KNX DALI Gateway

Technical Manual

KNX DALI Gateway DL101 (1 Channel)	WRKT22245NC
KNX DALI Gateway DL102 (2 Channel)	WRKT22255NC

V 1.1

Panasonic

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3.1 *Updates*

Version	Date	Amendment
1.01	January 2023	Completion of the final release

Table 1

3.2 *Abbreviations*

Abbreviation	Description
DALI	Digital addressing lighting interface
ECG	Electronically controlled ballast
IP	Internet protocol
KNX Object Flags	
C	Communication
R	Reading
W	Writing
T	Transmission
U	Update
Other	
Par.	Parameter
Obj.	Object
LC	Last command
TC	Transmitted Command

Table 2

4 Product

4.1 *General description*

The KNX DALI Gateway product is an interface device that works on lighting control between the KNX bus and the DALI bus in accordance with the DALI-IEC 62386 (DALI-1 / DALI-2) standard. The device allows KNX to manage and monitor ballasts in the DALI bus as individual, group and broadcast. The device has options with 1 or 2 channel DALI outputs and provides energy to the DALI bus with the internal DALI power supply. Therefore, it is not allowed to connect an external DALI power supply to the DALI line. User and manager level operations can be performed and various warnings and device information can be accessed with the button, LED and segment interface on the device. The device has 2 isolated relay outputs and these outputs can be used in various applications. The device also has an Ethernet port and can be mounted on a DIN rail.

4.2 *Key features*

- For each DALI channel, 64 ballasts, 16 groups, 16 scenarios and broadcast control
- Stair lighting, night, panic and preparation mode controls for each DALI ballast and group via KNX
- Fault monitoring of DALI ballasts via KNX
- Automatic addressing of ballasts on the DALI line
- Manual control and monitoring of ballasts in DALI line via user interface
- DALI power supply capability
- Software update via Ethernet

4.3 *Technical information*

WORKING VOLTAGE		
Supply voltage	230 V AC, 50/60 Hz	
Power consumption (mains)	Max 8W (230 V AC and max. load) (for 1 channel) Max 12W (230 V AC and max. load) (for 2 channel)	
DALI		
Number of DALI outputs	1 channel	2 channel
Number of DALI devices	Up to 64 ballasts per outlet	
Protection	Short circuit, Overload, Over voltage (230 V AC)	
DALI voltage No-load voltage Maximum supply current Guaranteed supply current	 18 V DC 250 mA 230 mA	 18 V DC 2x250 mA 2x190 mA
	DALI control voltage, (FELV).	
DALI cable lengths (for copper wire)	- 2.5 mm² max 300 m - 1.5 mm² max 300 m - 1.0 mm² max 224 m - 0.75 mm² max 168 m - 0.5 mm² max 112 m	
DALI transmission rate	1200 bit / s	
KNX		
KNX voltage	DC 21...32 V (SELV)	
KNX current consumption	<5 mA	
KNX connection type	TP1	
Configuration mode	S-Mode	
IP		
Connection speed	10/100 Mbits	
RELAY OUTPUTS		
Output contact 1	1 N/O, 2A-277V AC Resistive, 2A 30V DC	
Output contact 2	1 N/O, 2A-277V AC Resistive, 2A 30V DC	
BUTTONS AND INDICATORS		
Control buttons	< , SET , > , ESC (Total 4 buttons)	
Display and LED indicators	MENU, STATUS 1/2, IP LINK/TRAFFIC, KNX PROG., A, B (only on 2 channels) - Total 6 LED indicators 3 Digit 7-Segment LED Display	
ENVIRONMENTAL CONDITIONS		
Protection type (IEC60529)	IP20	
Protection class (IEC61140)	II	
Insulation category	Overvoltage category III (IEC60664) Pollution degree 2 (IEC60664)	
Temperature range	Operation -5...+45 °C Storage -10...+55 °C Transportation -25...+70 °C	
Humidity range	5...93% (non-condensing)	
MECHANICAL DESIGN		
Dimensions (HxExD)	90mmx71.8mmx65.8mm	
Mounting (IEC60715)	35 mm top-hat ray (TH35)	
Mounting width	DIN ray 72mm (4 module)	
KNX line connection	KNX connector (243-211 Wago)	
IP connector	Ethernet (RJ45, female)	

Connection type (Power/Relay/DALI)	Screw terminal Single wire cable cross-section: 1,5mm²… 4mm² or 2x1,5mm²… 2x2,5mm² Multi-stranded cable cross-section when using a cable ring: 0,75mm²…4mm² Multi-stranded cable cross-section when no cable ring is used: 0,5mm²…2,5mm²
Weight	0.22 kg
STANDARDS	
Product	EN 62386 (DALI), EN 50090 (KNX)
EMC	EN 50428 / EN 60669-2-5
LVD	EN60669-1, EN 60669-2-1, EN 50428 / EN 60669-2-5

Table 3

4.4 *Versions*

Product Code	WRKT22245NC	WRKT22255NC
DALI Channel Number	1	2
Number of Relay Outputs	2	2

Table 4

4.5 *Measurements*

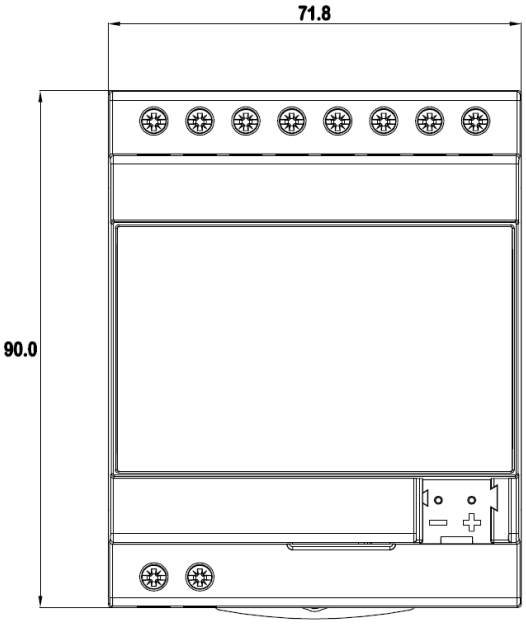


Figure 1 : Width and Height

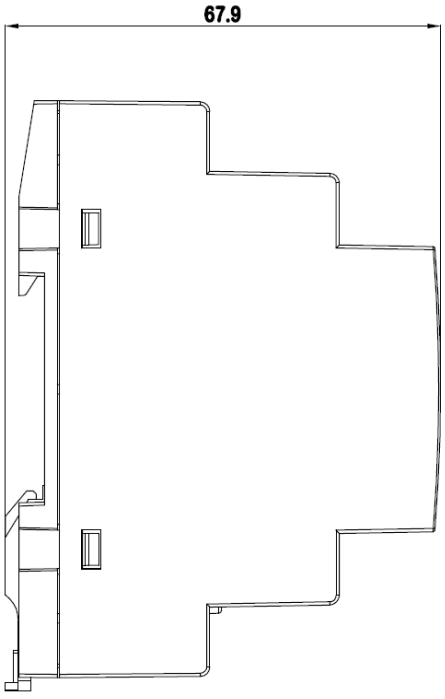


Figure 2 : Depth

4.6 *Behaviors*

- Factory Settings
  In the delivered state, the Device is set so that the ETS application is removed, manual control is enabled and only DALI broadcast control is available until DALI is commissioned. For the first test of the DALI bus, limited DALI commissioning can be performed in manual control. The device may be delivered with the old software version. Please check our website for the latest firmware and update steps.

- ETS programming
  The user can determine the behavior of the device and after programming it with ETS, it can be made to work in harmony with other devices in the KNX line. The behavior of the device after programming with ETS depends on the configuration. A description of the properties, parameters and objects can be found in the device reference manual.

- Manual control
  Manual control is available in the factory default settings. If desired, it can be deactivated with parameters via ETS. Information about the device, the ballasts in the DALI line, control, fault status and similar operations can be done through manual control. Press "[SET]" for 5 seconds to enter manual control mode. The MENU LED will light and the display will show the user menu information. Detailed information about the user menu can be found in the reference manual.

5 KNX catalog information

Manufacturer	Panasonic
Product family	Gateways
Product type	DALI Gateway
Product name	DALI Gateway DL101 DALI Gateway DL102

Table 5

6 KNX objects summary table

No	Name	Function	Length	Data Type	Flags				
					C	R	W	T	U
1	General	Device Status	1bit	1.011 state	c		w		u
2	General	Device Status Feedback	1bit	1.011 state	c	r		t	
3	General	Device In Operation	1bit	1.017 trigger	c	r		t	
4	General	Device In Startup	1bit	1.017 trigger	c	r		t	
5	General	Device Supply Voltage Fault	1bit	1.005 alarm	c	r		t	
6	General	Acknowledge Device Supply Voltage Fault	1bit	1.016 acknowledge	c		w		u
8	General	Date Time Query	1bit	1.017 trigger	c			t	
9	General	Date/Time Date	8byte 3byte	19.001 date time 11.001 date	c		w		u
10	General	Time	3byte	10.001 timeofday	c		w		u
11	General	Relay 1 Control	1bit	1.001 switch	c		w		u
12	General	Relay 2 Control	1bit	1.001 switch	c		w		u
13	User Menu	Menu State Feedback	1byte	20.xxx eNumeration Custom DPT	c	r		t	
14	User Menu	Manual Operation Menu	1bit	1.003 enable	c		w		u
15	User Menu	Information Menu	1bit	1.003 enable	c		w		u
16	User Menu	Emergency Test Menu	1bit	1.003 enable	c		w		u
17	DALI Channel A General	Auto Device Replacement	1bit	1.010 start	c		w		u
18	DALI Channel A General	Manual Device Replacement Short Address	1byte	5.xxx Unsigned Custom DPT	c		w		u
19	DALI Channel A General	Device Replacement Status	1byte	20.xxx eNumeration Custom DPT	c	r		t	
20	DALI Channel A General	Burn-in Mode	1bit	1.010 start	c		w		u
21	DALI Channel A General	Burn-in Mode Remaining Time	2byte	7.006 time (m)	c	r		t	
22	DALI Channel A General	Burn-in Mode Remaining Time Request	1byte	5.xxx Unsigned Custom DPT	c		w		u
23	DALI Channel A General	Panic Mode	1bit	1.010 start	c		w		u
24	DALI Channel A General	Panic Mode Feedback	1bit	1.010 start	c	r		t	
25	DALI Channel A General	Night Mode	1bit	1.010 start	c		w		u
26	DALI Channel A General	Night Mode Feedback	1bit	1.010 start	c	r		t	
28	DALI Channel A General	ECG Power Line Control Zone 1	1bit	1.001 switch	c	r		t	
29	DALI Channel A General	ECG Power Line Control Zone 2	1bit	1.001 switch	c	r		t	
30	DALI Channel A General	ECG Power Line Control Zone 3	1bit	1.001 switch	c	r		t	
31	DALI Channel A General	ECG Power Line Control Zone 4	1bit	1.001 switch	c	r		t	
32	DALI Channel A General	ECG Power Line Control Zone 5	1bit	1.001 switch	c	r		t	
33	DALI Channel A General	ECG Power Line Control Zone 6	1bit	1.001 switch	c	r		t	
34	DALI Channel A General	ECG Power Line Control Zone 7	1bit	1.001 switch	c	r		t	
35	DALI Channel A General	ECG Power Line Control Zone 8	1bit	1.001 switch	c	r		t	

