Current	Guaranteed supply current of the integrated DALI bus power supply	Milliamperes [mA]	R
Maximum Supply Current	Maximum supply current of the integrated DALI bus power supply	Milliamperes [mA]	R
Bus Power Supply Status	Status of the bus power supply • 0 = off • 1 = on	-	R

7.3.2.3.19 “Memory Bank 1 Extension (DT50)” Tab

The table in the ”Memory Bank 1 Extension (DT50)” tab offers access to the following parameters.

Table 36: “Memory Bank 1 Extension (DT50)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Manufacturer GTIN	GTIN of the lighting manufacturer with manufacturer-specific identification number	-	R
Identification Number	ID number	-	R
Content Format ID	Content format ID	Year [YY]	R
Year of Manufacture	Year of manufacture [00 … 99]	-	R
Week of Manufacture	Week of manufacture [1 … 53]	Calendar week [WW]	R
Nominal Input Power	Nominal input power	Watt [W]	R
Power at Minimum Dim Level	Power consumption at the lowest light level	Watt [W]	R
Nominal Minimum AC Mains Voltage	Minimum AC mains voltage [90 … 480]	Volt [V]	R
Nominal Maximum AC Mains Voltage	Maximum AC mains voltage [90 … 480]	Volt [V]	R
Nominal Light Output	Nominal light output	Lumen [lm]	R
CRI	CRI (“Color Rendering Index”) [0 … 100]	-	R
CCT	CCT (“Correlated Color Temperature”) [0 … 17000]	Kelvin [K]	R

Name	Description	Unit	Read/ Write
Light Distribution Type	Light distribution type • 0 = not specified • 1= Type I • 2= Type II • 3= Type III • 4= Type IV • 5= Type V • 6 ... 254 = reserved for other types	-	R
Luminaire Color	Lighting color	-	R
Luminaire identification	Lighting identification	-	R

7.3.2.3.20 “Energy Report (DT51)” Tab

The table in the ”Energy Report (DT51)” tab offers access to the following parameters.

Table 37: “Energy Report (DT51)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Memory Bank 202 Version	Version of the memory bank 202	-	R
Memory Bank 203 Version	Version of the memory bank 203	-	R
Memory Bank 204 Version	Version of the memory bank 204	-	R
Scale Factor Active Energy	Scaling factor for measured active energy values in this memory bank (expressed as power of 10)	-	R
Active Energy	Active energy (depends on scaling factor)	Watt hours [Wh]	R
Scale Factor Active Power	Scaling factor for measured active power values in this memory bank (expressed as power of 10)		R
Active Power	Active power (depends on scaling factor)	Watt [W]	R
Scale Factor Apparent Energy	Scaling factor for measured apparent energy values in this memory bank (expressed as a power of 10)	-	R
Apparent Energy	Apparent energy (depends on scaling factor)	Volt-ampere hours [VAh]	R
Scale Factor Apparent Power	Scaling factor for measured apparent power values in this memory bank (expressed as power of 10)		R
Apparent Power	Apparent power (depends on scaling factor)	Volt Ampere [VA]	R
Scale Factor Active Energy Load Side	Scaling factor for measured load-side active energy values in this memory bank (expressed as power of 10)	-	R
Active Energy Load Side	Load-side active energy (depends on scaling factor)	Watt hours [Wh]	R
Scale Factor Active Power Load Side	Scaling factor for measured load-side active power values in this memory bank (expressed as power of 10)	-	R
Active Power Load Side	Load-side active power (depends on scaling factor)	Watt [W]	R

7.3.2.3.21 “Diagnostics and Maintenance (DT52)” Tab

The table on the ”Diagnostics and Maintenance (DT52)” tab provides access to the following parameters.

Table 38: “Diagnostics and Maintenance (DT52)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Extended version number	-	R
Memory Bank 205 Version	Version of the memory bank 205 (This memory bank provides diagnostic and maintenance information related to the ECG.)	-	R
Memory Bank 206 Version	Version of the memory bank 206 (This memory bank provides diagnostic and maintenance information related to the light source.)	-	R
Memory Bank 207 Version	Version of the memory bank 207 (This memory bank provides information that allows predictable maintenance of the light.)	-	R
ECG Operating Time	ECG operating hours (Counts the operating time of the ECG in seconds when the ECG is powered. The scaled value is specified in minutes.)	Minutes [min]	R
ECG Start Counter	ECG start counter (Counts the number of ECG starts that are induced by a power cycle of the external power supply. A power cycle is counted if the duty cycle is at least 600 ms.) [0 … 16777213]	-	R
ECG External Supply Voltage	ECG external power supply (RMS (“Root Mean Square”): RMS value) [0 … 65533]	Vrms	R
ECG External Supply Voltage Frequency	ECG external supply voltage frequency (frequency of the external supply voltage, display as follows: 0 at 0 Hz (pure DC or rectified AC voltage), Examples: 17 for 16.7 Hz, 50 for 50 Hz. [0 … 253]	Heart [Hz]	R
ECG Power Factor	ECG power factor (100 = The ECG has a power factor of 1.00.) [0 … 100]	-	R
ECG Overall Failure Condition	ECG overall failure condition • 0 = no ECG failure • 1 = There is an ECG failure.	-	R
ECG Overall Failure Condition Counter	ECG overall failure condition counter (The counter counts upward when a 0 to 1 transition of the failure condition characteristic that refers to the counter occurs.) [0 … 253]	-	R
ECG External Supply Undervoltage	ECG external power supply: undervoltage • 0 = external supply voltage ≥ undervoltage of the external supply • 1 = external supply voltage < undervoltage of the external supply	-	R
ECG External Supply Undervoltage Counter	ECG external power supply: undervoltage counter [0 … 253]	-	R

Name	Description	Unit	Read/ Write
ECG External Supply Overvoltage	ECG external power supply: overvoltage • 0 = external supply voltage ≤ overvoltage of the external supply • 1 = external supply voltage > overvoltage of the external supply	-	R
ECG External Supply Overvoltage Counter	ECG external power supply: overvoltage counter [0 … 253]	-	R
ECG Output Power Limitation	ECG output power range overrange • 0 = no ECG output power range overrange • 1 = ECG output power range overrange (this is the case when the lamp connected to the ECG requires more current than the ECG can supply).	-	R
ECG Output Power Limitation Counter	ECG output power range overrange counter [0 … 253]	-	R
ECG Thermal Derating	ECG thermal derating • 1 = Reduced output current due to increased temperature/temperature drift.	-	R
ECG Thermal Derating Counter	ECG thermal derating counter [0 … 253]	-	R
ECG Thermal Shutdown	ECG thermal shutdown • 1 = Light switched off due to overtemperature	-	R
ECG Thermal Shutdown Counter	ECG thermal shutdown counter [0 … 253]	-	R
ECG Temperature	ECG temperature (Displays the internal temperature of the ECG, offset value: 60) Example: The value 60 corresponds to 0 °C, the value 0 corresponds to −60 °C. [0 … 253]	Degree Celsius [°C]	R
ECG Output Current Percent	ECG output current in percent (output current in percent based on the nominal output current setting of the ECG) [0 … 100]	Percent [%]	R
Light Source Start Counter Resettable	Resettable light start counter (Counts the starts of the light source, one level higher with each transition from 0 to 1.) [0 … 16777213]	-	R/W
Light Source Start Counter	Light start counter (Counts the starts of the light source, one level higher with each transition from 0 to 1.) [0 … 16777213]	-	R
Light Source On Time Resettable	Resettable light operating hours (Counts the light source operating time in seconds. The scaled value is specified in minutes.)	Minutes [min]	R/W
Light Source On Time	Light operating hours (Counts the light source operating time in seconds. The scaled value is specified in minutes.)	Minutes [min]	R
Light Source Voltage	Light voltage [0 … 65533]	Volt [V]	R

Name	Description	Unit	Read/ Write
Light Source Current	Light current [0 … 65533]	Ampere [A]	R
Light Source Overall Failure Condition	Light overall failure • 1 = There is a failure. • 0 = There is no failure.	-	R
Light Source Overall Failure Condition Counter	Light overall failure counter [0 … 253]	-	R
Light Source Short Circuit	Light short circuit • 1 = Light failure due to short circuit • 0 = no short circuit	-	R
Light Source Short Circuit Counter	Light short circuit counter [0 … 253]	-	R
Light Source Open Circuit	Light cable break • 1 = lamp failure due to cable break • 0 = no cable break	-	R
Light Source Open Circuit Counter	Light cable break counter [0 … 253]	-	R
Light Source Thermal Derating	Light thermal derating (The threshold is such that the service life and/or performance of the light source could be impaired if the threshold is exceeded.) • 1 = The temperature has exceeded the threshold; the output current should be reduced. • 0 = The temperature is below the threshold.	-	R
Light Source Thermal Derating Counter	Light thermal derating counter [0 … 253]	-	R
Light Source Thermal Shutdown	Light thermal shutdown • 1 = The temperature has exceeded the threshold. • 0 = The temperature has not exceed the threshold.	-	R
Light Source Thermal Shutdown Counter	Light thermal shutdown counter [0 … 253]	-	R
Light Source Temperature	Light temperature (offset value: 60) Example: The value 60 corresponds to 0 °C, the value 0 corresponds to −60 °C. [0 … 253]	Degree Celsius [°C]	R
Rated Median Useful Life Of Luminaire	Rated medium service life, including lights, ECGs and other components (scaling factor and unit: 1000 h) Example: The value 50 corresponds to 50000 hours. [0 … 253]	Hours [h]	R
Internal ECG Reference Temperature	Internal ECG reference temperature (offset value: 60) Example: The value 60 corresponds to 0 °C, the value 0 corresponds to −60 °C. [0 … 253]	Degree Celsius [°C]	R
Rated Median Light Source Starts	Rated median number of switch-on operations (scaling factor and unit: 100) Example: The value 5000 means 500000 switch-on operations.	-	R

7.3.2.3.22 “Memory Banks” Tab

The ”Memory Banks” tab is available for ECGs and sensors.

The memory banks for a selected device must be read before they can be displayed.

If multiple devices are selected, a single byte can write to the respective memory bank in all selected devices (see **Write one memory bank to multiple devices [▶ 86]**).

If a single device is selected, multiple bytes can also be written to the memory bank.

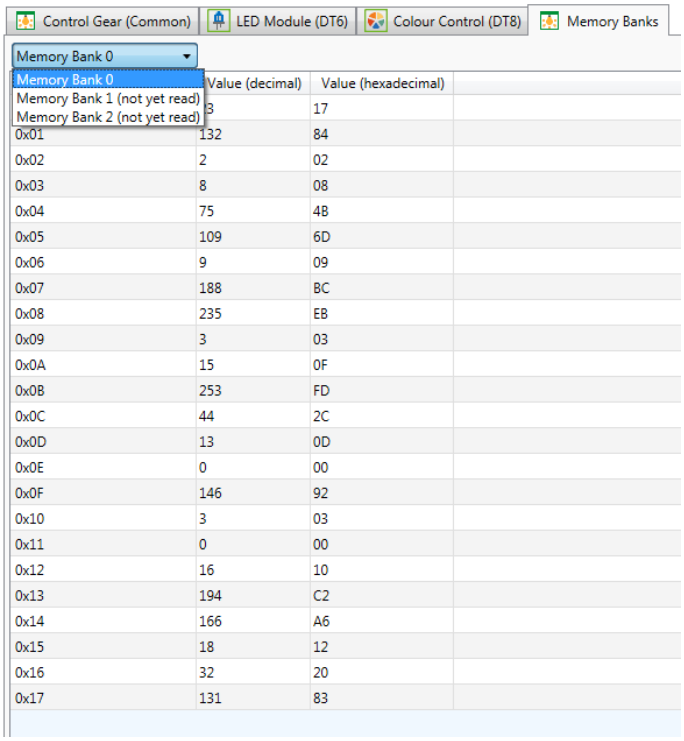


Figure 15: Write Memory Bank, Single Device (Example)

7.3.2.3.23 “Sensor (General)” Tab

The table on the ”Sensor (General)” tab provides access to the following parameters.

Table 39: “Sensor (General)” Tab

Name	Description	Unit	Read/ Write
Version number	Version number (Version of the specification (IEC 62386-103) according to which this device (Control Device) was created.)	-	R

Name	Description	Unit	Read/ Write
Operation mode	Operating mode States identified by a number in the range [0, 255], characterized by a collection of variables and memory settings; operating modes are used to select functions to be displayed by a device, including its required response to commands. **Note:** Multiple operating modes are possible. Their function is manufacturer/device-specific.	-	R/W
Power cycle notification	“On”/“Off” notification After completing its external power cycle, a bus unit must generate one power cycle event message per device if the notification is enabled for at least one of its logical units. • 0 = disabled • 1 = enabled	-	R/W
Application controller enabled	Control device is enabled. The control device is either ”enabled” or ”disabled”, which is to be indicated by this setting. When disabled, the control device must not send any forward frames, except for a power cycle notification. This setting must not affect the response to incoming forward transmissions, including transmission of backward frames after requests. • 0 = disabled • 1 = enabled	-	R/W
Application controller always active	Control device is active continuously. If a control device is present, it can be active continuously. • 0 = disabled • 1 = enabled	-	R

7.3.2.3.24 “Universal Input (IT0)” Tab

The table in the ”Universal Input (IT0)” tab offers access to the following parameters.

