

Sensors and Controls

DALI XC in MC mode

At a glance



TRIDONIC

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1. Configuration of operating mode "MC"



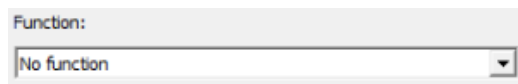
In the MC operating mode, single momentary-action switches and/or double momentary-action switches and/or standard switches can be used to recall programmed functions. These functions are configured via the masterCONFIGURATOR software. The Config rotary selector switch has no function. The DALI XC has four inputs (**T1-T4**). The effective range of the respective input and its function can be set in the tabs T1, T2, T3 and T4.

2. Defining the range

For each of the 4 inputs, different effective ranges can be programmed:

Description	Effective range
All devices on the DALI line will react to a button press, independent of their assigned group or address.	Effective range: <input type="text" value="All"/> <input type="text" value="broadcast"/>
If a button-press occurs, only the assigned group (in this case G0) will react. It is possible to set the effective range for groups from G0 to G15.	Effective range: <input type="text" value="Group"/> <input type="text" value="(G0)"/>
The effective range is set to a specific address. Only the selected address (in this case A0) will react to a button press. The address range can be chosen from A0 to A63.	Effective range: <input type="text" value="Address"/> <input type="text" value="LED (A0)"/>

3. Functions



With the masterCONFIGURATOR software, it is possible to assign one of a total of 7 different functions to each button input. This allows the DALI XC to be used in a wide range of applications with different switches. The following functions are supported by the DALI XC:

- _ Momentary-action switch, S. 4
- _ Changeover switch, S. 5
- _ Standard switch, S. 6
- _ Macro: stairwell function, S. 7
- _ Macro: dynamic scene recall, S. 8
- _ Macro: sequential scene recall, S. 9
- _ Macro: user-defined command sequence, S. 10

3.1. Momentary-action switch

Basic configuration T1 T2 T3 T4 Status

Effective range: All broadcast Function: Momentary-action switch

Configure function

COMMAND X1:

Briefly press momentary-action switch Intensity (DAP) 10 %

Fade time [6] 4 s

COMMAND Y1:

Hold down momentary-action switch Brighten

Fade rate [7] 45 Steps/s

A momentary-action switch is used to switch ON/OFF luminaires, set individual light levels or recall scenes.

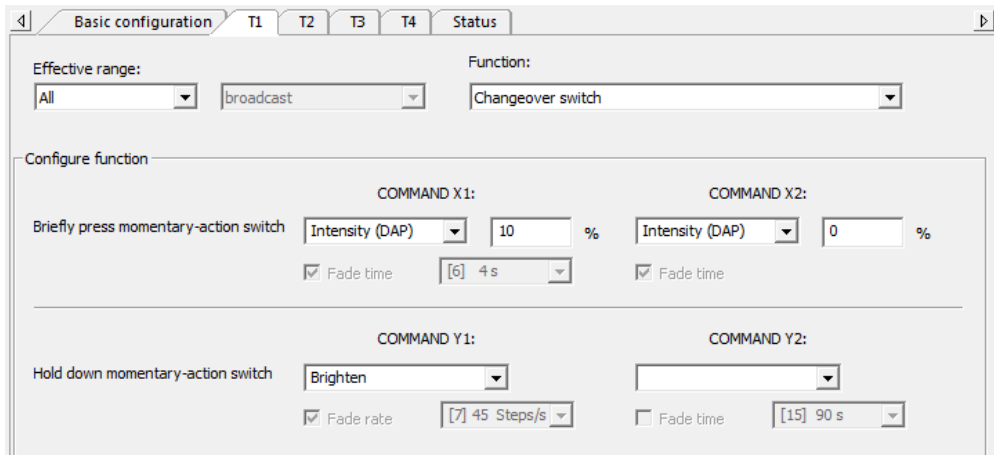
- _ Briefly pressing the momentary-action switch will send command X1 one time.
- _ Holding down the momentary-action switch will send command Y1. The commands are repeatedly sent for as long as the momentary-action switch is held down.