36	DALI Channel A General	ECG Power Line Control Zone 9	1bit	1.001 switch	c	r		t	
37	DALI Channel A General	ECG Power Line Control Zone 10	1bit	1.001 switch	c	r		t	
38	DALI Channel A Broadcast	Switching	1bit	1.001 switch	c		w		u
39	DALI Channel A Broadcast	Relative Dimming	4bit	3.007 dimming control	c		w		u
40	DALI Channel A Broadcast	Absolute Brightness	1byte	5.004 percentage (0…255%)	c		w		u
42	DALI Channel A Broadcast	Switch On Brightness Value	1byte	5.004 percentage (0…255%)	c		w		u
43	DALI Channel A Broadcast	Switch Off Brightness Value	1byte	5.004 percentage (0…255%)	c		w		u
44	DALI Channel A Broadcast	Fade Time For Switch On	1byte 2byte 2byte	20.602 dali fade time 7.004 time(100ms) 7.005 time(s)	c		w		u
45	DALI Channel A Broadcast	Fade Time For Switch Off	1byte 2byte 2byte	20.602 dali fade time 7.004 time(100ms) 7.005 time(s)	c		w		u
46	DALI Channel A Broadcast	Fade Time For Relative Dimming	1byte 2byte 2byte	20.602 dali fade time 7.004 time(100ms) 7.005 time(s)	c		w		u
47	DALI Channel A Broadcast	Fade Time For Absolute Brightness	1byte 2byte 2byte	20.602 dali fade time 7.004 time(100ms) 7.005 time(s)	c		w		u
48	DALI Channel A Broadcast	Color Temperature Value	2byte	7.600 absolute color temperature (K)	c		w		u
52	DALI Channel An ECG 1	Switching	1bit	1.001 switch	c		w		u
53	DALI Channel A ECG 1	Relative Dimming	4bit	3.007 dimming control	c		w		u
54	DALI Channel A ECG 1	Absolute Brightness	1byte	5.004 percentage (0…255%)	c		w		u
56	DALI Channel A ECG 1	Switch On Brightness Value	1byte	5.004 percentage (0…255%)	c		w		u
57	DALI Channel A ECG 1	Switch Off Brightness Value	1byte	5.004 percentage (0…255%)	c		w		u
58	DALI Channel A ECG 1	Fade Time For Switch On	1byte 2byte 2byte	20.602 dali fade time 7.004 time (100ms) 7.005 time (s)	c		w		u
59	DALI Channel A ECG 1	Fade Time For Switch Off	1byte 2byte 2byte	20.602 dali fade time 7.004 time (100ms) 7.005 time (s)	c		w		u
60	DALI Channel A ECG 1	Fade Time For Relative Dimming	1byte 2byte 2byte	20.602 dali fade time 7.004 time (100ms) 7.005 time (s)	c		w		u
61	DALI Channel A ECG 1	Fade Time For Absolute Brightness	1byte 2byte 2byte	20.602 dali fade time 7.004 time (100ms) 7.005 time (s)	c		w		u
62	DALI Channel A ECG 1	Switching Value Feedback	1bit	1.001 switch	c	r		t	
63	DALI Channel A ECG 1	Brightness Value Feedback	1byte	5.001 percentage (0…100%)	c	r		t	
64	DALI Channel A ECG 1	ECG Fault Feedback	1bit	1.005 alarm	c	r		t	
65	DALI Channel A ECG 1	Lamp Fault Feedback	1bit	1.005 alarm	c	r		t	

66	DALI Channel A ECG 1	Status Feedback	2byte	27.001 bit-combined info	c	r		t	
67	DALI Channel A ECG 1	Forced Mode	2bit	2.001 switch control	c		w	t	u
68	DALI Channel A ECG 1	Forced Brightness Value	1byte	5.004 percentage (0…255%)	c		w		u
69	DALI Channel A ECG 1	Lock Mode	1bit	1.003 enable	c		w	t	u
70	DALI Channel A ECG 1	Burn-in Mode	1bit	1.010 start	c		w		u
71	DALI Channel A ECG 1	Burn-in Mode Feedback	1bit	1.011 state	c	r		t	
73	DALI Channel A ECG 1	Burn-in Mode Time	2byte	7.006 time (m)	c		w		u
74	DALI Channel A ECG 1	Burn-in Mode Remaining Time	2byte	7.006 time (m)	c	r		t	
75	DALI Channel A ECG 1	Operation Hours Reset	1bit	1.015 reset	c		w		u
76	DALI Channel A ECG 1	Operation Hours Life Time Alarm	1bit	1.005 alarm	c	r		t	
77	DALI Channel A ECG 1	Operation Hours Feedback	2byte	7.007 time (h)	c	r		t	
78	DALI Channel A ECG 1	Absolute Color Temperature Value	2byte	7.600 absolute color temperature (K)	c		w		u
82	DALI Channel A ECG 1	Relative Color Temperature Value	4bit	3.007 dimming control	c		w		u
86	DALI Channel A ECG 1	Percentage Color Temperature Value	1byte	5.001 percentage (0…100%)	c		w		u
88	DALI Channel A ECG 1	Color Temperature Feedback	2byte	7.600 absolute color temperature (K)	c	r		t	
92	DALI Channel A ECG 1	Emergency Lighting Test Control	1byte	20.611 converter test control	c		w		u
94	DALI Channel A ECG 1	Emergency Lighting Converter Status	2byte	244.600 converter status	c	r		t	
95	DALI Channel A ECG 1	Emergency Lighting Battery Status	2byte	246.600 battery info	c	r		t	
96	DALI Channel A ECG 1	Emergency Lighting Test Result	6byte	245.600 converter test result	c	r		t	
97	DALI Channel A ECG 1	Emergency Lighting Rest Mode	1bit	1.003 enable	c		w		u
98	DALI Channel A ECG 1	Emergency Lighting Rest Mode Feedback	1bit	1.003 enable	c	r		t	
99	DALI Channel A ECG 1	Emergency Lighting Inhibit Mode	1bit	1.003 enable	c		w		u
100	DALI Channel A ECG 1	Emergency Lighting Inhibit Mode Feedback	1bit	1.003 enable	c	r		t	
* The object numbers of other ECGs can be obtained by adding the object numbers of ECG 1 with 49									
3188	DALI Channel A Group 1	Switching	1bit	1.001 switch	c		w		u
3189	DALI Channel A Group 1	Relative Dimming	4bit	3.007 dimming control	c		w		u
3190	DALI Channel A Group 1	Absolute Brightness	1byte	5.004 percentage (0…255%)	c		w		u
3192	DALI Channel A Group 1	Switch On Brightness Value	1byte	5.004 percentage (0…255%)	c		w		u
3193	DALI Channel A Group 1	Switch Off Brightness Value	1byte	5.004 percentage (0…255%)	c		w		u
3194	DALI Channel A Group 1	Fade Time For Switch On	1byte 2byte 2byte	20.602 dali fade time 7.004 time (100ms) 7.005 time (s)	c		w		u
3195	DALI Channel A Group 1	Fade Time For Switch Off	1byte 2byte 2byte	20.602 dali fade time 7.004 time (100ms) 7.005 time (s)	c		w		u

3196	DALI Channel A Group 1	Fade Time For Relative Dimming	1byte 2byte 2byte	20.602 dali fade time 7.004 time (100ms) 7.005 time (s)	c		w		u
3197	DALI Channel A Group 1	Fade Time For Absolute Brightness	1byte 2byte 2byte	20.602 dali fade time 7.004 time (100ms) 7.005 time (s)	c		w		u
3198	DALI Channel A Group 1	Switching Value Feedback	1bit	1.001 switch	c	r		t	
3199	DALI Channel A Group 1	Brightness Value Feedback	1byte	5.001 percentage (0…100%)	c	r		t	
3200	DALI Channel A Group 1	ECG Fault Feedback	1bit	1.005 alarm	c	r		t	
3201	DALI Channel A Group 1	Lamp Fault Feedback	1bit	1.005 alarm	c	r		t	
3202	DALI Channel A Group 1	Status Feedback	2byte	27.001 bit-combined info	c	r		t	
3203	DALI Channel A Group 1	Forced Mode	2bit	2.001 switch control	c		w	t	u
3204	DALI Channel A Group 1	Forced Brightness Value	1byte	5.004 percentage (0…255%)	c		w		u
3205	DALI Channel A Group 1	Lock Mode	1bit	1.003 enable	c		w	t	u
3206	DALI Channel A Group 1	Burn-in Mode	1bit	1.010 start	c		w		u
3207	DALI Channel A Group 1	Burn-in Mode Feedback	1bit	1.011 state	c	r		t	
3209	DALI Channel A Group 1	Burn-in Mode Time	2byte	7.006 time (m)	c		w		u
3210	DALI Channel A Group 1	Burn-in Mode Remaining Time	2byte	7.006 time (m)	c	r		t	
3211	DALI Channel A Group 1	Operation Hours Reset	1bit	1.015 reset	c		w		u
3212	DALI Channel A Group 1	Operation Hours Life Time Alarm	1bit	1.005 alarm	c	r		t	
3213	DALI Channel A Group 1	Operation Hours Feedback	2byte	7.007 time(h)	c	r		t	
3214	DALI Channel A Group 1	Absolute Color Temperature Value	2byte	7.600 absolute color temperature (K)	c		w		u
3218	DALI Channel A Group 1	Relative Color Temperature Value	4bit	3.007 dimming control	c		w		u
3222	DALI Channel A Group 1	Percentage Color Temperature Value	1byte	5.001 percentage (0…100%)	c		w		u
3224	DALI Channel A Group 1	Color Temperature Feedback	2byte	7.600 absolute color temperature (K)	c	r		t	
3228	DALI Channel A Group 1	Emergency Lighting Test Control	1byte	20.611 converter test control	c		w		u
3230	DALI Channel A Group 1	Emergency Lighting Converter Status	2byte	244.600 converter status	c	r		t	
3231	DALI Channel A Group 1	Emergency Lighting Battery Status	2byte	246.600 battery info	c	r		t	
3232	DALI Channel A Group 1	Emergency Lighting Test Result	6byte	245.600 converter test result	c	r		t	
3233	DALI Channel A Group 1	Emergency Lighting Rest Mode	1bit	1.003 enable	c		w		u
3234	DALI Channel A Group 1	Emergency Lighting Rest Mode Feedback	1bit	1.003 enable	c	r		t	
3235	DALI Channel A Group 1	Emergency Lighting Inhibit Mode	1bit	1.003 enable	c		w		u
3236	DALI Channel A Group 1	Emergency Lighting Inhibit Mode Feedback	1bit	1.003 enable	c	r		t	
* The object numbers of other Groups can be obtained by adding the object numbers of Group 1 with 49									
3972	DALI Channel A Scene	Control	1byte	18.001 scene control	c		w		u