Table 40: “Universal Input (IT0)” Tab

Name	Description	Unit	Read/ Write
Instance active	This parameter can be used to disable/enable the sending of signals/events for this instance. • 0 = disabled • 1 = enabled	-	R/W
Resolution	Input signal resolution The accuracy of the signal is determined by the ”Resolution.” The resolution used is manufacturer-specific.	-	R
Event filter	Manufacturer-specific event filter for universal input The event filter can be used to switch specific events on or off. As long as the event filter of a specific event is disabled, the respective event is not generated. [0 … 16777215]	-	R/W

Name	Description	Unit	Read/ Write
Event scheme	Event addressing scheme: a definition according to which addressing type events should be reported. The instance of an input device must use the selected event source addressing scheme when it transmits an event message (see Table “Universal Input (IT0)” Tab – Event Addressing Scheme [▶ 50]).	-	R/W
Event priority	Event priority Specifies the priority at which events are sent. The lower the value, the higher the priority. [2 … 5]	-	R/W

Table 41: “Universal Input (IT0)” Tab – Event Addressing Scheme

“eventScheme”	Description
0 (default)	Instance addressing
1	Device addressing via short address and instance type
2	Device/instance addressing via short address and instance number
3	Device group addressing by device group and instance type
4	Instance group addressing by instance group and type

7.3.2.3.25 “Button (IT1)” Tab

The table in the ”Button (IT1)” tab offers access to the following parameters.

Table 42: “Button (IT1)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Version of the specification (IEC 62386-301) according to which this instance type (button) was created	-	R
Instance active	This parameter can be used to disable/enable the sending of signals/events for this instance. • 0 = disabled • 1 = enabled	-	R/W
Resolution	Input signal resolution The accuracy of the signal is determined by the ”Resolution.” The resolution used is manufacturer-specific.	-	R
Event scheme	Event addressing scheme: a definition according to which addressing type events should be reported. The instance of an input device must use the selected event source addressing scheme when it transmits an event message (see Table “Universal Input (IT0)” Tab – Event Addressing Scheme [▶ 50]).	-	R/W
Event priority	Event priority Specifies the priority at which events are sent. The lower the value, the higher the priority. [2 … 5]	-	R/W
Button released event enabled	Enable “button released” event. • 0 = disabled • 1 = enabled	-	R/W

Name	Description	Unit	Read/ Write
Button pressed event enabled	Enable “Button pressed” event. • 0 = disabled • 1 = enabled	-	R/W
Short press event enabled	Enable “Short button press” event. • 0 = disabled • 1 = enabled	-	R/W
Double press event enabled	Enable “double button press” event. • 0 = disabled • 1 = enabled	-	R/W
Long press start event enabled	Enable “long button press start” event. • 0 = disabled • 1 = enabled	-	R/W
Long press repeat event enabled	Enable “repeat long button press” event. • 0 = disabled • 1 = enabled	-	R/W
Long press stop event enabled	Enable “long press stop” event. • 0 = disabled • 1 = enabled	-	R/W
Button stuck / free event enabled	Enable “button stuck” event. • 0 = disabled • 1 = enabled	-	R/W
Min Short Press Time	Minimum short button press time Minimum physical time for detecting a short button press	Seconds [s]	R
Min Double Press Time	Minimum double button press time Minimum physical time for detecting a double button press	Seconds [s]	R
Short Press Time	Short button press The amount of time that distinguishes a short button press from a long button press. If a button is released within this amount of time, either a ”short button press” or a ”double button press” will follow; if the button is held after this amount of time, a ”long button press follows.”	Seconds [s]	R/W
Double Press Time	Double button press The amount of time that a single (short) button press differs from a double button press. If a button is not pressed again within this time, a ”short button press” is triggered; otherwise, a ”double button press” is triggered.	Seconds [s]	R/W
Repeat Time	Repetition time The recurrence interval of ”long button press” events.	Seconds [s]	R/W
Stuck Time	Time for “button stuck” If a button remains pressed or jumps back and forth beyond this time period, it is assumed that it is broken.	Seconds [s]	R/W

7.3.2.3.26 “Absolute Input (IT2)” Tab

The table in the ”Absolute Input (IT2)” tab offers access to the following parameters.

Table 43: “Absolute Input (IT2)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Version of the specification (IEC 62386-302) according to which this instance type (absolute input) was created	-	R
Instance active	This parameter can be used to disable/enable the sending of signals/events for this instance. • 0 = disabled • 1 = enabled	-	R/W
Resolution	Input signal resolution The accuracy of the signal is determined by the ”Resolution.” The resolution used is manufacturer-specific.	-	R
Event scheme	Event addressing scheme: a definition according to which addressing type events should be reported. The instance of an input device must use the selected event source addressing scheme when it transmits an event message (see Table “Universal Input (IT0)” Tab – Event Addressing Scheme [▶ 50]).	-	R/W
Event priority	Event priority Specifies the priority at which events are sent. The lower the value, the higher the priority. [2 … 5]	-	R/W
Position event enabled	“Position” event enabled • 0 = disabled • 1 = enabled	-	R/W
Dead Time	Dead time Specifies the time within which no events (signals) are sent despite the value change. If 0, any value change would send immediately. [0 … 255] (0 … 12.75 s)	Seconds [s]	R/W
Report Time	Report time Cycle time after which an event is sent, even if the input signal has not changed [0 … 255] (0 … 255 s)	Seconds [s]	R/W

7.3.2.3.27 “Presence Detector (IT3)” Tab

The table in the ”Presence Detector (IT3)” tab offers access to the following parameters.

Table 44: “Presence Detector (IT3)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Version of the specification (IEC 62386-303) according to which this instance type (presence detector) was created	-	R
Configuration Detection Range supported	Detection range setting supported • 0 = disabled • 1 = enabled	-	R
Configuration Detection Sensitivity supported	Detection sensitivity setting supported • 0 = disabled • 1 = enabled	-	R

Name	Description	Unit	Read/ Write
Instance active	This parameter can be used to disable/enable the sending of signals/events for this instance. • 0 = disabled • 1 = enabled	-	R/W
Resolution	The input signal resolution The accuracy of the signal is determined by the ”Resolution.” The resolution used is manufacturer-specific.	-	R
Event scheme	Event addressing scheme: a definition according to which addressing type events should be reported. The instance of an input device must use the selected event source addressing scheme when it transmits an event message (see Table “Universal Input (IT0)” Tab – Event Addressing Scheme [▶ 50]).	-	R/W
Event priority	Event priority Specifies the priority at which events are sent. The lower the value, the higher the priority. [2 … 5]	-	R/W
Event Occupied enabled	Enable “Occupied” event. • 0 = disabled • 1 = enabled	-	R/W
Event Vacant enabled	Enable “Vacant” event. • 0 = disabled • 1 = enabled	-	R/W
Event Repeat enabled	“Recurrence” Event • 0 = disabled • 1 = enabled	-	R/W
Event Movement enabled	Enable “Movement” event. • 0 = disabled • 1 = enabled	-	R/W
Event No Movement enabled	Enable “No movement” event. • 0 = disabled • 1 = enabled	-	R/W
Dead Time	Dead time Specifies the time within which no events (signals) are sent despite the value change. If 0, any value change would send immediately. [0 … 255] (0 … 12.75 s)	Seconds [s]	R/W
Hold Time	Hold time The hold time (display time) after a movement event [0 … 255] (0 … 43.3 min)	Minutes [min]	R/W
Report Time	Report time Cycle time after which an event is sent, even if the input signal has not changed [0 … 255] (0 … 255 s)	Seconds [s]	R/W
Detection Range	Detection range [0 … 100] (0 … 100 %) 255: not supported	Percent [%]	R/W
Detection Sensitivity	Detection sensitivity [0 … 100] (0 … 100 %) 255: not supported	Percent [%]	R/W

7.3.2.3.28 “Light Sensor (IT4)” Tab

The table on the ”Light Sensor (IT4)” tab offers access to the following parameters.

Table 45: “Light Sensor (IT4)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Version of the specification (IEC 62386-304) according to which this instance type (light sensor) was created	-	R
Instance active	This parameter can be used to disable/enable the sending of signals/events for this instance. • 0 = disabled • 1 = enabled	-	R/W
Resolution	The input signal resolution The accuracy of the signal is determined by the ”Resolution.” The resolution used is manufacturer-specific.	-	R
Event scheme	Event addressing scheme: a definition according to which addressing type events should be reported. The instance of an input device must use the selected event source addressing scheme when it transmits an event message (see Table “Universal Input (IT0)” Tab – Event Addressing Scheme [▶ 50]).	-	R/W
Event priority	Event priority Specifies the priority at which events are sent. The lower the value, the higher the priority. [2 … 5]	-	R/W
Illuminance level event enabled	Enable ”Illuminance level” event • 0 = disabled • 1 = enabled	-	R/W
Dead Time	Dead time Specifies the time within which no events (signals) are sent despite the value change. If 0, any value change would send immediately. [0 … 255] (0 … 12.75 s)	Seconds [s]	R/W
Report Time	Report time Cycle time after which an event is sent, even if the input signal has not changed. [0 … 255] (0 … 255 s)	Seconds [s]	R/W
Hysteresis Min	Minimum hysteresis For brightness changes below this value, the transmission of the ”Illuminance level” event is suppressed. This is independent of the set hysteresis. [0 … 255] (0 … 255)	-	R/W
Hysteresis	Hysteresis of the change in value at which a brightness event is sent. [0 … 25] (0 … 25)	Percent [%]	R/W

7.3.2.3.29 “Feedback (FT32)” Tab

The table in the ”Feedback (FT32)” tab offers access to the following parameters.

Table 46: “Feedback (FT32)” Tab

Name	Description	Unit	Read/ Write
Extended Version Number	Version of the specification (IEC 62386-332) according to which this feature type (feedback) was created.	-	R
Visible feedback supported	Visual feedback supported • 0 = disabled • 1 = enabled	-	R
Feedback brightness supported	Brightness feedback supported • 0 = disabled • 1 = enabled	-	R
Feedback color supported	Color feedback supported • 0 = disabled • 1 = enabled	-	R
Audible feedback supported	Audible feedback supported • 0 = disabled • 1 = enabled	-	R
Feedback volume supported	Volume feedback supported • 0 = disabled • 1 = enabled	-	R
Feedback pitch supported	Pitch feedback supported • 0 = disabled • 1 = enabled	-	R
Red color present	Red present • 0 = disabled • 1 = enabled	-	R
Green color present	Green present • 0 = disabled • 1 = enabled	-	R
Blue color present	Blue present • 0 = disabled • 1 = enabled	-	R
RGB resolution	RGB resolution • 0 = 1-bit • 1 = 2-bit	-	R
RGB mixing	RGB mixable • 0 = only one color (red, green or blue) at a time • 1 = color combination (of red, green and blue) possible	-	R
Duty cycle	On-time • 0 = 12 … 13 % • 1 = 24 … 26 % • 2 = 36 … 39 % • 3 = 48 … 53 % • 4 = 59 … 66 % • 5 = 71 … 79 % • 6 = 83 … 92 % • 7 = 100 %	Percent [%]	R/W

Name	Description	Unit	Read/ Write
Period	Duration • 0 = 0.4 … 0.6 s • 1 = 0.9 … 1.1 s • 2 = 1.4 … 1.6 s • 3 = 1.9 … 2.1 s • 4 = 2.3 … 2.7 s • 5 = 2.8 … 3.2 s • 6 = 3.3 … 3.7 s • 7 = 3.8 … 4.2 s	Seconds [s]	R/W
Cycles	Cycles • 0 = 1 cycle • 1 = 2 cycles • 2 = 3 cycles • 3 = Infinite number of cycles	-	R/W
Active Brightness	Active brightness [0 … 255]	-	R/W
Inactive Brightness	Inactive brightness [0 … 255]	-	R/W
Active Color, Red content	Color when active, red content • 0 = 0 % • 1 = 33.3 % • 2 = 66.7 % • 3 = 100 %	Percent [%]	R/W
Active Color, Green content	Color when active, green content • 0 = 0 % • 1 = 33.3 % • 2 = 66.7 % • 3 = 100 %	Percent [%]	R/W
Active Color, Blue content	Color when active, blue content • 0 = 0 % • 1 = 33.3 % • 2 = 66.7 % • 3 = 100 %	Percent [%]	R/W
Inactive Color, Red content	Color when inactive, red content • 0 = 0 % • 1 = 33.3 % • 2 = 66.7 % • 3 = 100 %	Percent [%]	R/W
Inactive Color, Green content	Color when inactive, green content • 0 = 0 % • 1 = 33.3 % • 2 = 66.7 % • 3 = 100 %	Percent [%]	R/W
Inactive Color, Blue content	Color when inactive, blue content • 0 = 0 % • 1 = 33.3 % • 2 = 66.7 % • 3 = 100 %	Percent [%]	R/W
Active volume	Active volume [0 … 255]	-	R/W
Active pitch	Active pitch [0 … 255]	-	R/W

7.3.2.3.30 “Button (DT1)” Tab

The table in the ”Button (DT1)” tab offers access to the following parameters.