The possible commands which can be sent are described further in the [masterCONFIGURATOR manual](#).

i NOTICE

By the use of certain commands, it is possible to set a fade rate / fade time. It must be considered that the stored fade rate / fade time values in the affected control gear will be overwritten by the commands of the DALI XC if these options remain ticked.

3.2. Changeover switch



Momentary-action switches can be used to switch ON/OFF luminaires, set individual light levels or recall scenes. On each brief press, command X1 and command X2 are sent in alternating sequence.

Each time the momentary-action switch is held down, command Y1 and command Y2 are sent in alternating sequence. The command sent each time depends on the lighting status and is automatically detected by the DALI XC.

Short button-press	1st	2nd	3rd	4th	5th
Command:	X1	X2	X1	X2	...

Long button-press	1st	2nd	3rd	4th	5th
Command:	Y1	Y2	Y1	Y2	...

The possible commands which can be sent are described further in the [masterCONFIGURATOR manual](#).

3.3. Standard switch

Depending on the state of the switch, the DALI XC will send its corresponding command X1 or Y1 onto the DALI line. The possible commands, which can be sent, are described further in the [masterCONFIGURATOR manual](#).

i NOTICE

By the use of certain commands, it is possible to set a fade rate / fade time. It must be considered, that the stored fade rate / fade time values in the affected control gears will be overwritten by the commands of the DALI XC if these options remain ticked.

In the lighting-linked mode, the DALI XC recognizes the status of the lighting installation. A use-case would be a corridor with one DALI XC on each entrance. For example, if the light is switched ON with XC1, XC2 knows that it has to turn the light OFF. The same scheme applies vice versa.

i NOTICE

For each DALI XC in an installation, the lighting-linked mode has to be activated, otherwise the mentioned behaviour does not work as expected.

3.4. Macro: Stairwell function

The screenshot shows the 'Basic configuration' tab for the 'Macro: stairwell function'. The 'Effective range' is set to 'Address' and '(A0)'. The 'Function' is set to 'Macro: stairwell function'. Under 'Configure function', there are two command sections:

- COMMAND X1:**
 - Briefly press momentary-action switch: Intensity (DAP) dropdown, 0 input, % Run-on time: Ignore dropdown.
 - Fade time: [0] schnell/fas dropdown.
- COMMAND Y1:**
 - After run-on time has expired: Intensity (DAP) dropdown, 0 input, %.
 - Fade time: [0] schnell/fas dropdown.

An information icon (i) is present at the bottom left of the configuration area.

A momentary-action switch is pressed in a stairwell, which switches ON the lighting with command X1 and starts the run-on time. If no momentary-action switch or standard switch is pressed during the run-on time, command Y1 is recalled. Possible commands which can be sent are described further in the [masterCONFIGURATOR manual](#).

i NOTE

By the use of certain commands, it is possible to set a fade rate / fade time. It must be considered, that the stored fade rate / fade time values in the affected control gears will be overwritten by the commands of the DALI XC if these options remain ticked.

3.5. Macro: dynamic scene recall

Effective range: Address (A0) Function: Macro: dynamic scene recall

Configure function

Repeat all

	Fade time	Scene	Hold time		Fade time	Scene	Hold time
1	[0] fastest	Scene 0	Ignore	9	[0] fastest	Scene 0	Ignore
2	[0] fastest	Scene 0	Ignore	10	[0] fastest	Scene 0	Ignore
3	[0] fastest	Scene 0	Ignore	11	[0] fastest	Scene 0	Ignore
4	[0] fastest	Scene 0	Ignore	12	[0] fastest	Scene 0	Ignore
5	[0] fastest	Scene 0	Ignore	13	[0] fastest	Scene 0	Ignore
6	[0] fastest	Scene 0	Ignore	14	[0] fastest	Scene 0	Ignore
7	[0] fastest	Scene 0	Ignore	15	[0] fastest	Scene 0	Ignore
8	[0] fastest	Scene 0	Ignore	16	[0] fastest	Scene 0	Ignore

i Briefly pressing the momentary-action switch connected to the input automatically recalls one scene after the next. The fade time and hold time are freely definable for each scene.