4006	*DALI Channel A Emergency Light Control*	*Addressed Test Control*	*2byte*	*7.001 pulses*	*c*		*w*		*u*
4007	*DALI Channel A Emergency Light Control*	*Addressed Test Result*	*2byte*	*7.001 pulses*	*c*	*r*		*t*	
4010	*DALI Channel A Feedback*	*Central Switching Feedback*	*1bit*	*1.001 switch*	*c*	*r*		*t*	
4011	*DALI Channel A Feedback*	*Central Brightness Feedback*	*1byte*	*5.001 percentage (0…100%)*	*c*	*r*		*t*	
4012	*DALI Channel A Feedback*	*Addressed Switching Feedback*	*1byte*	*Bit-combined info*	*c*	*r*		*t*	
4014	*DALI Channel A Feedback*	*Addressed Brightness Feedback*	*2byte*	*Bit-combined info*	*c*	*r*		*t*	
4015	*DALI Channel A Feedback*	*Combined Switching Feedback*	*10byte*	*Bit-combined info*	*c*	*r*		*t*	
4016	*DALI Channel A Feedback*	*Central Operation Hour Feedback*	*1bit*	*1.005 alarm*	*c*	*r*		*t*	
4018	*DALI Channel A Fault*	*Acknowledge Fault Messages*	*1bit*	*1.016 acknowledge*	*c*		*w*		*u*
4019	*DALI Channel A Fault*	*Disable Fault Messages*	*1bit*	*1.003 enable*	*c*		*w*		*u*
4020	*DALI Channel A Fault*	*Show Address of Faulty ECGs*	*1byte*	*5.010 counter*	*c*	*r*		*t*	
4021	*DALI Channel A Fault*	*Show Address of Next/Previous Faulty ECG*	*1bit*	*1.008 up*	*c*		*w*		*u*
4022	*DALI Channel A Fault*	*Show Address of Faulty Groups*	*1byte*	*5.010 counter*	*c*	*r*		*t*	
4023	*DALI Channel A Fault*	*Show Address of Next/Previous Faulty Group*	*1bit*	*1.008 up*	*c*		*w*		*u*
4024	*DALI Channel A Fault*	*Central ECG Fault*	*1bit*	*1.005 alarm*	*c*	*r*		*t*	
4025	*DALI Channel A Fault*	*Central Lamp Fault*	*1bit*	*1.005 alarm*	*c*	*r*		*t*	
4026	*DALI Channel A Fault*	*Number of ECG Fault*	*1byte*	*5.010 counter*	*c*	*r*		*t*	
4027	*DALI Channel A Fault*	*Number of Lamp Fault*	*1byte*	*5.010 counter*	*c*	*r*		*t*	
4028	*DALI Channel A Fault*	*Addressed DALI Fault*	*2byte*	*237.600 DALI Diagnostic*	*c*	*r*		*t*	
4029	*DALI Channel A Fault*	*Combined DALI Channel Faults*	*1byte*	*Bit-combined info*	*c*	*r*		*t*	
4030	*DALI Channel A Fault*	*Combined ECG Fault*	*10byte*	*Bit-combined info*	*c*	*r*		*t*	
4031	*DALI Channel A Fault*	*Combined Lamp Fault*	*10byte*	*Bit-combined info*	*c*	*r*		*t*	
** The object numbers of Channel B can be obtained by adding the object numbers of Channel A with 4016*									

Table 6

7 KNX ETS Database

7.1 *Device tab*

7.1.1 General parameters

No	Name	Value	Description
1	*Startup delay*	*3…255s*	*This parameter defines the minimum delay time (s) for device initialization.* *This time may be longer depending on the number of ballasts in the DALI line. The start status of the device can be observed with object 4.*
2	*KNX telegram limitation*	*Disable / Enable*	*This parameter limits the number of messages that can be sent to the KNX line. The number and duration of messages to be limited are set with the relevant parameters.*
3	*Limit*	*1…255*	*This parameter determines the number of messages to be limited on the KNX line within the specified time.*
4	*Period*	*3…255s*	*This parameter determines how long KNX messages will be limited.*
5	*Device status object*	*Disable / Enable*	*This parameter enables external control of the operating status of the device. This function is realized with object 1.*
6	*Feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter activates the external monitoring of the operating status of the device. This function is realized with object 2.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
7	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*

No	Name	Value	Description
8	*Device in operation object*	*Disable / Enable*	*This parameter sends the information that the device is operational at certain intervals to the KNX line with certain values.*
9	*Value*	*0 / 1*	*This parameter determines with which value the information that the device is running will be sent.*
10	*Period*	*3…255s*	*This parameter determines how many seconds intervals cyclically the information that the device is operational will be sent to the KNX bus.*
11	*Device supply voltage fault*	*Disable / Enable*	*This parameter activates the sending of an error code to the KNX bus in case of any mains interruption while the device is running.*
12	*Acknowledgement via object*	*Disable / Enable*	*This parameter determines how the mains interruption alarm sent to the KNX bus is reset.*
13	*Central feedback request*	*Disable / Enable*	*This parameter is used for collective feedback from the device*
14	*Date time object format*	*Combined / Separated*	*This parameter allows sending and receiving date and time to and from the device via KNX bus.*
15	*User menu controls*	*Disable / Enable*	*Activates the use of the user menu.*
16	*IP access*	*Disable / Enable*	*This parameter opens the IP settings page. On the page that opens, the device can be given a fixed IP address or it can receive the address automatically via DHCP.*
17	*DALI channel 1*	*Disable / Enable*	*Allows the DALI channel to be activated.*
18	*DALI channel 2*	*Disable / Enable*	*Allows the DALI channel to be activated.*
19	*Relay 1 control*	*Disable / Enable*	*This parameter is used to activate the object of relay 1.*
20	*Relay 2 control*	*Disable / Enable*	*This parameter is used to activate the object of relay 2.*

Table 7

7.1.2 General objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
1	*General*	*Device Status*	*0/1*	*1.011 state*	*C*		*W*		*U*

Table 8

With this object, the operation of the device can be controlled.

1: Device is active
0: Device in inactive state

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
2	*General*	*Device Status Feedback*	*0/1*	*1.011 state*	*C*	*R*		*T*	

Table 9

This object monitors the operation of the device.

1: Device is active
0: Device in inactive state

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
3	*General*	*Device In Operation*	*0/1*	*1.017 trigger*	*C*	*R*		*T*	

Table 10

With this object, information that the device is in operation is received from the KNX line at certain intervals.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4	*General*	*Device In Startup*	*0/1*	*1.017 trigger*	*C*	*R*		*T*	

Table 11

With this object, the start status of the device is monitored.

1: The device is in the start-up state
0: The device in normal operation

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
5	*General*	*Device Supply Voltage Fault*	*0/1*	*1.005 alarm*	*C*	*R*		*T*	

Table 12

With this object, an error code is displayed on the KNX bus in case of any network interruption while the device is running.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
6	*General*	*Acknowledge Device Supply Voltage Fault*	*0/1*	*1.016 acknowledge*	*C*		*W*		*U*

Table 13

With this object, the network interruption error given by object 5 is reset.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
7	*General*	*Central Feedback Request*	*0 / 1*	*1.017 trigger*	*C*		*W*		*U*

Table 14

With this object, collective feedback information is requested from the device. It will not send aggregated feedback information if the device is not in proper condition.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
8	*General*	*Date Time Query*	*0 / 1*	*1.017 trigger*	*C*			*T*	

Table 15

With this object the device sends a date time update request to the KNX line.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
9	*General*	*Date/Time*		*19.001 date time*	*C*	*R*	*W*	*T*	*U*
9	*General*	*Date*		*11.001 date*	*C*	*R*	*W*	*T*	*U*
10	*General*	*Time*		*10.001 time of day*	*C*	*R*	*W*	*T*	*U*

Table 16

These object(s) allow the date and time to be sent to and received from the device via the KNX bus.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
11	*General*	*Relay 1 Control*	*0 / 1*	*1.001 switch*	*C*		*W*		*U*
12	*General*	*Relay 2 Control*	*0 / 1*	*1.001 switch*	*C*		*W*		*U*

Table 17

Relay outputs of the device are controlled with these objects.

7.2 *User Menu tab*

7.2.1 User Menu parameters

No	Name	Value	Description
1	*Menu state feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter is used to give feedback on which menu page is opened.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
2	*Period*	*3…255s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
3	*Manual operation menu*	*Disable / Enable*	*This parameter is used to allow manual operation.*
4	*Information menu*	*Disable / Enable*	*This parameter is used to allow accessibility of the "information" menu.*
5	*Emergency test menu*	*Disable / Enable*	*This parameter is used to allow accessibility of the "emergency test" menu.*

Table 18

7.2.2 User Menu objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
13	*User Menu*	*Menu State Feedback*	*0-255*	*20.* 1-byte*	*C*	*R*		*T*	

Table 19

This object is used to give feedback about which menu page is opened. Page numbers are given in the table below.

OFF	0
ENTRANCE	1
BALLAST CONTROL	2
GROUP CONTROL	3
PUBLICATION CONTROL	4
RELAY CONTROL	5
BALLAST REPLACEMENT CONTROL	6
DALI INSTALLATION CONTROL	7
TEST	8
IP ADDRESS INFORMATION	9
ETHERNET MAC BİLGİ	10
BRANCH BALLAST NUMBER INFORMATION	11
BRANCH CURRENT INFORMATION	12
KNX ADDRESS INFORMATION	13
KNX APPLICATION STATUS INFORMATION	14
DEVICE SOFTWARE VERSION INFORMATION	15
DEVICE OPERATING TEMPERATURE INFORMATION	16
LIST OF ERRORS	17
EMERGENCY LIGHTING	18

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
14	*User Menu*	*Manual Operation Menu*	*0 / 1*	*1.003 enable*	*C*		*W*		*U*

Table 20

This object is used to allow manual operation.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
14	*User Menu*	*Information Menu*	*0 / 1*	*1.003 enable*	*C*		*W*		*U*

Table 21

This object is used to allow accessibility of the "information" menu.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
14	*User Menu*	*Emergency Test Menu*	*0 / 1*	*1.003 enable*	*C*		*W*		*U*

Table 22

This object is used to allow accessibility of the "emergency test" menu.