Table 47: “Button (DT1)” Tab

Name	Description	Unit	Read/ Write
Sensor Active	Active sensor	-	R/W
Short Press	Short button press	-	R/W
Long Press	Long button press	-	R/W
Double Press	Double button press	-	R/W
Switch	Switch	-	R/W

7.3.2.3.31 “Presence Detector (DT2)” Tab

The table in the ”Presence Detector (DT2)” tab offers access to the following parameters.

Table 48: “Presence Detector (DT2)” Tab

Name	Description	Unit	Read/ Write
Sensor Active	Active sensor	-	R/W
Repetition Time	Repetition time	Seconds [s]	R/W

7.3.2.3.32 “Light Sensor (DT3)” Tab

The table on the ”Light Sensor (DT3)” tab offers access to the following parameters.

Table 49: “Light Sensor (DT3)” Tab – Sensor Type 1

Name	Description	Unit	Read/ Write
Sensor Active	Active sensor	-	R/W
Send On Delta	Send when value changes: Send when brightness value changes	Percent [%]	R/W
Min Send Time	Minimum time until brightness value update	Seconds [s]	R/W
Max Send Time	Maximum time until brightness value update	Seconds [s]	R/W

Table 50: “Light Sensor (DT3)” Tab – Sensor Type 2

Name	Description	Unit	Read/ Write
Send On Delta	Send when value changes: Send when brightness value changes	Percent [%]	R/W
Min Send Time	Minimum time until brightness value update	Seconds [s]	R/W
Max Send Time	Maximum time until brightness value update	Seconds [s]	R/W

7.3.2.3.33 “MSensor (General)” Tab

The table on the ”MSensor(General)” tab provides access to the following parameters.

Table 51: “MSensor (General)” Tab

Name	Description	Unit	Read/ Write
Sensor Active	Active sensor	-	R/W

7.3.2.3.34 “Presence Detector (DT4)” Tab

The table in the ”Presence Detector (DT4)” tab offers access to the following parameters.

Table 52: “Presence Detector (DT4)” Tab

Name	Description	Unit	Read/ Write
Sensor Active	Active sensor	-	R/W
Repetition Time	Repetition time	Seconds [s]	R/W

7.3.2.3.35 “Button (General)” Tab

The table on the ”Button (General)” tab provides access to the following parameters.

Table 53: “Button (General)” Tab

Name	Description	Unit	Read/ Write
Sensor Active	Active sensor	-	R/W

7.3.2.3.36 “Button (DT50)” Tab

The table in the ”Button (DT50)” tab offers access to the following parameters.

Table 54: “Button (DT50)” Tab

Name	Description	Unit	Read/ Write
Switch	Put into operation as a switch	-	R/W
On Short Press	Short button press on	-	R/W
Off Short Press	Short button press off	-	R/W
On Long Press	Long button press on	-	R/W
Off Long Press	Long button press off	-	R/W
Double Press	Double button press	-	R/W
Switch Closed	Switch closed	-	R/W
Switch Opened	Switch opened	-	R/W

7.3.3 “DALI Network” Menu Ribbon Section

Table 55: “START” Tab – ”DALI Network” Ribbon Section

Icon	Designation	Description	
	**[Central ON]**	Switches on all lights connected to the DALI line.	
	**[Central OFF]**	Switches off all lights connected to the DALI line.	
	**[Locate Start]**	Starts the localization function for one or more selected DALI control gears to identify and, if necessary, check the physical installation location.	
	**[Locate Stop]**	Stops the localization function.	
	[Switch On]		A steady light is used for the localization function of ECGs.
			A flashing light is used for the localization function of ECGs.
			Factory Setting
	**[Read All]**	Reads out addresses, group and scene information as well as configuration parameters of all connected DALI network devices.	
	**[Compare All]**	Compares a configuration (offline) with a configuration available in the DALI network (online).	
		 [1]	The arrow can also be used to select a specific device type and carry out a comparison. The selection of the tab (control gear, sensors, sensor type 1, sensor type 2) in the “Addressing” view is important.
	**[Write All]**	Writes all data to the DALI network subscribers available online.	

[1] *Button name depends on the selected view.*

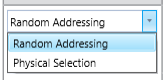
7.3.4 “Actions” Menu Ribbon Section

Table 56: “START” Tab – ”Actions” Menu Ribbon Section

Icon	Designation	Description	
	**[Read]**	Context-dependent on selected **View**	
		Addressing	Addressed devices are searched (depending on the selected tab).
		Group & Scenes	Group and scene settings are read.
		Configuration	The device parameters of the devices selected in the topology tree are read (depending on the selected tab).
	**[Write]**	Context-dependent on selected **View**	
		Addressing	*disabled*
		Group & Scenes	Group and scene settings are written.
		Configuration	The device parameters of the selected device(s) are written.
	**[Save Persistent Variables]**	The persistent variables of the selected control gears (ECGs) and control devices (sensors) are written (DALI command: “Save Persistent Variables”). Since the service life of the flash memory in the devices decreases with the number of write cycles, this function should be used in moderation.	

7.3.5 “Addressing” Menu Ribbon Section

Table 57: “START” Tab – ”Addressing” Menu Ribbon Section

Icon	Designation	Description	
	**Random Addressing**	A random address should be assigned to the DALI network subscriber.	
	Physical Addressing	(Only for sensor type 1 and sensor type 2) The DALI network subscriber should be identified and then addressed, e.g., by pressing a button or unscrewing and screwing a light.)	
	**[Start]**	Click this button to launch the addressing operation for the tab currently selected (Control Gears, Sensors, Sensor Type 1 or Sensor Type 2).	
	[Only unaddressed devices]	☑	Only devices without short addresses are assigned new addresses.
			Factory Setting
		☐	All devices are assigned new addresses.
	[Reset values][1)]	☑	The devices are reset to their reset values.*)
			Factory Setting
		☐	The devices are not reset to their reset values.*
	[Identify]	☑	Each newly addressed device is identified after the address assignment.
		☐	There is no identification during addressing.
			Factory Setting

[1)] *Not for sensor type 2*

7.4 “MODULE SETTINGS” Tab

The ”MODULE SETTINGS” tab contains the view for configuring the I/O modules. You can configure general settings for the DALI Multi-Master Module.

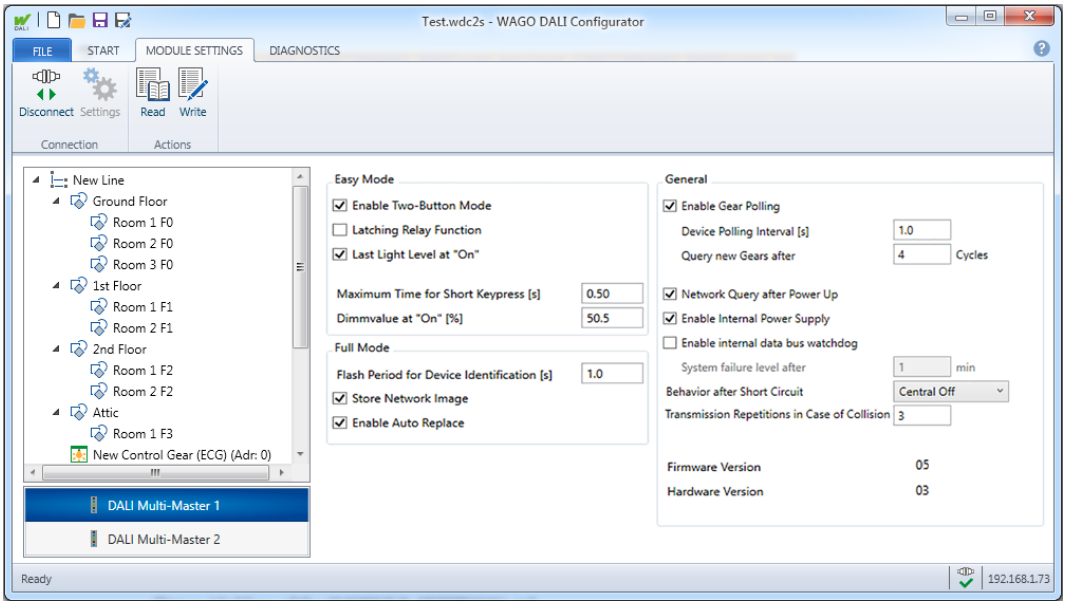


Figure 16: “MODULE SETTINGS” Tab

The view is divided into the following three subsections:

- **Easy Mode**
- **Full Mode**
- General

The subsections are described individually below.

7.4.1 “Connection” Menu Ribbon Section

You can find the description for this section in the overview under **“Connection” Menu Ribbon Section [▶ 18]**.

7.4.2 “Actions” Menu Ribbon Section

Table 58: “MODULE SETTINGS” Tab – ”Actions” Menu Ribbon Section

Icon	Designation	Description
	**[Read]**	Reads the DALI Multi-Master settings.
	**[Write]**	Writes the settings made in the opened tab to the DALI Multi-Master Module.

7.4.3 “Easy Mode” Subsection

The “Easy Mode” provides lighting control using simply binary signals without complicated PLC programming.

Table 59: “MODULE SETTINGS” Tab – ”Easy Mode” Subsection

Function	(Example) Value	Description
2-button mode	☑	2-button mode is enabled.

Function	(Example) Value	Description
		Factory Setting
	☐	1-button mode is enabled.
Latching relay function	☑	Latching relay function is enabled (dimming is disabled).
	☐	Latching relay function is disabled.
		Factory Setting
Switch on at last dimming value	☑	Save last dimming value when switching off as initial value for switching on.
		Factory Setting
	☐	Switch on with a fixed dimming value (default 229 corresponds to 50.7 %).
Maximum Time for Short Button Press [s]	0.50	Time up to which a button press is recognized as a short button signal
Dimming Value When Switching ON [%]	50.5	Setting at what brightness value should be switched on.

7.4.4 “Full Mode” Subsection

In “Full mode,” the I/O module can query and control the status of the attached devices in the DALI line by systematic polling.

Table 60: “MODULE SETTINGS” Tab – ”Full Mode” Subsection

Function	(Example) Value	Description
Flash Period for Device Identification [s]	1.0	Flashing period for device localization
Save Network Image	☑	Save network settings every 24 hours from RAM to EEPROM is enabled.
		Factory Setting
	☐	Save network settings every 24 hours from RAM to EEPROM is disabled.
Automatic Replace (Auto Replace)	☑	Automatic replacement of replacement devices is enabled.
		Factory Setting
	☐	Automatic replacement of replacement devices is disabled.

7.4.5 “General” Subsection

In the ”General” area of the configuration settings, you can specify the controller for the device polling (bus scan) and the behavior in the event of faulty telegrams.

Table 61: “MODULE SETTINGS” Tab – ”General” Subsection

Function	(Example) Value	Description
Enable Cyclic Gear Polling	☑	Device poling is enabled.
		Factory Setting
	☐	Device polling is disabled.
		Note: Disabling this function can lead to inconsistency of the internal module database.

Function	(Example) Value	Description
Control Gear San Interval [s]	1.0	Interval for device polling (1 … × sec.)
Search for control gears by ... cycles	4	Number of query cycles after which the network should be queried for new control gears (x ... y cycles)
Network Query after Power On	☑	Network query after restart is enabled.
		Factory Setting
	☐	Network query after restart is disabled.
Enable Internal Power Supply	☑	Internal power supply is enabled.
		This function can be used to disable the internal DALI power supply in the DALI Multi-Master Module to connect an external DALI power supply.
		Factory Setting
	☐	Internal power supply is disabled.
Enable Local Bus Watchdog	☑	Local bus watchdog is enabled.
	☐	Local bus watchdog is disabled.
		Factory Setting
Trigger System Failure Level after	1	Number of minutes after which the ”System Failure Level” should be triggered. The value can range from 1 to 255 minutes. The analysis is performed if the local bus watchdog is enabled.
		Note: This function is supported in firmware version 4 or higher.
Behavior after Short Circuit	Behavior of the DALI Multi-Master Module after a short circuit ends:	
	No action	DALI Multi-Master Module performs no separate action.
	Central OFF	If the short circuit lasted between 3 s ... 7 s, the DALI Multi-Master switches off all ECGs. You can find further information at **Example Use for the ”Behavior after Short Circuit” Function [▶ 94]**.
		Factory Setting
	Last dimming value	All lights are set to the dimming value that existed before occurrence of the short circuit.
		Note: This function is supported in firmware version 4 or higher.
Transmission Repetitions in Case of Collision	3	Number of transmissions/repetitions in case of error
		Note: This function is supported up to firmware version 19.

7.4.5.1 “General” Subsection > Versions

Table 62: “MODULE SETTINGS” Tab – ”General” Subsection > Versions

Function	(Example) Value	Description
Firmware Version	03	Displays the firmware version of the selected DALI Multi-Master Module.
Hardware Version	01	Displays the hardware version of the selected DALI Multi-Master Module.