A dynamic scene recall can consist of up to 16 scene recalls that are automatically recalled one after the other. The order of scenes can be selected freely. Scenes may occur more than once in a dynamic scene recall.

A fade time and hold time are defined for each scene. A brief press starts the dynamic scene recall and one scene after the other is recalled. If a brief press occurs again, the dynamic scene recall will be interrupted and the last scene recalled remains active. If the momentary-action switch is pressed again, the dynamic scene recall is continued. By holding down the momentary-action switch stops the dynamic scene recall and an OFF command will be sent. Briefly pressing the momentary-action switch again starts the dynamic scene recall again from the start.

3.6. Macro: sequential scene recall

The screenshot shows the configuration window for the 'Macro: sequential scene recall' function. At the top, there are tabs for 'Basic configuration', 'T1', 'T2', 'T3', 'T4', and 'Status'. Below the tabs, the 'Effective range' is set to 'Address' and '(A0)'. The 'Function' is set to 'Macro: sequential scene recall'. The 'Configure function' section contains a grid of checkboxes for scenes 0 through 15, and an 'Off' option. A notice icon is present at the bottom left of the configuration area.

Scene	Scene	Scene	Scene	Scene
1 <input type="checkbox"/> Scene 0	9 <input type="checkbox"/> Scene 8	17 <input type="checkbox"/> Off		
2 <input type="checkbox"/> Scene 1	10 <input type="checkbox"/> Scene 9			
3 <input type="checkbox"/> Scene 2	11 <input type="checkbox"/> Scene 10			
4 <input type="checkbox"/> Scene 3	12 <input type="checkbox"/> Scene 11			
5 <input type="checkbox"/> Scene 4	13 <input type="checkbox"/> Scene 12			
6 <input type="checkbox"/> Scene 5	14 <input type="checkbox"/> Scene 13			
7 <input type="checkbox"/> Scene 6	15 <input type="checkbox"/> Scene 14			
8 <input type="checkbox"/> Scene 7	16 <input type="checkbox"/> Scene 15			

i Every time the momentary-action switch connected to the input is pressed, the next scene is recalled. After the last scene, an off command can be sent for the set effective range if desired. Once all scenes have been recalled, the sequential scene recall starts from the top again. The order of scenes cannot be changed.

Every time a momentary-action switch is pressed, the next scene is recalled. After the last scene, an OFF command can be sent for the set effective range if desired. Once all scenes have been recalled, the sequential scene recall starts from the top again. The order of scenes cannot be changed. The scenes are always recalled in ascending order.

i NOTICE

If another device sends an OFF command to the effective range or to all the control gear connected to the control line, this is interpreted by the DALI XC as an OFF command and the sequential scene recall is stopped. With the next key press, the sequential scene call starts again.

3.7. Macro: user-defined command sequence



With the use of the user-defined command sequence, it is possible to save *.cot files with user-defined commands in the DALI XC. Every time the momentary-action switch is pressed, the user-defined command sequence is recalled. The *.cot file can be created using the command-sequence tab in the masterCONFIGURATOR. More informations about creating a *.cot file can be found in the [masterCONFIGURATOR manual](#).

Note that:

- _ the COT-File must not be longer than 20 commands. If the file exceeds the maximum count of commands, only the first twenty commands are saved in the DALI XC, the remaining get lost.
- _ the effective range (broadcast / group / address) must be defined in the *.cot.
- _ the delay time for sending the commands must be 20 ms. If a different time is defined for sending the commands, the masterCONFIGURATOR software ignores this information and uses 20 ms instead.