7.3 *IP Settings tab*

7.3.1 IP Settings parameters

No	Name	Value	Description
1	*IP address assignment*	*DHCP / Fix*	*This parameter sets whether the IP address of the device is fixed or assigned.*
2	*IP address*	*xxx.xxx.xxx.xxx*	*This parameter allows the device to set a fixed IP address.*
3	*Subnet mask*	*xxx.xxx.xxx.xxx*	*This parameter allows the device to set a fixed Subnet mask.*
4	*Gateway address*	*xxx.xxx.xxx.xxx*	*This parameter allows the device to set a fixed Gateway address.*
5	*User password*	*0000-9999*	*This parameter allows the user to set the password used to access the web interface.*
6	*Admin password*	*0000-9999*	*This parameter allows the administrator to set the password used to access the web interface.*

Table 23

7.4 *DALI Channel X tab*

7.4.1 General parameters

No	Name	Value	Description
1	*Label*	*X*	*This parameter gives a name to the DALI channel.*
2	*ECG control*	*Disable / Enable*	*ECG controls are activated with this parameter.*
3	*Group control*	*Disable / Enable*	*This parameter activates group controls.*
4	*Broadcast control*	*Disable / Enable*	*Broadcast controls are activated with this parameter. A new page opens for Broadcast control parameter settings.*
5	*Scene control*	*Disable / Enable*	*Scenario controls are activated with this parameter.*
6	*Emergency light control*	*Disable / Enable*	*Emergency lighting controls are activated with this parameter.*
7	*Automatic DALI device replacement*	*Disable / Enable*	*With this parameter, automatic replacement of DALI ballasts is activated.*
8	*Manual DALI device replacement*	*Disable / Enable*	*With this parameter, manual replacement of DALI devices is activated.*
9	*Burn-in mode*	*Disable / Enable*	*This parameter enables the Burn-in function for a ballast or group.*
10	*Burn-in mode remaining time*	*Disable / Enable*	*With this parameter, objects that can receive the remaining burn-in time of a ballast can be activated.*
11	*Panic mode*	*Disable / Enable*	*This parameter activates the panic mode. When this mode is activated, all groups and objects switch to the panic mode light value. They cannot be controlled individually.*
12	*Panic mode feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter activates the external monitoring of the operating status of the panic mode. This function is realized with object 24.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.*

No	Name	Value	Description
			On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.
13	*Period*	*3…255s*	*This parameter determines how many seconds intervals cyclically the information that the device is operational will be sent to the KNX bus.*
14	*Emergency fault*	*Disable / Enable*	*Panic mode is activated in case of errors in emergency situations.*
15	*Reason count*	*1…64*	*The number of errors that will occur for panic mode to be activated is determined.*
16	*Lamp fault*	*Disable / Enable*	*It is used to activate the panic mode in case of lamp failure.*
17	*Reason count*	*1…64*	*The number of errors that will occur for panic mode to be activated is determined.*
18	*ECG fault*	*Disable / Enable*	*It is used to activate the panic mode in case of ballast failures.*
19	*Reason count*	*1…64*	*The number of errors that will occur for panic mode to be activated is determined.*
20	*Night mode*	*Disable / Enable*	*This parameter enables night mode.*
21	*Night mode feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter activates the external monitoring of the operating status of the night mode. This function is realized with object 26.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
22	*Period*	*3…255s*	*This parameter determines how many seconds intervals cyclically the information that the device is operational will be sent to the KNX bus.*
23	*ECG power line control*	*Disable / KNX object*	*This parameter activates the control of ballast supply voltages for energy saving.*

No	Name	Value	Description
24	*Number of zone*	*1…10*	*This parameter selects the number of zones.*
25	*Delay time*	*10…600s*	*This parameter sets how long after the lighting levels of all ballasts in a zone are completely switched off, the supply voltage will be cut off.*

Table 24

7.4.2 General objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
17	*DALI Channel A General*	*Auto Device Replacement*	*0 / 1*	*1.010 start/stop*	*C*		*W*		*U*

Table 25

This object is used to start or end automatic DALI ballast change.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
18	*DALI Channel A General*	*Manual Device Replacement Short Address*	*0…63*	*5.* 8-bit unsigned value*	*C*		*W*		*U*

Table 26

Manual DALI ballast change is started with this object.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
19	*DALI Channel A General*	*Device Replacement Status*	*0…15*	*20.* 1-byte*	*C*	*R*		*T*	

Table 27

DALI ballast change status can be monitored with this object. The table below contains status value information.

STARTED	1
SEARCHING	2
CHANGING	3
STOPPED	4
SUCCESSFULLY COMPLETED	5
NO INSTALLATION ERROR	6
NO FAULTY BALLAST ERROR	7
MORE THAN ONE FAULTY BALLAST ERROR	8
THE REPLACEMENT PROCESS IS ALREADY WORKING	9
BALLAST ADDRESS ERROR	10
NEW BALLAST NOT FOUND ERROR	11
NEW BALLAST ADDRESSING ERROR	12
NEW BALLAST COMMUNICATION ERROR	13
NEW BALLAST UPDATE ERROR	14
WRONG TYPE OF NEW BALLAST	15

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
20	*DALI Channel A General*	*Burn-in Mode*	*0 / 1*	*1.010 start/stop*	*C*		*W*		*U*

Table 28

This object toggles the Burn-in function on and off.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
21	*DALI Channel A General*	*Burn-in Mode Remaining Time*		*7.006 time (min)*	*C*	*R*		*T*	

Table 29

With this object, the remaining burn-in time can be measured in minutes.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
22	*DALI Channel A General*	*Burn-in Mode Remaining Time Request*	*0…63*	*5.* 8-bit unsigned value*	*C*		*W*		*U*

Table 30

With this object the ballast address is sent to get the remaining burn-in time.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
23	*DALI Channel A General*	*Panic Mode*	*0 / 1*	*1.010 start/stop*	*C*		*W*		*U*

Table 31

This object turns panic mode on and off.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
24	*DALI Channel A General*	*Panic Mode Feedback*	*0 / 1*	*1.010 start/stop*	*C*	*R*		*T*	

Table 32

Panic mode status is monitored with this object.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
25	*DALI Channel A General*	*Night Mode*	*0 / 1*	*1.010 start/stop*	*C*		*W*		*U*

Table 33

This object turns night mode on and off.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
26	*DALI Channel A General*	*Night Mode Feedback*	*0 / 1*	*1.010 start/stop*	*C*	*R*		*T*	

Table 34

With this object, night mode status is monitored.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
28-37	*DALI Channel A General*	*ECG Power Line Control Zone x*	*0 / 1*	*1.001 switch*	*C*	*R*		*T*	

Table 35

With this object, on/off status information is obtained for x zone.

7.4.3 **Broadcast parameters**

No	Name	Value	Description
1	*Switch on brightness value*	*%0 (OFF)* *…* *100%* *Minimum value* *Maximum value* *Latest value* *Change via object*	*This parameter defines the brightness value that the DALI output will reach after the on command from the KNX line.*
2	*Switch off brightness value*	*%0 (OFF)* *…* *100%* *Minimum value* *Change via object*	*This parameter defines the brightness value that the DALI output will reach after the close command is received from the KNX line.*
3	*Fade time for switch on*	*Fixed value* *Change via object*	*This parameter is set as the time required to switch the lamp brightness from the current brightness value to the on state after receiving the on command from the KNX line.* *This time can be set with a fixed value or can be adjusted using an object.*
4	*Time*	*0…65535 s*	*This parameter is enabled when fade time for switch on parameter fixed value is selected and sets the fade time in seconds.*
5	*Object type*	*KNX time format 1s* *KNX time format 100ms* *DALI format [0…15]*	*This parameter is opened when the fade time for switch on parameter change via object is selected and the fade time determines the object type.*
6	*Fade time for switch off*	*Fixed value* *Change via object*	*This parameter is set as the time required to switch the lamp brightness from the current brightness value to the off state after receiving the off command from the KNX line.* *This time can be set with a fixed value or can be adjusted using an object.*
7	*Time*	*0…65535 s*	*This parameter is enabled when fade time for switch off parameter fixed value is selected and sets the fade time in seconds.*
8	*Object type*	*KNX time format 1 s* *KNX time format 100 ms* *DALI format [0…15]*	*This parameter is opened when the fade time for switch off parameter change via object is selected and the fade time determines the object type.*
9	*Fade time for relative dimming*	*Fixed value* *Change via object*	*This parameter is set as the time required to change the lamp brightness from the current brightness value to the target brightness after*

No	Name	Value	Description
			receiving the brightness value from the KNX line. *This time can be set with a fixed value or can be adjusted using an object.*
10	*Time*	*0…65535 s*	*This parameter is enabled when the fade time for relative dimming parameter fixed value is selected and sets the fade time in seconds.*
11	*Object type*	*KNX time format 1 s* *KNX time format 100 ms* *DALI format [0…15]*	*This parameter is opened when the fade time for relative dimming parameter change via object is selected and the fade time determines the object type.*
12	*Fade time for absolute brightness*	*Fixed value* *Change via object*	*This parameter is set as the time required to change the lamp brightness from the current brightness value to the target brightness after receiving the brightness value from the KNX line.* *This time can be set with a fixed value or can be adjusted using an object.*
13	*Time*	*0…65535 s*	*This parameter is enabled when fade time for absolute brightness parameter fixed value is selected and sets the fade time in seconds.*
14	*Object type*	*KNX time format 1 s* *KNX time format 100 ms* *DALI format [0…15]*	*This parameter is turned on when the fade time for absolute brightness parameter change via object is selected and the fade time determines the object type.*
15	*Allow switch on via dimming object*	*Disable / Enable*	*This parameter allows the brightness of the off lamp to be switched on and to reach the desired value.*
16	*Allow switch off via dimming object*	*Disable / Enable*	*With this parameter, the brightness of the on lamp is allowed to reach the desired off value.*
17	*Allow switch on via brightness object*	*Disable / Enable*	*This parameter allows the brightness of the off lamp to be switched on and to reach the desired value.*
18	*Allow switch off via brightness object*	*Disable / Enable*	*With this parameter, the brightness of the on lamp is allowed to reach the desired off value.*
19	*Color control*	*Disable* *Tunable White control*	*This parameter allows broadcast color control objects to be opened.*

Table 36

7.4.4 Broadcast objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
38	*DALI Channel A Broadcast*	*Switching*	*0 / 1*	*1.001 switch*	*C*		*W*		*U*

Table 37

With this object, on/off command can be sent to all ballasts on the DALI channel.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
39	*DALI Channel A Broadcast*	*Relative Dimming*		*3.007 dimming control*	*C*		*W*		*U*