7.5 “DIAGNOSTICS” Tab

The ”DIAGNOSTICS” tab contains the diagnostic view of the DALI Multi-Master Module.

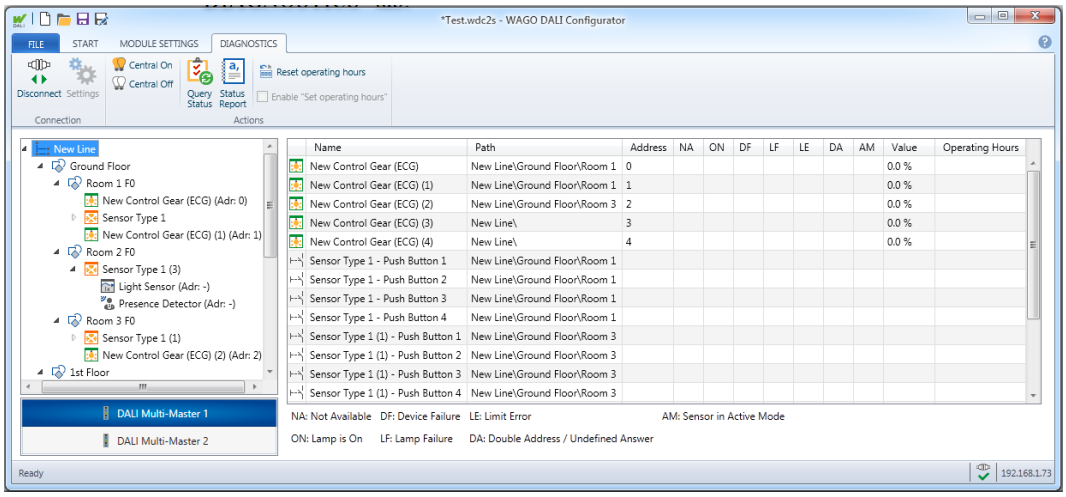


Figure 17: “DIAGNOSTICS” Tab

In addition to the columns with the pictogram, name, path, address, value and operating hours, the table on the ”DIAGNOSTICS” tab in the configuration area also contains the following columns, in which the status of a device is indicated in the respective table row.

Table 63: “DIAGNOSTICS” Tab – Meaning of Status Signaling in the Diagnostic Table

Status	Explanation	Remedy
n/a	Device not available	Check device, connection and addressing. The device may need to be addressed again. You can find more information at: • **“Addressing” View [▶ 26]** • **“Addressing” Menu Ribbon Section [▶ 60]** • **Start addressing of control gears [▶ 68]** • **Start addressing of sensors [▶ 71]** • **Start addressing sensor type 1 [▶ 76]** • **Start addressing of sensor type 2 [▶ 78]**
ON	The lamp is switched on	---
GF	Device fault or device failure	Device failure must be checked. The device must be replaced if it is defective. If necessary, perform the data transfer using the Replace function (“Restore device”). You can find more information at **“Topology Tree” Context Menu [▶ 20]**
LD	Light is defective	The defective light must be replaced.
LE	Underrun or overrun of the limiting value	Check the limit settings for the affected device in the configuration. You can find more information at **“Configuration” View [▶ 34]**.

Status	Explanation	Remedy
DA	Duplicate address detected or undefined response	A duplicate address can be removed in the ”START” tab in the addressing view. The duplicate address of the respective device must be deleted from the table cell. The device must then be addressed again. You can find more information at: • **“Addressing” View [▶ 26]** • **“Addressing” Menu Ribbon Section [▶ 60]** • **Start addressing of control gears [▶ 68]** • **Start addressing of sensors [▶ 71]** • **Start addressing sensor type 1 [▶ 76]** • **Start addressing of sensor type 2 [▶ 78]**
AM	Sensor in active mode and sends values	---

Any errors are indicated by a red pictogram with an exclamation mark.

If the later columns (Value, Operating Hours) of the table in the configuration area are not visible because the screen is too small, it makes sense to collapse the earlier table columns (Name, Path).

7.5.1 “Connection” Menu Ribbon Section

The description for this section is available in the overview under **“Connection” Menu Ribbon Section [▶ 18]**.

7.5.2 “Actions” Menu Ribbon Section

Table 64: “DIAGNOSTICS” Tab – ”Actions” Menu Ribbon Section

Icon	Designation	Description	
	**[Central ON]**	Switches on all lights connected to the DALI line.	
	**[Central OFF]**	Switches off all lights connected to the DALI line.	
	**[Status query]**	Updates the diagnostic information, operating values and operating hours.	
	**[Status report]**	Generates a diagnostic report that can be opened later, for example as an Excel file. The content of the diagnostics report is a snapshot of the current status of all connected DALI subscribers.	
		The status report is saved in CSV file format.	
	**[Reset Operating Hours]**	Resets the operating hours of selected devices to the value ”0.”	
	Enable ”Set Operating Hours”	☑	Enables editing of the table cells for writing the operating hours.
		☐	Disables editing of the table cells for writing the operating hours.
			Factory Setting
		Note: The set operating hours are written to the internal database of the DALI Multi-Master Module, but not to the respective ECG itself.	

7.6 Status bar

The status bar at the bottom of the user interface displays information on the status of a started action on the left. Messages for the following events are also displayed on the DALI Multi-Master Module.

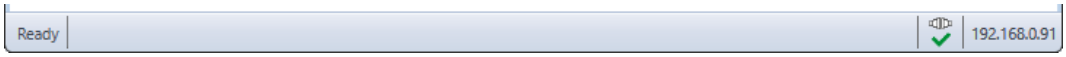


Figure 18: Status bar

Table 65: Status bar: Events on the DALI Multi-Master Module

Message	Description
“Error on the DALI bus: No voltage or short circuit”	No power supply to the DALI bus, or short circuit on the DALI bus
“Communication error”	Communication error within the I/O module
“Interface is busy, please wait”	The I/O module cannot process queries from the WAGO DALI Configurator. This can happen if device polling is enabled when it is switched on and there is no power supply to the DALI bus.

On the right, the connection status to a DALI Multi-Master Module is indicated by a pictogram.

Table 66: Status bar: Connection status to the DALI Multi-Master Module

Icon	Description
	The DALI Multi-Master Module is connected.
	No connection to the DALI Multi-Master Module.

In addition, the current connection settings are displayed, i.e., the IP address or COM port of the connected fieldbus node if applicable.

If an action (e.g., Read, Write etc.) is called, a progress bar displays the progress of the action.

If an error occurs, it is indicated by an icon and given a text name.

8 Operating

8.1 Establishing a Connection

✓ You are in the ”START” tab.

1. In the ”Connection” section of the menu ribbon, click **[Settings]**.

   ⇨ The ”Communication Settings” dialog appears.

2. Select the connection (“Ethernet (TCP/IP)” or ”Serial”).
3. When selecting the ”Ethernet (TCP/IP)” connection, enter the IP address or select the port when selecting the ”Serial” connection.
4. Select the appropriate DALI module position.
5. Click **[OK]** to confirm the entries.
6. In the ”Connection” section of the menu ribbon, click **[Connect]**.

⇨ The connection is established.

8.2 Make Communication Settings

To set the communication parameters for the connection between WAGO DALI Configurator and WAGO fieldbus controllers, click the **[Settings]** button in the menu ribbon. The ”Communication Settings” dialog appears.

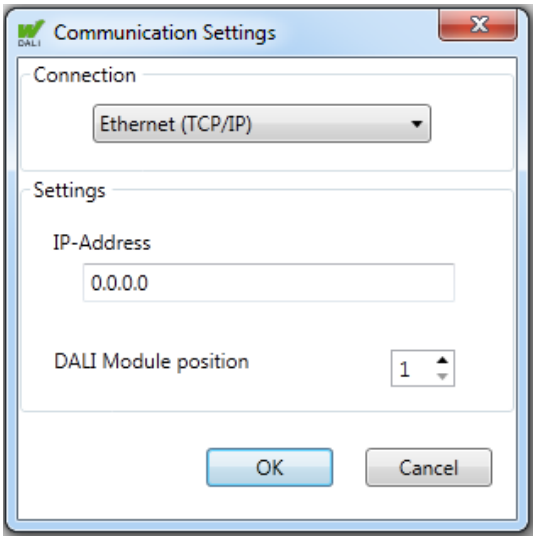


Figure 19: “Communication Settings” Dialog

1. Select the connection type (ETHERNET (TCP/IP) or serial connection) from the **Connection** selection field.

   ⇨ Depending on the selection made, the selection in the **Settings** area changes.

2. Enter the IP address in the **IP address** input field or select the associated COM port in the **Port** selection field.
3. Select the required digit for the respective I/O module via the **DALI module position** selection field.
4. Click the **[OK]** button to confirm your entries.

8.3 Configuring Control Gears (ECGs)

8.3.1 Start addressing of control gears

ⓘ Note

Addressing applies to currently selected tab

Addressing is always only performed for the devices of the currently selected tab (control gears, sensors, sensor type 1, sensor type 2), not for all device types at the same time.

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Control Gears” tab.

1. In the ”Addressing” section, click **[Start]**.
   ⇨ A dialog appears.
   ⇨ For a description of the buttons, see **“Addressing” Menu Ribbon Section [▶ 60]**.
2. Click **[Yes]** to confirm the dialog.
   ⇨ The detected devices are listed in the configuration area in the ”Control Gears” tab.
   The tree structure can also be expanded in the left part of the configuration area. It also contains a list of detected ECGs.

⇨ Addressing can be performed.

8.3.2 Adding Control Gears (ECGs)

In the case of offline configuration, the required ECGs can also be created manually from the context menu.

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Control Gears” tab.

1. Right-click in the configuration area.
   ⇨ A context menu appears.
2. Select the **[Add ECG]** item in the context menu.
   ⇨ The ”Add Devices” dialog appears.

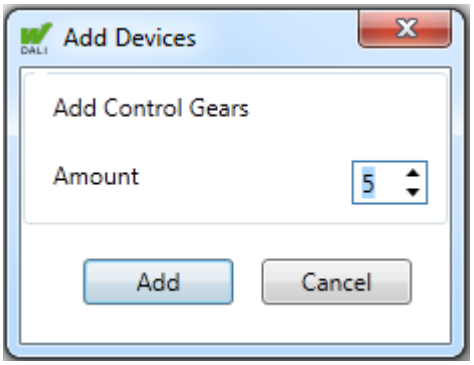


Figure 20: Adding Control Gears (ECGs): ”Add Devices” Dialog

3. Enter the required number of ECGs in the selection field and click **[OK]** to confirm your selection.

⇨ The ECGs created are listed in a table on the ”Control Gears” tab.

The table contains the following information.

- Name
- Path
- Planned address
- Device address
- (Type symbol)
- Serial number

You can edit the entries ”Name,” ”Planned Address,” ”Device Address” and ”Serial Number” by double-clicking in the respective table cell.

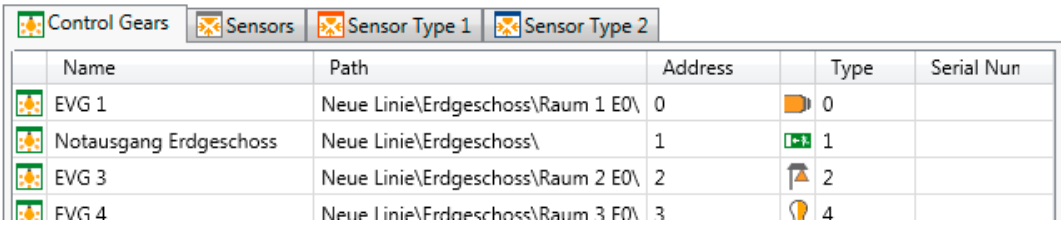


Figure 21: Adding Control Gears (ECGs): Edit Table Cell

The tree structure can be expanded in the topology tree on the left side of the configuration area. It now contains the added ECGs.

8.3.3 Edit Control Gears (ECGs)

ⓘ Note

Table sorting

Click in the individual columns of the header to sort the table rows in ascending or descending order. A small black arrow marks the column by which the rows are currently sorted.

Name

To change the name, double-click in the corresponding table cell. The area changes into an input field in which you can enter the required name.

Press the [Return] button on your keyboard. The following table entry is selected, and you can edit the entry.

Planned address

You can also enter or change a planned address by double-clicking in the corresponding table cell. It is saved without any further effect. This field allows you to document both the name of a device and its planned address during offline configuration of the DALI network. This address is used exclusively to represent the setpoint state and does not affect the actual addressing operation.

If a device is identified online and the ”Device Address” does not match the ”Planned Address,” you can correct this in the ”Device Address” field. If an entered address has already been assigned, the existing address will be replaced by the previous address holder as soon as you confirm your entry by pressing the [Return] key on your keyboard or by clicking in another cell in the table. In this way, unique addresses are retained.

Device address

To enter an address, double-click in the corresponding table cell. The area changes into an input field in which you can enter the required address. If you change the device address, this new address is written to the DALI device. If there was already a device with this address, the previous address is swapped with the device that has the new address. When changing a device address, the device name is also replaced with the device that has the corresponding “Planned Address.”

Serial number

To enter or change the serial number, double-click in the corresponding cell. The area changes into an input field in which you can enter the serial number.

8.3.4 Locating Control Gears

To assign a suitable name to a device, the device must be located at the installation location.

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Control Gears” tab.

1. On the menu ribbon, click **[Central OFF]** to switch off all control gears.
2. On the menu ribbon, click **[Locate Start]**.
3. Click an ECG in the list to select it.
   ⇨ The ECG flashes so that you can identify and assign it an appropriate name.
   ⇨ **Note:** Select the **[Switch ON]** checkbox on the menu ribbon to use a steady light for signaling instead of a flashing light.
4. Rename the ECG.
   ⇨ Press the [Return] key on your keyboard to select and rename the following list entry.
5. Go through the ECGs individually and assign the names.
6. To finish, click **[Locate Stop]** in the menu ribbon.

⇨ Localization is completed.

8.3.5 Using a Barcode Scanner to Sort Control Gears (ECGs)

If the serial number of the ECGs is available as a barcode (e.g., as part of a building plan), it is possible to record the individual ECGs with the help of a barcode scanner and assign them to the required table row.

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Control Gears” tab.

1. Select the ”Random Addressing” entry in the selection field in the ”Addressing” ribbon section.
   ⇨ For a description of the buttons, see “Addressing” Menu Ribbon Section [▶ 60].
2. In the ”Addressing” section, click **[Start]**.
   ⇨ A dialog appears.
   ⇨ For a description of the buttons, see “Addressing” Menu Ribbon Section [▶ 60].
3. Click in the first table cell in the Serial Number column to select the table cell for editing if the serial number (8-byte length) of the ECG is available.
4. Scan the ECG serial number to which you want to assign the first address.
   ⇨ The address is replaced on the bus (and in the table cell), and the table cell below that is highlighted for editing.
5. Scan the required barcodes one after the other.
   ⇨ The addresses are now sorted based on the scan order.

⇨ The control gears are sorted.

8.4 Configuring Sensors

8.4.1 Start addressing of sensors

ⓘ Note

Addressing applies to currently selected tab

Addressing is always only performed for the devices of the currently selected tab (control gears, sensors, sensor type 1, sensor type 2), not for all device types at the same time.

ⓘ Note

No mixed operation of DALI-2 sensors and sensor type 1 sensors

Joint operation of DALI-2 sensors and sensor type 1 sensors can lead to unwanted results. Operation of these sensors in mixed mode is therefore not permitted.

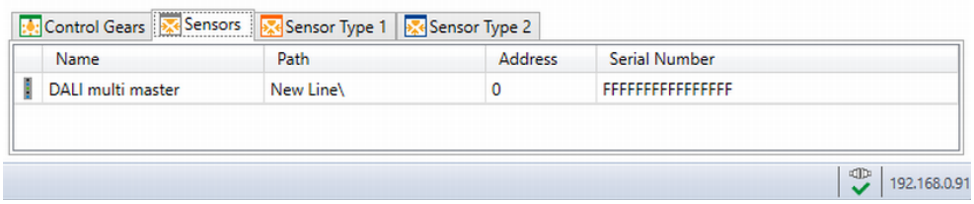
ⓘ Note

DALI Multi-Master with firmware version 20 or higher

The DALI Multi-Master Module (Item Number 753-647) is always recognized as a sensor in firmware version 20 or higher.

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Sensors” tab

1. In the ”Addressing” section, click **[Start]**.
   ⇨ A dialog appears.
   ⇨ For a description of the buttons, see **“Addressing” Menu Ribbon Section [▶ 60]**.
2. Click **[Yes]** to confirm the dialog.
   ⇨ The DALI Multi-Master Module (Item Number 753-647) is always recognized as a sensor in firmware version 20 or higher.



   ⇨ The detected devices are listed in the configuration area in the ”Sensors” tab. The tree structure can also be expanded in the left part of the configuration area. It also contains a list of detected ECGs.

⇨ Addressing can be performed.

8.4.2 Add Sensors

In the case of offline configuration, required sensors can also be created manually via the context menu.

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Sensors” tab

1. Right-click in the configuration area.
   ⇨ A context menu appears.
2. Select the **[Add Sensor]** item in the context menu.
   ⇨ The ”Add Sensor” dialog appears.

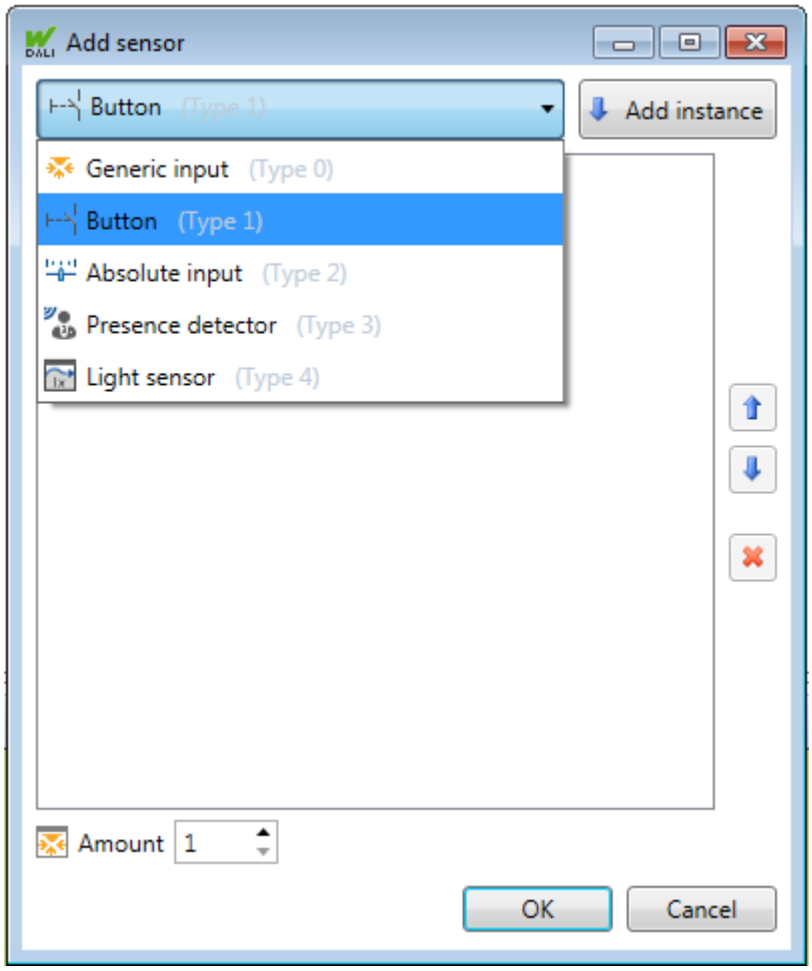


Figure 22: Add Sensors: "Add Sensor" Dialog, Selection List

3. Select an instance type from the selection list.
4. Add your selection to the list of instances by clicking **[Add Instance]**.
   ⇨ An instance has been added to the list.
   ⇨ Each time this button is clicked, an additional instance of the selected type is added.
5. Add instances to the sensor in the required number and order by repeating steps 4 and 5 until all required instances are listed.
6. If necessary, change the order of the instances later by using the corresponding buttons (,).
   Click the button to delete marked instances from your list.
   ⇨ **Note:** The specific description of the instances of individual sensors can be found in the manufacturer documentation of the corresponding sensors.
7. Enter the required number of sensors in the selection field and confirm your selection with **[OK]**.

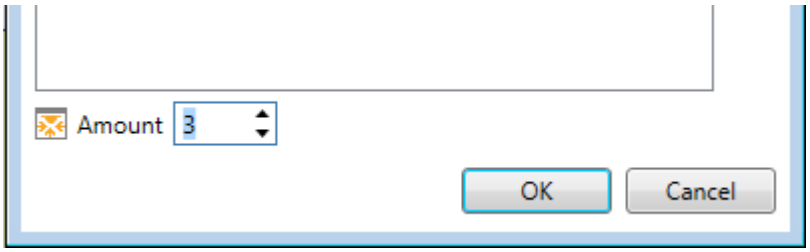


Figure 23: Add sensors: Select number of sensors

⇨ The sensors that have been created are listed in a table on the ”Sensors” tab.

The table contains the following information.

- Name
- Path
- Planned address
- Device address
- Serial number

You can edit the entries ”Name,” ”Planned Address,” ”Device Address” and ”Serial Number” by double-clicking in the respective table cell.

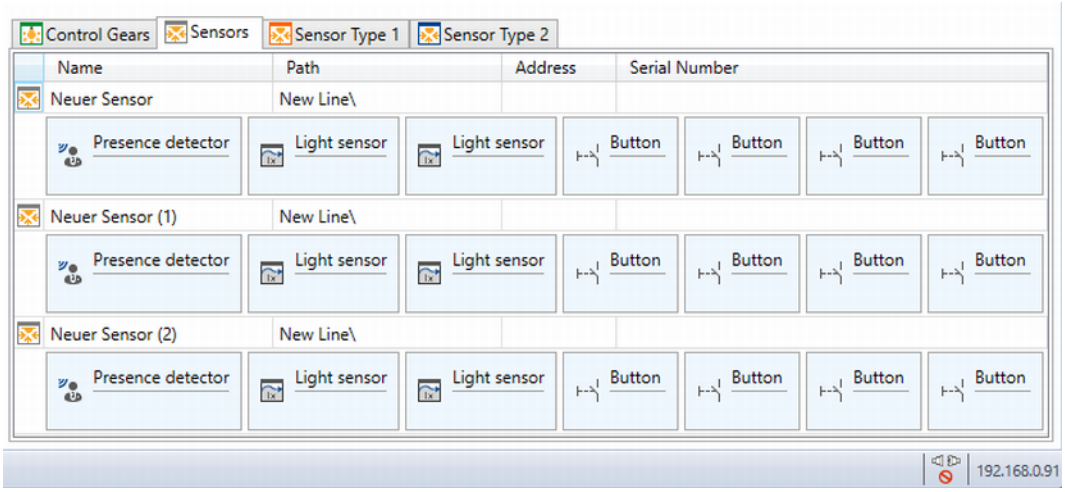


Figure 24: Add Sensors: Sensor Table

The tree structure can be expanded in the topology tree on the left side of the configuration area. It now contains the added sensors.

8.4.3 Edit Sensors

ⓘ Note

Observe the manufacturer documentation!

The specific description of the instances of individual sensors is available in the manufacturer’s documentation for the corresponding sensors.

ⓘ Note

Table sorting

Click in the individual columns of the header to sort the table rows in ascending or descending order. A small black arrow marks the column by which the rows are currently sorted.

Name

To change the name, double-click in the corresponding table cell. The area changes into an input field in which you can enter the required name.

Press the [Return] button on your keyboard. The following table entry is selected, and you can edit the entry.

Planned address

You can also enter or change a planned address by double-clicking in the corresponding table cell. It is saved without any further effect. This field allows you to document both the name of a device and its planned address during offline configuration of the DALI network. This address is used exclusively to represent the setpoint state and does not affect the actual addressing operation.

If a device is identified online and the ”Device Address” does not match the ”Planned Address,” you can correct this in the ”Device Address” field. If an entered address has already been assigned, the existing address will be replaced by the previous address holder as soon as you confirm your entry by pressing the [Return] key on your keyboard or by clicking in another cell in the table. In this way, unique addresses are retained.

Device address

To enter an address, double-click in the corresponding table cell. The area changes into an input field in which you can enter the required address. If you change the device address, this new address is written to the DALI device. If there was already a device with this address, the previous address is swapped with the device that has the new address. When changing a device address, the device name is also replaced with the device that has the corresponding “Planned Address.”

Serial number

To enter or change the serial number, double-click in the corresponding cell. The area changes into an input field in which you can enter the serial number.

8.4.4 Locating Sensors

To assign a suitable name to a device, the device must be located at the installation location.

✓ You are in the ”START” tab.

✓ You are in the ”Addressing” view.

1. If necessary, switch to the register within the configuration area for the correct device type (sensor type 1 or 2).
2. On the menu ribbon, click **[Locate Start]**.

3. Click a device in the list to select it.
   ⇨ The device emits a signal so that you can identify it and assign it an appropriate name.
4. Rename the device.
   ⇨ Press the [Return] key on your keyboard to select and rename the following list entry.
5. Go through the devices individually and assign the names.
6. To finish, click **[Locate Stop]** in the menu ribbon.

⇨ Localization is completed.

8.5 Configure sensor types 1

8.5.1 Start addressing sensor type 1

ⓘ Note

Addressing applies to currently selected tab

Addressing is always only performed for the devices of the currently selected tab (control gears, sensors, sensor type 1, sensor type 2), not for all device types at the same time.

ⓘ Note

No mixed operation of DALI-2 sensors and sensor type 1 sensors

Joint operation of DALI-2 sensors and sensor type 1 sensors can lead to unwanted results. Operation of these sensors in mixed mode is therefore not permitted.

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Sensor Type 1” tab.