Table 38

With this object, a new brightness value is sent to all ballasts on DALI channels by increasing or decreasing the previous brightness value.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
40	*DALI Channel A Broadcast*	*Absolute Brightness*	*0…100*	*5.001 percentage (0…100%)*	*C*		*W*		*U*

Table 39

With this object, a brightness value in percent is sent to all ballasts on DALI channels.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
41	*DALI Channel A Broadcast*	*Switching On Brightness Value*	*0…100*	*5.001 percentage (0…100%)*	*C*		*W*		*U*

Table 40

With this object, brightness values are sent to all ballasts on DALI channels after the on command.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
42	*DALI Channel A Broadcast*	*Switching Off Brightness Value*	*0…100*	*5.001 percentage (0…100%)*	*C*		*W*		*U*

Table 41

With this object, brightness values are sent to all ballasts on DALI channels after the shutdown command.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
43	*DALI Channel A Broadcast*	*Fade Time For Switch On*		*7.005 time (s)* *7.004 time (100 ms)* *20.602 dali fade time*	*C*		*W*		*U*

Table 42

With this object, the time required to turn the current brightness on after the on command is received to the devices on the DALI channels is determined.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
44	*DALI Channel A Broadcast*	*Fade Time For Switch Off*		*7.005 time (s)* *7.004 time (100 ms)* *20.602 dali fade time*	*C*		*W*		*U*

Table 43

With this object, the time required to turn off the current brightness after the off command is sent to the devices on the DALI channels is determined.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
45	*DALI Channel A Broadcast*	*Fade Time For Relative Dimming*		*7.005 time (s)* *7.004 time (100 ms)* *20.602 dali fade time*	*C*		*W*		*U*

Table 44

With this object, after entering a brightness value to the devices on the DALI channels, the time to go from the current brightness to the target brightness is determined.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
46	*DALI Channel A Broadcast*	*Fade Time For Absolute Brightness*		*7.005 time (s)* *7.004 time (100 ms)* *20.602 dali fade time*	*C*		*W*		*U*

Table 45

With this object, after entering a brightness value to the devices on the DALI channels, the time to go from the current brightness to the target brightness is determined.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
48	*DALI Channel A Broadcast*	*Color temperature value*	*1000…10000 K*	*7.600 absolute color temperature*	*C*		*W*		*U*

Table 46

With this object, the color temperature value is sent to the color devices on the DALI channels.

7.4.5 ECGs/Groups tab

The parameters under this heading are used in the same sense for group and ballast. Objects are defined for ballast, but they fulfill the same function for the group. See the summary table for detailed object numbers and names.

7.4.5.1 ECGs/Groups tab parameter

No	Name	Value	Description
1	*ECG/Group x*	*Disable / Enable*	*With this parameter, ballast or group x is activated.*

Table 47

7.4.5.2 ECG/Group

7.4.5.2.1 General parameters

No	Name	Value	Description
1	*Operation Mode*	*Normal mode* *Staircase mode*	*This parameter selects the operating mode.* *Normal mode: With this mode, ECGs can be individually switched and brightness changed without restriction.* *Staircase mode: It can also be called staircase lighting mode. With this mode, the set value, such as the switching, dimming or brightness value, is automatically replaced by the off value after a changeable period of time. Lighting can be turned off immediately, at a set time or dimmed.*
2	*Staircase time*	*5…65535 s*	*This parameter sets the duration of the "staircase" mode. After the last telegram received, the lights will turn off when the time set here expires.*
3	*Staircase warning step*	*Disable / Enable*	*This parameter defines a new brightness or the same brightness value as additional time after the "staircase" time expires.*
4	*Warning step brightness value*	*%0 (OFF)* *…* *100%* *Minimum value*	*This parameter determines the defined "warning step" brightness value.*
5	*Warning step time*	*0…65535 s*	*This parameter determines the duration of the defined "warning step".*
6	*Extend staircase time for repeated switch on*	*Disable* *Restart timer* *Extend timer up to max 2*	*With this parameter, the "staircase" time can be increased by the desired maximum number or the counter can be reset.*

No	Name	Value	Description
		Extend timer up to max 3 *Extend timer up to max 4* *Extend timer up to max 5*	
7	*Dimming curve*	*Logarithmic (DALI method)* *Linear (KNX method)*	*With this parameter, ECG checks can be done with two identical methods. Depending on these methods, the on and off times of the lamps connected to the ECGs vary.*
8	*Maximum brightness value*	*%0 (OFF)* *…* *%100*	*This parameter specifies the selected maximum brightness.*
9	*Minimum brightness value*	*%0 (OFF)* *…* *%100*	*This parameter specifies the selected minimum brightness.*
10	*Switch on brightness value*	*%0 (OFF)* *…* *100%* *Minimum value* *Maximum value* *Latest value* *Change via object*	*This parameter defines the brightness value that the DALI output will reach after the on command from the KNX line.*
11	*Switch off brightness value*	*%0 (OFF)* *…* *100%* *Minimum value* *Change via object*	*This parameter defines the brightness value that the DALI output will reach after the close command is received from the KNX line.*
12	*Fade time for switch on*	*Fixed value* *Change via object*	*This parameter is set as the time required to switch the lamp brightness from the current brightness value to the on state after receiving the on command from the KNX line.* *This time can be set with a fixed value or can be adjusted using an object.*
13	*Time*	*0…65535 s*	*This parameter is enabled when fade time for switch on parameter fixed value is selected and sets the fade time in seconds.*
14	*Object type*	*KNX time format 1 s* *KNX time format 100 ms* *DALI format [0…15]*	*This parameter is opened when the fade time for switch on parameter change via object is selected and the fade time determines the object type.*
15	*Fade time for switch off*	*Fixed value* *Change via object*	*This parameter is set as the time required to switch the lamp brightness from the current brightness value to the off state after receiving the off command from the KNX line* *This time can be set with a fixed value or can be adjusted using an object.*

No	Name	Value	Description
16	*Time*	*0…65535 s*	*This parameter is enabled when fade time for switch off parameter fixed value is selected and sets the fade time in seconds.*
17	*Object type*	*KNX time format 1 s* *KNX time format 100 ms* *DALI format [0…15]*	*This parameter is opened when the fade time for switch off parameter change via object is selected and the fade time determines the object type.*
18	*Fade time for relative dimming*	*Fixed value* *Change via object*	*This parameter is set as the time required to change the lamp brightness from the current brightness value to the target brightness after receiving the brightness value from the KNX line.* *This time can be set with a fixed value or can be adjusted using an object.*
19	*Time*	*0…65535 s*	*This parameter is enabled when the fade time for relative dimming parameter fixed value is selected and sets the fade time in seconds.*
20	*Object type*	*KNX time format 1 s* *KNX time format 100 ms* *DALI format [0…15]*	*This parameter is opened when the fade time for relative dimming parameter change via object is selected and the fade time determines the object type.*
21	*Fade time for absolute brightness*	*Fixed value* *Change via object*	*This parameter is set as the time required to change the lamp brightness from the current brightness value to the target brightness after receiving the brightness value from the KNX line.* *This time can be set with a fixed value or can be adjusted using an object.*
22	*Time*	*0…65535 s*	*This parameter is enabled when fade time for absolute brightness parameter fixed value is selected and sets the fade time in seconds.*
23	*Object type*	*KNX time format 1 s* *KNX time format 100 ms* *DALI format [0…15]*	*This parameter is turned on when the fade time for absolute brightness parameter change via object is selected and the fade time determines the object type.*
24	*Allow switch on via dimming object*	*Disable / Enable*	*This parameter allows the brightness of the off lamp to be switched on and to reach the desired value.*
25	*Allow switch off via dimming object*	*Disable / Enable*	*With this parameter, the brightness of the on lamp is allowed to reach the desired off value.*
26	*Allow switch on via brightness object*	*Disable / Enable*	*This parameter allows the brightness of the off lamp to be switched on and to reach the desired value.*

No	Name	Value	Description
27	*Allow switch off via brightness object*	*Disable / Enable*	*With this parameter, the brightness of the on lamp is allowed to reach the desired off value.*

Table 48

7.4.5.2.2 General objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
52	*DALI Channel A ECG 1*	*Switching*	*0 / 1*	*1.001 switch*	*C*		*W*		*U*

Table 49

With this object, on/off command can be sent to the ballast.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
53	*DALI Channel A ECG 1*	*Relative Dimming*		*3.007 dimming control*	*C*		*W*		*U*

Table 50

With this object, a new brightness value is sent to the ballast by increasing or decreasing the previous brightness value.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
54	*DALI Channel A ECG 1*	*Absolute Brightness*	*0…100*	*5.001 percentage (0…100%)*	*C*		*W*		*U*

Table 51

With this object, a brightness value in percent is sent to the ballast.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
56	*DALI Channel A ECG 1*	*Switching On Brightness Value*	*0…100*	*5.001 percentage (0…100%)*	*C*		*W*		*U*

Table 52

With this object, the brightness value that the ballast will reach after the open command is sent.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
57	*DALI Channel A ECG 1*	*Switching Off Brightness Value*	*0…100*	*5.001 percentage (0…100%)*	*C*		*W*		*U*

Table 53

With this object, the brightness value that the ballast will reach after the close command is sent.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
58	*DALI Channel A ECG 1*	*Fade Time For Switch On*		*7.005 time (s)* *7.004 time (100 ms)* *20.602 dali fade time*	*C*		*W*		*U*

Table 54

With this object, the time required to turn the current brightness on after the turn on ballast command is set.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
59	*DALI Channel A Broadcast*	*Fade Time For Switch Off*		*7.005 time (s)* *7.004 time (100 ms)* *20.602 dali fade time*	*C*		*W*		*U*

Table 55

With this object, the time required to turn off the current brightness after the ballast off command is set.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
60	*DALI Channel A Broadcast*	*Fade Time For Relative Dimming*		*7.005 time (s)* *7.004 time (100 ms)* *20.602 dali fade time*	*C*		*W*		*U*

Table 56

With this object, after entering a brightness value in the ballast, the time from the current brightness to the target brightness is set.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
61	*DALI Channel A ECG 1*	*Fade Time For Absolute Brightness*		*7.005 time (s)* *7.004 time (100 ms)* *20.602 dali fade time*	*C*		*W*		*U*

Table 57

With this object, after entering a brightness value in the ballast, the time from the current brightness to the target brightness is set.