1. In the ”Addressing” section, select between the ”Random Addressing” and ”Physical Addressing” entries in the selection field.
   ⇨ For a description of the buttons, see **“Addressing” Menu Ribbon Section [▶ 60]**.
2. Click the **[Start]** button in the ”Addressing” section.
   ⇨ A dialog appears.
   ⇨ For a description of the buttons, see **“Addressing” Menu Ribbon Section [▶ 60]**.
3. Click the **[Yes]** button to confirm the dialog.
   ⇨ The detected devices are listed in the configuration area in the ”Sensor Type 1” tab.
   The tree structure can also be expanded in the left part of the configuration area. It also contains a list of detected devices.

⇨ Addressing can be performed.

8.5.2 Add sensor type 1

In the case of offline configuration, required sensor types 1 can also be created manually via the context menu.

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Sensor Type 1” tab.

1. Right-click in the configuration area.
   ⇨ A context menu appears.
2. In the context menu, select the item **[Add device(s)]** > **[Add]** push**[-button coupler]** or **[Add multi-sensor]**.
   ⇨ The corresponding dialog appears.
3. Enter the required number of push-button couplers or enter sensor couplers in the selection field and click **[OK]** to confirm your selection.

⇨ The created sensor types 1 are listed in a table on the ”Sensor Type 1” tab.

The table contains the following information.
- Name
- Path
- Address (input field ”Adr” within the pictograms)
- Serial number

You can edit the ”Name” and ”Serial Number” entries by double-clicking in the respective table cell.

The tree structure can be expanded in the topology tree on the left side of the configuration area. It now contains the added type 1 sensors.

8.5.3 Edit sensor type 1

ⓘ Note

Table sorting

Click in the individual columns of the header to sort the table rows in ascending or descending order. A small black arrow marks the column by which the rows are currently sorted.

Name

To change the name, double-click in the corresponding table cell. The area changes into an input field in which you can enter the required name.

Press the [Return] button on your keyboard. The following table entry is selected, and you can edit the entry.

Address/Adr

To enter or change an address for a sensor type 1 or 2, double-click in the corresponding table cell or click in the **[Adr]** input field within the icon.

Serial number

To enter or change the serial number, double-click in the corresponding cell. The area changes into an input field in which you can enter the serial number.

8.5.4 Locate sensor type 1

To assign a suitable name to a device, the device must be located at the installation location.

✓ You are in the ”START” tab.

✓ You are in the ”Addressing” view.

1. If necessary, switch to the register within the configuration area for the correct device type (sensor type 1 or 2).
2. On the menu ribbon, click **[Locate Start]**.
3. Click a device in the list to select it.
   ⇨ The device emits a signal so that you can identify it and assign it an appropriate name.
4. Rename the device.
   ⇨ Press the [Return] key on your keyboard to select and rename the following list entry.
5. Go through the devices individually and assign the names.
6. To finish, click **[Locate Stop]** in the menu ribbon.

⇨ Localization is completed.

8.6 Configure sensor types 2

8.6.1 Start addressing of sensor type 2

ⓘ Note

Addressing applies to currently selected tab

Addressing is always only performed for the devices of the currently selected tab (control gears, sensors, sensor type 1, sensor type 2), not for all device types at the same time.

ⓘ Note

No mixed operation of DALI-2 sensors and sensor type 1 sensors

Joint operation of DALI-2 sensors and sensor type 1 sensors can lead to unwanted results. Operation of these sensors in mixed mode is therefore not permitted.

ⓘ Note

“Physical Addressing” option for pushbutton couplers only

Physical addressing is only possible for sensor type 2 when no MSensors are connected!

✓ You are in the ”Addressing” view.
✓ You are in the ”START” tab.
✓ You are in the configuration area on the ”Sensor Type 2” tab.

1. In the ”Addressing” section, select between the ”Random Addressing” and ”Physical Addressing” entries in the selection field.
   ⇨ For a description of the buttons, see “Addressing” Menu Ribbon Section [▶ 60].
2. Click the **[Start]** button in the ”Addressing” section.
   ⇨ A dialog appears.
   ⇨ For a description of the buttons, see “Addressing” Menu Ribbon Section [▶ 60].
3. Click the **[Yes]** button to confirm the dialog.
   ⇨ The detected devices are listed in the configuration area in the ”Sensor Type 2” tab.
   The tree structure can also be expanded in the left part of the configuration area. It also contains a list of detected devices.

⇨ Addressing can be performed.

8.6.2 Add sensor type 2

In the case of offline configuration, required sensor types 2 can also be created manually via the context menu.

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Sensor Type 2” tab.

1. Right-click in the configuration area.
   ⇨ A context menu opens.
2. In the context menu, select the item **[Add device(s)]** > **[Add]** push**[-button coupler]** or **[Add multi-sensor]**.
   ⇨ The corresponding dialog appears.
3. Enter the required number of push-button couplers or enter sensor couplers in the selection field and click **[OK]** to confirm your selection.

⇨ The created sensor types 2 are listed in a table on the ”Sensor Type 2” tab.

The table contains the following information.
- Name
- Path
- Address (input field ”Adr” within the pictograms)
- Serial number

You can edit the ”Name,” ”Address” and ”Serial Number” entries by double-clicking in the respective table cell.

The tree structure can be expanded in the topology tree on the left side of the configuration area. It now contains the added type 1 sensors.

8.6.3 Edit sensor type 2

ⓘ Note

Table sorting

Click in the individual columns of the header to sort the table rows in ascending or descending order. A small black arrow marks the column by which the rows are currently sorted.

Name

To change the name, double-click in the corresponding table cell. The area changes into an input field in which you can enter the required name.

Press the [Return] button on your keyboard. The following table entry is selected, and you can edit the entry.

Address/Adr

To enter or change an address for a sensor type 1 or 2, double-click in the corresponding table cell or click in the **[Adr]** input field within the icon.

Serial number

To enter or change the serial number, double-click in the corresponding cell. The area changes into an input field in which you can enter the serial number.

8.6.4 Locate sensor type 2

To assign a suitable name to a device, the device must be located at the installation location.

✓ You are in the ”START” tab.

✓ You are in the ”Addressing” view.

1. If necessary, switch to the register within the configuration area for the correct device type (sensor type 1 or 2).
2. On the menu ribbon, click **[Locate Start]**.
3. Click a device in the list to select it.
   ⇨ The device emits a signal so that you can identify it and assign it an appropriate name.
4. Rename the device.
   ⇨ Press the [Return] key on your keyboard to select and rename the following list entry.
5. Go through the devices individually and assign the names.
6. To finish, click **[Locate Stop]** in the menu ribbon.

⇨ Localization is completed.

8.7 Generate Project Documentation

✓ You are in the ”FILE” tab.

1. Click **[Export]**.

   ⇨ The associated Backstage view is shown.

2. In the **PDF** area, select whether the report for the current project (“Selected I/O Module”) or the entire solution with all connected DALI Multi-Masters (“All”) should be created.

3. Click **[Save as PDF]**.

   ⇨ The ”Save Report” dialog appears.

4. Enter the required storage location and file name of the PDF file and click the **[Save]** button to confirm the dialog.

   ⇨ The PDF file is generated.

⇨ The project documentation is generated.

8.8 Set Cyclic Control Gear Query and Save Project

✓ You are in the ”MODULE SETTINGS” tab.

1. Select the **[Enable Cyclic Control Gear Query]** checkbox.
2. If necessary, change the value in the ”Control Gear Query Interval [s]” input field.
3. In the ”Actions” section of the menu ribbon, click **[Write]**.
4. Click the icon to save the configuration () in the Quick Access Toolbar.

   ⇨ The ”Save Configuration” dialog appears.

5. Assign a file name and confirm your entry by clicking **[Save]**.

⇨ The cyclic control gear query is set and the project is saved.

8.9 Query Device Status

✓ You are in the ”DIAGNOSTICS” tab.

1. In the ”Actions” section of the menu ribbon, click **[Status Query]**.

   ⇨ For the DALI Multi-Master Module currently selected, all connected devices are listed in the table on the right with their associated device status.

2. In the Actions section of the menu ribbon, click **[Status Report]** to create a snapshot of the current status as a CSV file.

   ⇨ The ”Save As” dialog appears.

3. Enter the required storage location and name of the CSV file.
4. Click **[Save]** to confirm the dialog.

   ⇨ After saving, the created file can be opened externally, for example as an Excel table.

⇨ The device status was queried.

8.10 Diagnosing Devices

8.10.1 Update Diagnostic Information

Use the topology tree on the left to select the DALI Multi-Master Module for which you want to display the list of all connected devices. Multiple selection is possible.

✓ You are in the ”DIAGNOSTICS” tab.

1. Select the required DALI Multi-Master Module by clicking it.
2. In the menu ribbon, click **[Status Query]**.

⇨ For the DALI Multi-Master Module currently selected, all connected devices are listed in the table on the right with their associated device status.

Name	Path	Address	NA	ON	DF	LF	LE	DA	AM	Value
ECG1	New Line\Room 1\	0		✓						10,1 %
ECG2	New Line\Room 1\	1		✓						10,1 %
ECG3	New Line\Room 1\	2		✓						10,1 %
ECG4	New Line\Room 1\	3		✓						50,5 %
ECG5	New Line\Room 2\	4		✓						87,2 %
ECG6	New Line\Room 2\	5		✓						76,1 %
ECG7	New Line\Room 2\	6		✓						66,4 %
ECG8	New Line\Room 2\	7		✓						54,8 %
Multi Sensor Room 1 - Light Sensor	New Line\Room 1\Multi Sensor Room 1\	1							✓	56,00 lx
Multi Sensor Room 1 - Presence Detector	New Line\Room 1\Multi Sensor Room 1\	2							✓	
Multi Sensor Room 1 - Remote Control	New Line\Room 1\Multi Sensor Room 1\	3							✓	
Push Button Room 1	New Line\Room 1\	0								

NA: Not Available DF: Device Failure LE: Limit Error AM: Sensor in Active Mode

ON: Lamp is On LF: Lamp Failure DA: Double Address / Undefined Answer

Figure 25: “DIAGNOSTICS” Tab: Section Configuration Area - Connected Devices with their Associated Device Status

8.10.2 Generate Status Report

You have the option of creating a diagnostic report of the connected DALI network devices as a CSV file.

✓ You are in the ”DIAGNOSTICS” tab.

1. In the menu ribbon, click **[Status Report]**.

   ⇨ The ”**Save As**” dialog opens.
2. Enter the required storage location and name of the CSV file.
3. Click **[Save]** to confirm the dialog.

⇨ The status report has been created.
The created file can be opened, e.g., as an Excel table.

8.10.3 Light Operating Hours

8.10.3.1 Reset Operating Hours

The operating hours counted in the last ”Operating Hours” column can be reset to ”0.”

✓ You are in the ”DIAGNOSTICS” tab.

1. Click the respective device whose operating hours you want to reset.
2. On the menu ribbon, click **[Reset Operating Hours]**.

⇨ The operating hours for the selected device have been reset.

8.10.3.2 Set Operating Hours

ⓘ Note

Logging operating hours depends on firmware

Table cell editing is only possible for DALI Multi-Master Modules with firmware version 4 or higher, and only when this function has been unlocked by selecting the **[Set Operating Hours]** checkbox.
For I/O modules with a firmware version lower than 4, the function is disabled and the respective checkbox grayed out.

ⓘ Note

A short address is required to write operating hours

Operating hours are written by entering the required value in the respective table cell of the ”DIAGNOSTICS” tab. The device in question must have a short address; otherwise, an error message is displayed.

For DALI Multi-Master Modules with firmware 4 or higher, you can write operating hours, e.g., for applications where an ECG is replaced, but the lighting continues to be used.

✓ You are in the ”DIAGNOSTICS” tab.

✓ The device in question has a short address.

- On the menu ribbon, select the**[“Set Operating Hours”]** checkbox.

  ⇨ This unlocks the table cells.

⇨ You can edit the table cell entry.

8.11 Setting up Building/Room Structure

1. Right-click in the topology tree structure.
2. Select the submenu item **[Add New Area]**.
3. Right-click the newly created **[New Area]** entry.
4. Select **[Rename]** from the context menu.

   ⇨ The selected area changes into an input field.

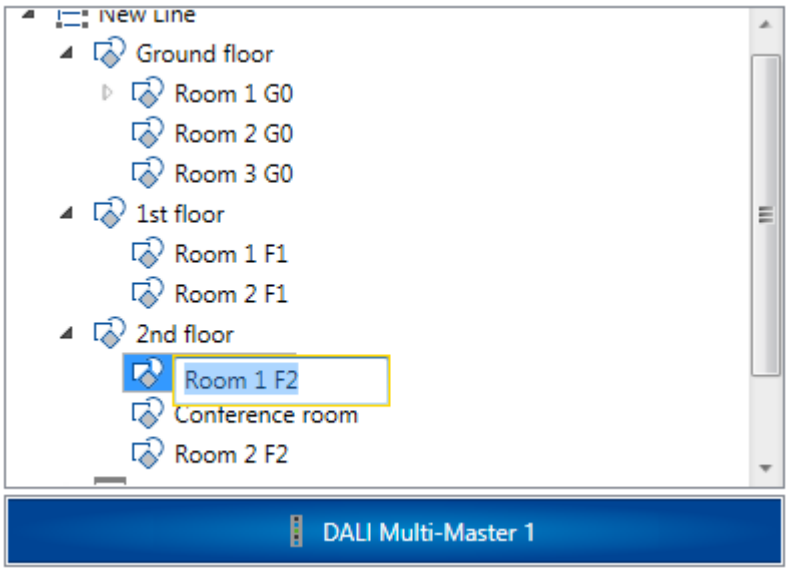


Figure 26: Topology Tree: Set Up Tree Structure – Area Becomes Input Field

5. Enter a descriptive name for the tree level, e.g., ”Level 1.”
   ⇨ **Note:** To create a sublevel (e.g., ”Room 1”) for this ”Level 1” tree level, the ”Level 1” level must be marked. In contrast, to create another level of the same type (e.g., ”Level 2”), the higher-level must be marked.
6. Repeat this procedure until you have created the required building/room structure.