7.4.5.2.3 Feedbacks parameters

No	Name	Value	Description
1	*Switching value feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter determines the activation and operation of the switching feedback object.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
2	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
3	*Brightness value feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter is used to activate the brightness feedback of the selected ECG.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
4	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
5	*ECG fault feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter determines the activation and operation of the feedback object in case of an error on the ECGs.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
5	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*

No	Name	Value	Description
6	*Lamp fault feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter determines the activation and operation of the feedback object in case of a fault on the lamps.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
7	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
8	*Status feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter determines the activation and operation of the ballast branch status information object.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
9	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*

Table 58

7.4.5.2.4 Feedbacks objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
62	*DALI Channel A ECG 1*	*Switching Value Feedback*	*0 / 1*	*1.001 switch*	*C*	*R*		*T*	

Table 59

With this object, the switching feedback of the selected ECG is observed.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
63	*DALI Channel A ECG 1*	*Brightness Value Feedback*	*0…100*	*5.004 percentage (0…255%)*	*C*	*R*		*T*	

Table 60

With this object, the brightness feedback of the selected ECG is observed.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
64	*DALI Channel A ECG 1*	*ECG Fault Feedback*	*0 / 1*	*1.005 alarm*	*C*	*R*		*T*	

Table 61

With this object, the feedback of an error on ECGs is observed.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
65	*DALI Channel A ECG 1*	*Lamp Fault Feedback*	*0 / 1*	*1.005 alarm*	*C*	*R*		*T*	

Table 62

With this object, the feedback of a fault occurring on the lamps is observed.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
66	*DALI Channel A ECG 1*	*Status Feedback*		*7.001 pulses*	*C*	*R*		*T*	

Table 63

With this object, dali general condition of the ballast is observed.

Bit	Description
0	*"controlGearFailure"* is TRUE?
1	*"lampFailure"* is TRUE?
2	*"lampOn"* is TRUE?
3	*"limitError"* is TRUE?
4	*"fadeRunning"* is TRUE?
5	*"resetState"* is TRUE?
6	*"shortAddress"* is MASK?
7	*"powerCycleSeen"* is TRUE?

Table 64

7.4.5.2.5 Behaviors parameters

No	Name	Value	Description
1	*Brightness value on ECG power recovery*	*%0 (OFF)* *…* *100%* *Minimum value* *Maximum value* *Latest value*	*This parameter determines the brightness value of the ECGs when the power is restored after a power failure.*
2	*Brightness value on DALI bus failure*	*%0 (OFF)* *…* *100%* *No reaction* *Minimum value* *Maximum value* *Latest value*	*This parameter determines the brightness value of the illuminations in case of a fault on the DALI line.*
3	*Brightness value on KNX bus failure*	*%0 (OFF)* *…* *100%* *No reaction* *Minimum value* *Maximum value* *Latest value*	*This parameter determines the brightness value of the illuminations in case of a fault on the KNX line.*
4	*Brightness value after ETS download*	*%0 (OFF)* *…* *100%* *No reaction* *Minimum value* *Maximum value* *Latest value*	*This parameter determines the brightness value of the lighting after the configuration has been sent from the ETS.*

Table 65

7.4.5.2.6 Function parameters

No	Name	Value	Description
1	*Forced mode*	*Disable / Enable*	*With this parameter forced mode feature usage and object is activated.*
2	*Forced mode brightness value*	*%0 (OFF)* *…* *100%* *Minimum value* *Maximum value* *Latest value* *Change via object*	*This parameter determines the illumination level to be reached when forced mode is activated.*
3	*Lock mode*	*Disable / Enable*	*With this parameter, the lock mode feature usage and object are activated.*
4	*Burn-in mode*	*Disable / Enable*	*This parameter activates the burn-in mode feature usage and object.*
5	*Burn-in time*	*5…65535 m*	*This parameter sets the burn-in mode duration in minutes.*
6	*Burn-in mode feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter activates the burn-in mode information retrieval object and determines how it works.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
7	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
8	*Change burn-in time via object*	*Disable / Enable*	*With this parameter the burn-in time can be set to be changed with the object.*
9	*Night mode*	*Disable / Enable*	*With this parameter, the night mode feature usage and object are activated.*
10	*Automatic switch off time*	*0…65535 m*	*This parameter sets the duration of the night mode. After the last telegram received, the lights will turn off when the time set here expires.*
11	*Night warning step*	*Disable / Enable*	*This parameter defines a new brightness or the same brightness value as additional time after the "automatic switch off" time expires.*

No	Name	Value	Description
12	*Warning step brightness value*	*%0 (OFF)* *…* *100%* *Minimum value*	*This parameter determines the defined "warning step" brightness value.*
13	*Warning step time*	*5…65535 s*	*This parameter determines the duration of the defined "warning step".*
14	*Extend automatic switch off time*	*Disable* *Restart timer* *Extend timer up to max 2* *Extend timer up to max 3* *Extend timer up to max 4* *Extend timer up to max 5*	*With this parameter, the "automatic switch off time" can be increased to the desired maximum number or the counter can be reset.*
15	*Panic mode*	*Disable / Enable*	*With this parameter, panic mode feature usage and object are activated.*
16	*Panic mode brightness value*	*%0 (OFF)* *…* *100%* *No reaction* *Minimum value* *Maximum value* *Latest value*	*This parameter selects the illumination value to be reached when panic mode is activated.*
17	*Operation hour counter*	*Disable / Enable*	*This parameter activates the "operation hour counter". It counts the duration of the ECG turned on.*
18	*Operation hour limit*	*1…65535 h*	*This parameter sets the limit time in hours of the "operation hour counter" parameter. In this function, alarm information is received from the alarm object when the specified time is reached.*
19	*Operation hour feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter displays the "operation hour counter" value.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
20	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
21	*ECG power line control*	*Disable / Enable*	*This parameter determines whether the ballast energy control will be active or not.*

No	Name	Value	Description
22	*Zone*	*Zone 1* *…* *Zone 10*	*This parameter determines which zone will control the energy of the ballast.*

Table 66

7.4.5.2.7 Function objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
67	*DALI Channel A ECG 1*	*Forced Mode*	*0: Off 1: On 2: Off 3: On*	*2.001 switch control*	*C*		*W*		*U*

Table 67

This object enables or disables forced mode.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
68	*DALI Channel A ECG 1*	*Forced Brightness Value*	*0…100*	*5.001 percentage (0…100%)*	*C*		*W*		*U*

Table 68

With this object, forced mode brightness value is sent.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
69	*DALI Channel A ECG 1*	*Lock Mode*	*0 / 1*	*1.003 enable*	*C*		*W*	*T*	*U*

Table 69

With this object, lock mode can be activated or deactivated and its instantaneous value can be taken.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
70	*DALI Channel A ECG 1*	*Burn-in Mode*	*0 / 1*	*1.010 start/stop*	*C*		*W*		*U*

Table 70

This object is used to start or end the burn-in mode.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
71	*DALI Channel A ECG 1*	*Burn-in Mode Feedback*	*0 / 1*	*1.011 state*	*C*	*R*		*T*	

Table 71

With this object, burn-in mode instant status information can be obtained.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
73	DALI Channel A ECG 1	Burn-in Mode Time	0…65535m	7.006 time (min)	C		W		U

Table 72

With this object the burn-in mode time can be changed. In this case the counter is reset and counts from the beginning.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
74	DALI Channel A ECG 1	Burn-in Mode Remaining Time	0…65535m	7.006 time (min)	C	R		T	

Table 73

This object can be used to get the remaining burn-in mode time.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
75	DALI Channel A ECG 1	Operation Hours Reset	0 / 1	1.015 reset	C		W		U

Table 74

This object resets the ballast run time counter.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
76	DALI Channel A ECG 1	Operation Hours Life Time Alarm	0 / 1	1.005 alarm	C	R		T	

Table 75

Ballast operating time limit alarm is received with this object.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
77	DALI Channel A ECG 1	Operation Hours Feedback	0…65535h	7.007 time (h)	C		W		U

Table 76

With this object, ballast operating time is taken in hours.

7.4.5.2.8 Color control parameters

No	Name	Value	Description
1	*Color control type*	*Disable* *Tunable white control*	*This parameter activates the color control.*
2	*Warmest color value*	*1000…10000 K*	*This parameter sets the warmest color value.*
3	*Coolest color value*	*1000…10000 K*	*This parameter sets the coldest color value.*
4	*Switch on color value*	*No reaction* *Fixed value* *Latest value*	*With this parameter, the color temperature value of the off-color ballast when it is turned on is determined.*
5	*Color temperature*	*1000.10000 K*	*This parameter appears when the upper parameter "fixed value" is selected and specifies the color temperature.*
6	*Fade time for absolute color*	*0…90 s*	*This parameter determines the time required to change from the current value to the corresponding value after a value is set in the "absolute color temperature" object.*
7	*Fade time for relative color*	*0…90 s*	*This parameter determines the time required to change from the current value to the related value after a value is set in the "relative color temperature" object.*
8	*Fade time for percentage color*	*0…90 s*	*This parameter determines the time required to change from the current value to the related value after a value is set in the "percentage color temperature" object.*
9	*Allow switch on via absolute color*	*Disable / Enable*	*This parameter allows the lamp brightness to be switched on or off with the value in "absolute color temperature".*
10	*Allow switch on via relative color*	*Disable / Enable*	*This parameter allows the lamp brightness to be switched on or off with the value in "relative color temperature".*
11	*Allow switch on via percentage color*	*Disable / Enable*	*This parameter allows the lamp brightness to be switched on or off with the value in "percentage color temperature".*
12	*Color value feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter activates the color value retrieval object and determines how it works.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and*

No	Name	Value	Description
			at the same time the last value is cyclically printed on the KNX bus.
13	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
14	*Color value on ECG power recovery*	*Fixed value* *Latest value*	*This parameter determines the color value of the ECGs when the power is restored after a power failure.*
15	*Color temperature*	*1000.10000 K*	*This parameter appears when the upper parameter "fixed value" is selected and specifies the color temperature.*
16	*Color value on DALI bus failure*	*No reaction* *Fixed value* *Latest value*	*This parameter determines the color value in case of a fault on the DALI line.*
17	*Color temperature*	*1000.10000 K*	*This parameter appears when the upper parameter "fixed value" is selected and specifies the color temperature.*
18	*Color value on KNX bus failure*	*No reaction* *Fixed value* *Latest value*	*This parameter determines the color value in case of a fault on the KNX line.*
19	*Color temperature*	*1000.10000 K*	*This parameter appears when the upper parameter "fixed value" is selected and specifies the color temperature.*
20	*Color value after ETS download*	*No reaction* *Fixed value* *Latest value*	*This parameter determines the color value after the configuration is sent from ETS.*
21	*Color temperature*	*1000.10000 K*	*This parameter appears when the upper parameter "fixed value" is selected and specifies the color temperature.*

Table 77

7.4.5.2.9 Color control objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
78	*DALI Channel A ECG 1*	*Absolute Color Temperature Value*	*1000 … 10000K*	*7.600 absolute color temperature (K)*	*C*		*W*		*U*

Table 78

With this object the color temperature is set in kelvin.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
82	*DALI Channel A ECG 1*	*Relative Color Temperature Value*		*3.007 dimming control*	*C*		*W*		*U*

Table 79

With this object the color temperature can be increased or decreased in percent.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
86	*DALI Channel A ECG 1*	*Percentage Color Temperature*	*%0…100*	*5.001 percentage (0…100%)*	*C*		*W*		*U*

Table 80

With this object the color temperature can be assigned to a value in hundred.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
88	*DALI Channel A ECG 1*	*Color Temperature Feedback*	*1000 … 10000K*	*7.600 absolute color temperature (K)*	*C*	*R*		*T*	

Table 81

With this object, color temperature information can be obtained in kelvin.

7.4.5.2.10 Emergency light control parameters

No	Name	Value	Description
1	*Emergency control*	*Disable / Enable*	*This parameter activates the emergency lighting control.*
2	*Prolong time*	*0…125 m*	*This parameter extends the emergency mode in minutes.*
3	*Emergency mode level adjustable*	*Disable / Enable*	*This parameter indicates that the emergency lighting level is adjustable.*
4	*Emergency mode brightness level*	*%0 (OFF)* *…* *100%*	*This parameter determines the emergency lighting level.*
5	*Auto emergency tests*	*Disable / Enable*	*This parameter indicates that automatic emergency tests are supported and activated.*
6	*Function test period*	*0…255 d*	*This parameter specifies the function test period in days.*
7	*Duration test period*	*0…97 w*	*This parameter specifies the battery test period in weeks.*
8	*Partial duration test period*	*0…255 d*	*This parameter specifies the partial battery test period in weeks.*
10	*Partial duration test time*	*1…255 m*	*This parameter specifies the partial battery test time in minutes.*
11	*Converter status feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter determines the activation and mode of operation of the object that feedbacks the status of the emergency ballast.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
12	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
13	*Battery status feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter determines the activation and mode of operation of the object that feedbacks the battery status of the emergency ballast.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is*

No	Name	Value	Description
			selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes. *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
14	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
15	*Rest mode*	*Disable / Enable*	*With this parameter rest mode usage and object is activated.*
16	*Rest mode feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter determines how the rest mode state feedback object is activated and how it works.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
17	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
18	*Inhibit mode*	*Disable / Enable*	*This parameter activates the inhibit mode usage and object.*
19	*Enter inhibit mode after a test*	*Disable / Enable*	*This parameter enables automatic entry into inhibit mode after any test.*
20	*Inhibit mode feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter determines the activation and mode of operation of the object that feedbacks the inhibit mode state.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*

No	Name	Value	Description
	Period	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*

Table 82

7.4.5.2.11 Emergency light control objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
92	*DALI Channel A ECG 1*	*Emergency Lighting Test Control*		*20.611 converter test control*	*C*		*W*		*U*

Table 83

Emergency test control is performed with this object. It is used in the following format.

Field names	Description	Encoding	Unit	Range	Resolution:
TestCtrl	Controls a test of a DALI converter. Furthermore it allows to stop a running test and to reset test flags.	0: Reserved, no effect 1: Start Function Test (FT) Acc. DALI Cmd. 227 2: Start Duration Test (DT) Acc. DALI Cmd. 228 3: Start Partial Duration Test (PDT) 4: Stop Test Acc. DALI Cmd 229 5: Reset Function Test Done Flag Acc. DALI Cmd. 230 6: Reset Duration Test Done Acc. DALI Cmd. 231 7-255: Reserved, no effect Note: Concurrent tests to the same DALI converter will be supported.	None	0 to 255	not applicable

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
94	*DALI Channel A ECG 1*	*Emergency Lighting Converter Status*		*244.600 DALI converter status*	*C*	*R*		*T*	

Table 84

The status of the emergency ballast is monitored with this object. It is used in the following format.

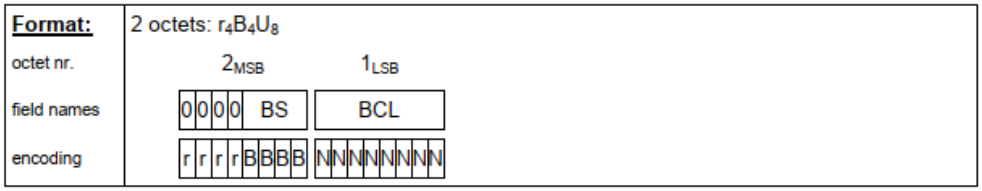
Format:	2 octets: $N_4B_4N_2N_2N_2N_2$															
octet nr.	2_{MSB}								1_{LSB}							
field names	CM				HS				FP		DP		PP		CF	
encoding	N	N	N	N	B	B	B	B	N	N	N	N	N	N	N	N

Field names	Description	Encoding	Unit	Range	Resolution:
CM	Converter Mode according to the DALI converter state machine	0: Unknown 1: Normal mode active, all OK 2: Inhibit mode active 3: Hardwired inhibit mode active 4: Rest mode active 5: Emergency mode active 6: Extended emergency mode active 7: FT in progress 8: DT in progress 9: PDT in progress 10-15 Reserved	None	{0…15}	not applicable
HS	Hardware Status	Bit 0: Hardwired Inhibit is active Bit 1: Hardwired switch is on Bit 2-3: reserved, must be 0	None	{0,1}	not applicable
FP	Function Test Pending	0: Unknown 1: No test pending 2: Test pending 3: Reserved Notes: The information about a running test is given in the Converter Mode field. The status “Unknown” may for instance occur at power-up.	None	{0…3}	not applicable
DP	Duration Test Pending	Duration Test Pending 0: Unknown 1: No test pending 2: Test pending 3: Reserved Notes: The information about a running test is given in the Converter Mode field. The status “Unknown” may for instance occur at power-up.	None	{0…3}	not applicable

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
96	*DALI Channel A ECG 1*	*Emergency Lighting Battery Status*		*246.600 Battery information*	*C*	*R*		*T*	

Table 85

With this object, battery status information of the emergency ballast is received. It is used in the following format.

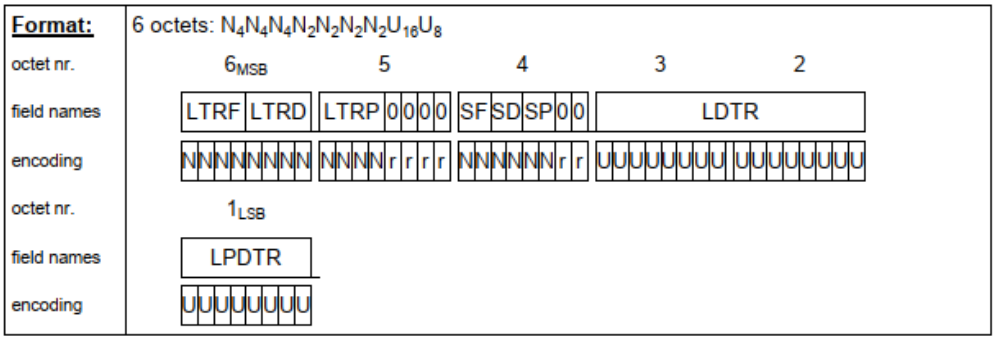


Field names	Description	Encoding	Unit	Range	Resolution:
BS	Battery Status	Bit 0: Battery Failure Acc. DALI Cmd. 252 Bit 1: Battery Duration Failure Acc. DALI Cmd. 252 Bit 2: Battery Fully Charged Bit 3-7: Reserved, must be 0	None	{0, 1}	not applicable
BCL	Battery Charge Level Indicates the recent charge level	0: deep discharge point … 254: fully charged 255: unknown or not supported According DALI Cmd. 241	None	{0…255}	not applicable

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
95	*DALI Channel A ECG 1*	*Emergency Lighting Test Result*		*245.600 DALI converter test result*	*C*	*R*		*T*	

Table 86

Emergency test results are monitored with this object. It is used in the following format.



Field names	Description	Encoding	Unit	Range	Resolution:
LTRF	Last Test Result FT: Test result of last function test	0: Unknown 1: Passed in time 2: Passed max delay exceeded 3: Failed, test executed in time 4: Failed, max delay exceeded 5: Test manually stopped 6-15: Reserved, do not use	None	{0…15}	not applicable
LTRD	Last Test Result DT: Test result of last duration test	0: Unknown 1: Passed in time 2: Passed max delay exceeded 3: Failed, test executed in time 4: Failed, max delay exceeded 5: Test manually stopped 6-15: Reserved, do not use	None	{0…15}	not applicable
LTRP	Last Test Result PDT: Test result of last partial duration test	Last Test Result PDT Test result of last partial duration test 0: Unknown 1: Passed in time 2: Passed max delay exceeded 3: Failed, test executed in time 4: Failed, max delay exceeded 5: Test manually stopped 6-15: Reserved, do not use	None	{0…15}	not applicable
SF	Start Method of Last FT	0: Unknown 1: Started automatically 2: Started by Gateway 3: Reserved Updated after a test has been finished.	None	{0…3}	not applicable

Field names	Description	Encoding	Unit	Range	Resolution:
SD	Start Method of Last DT	Start Method of Last DT 0: Unknown 1: Started automatically 2: Started by Gateway 3: Reserved Updated after a test has been finished.	None	{0…3}	not applicable
SP	Start Method of Last PDT	Start Method of Last PDT 0: Unknown 1: Started automatically 2: Started by Gateway 3: Reserved Updated after a test has been finished.	None	{0…3}	not applicable
LDTR	Contains the battery discharge time as the result of the last successful duration test (DT). According DALI Cmd. 243	DPT 7.006 DPT_TimePeriodMin The max. value of 510 min shall be interpreted as 510 min or longer.	min	{0…510}	not applicable
LPDTR	Last PDT Result Provides the remaining Battery Charge Level after the last PDT	0: deep discharge point … 254: fully charged 255: unknown According DALI Cmd. 241	None	{0…255}	not applicable

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
97	*DALI Channel A ECG 1*	*Emergency Lighting Rest Mode*	*0 / 1*	*1.003 enable*	*C*		*W*		*U*

Table 87

This object enables or disables rest mode.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
98	*DALI Channel A ECG 1*	*Emergency Lighting Rest Mode Feedback*	*0 / 1*	*1.003 enable*	*C*	*R*		*T*	

Table 88

Rest mode feedback is received with this object.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
99	*DALI Channel A ECG 1*	*Emergency Lighting Inhibit Mode*	*0 / 1*	*1.003 enable*	*C*		*W*		*U*

Table 89

This object enables or disables inhibit mode.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
100	*DALI Channel A ECG 1*	*Emergency Lighting Inhibit Mode Feedback*	*0 / 1*	*1.003 enable*	*C*	*R*		*T*	

Table 90

Inhibit mode feedback is received with this object.