⇨ The building/room structure is set up.

8.12 Assign Groups

If you have dragged a device into a group in the group tree, an arrow is displayed to the left of the respective group tree entry. You can click on the arrow to expand the devices assigned to the respective group.

8.13 Assigning Scenes

✓ You are in the ”START” tab.

✓ You are in the ”Groups and Scenes” view.

1. Drag a device or a group of devices into a scene in the scene tree.
   ⇨ The ”Set Values” dialog for setting the dimming value is displayed.

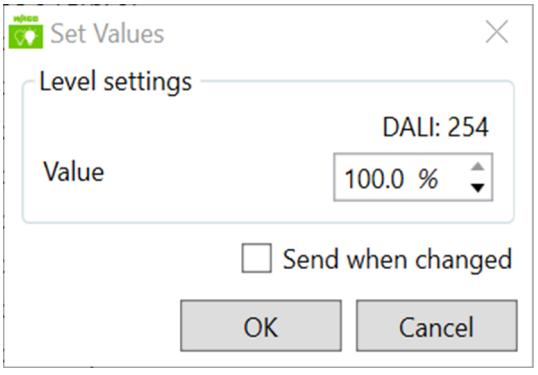


Figure 27: “Set Values” Dialog (Example 1: Dimming Value)

2. Select a value from the selection field or enter a value.
3. Select the **[Send on change]** checkbox.
4. Click **[OK]** to confirm the entries.
   ⇨ The dialog closes and an arrow appears to the left of the scene tree entry. You can click on the arrow to expand the devices assigned to the respective scene. The specified dimming value of a device follows in square brackets.

⇨ The dimming value is set.

Extended setting options for operating devices (type 8)

ⓘ Note

Special Features at RGBWAF

A scene can have a preset for all color contents, or only for individual color channels. If a channel is disabled in the scene (MASK), then this color channel does not change when the scene is called up.
A device with RGBWAF support may only support a content of the color channels, e.g., RGBW without A and F.
Learn more about the devices you are using.

For some devices (operating devices type 8), you can also set the color value (xy or RGBWAF) and color temperature (Tc).

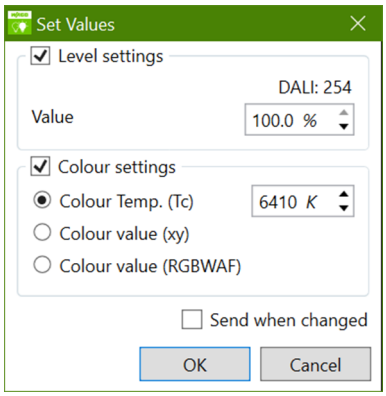


Figure 28: "Set Values" Dialog with Extension for Color Setting

The color values for color value (xy) and color value (RGBWAF) can be selected from a displayed color palette.

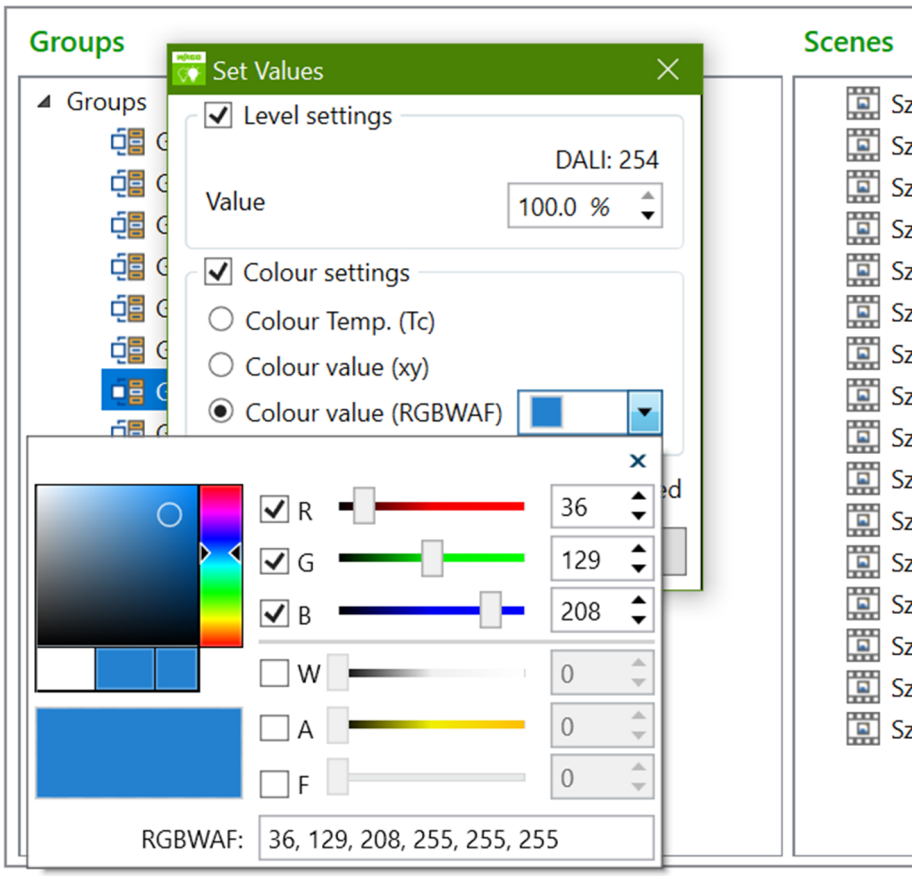


Figure 29: “Set Values” Dialog: Color Palette for Selecting a Color Value (for Type 8 Control Gears)

When a scene is called up, only those parameters are affected that are enabled in the “Set Values” dialog. For example, if the ”Dimming Value Settings” are disabled (DALI: MASK), only the color setting changes when the scene is called up. The dimming value of the connected devices remains unchanged.

If ”Color Settings” is enabled, it is also possible to specify a color as a color temperature (Tc), color value (xy) or color value (RGBWAF) and send it to the bus (provided the connected DALI devices are supported accordingly).

You can find more information in:

“Color Control (DT8)” Tab [▶ 39]

8.14 Write one memory bank to multiple devices

ⓘ Note

Observe the manufacturer’s documentation!

The specific description for memory banks of individual ECGs/sensors is available in the manufacturer's documentation of the respective ECG/sensor.

Note

The “Lock byte” is not written automatically

A memory bank is initially “read only.” The “Lock byte” is used to (un)lock write access. To allow access to the memory bank, the “Lock byte” must be written first.

1. Select the required value from the ”Write Value” list box.

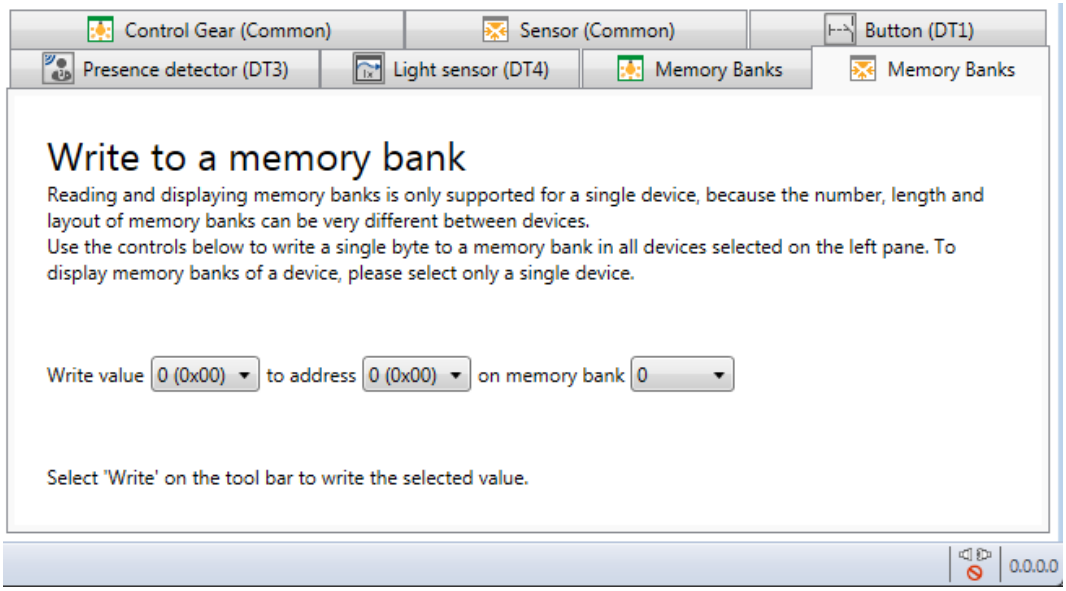


Figure 30: Write Memory Bank, Multiple Devices (Example)

2. Select the relevant address from the ”For Address” list box.
3. Select the required memory bank from the ”on memory bank” list field.
4. Click **[Write]** in the menu ribbon to confirm your selection.

⇨ The memory bank has been written.

8.15 Examples

The following examples provide a sequence with a corresponding order and depth of setting. The examples can be used as orientation and transferred to other applications.

Observe the requirements before each application sequence. These help you to find your way around the user interface, among other things.

8.15.1 Commissioning with Random Addresses (Example Configuration)

8.15.1.1 Establish Connection

Establish a connection to the DALI Multi-Master Module according to the instructions in Establishing a Connection [▶ 67].

8.15.1.2 Address Control Gears (ECG)

✓ You are in the ”START” tab.

✓ You are in the ”Addressing” view.

✓ You are in the configuration area on the ”Control Gears” tab.

1. If applicable, clear the checkbox in the ”Addressing” section of the menu ribbon in the **[Only Unaddressed Devices]** box.
2. Select the **[Random Addressing]** entry in the ”Addressing” section of the menu ribbon selection field.
3. In the ”Addressing” section of the menu ribbon, click **[Start]**.
   ⇨ A dialog with the question ”Do you want to start addressing with the following settings?” appears.
4. Click **[Yes]** to confirm the dialog.
   ⇨ The control gears found are listed.
5. In the ”DALI Network” section of the menu ribbon, click **[Locate Start]**.
6. Double-click the first table cell and rename the control gear as required.
   ⇨ Press the [Return] button on your keyboard to confirm your entry. The next table cell is selected for editing.
7. Rename the remaining control gears in the table.
8. In the ”DALI Network” section of the menu ribbon, click **[Locate Stop]** to end the operation.

⇨ The control gears are addressed.

You can find more information in:

Start addressing of control gears [▶ 68]

See also

Configuring Control Gears (ECGs) [▶ 68]

8.15.1.3 Create Room Structure

Create a room structure according to the instructions in **Setting up Building/Room Structure [▶ 83]**.

8.15.1.4 Assign Lighting Group

✓ You are in the ”START” tab.

✓ You are in the ”Groups and Scenes” view.

1. Drag a required area from the room structure in the topology area to a group of the group tree in the configuration area.
2. Right-click on the respective DALI group (virtual group).
3. Select the **[Rename]** item in the context menu.
4. Assign a suitable name, e.g., ”Group Room 1.”
5. Do the same with the remaining areas.

⇨ The lighting group(s) is/are assigned.

8.15.1.5 Assign Light Scene

✓ You are in the ”START” tab.

✓ You are in the ”Groups and Scenes” view.

1. Drag a required group from the list of "Groups" to a scene of the scene tree.
   ⇨ The ”Set Scene Value” dialog appears.
2. Enter a value for the dimming value setting (%).
3. Select the **[Send on change]** checkbox.
4. Click **[OK]** to confirm the entries.
5. Expand the edited scene by clicking the arrow next to the scene. The same dimming value is specified for all control gears in the scene.
6. To edit the dimming value setting of individual control gears, right-click the control gear and select **[Set scene value]"** item in the context menu.
   ⇨ The ”Set Scene Value” dialog appears again, but this time only affects the currently selected control gear.
7. Change the dimming value of the individual control gears as required.
8. Right-click on the scene and select the **[Rename]** item in the context menu to rename a scene, e.g., to ”Beamer” or ”Presentation.”

⇨ The light scene(s) is/are assigned.

You can find more information in:

Assigning Scenes [▶ 84]

8.15.1.6 Configuring Control Gears (ECGs)

✓ You are in the ”START” tab.
✓ You are in the ”Configuration” view.

1. First, make sure that the required area is selected in the topology tree.
2. Edit the table entries under the ”Control Gear (ECG) (General)” tab (see **“Control Gear (ECG) (General)” Tab [▶ 35]**).
3. In the ”Actions” section of the menu ribbon, click **[Write]** to transfer the changes made to the DALI Multi-Master Module.

⇨ The control gears are configured.

You can find more information in:

Edit Control Gears (ECGs) [▶ 69]

8.15.1.7 Address and Assign Sensors

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.

1. Select the corresponding tab for the required device type, e.g., ”Sensors.”
2. In the ”Addressing” section of the menu ribbon, click **[Start]**.
   ⇨ A dialog with the question ”Do you want to start addressing with the following settings?” appears.
3. Click **[Yes]** to confirm the dialog.
   ⇨ The control gears found are listed.
4. Double-click in the first table row and name the sensor as required.
5. Rename the remaining sensors in the table.

6. In the ”DALI Network” section of the menu ribbon, click **[Locate Start]**.
7. In the ”DALI Network” section of the menu ribbon, click **[Locate Stop]** to end the operation.

   ⇨ The sensors are also listed in the topology tree.
8. Distribute the sensors to the areas as needed.

⇨ The sensors are addressed and assigned.

8.15.1.8 Configuring Sensors

✓ You are in the ”START” tab.
✓ You are in the ”Configuration” view.
✓ The required sensor is marked in the topology tree.

- In the ”Actions” section of the menu ribbon, click **[Write]** to transfer the changes made to the DALI Multi-Master Module.

⇨ The sensors are configured.

You can find more information in:

Configuring Sensors [▶ 71]

8.15.1.9 Query Device Status

Check the device status and, if necessary, create a status report according to the instructions at **Query Device Status [▶ 81]**.

8.15.1.10 Generate Project Documentation

Generate the project documentation according to the instructions at **Generate Project Documentation [▶ 80]**.

8.15.1.11 Set Cyclic Control Gear Query and Save Project

Enable the cyclic control gear query and save the project as described in the instructions **Set Cyclic Control Gear Query and Save Project [▶ 81]**.

8.15.2 Commission with Specified Addresses (Example Configuration)

8.15.2.1 Establish Connection

Establish a connection to the DALI Multi-Master Module according to the instructions in **Establishing a Connection [▶ 67]**.

8.15.2.2 Create Room Structure

Create a room structure according to the instructions in **Setting up Building/Room Structure [▶ 83]**.

8.15.2.3 Create Control Gears (ECGs)

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Control Gears” tab.

1. Create the required number of control gears.
2. Configure the name by double-clicking in the first table cell. You can also configure the planned address and the type of respective control gear according to your project requirements.
   ⇨ Press the [Return] button on your keyboard to confirm your entry. The next table cell is selected for editing.
3. Distribute the control gears to the areas in the topology tree as required by dragging & dropping each control gear to the respective area.

⇨ The control gears are created.

You can find more information in:

Adding Control Gears (ECGs) [▶ 68]

8.15.2.4 Address Control Gears (ECG)

✓ You are in the ”START” tab.
✓ You are in the ”Addressing” view.
✓ You are in the configuration area on the ”Control Gears” tab.

1. If applicable, clear the checkbox in the ”Addressing” section of the menu ribbon in the **[Only Unaddressed Devices]** box.
2. Select the **[Random Addressing]** entry in the ”Addressing” section of the menu ribbon selection field.
3. In the ”Addressing” section of the menu ribbon, click **[Start]**.
   ⇨ A dialog with the question ”Do you want to start addressing with the following settings?” appears.
4. Click **[Yes]** to confirm the dialog.
   ⇨ The control gears found are listed.
5. In the ”DALI Network” section of the menu ribbon, click **[Locate Start]**.
6. Double-click the first table cell and rename the control gear as required.
   ⇨ Press the [Return] button on your keyboard to confirm your entry. The next table cell is selected for editing.
7. Rename the remaining control gears in the table.
8. In the ”DALI Network” section of the menu ribbon, click **[Write]** to transfer the address changes made to the devices.

⇨ The control gears are addressed.

You can find more information in:

Configuring Control Gears (ECGs) [▶ 68]

See also

Configuring Control Gears (ECGs) [▶ 68]

8.15.2.5 Assign Lighting Group

✓ You are in the ”START” tab.
✓ You are in the ”Groups and Scenes” view.

1. Drag a required area from the room structure in the topology tree to a group of the group tree in the configuration area.
2. Right-click on the respective group.
3. Select the **[Rename]** item in the context menu.
4. Assign a suitable name, e.g., ”Group Room 1.”
5. Do the same with the remaining areas.

⇨ The lighting group(s) is/are assigned.

You can find more information in:

Assign Groups [▶ 84]

8.15.2.6 Assign Light Scene

✓ You are in the ”START” tab.

✓ You are in the ”Groups and Scenes” view.

1. Drag a required group from the list of "Groups" to a scene of the scene tree.

   ⇨ The ”Set Scene Value” dialog appears.
2. Enter a value for the dimming value setting (%).
3. Select the **[Send on change]** checkbox.
4. Click **[OK]** to confirm the entries.
5. Expand the edited scene by clicking the arrow next to the scene. The same dimming value is specified for all control gears in the scene.
6. To edit the dimming value setting of individual control gears, right-click the control gear and select **[Set scene value]**" item in the context menu.

   ⇨ The ”Set Scene Value” dialog appears again, but this time only affects the currently selected control gear.
7. Change the dimming value of the individual control gears as required.
8. Right-click on the scene and select the **[Rename]** item in the context menu to rename a scene, e.g., to ”Beamer” or ”Presentation.”

⇨ The light scene(s) is/are assigned.

You can find more information in:

Assigning Scenes [▶ 84]

8.15.2.7 Configuring Control Gears (ECGs)

✓ You are in the ”START” tab.

✓ You are in the ”Configuration” view.

1. First, make sure that the required area is selected in the topology tree.
2. Edit the table entries under the ”Control Gear (ECG) (General)” tab (see **“Control Gear (ECG) (General)” Tab [▶ 35]**).
3. In the ”Actions” section of the menu ribbon, click **[Write]** to transfer the changes made to the DALI Multi-Master Module.

⇨ The control gears are configured.

You can find more information in:

Edit Control Gears (ECGs) [▶ 69]

8.15.2.8 Create Sensors (DALI-2)

✓ You are in the ”START” tab.

✓ You are in the ”Addressing” view.

1. Select the corresponding tab, e.g., ”Sensors.”
2. Create the required number of sensors (DALI-2).
3. Configure the name by double-clicking in the first table cell. You can also configure the planned address and the type of respective sensors according to your project requirements.

   ⇨ Press the [Return] button on your keyboard to confirm your entry. The next table cell is selected for editing.
4. Distribute the sensors to the areas in the topology tree as required by dragging & dropping each sensor to the respective area.

⇨ The sensors are created.

You can find more information in:

Add Sensors [▶ 72]

Add sensor type 1 [▶ 77]

Add sensor type 2 [▶ 79]

8.15.2.9 Address Sensors (DALI-2)

✓ You are in the ”START” tab.

✓ You are in the ”Addressing” view.

1. Select the corresponding tab, e.g., ”Sensors.”
2. In the ”Addressing” section, click **[Start]**.

   ⇨ A dialog with the question ”Do you want to start addressing with the following settings?” appears.
3. Click **[Yes]** to confirm the dialog.

   ⇨ The detected devices are listed in the configuration area in the ”Sensors” tab. The tree structure can also be expanded in the left part of the configuration area. It also contains a list of detected ECGs.
4. In the ”Device Address” table cell for the respective sensor, double-click to assign the planned address to the identified devices.

   ⇨ Adapt the device address to the planned address.
5. Repeat the address adjustment for all control gears.
6. In the ”Actions” section of the menu ribbon, click **[Write]** to transfer the address changes made to the devices.

⇨ The sensors are addressed.

You can find more information in:

Start addressing of sensors [▶ 71]

Start addressing sensor type 1 [▶ 76]

Start addressing of sensor type 2 [▶ 78]

8.15.2.10 Configuring Sensors

✓ You are in the ”START” tab.

✓ You are in the ”Configuration” view.

✓ The required sensor is marked in the topology tree.

- In the ”Actions” section of the menu ribbon, click **[Write]** to transfer the changes made to the DALI Multi-Master Module.

⇨ The sensors are configured.

You can find more information in:

Configuring Sensors [▶ 71]

8.15.2.11 Query Device Status

Check the device status and, if necessary, create a status report according to the instructions at Query Device Status [▶ 81].

8.15.2.12 Generate Project Documentation

Generate the project documentation according to the instructions at Generate Project Documentation [▶ 80].

8.15.2.13 Set Cyclic Control Gear Query and Save Project

Enable the cyclic control gear query and save the project as described in the instructions Set Cyclic Control Gear Query and Save Project [▶ 81].

8.15.3 Example Use for the ”Behavior after Short Circuit” Function

Using the ”Behavior after short circuit” function (also ”Construction site function”) can also be helpful before initial commissioning, e.g., to switch off the lighting at a construction site overnight:

1. Make sure that the ”Central OFF” function is selected in the ”Behavior after Short Circuit” selection field (factory setting).
2. Connect a button between the two DALI bus lines to short circuit the DALI bus.
3. Make sure that the “Lamp Output on System Failure” (System failure level) for the ECGs lies between 1 and 254 (default setting: 254, i.e., 100 %).
4. Perform a short circuit within a time window of 3 … 7 seconds.

⇨ The “OFF” command is sent as a broadcast and all ECGs and lights are switched off simultaneously.

9 Appendix

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Glossary

Auto-replace function

In the event that exactly one device is defective and is replaced by an unaddressed device, the “Replace” function automatically assigns the old short address of the previous device to the new device and subsequently restores the settings for the device using the data stored in the I/O module database.

Control Device

German designation for ”Control Device”

Control Device

“Control Device” is the IEC designation for a control device and includes both DALI (Multi)-Master and active sensors.

Control Gear

“Control Gear” is the abbreviation for the English name: ”Electronic Control Gear”, or ”ECG” for short. The German term is “elektronisches Vorschaltgerät” (EVG).

Control Gear

Control gears are found in DALI networks as one or more components between the power supply and one or more lamps. They are used to supply power to the lighting and for their DALI communication. The control gears provide the switch-on voltage and warm-up current for the lamps to prevent a cold start, thus enhancing the power factor and reducing electromagnetic interference.

DALI

DALI (Digital Addressable Lighting Interface) is a protocol for control of lighting control gears in building automation, such as power supplies (“electronic transformers”), electronic control gears (ECGs) and electronic dimmers. The individual specifications are described in the IEC 62386 series of standards.

DALI-2

DALI-2 (Digital Addressable Lighting Interface Edition 2) DALI-2 is a further development of the IEC 62386 series of standards that adapts the structure of the individual parts of the standards, distinguishes between the electrical and functional requirements on the control gears and sets the requirements on the sensors in order to achieve a higher level of interoperability for backwards compatibility with existing DALI installations.

Easy Mode

In ”Easy Mode,” connected DALI devices are represented in binary form on the process image with two bits each. These two bits correspond to the button functions (ON/OFF, DIMMING) and are implemented in the DALI Multi-Master Module (753-647). The status is queried in cycles. “Easy Mode” is implemented in the firmware using modules.

ECG

Electronic control gear; see also ”Control Gear”

Full Mode

In ”full mode,” switching commands are specified by a higher-level controller via a PLC application. Transmission within the I/O module takes place via the module-internal mailbox. Querying of process data is acyclic. The ”full mode” is implemented using modules in WAGO-I/O-PRO.

IEC 62386

“IEC 62386” (“Digitally addressable interface for lighting”; German version DIN EN 62386: “Digital adressierbare Schnittstelle für die Beleuchtung”) is a series of standards that defines details specific to DALI. The series of standards is processed by the IEC subcommittee SC 34C and consists of different sections.

Multi-Master

In a “multi-master,” control of the intelligent measuring and automation devices on the fieldbus is performed locally, in contrast to a master/slave system. WAGO's DALI Multi-Master Module (753-647) is a ”Multi-Master Module” that supports the DALI interface and can use it together with other masters.

Virtual Group

A DALI group is a logical combination of devices to which a common group address is assigned so that these devices execute a common function synchronously. These devices do not necessarily have to be physically linked (e.g., the group for all emergency lighting systems, all hallway lights, etc.). In case the 16 available group addresses (0 ... 15) are not sufficient because further groups are required, an additional 16 virtual groups can be created (with group addresses 17 ... 31). These groups cannot, however, be addressed via a DALI group command, but only one after the other by individual commands from the DALI Multi-Master Module (753-647). A maximum of eight devices may be assigned to each virtual group in order not slow down or impede DALI data exchange on the bus.

WAGO GmbH & Co. KG
Postfach 2880 · D - 32385 Minden
Hansastraße 27 · D - 32423 Minden
✉ **info@wago.com**
www.wago.com

Headquaters	+49 571/887 – 0
Sales	+49 (0) 571/887 – 44 222
Order Service	+49 (0) 571/887 – 44 333
Fax	+49 571/887 – 844169