7.4.5.3 ECG X

7.4.5.3.1 ECG X parameters

No	Name	Value	Description
1	*Label*		*This parameter assigns a label to the ballast.*
2	*Device type*	*Standard ECG* *Emergency ECG (non-switchable)* *Emergency ECG (switchable)* *Color ECG*	*This parameter selects the type of ballast.*
3	*Control type*	*Individually control* *Single group control*	*This parameter selects the control mode of the ballast.*
4	*General settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
5	*Feedbacks settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
6	*Behaviors settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
7	*Functions settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
8	*Color control settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
9	*Emergency control settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*

Table 91

7.4.5.4 Group X

7.4.5.4.1 Group X parameters

No	Name	Value	Description
1	*Label*		*This parameter assigns a label to the group.*
2	*General settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
3	*Feedbacks settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
4	*Behaviors settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
5	*Functions settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
6	*Color control settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*
7	*Emergency control settings*	*Apply from template* *Individual*	*Settings related to this parameter can be retrieved from the template or assigned individually.*

Table 92

7.4.6 Scenes tab

7.4.6.1 Scenes tab parameters

No	Name	Value	Description
1	*Scene x*	*Disable / Enable*	*This parameter activates scene x.*

Table 93

7.4.6.2 Scenes tab objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
3972	*DALI Channel A Scene*	*Control*		*18.001 scene control*	*C*		*W*		*U*

Table 94

Scenario control is done with this object.

7.4.6.3 Scene X

7.4.6.3.1 Scene X parameters

No	Name	Value	Description
1	*Label*		*With this parameter the scenario can be given a label.*
2	*Link to KNX scene number*	*1…64*	*This parameter determines the number with which the scenario will be triggered from the control object.*
3	*Overwrite on download*	*Disable / Enable*	*With this parameter, it is determined whether the scenario values will change during ets loading.*
4	*Learn function*	*Disable / Enable*	*This parameter enables the scenario values to be updated with the "learn" command from the control object.*
5	*Fade time*	*0…65535 s*	*This parameter determines the time to switch to the lighting levels specified in the scenario.*
6	*ECG/Group X brightness value*	*No reaction* *Fixed value*	*This parameter determines whether X ballast/group is included in the scenario.*
7	*Brightness value*	*%0 (OFF)* *…* *100%*	*This parameter determines the illumination value.*
8	*ECG/Group X color value*	*No reaction* *Fixed value*	*This parameter determines whether X ballast/group is included in the scenario.*

No	Name	Value	Description
9	*Color type*	*Tunable white control*	*This parameter determines the color control type.*
10	*Color value*		*This parameter determines the color value.*

Table 95

7.4.7 Emergency light tab

7.4.7.1 Emergency light tab parameters

No	Name	Value	Description
1	*Addressed test control*	*Disable / Enable*	*This parameter enables the emergency test control and object to be activated.*
2	*Addressed test result*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, emergency test results can be obtained addressable.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*

Table 96

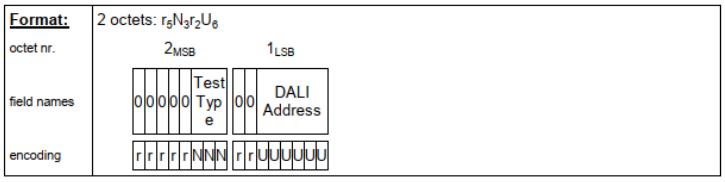
7.4.7.2 Emergency light tab objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4006	*DALI Channel A Emergency Light Control*	*Addressed Test Control*		*7.001 pulses*	*C*		*W*		*U*

Table 97

This object is used for addressed emergency test control. It is used in the following format.

Format definition



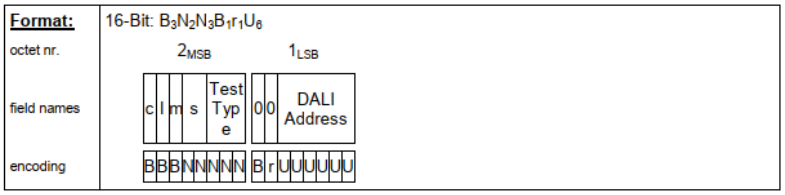
Field names	Description	Encoding	Unit	Range	Resolution:
- Test Type	Type of converter test	0 = Stop Test 1 = Start Function Test 2 = Start Partial duration Test 3 = Start Duration Test 4-7 = reserved	None	{0…7}	not applicable
- DALI Address	DALI Short Address	See note	None	{0…63}	not applicable

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4007	*DALI Channel A Emergency Light Control*	*Addressed Test Result*		*7.001 pulses*	*C*	*R*		*T*	

Table 98

Emergency test results can be monitored with this object. It is used in the following format.

Format definition



Field names	Description	Encoding	Unit	Range	Resolution:
- c	Emergency converter failure	0 = ok 1 = Converter failure	None	{0, 1}	not applicable
- I	Lamp failure	0 = ok 1 = Lamp failure	None	{0, 1}	not applicable
- m	Current test given by Test Type was started manually	0 = Automatic test 1 = Manually triggered test	None	{0, 1}	not applicable
- s	Status of the test given in Test Type	0 = Completed / Idle 1 = Pending 2 = Running 3 = Aborted	None	{0…3}	not applicable
- Test Type	Type of converter test	0 = None 1 = Function Test 2 = Partial duration Test 3 = Duration Test4,5,6 = reserved 7 = invalid[1]	None	{0…7}	not applicable
- DALI Address	DALI Short Address	See note	None	{0…63}	not applicable

7.4.8 Feedbacks tab

7.4.8.1 Feedbacks tab parameters

No	Name	Value	Description
1	*Central switching feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, the lighting status of the ballasts can be taken on and off.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
2	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
3	*Object behavior*	*If all DALI devices are switched on* *If defined DALI devices are switched on* *If at least one DALI device is switched on*	*This parameter determines how the object will behave.*
4	*Value*	*1…64*	*This parameter determines the number of ballasts.*
5	*Central brightness feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, the illumination levels of the ballasts can be obtained in percentage.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
6	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
7	*Object behavior*	*Highest brightness value* *Average brightness value* *Lowest brightness value*	*This parameter determines how the object will behave.*
8	*Send value while dimming action*	*Disable / Enable*	*This parameter enables sending the current value when switching between lighting levels.*

No	Name	Value	Description
9	*Interval*	*5…65535 s*	*This parameter determines how often the current values will give information in seconds.*
10	*Addressed switching feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, the lighting levels of the ballast or group can be taken on and off.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
11	*Period*	*3…255s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
12	*Addressed brightness feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, the lighting levels of the ballast or group can be obtained in percentages.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
13	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
14	*Combined switching feedback*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, lighting information of all ballasts and groups can be obtained with a single object in terms of on-off.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*

No	Name	Value	Description
15	*Period*	*3…255s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
16	*Central operation hour feedback*	*Disable / Enable*	*With this parameter, you can get the information that any ballast's operating hour alarm has been triggered.*

Table 99

7.4.8.2 Feedbacks tab objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4010	*DALI Channel A Feedback*	*Central Switching Feedback*	*0 / 1*	*1.001 switch*	*C*	*R*		*T*	

Table 100

With this object, the on-off status of ballasts can be monitored conditionally.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4011	*DALI Channel A Feedback*	*Central Brightness Feedback*	*%0 (Off) … %100*	*5.001 percentage (0…100%)*	*C*	*R*		*T*	

Table 101

With this object, the lighting level information of the ballasts can be monitored conditionally.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4012	*DALI Channel A Feedback*	*Addressed Switching Feedback*		*5.* 8-bit unsigned value*	*C*	*R*		*T*	

Table 102

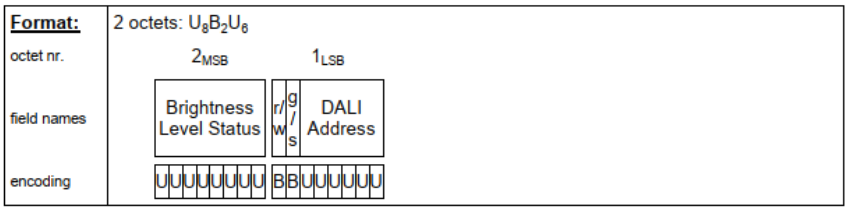
With this object, the information of the last switched ballast or group can be retrieved with its address. It is used in the following format.

Field names	Description	Encoding	Unit	Range	Resolution:
- s	Switching Status	0 = Off 1 = On	None	{0, 1}	
- g/s	Group / Short	1 = Group Addr. 0 = Short Addr.	None	{0, 1}	
- DALI Address	DALI Group or Short Address	See note	None	{0…15} {0…63}	

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4014	*DALI Channel A Feedback*	*Addressed Brightness Feedback*		*5.* 8-bit unsigned value*	*C*	*R*		*T*	

Table 103

With this object, the last changed lighting level information of a ballast or group can be retrieved with its address. It is used in the following format.



Field names	Description	Encoding	Unit	Range	Resolution:
- Brightness Level Status	Current Brightness Level Status	0 = Off 1 = min. 255 = max.	%	{0…100}	~0,4%
- r/w	Read / Write	1 = request 0 = answer	None	{0, 1}	not applicable
- g/s	Group / Short	1 = Group Addr. 0 = Short Addr.	None	{0, 1}	not applicable
- DALI Address	DALI Group or Short Address	See note	None	{0…15} {0…63}	not applicable

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4014	*DALI Channel A Feedback*	*Combined Switching Feedback*		*10 bytes*	*C*	*R*		*T*	

Table 104

With this object, you can get the lighting status of all ballasts and groups as on and off.
It is used in the following format.

Byte	10	9	8	7	6	5	4	3	2	1
Info	Group (16-9)	Group (8-1)	ECG (64-57)	ECG (56-49)	ECG (48-41)	ECG (40-33)	ECG (32-25)	ECG (24-17)	ECG (16-9)	ECG (8-1)

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4014	*DALI Channel A Feedback*	*Central Operation Hour Feedback*	*0 / 1*	*1.005 alarm*	*C*	*R*		*T*	

Table 105

With this object, you can get alarm information when the operating hours of any ballast expires.

7.4.9 Faults tab

7.4.9.1 Faults tab parameters

No	Name	Value	Description
1	*Acknowledgement fault messages*	*Disable / Enable*	*With this parameter, the resetting of errors is set to be done by triggering with the object.*
2	*Disable fault messages*	*Disable / Enable*	*This parameter activates the object that can disable the update of error objects.*
3	*Show address of faulty ECGs*	*Disable / Enable*	*This parameter activates the objects for which an incorrect ballast address can be observed.*
4	*Show address of faulty groups*	*Disable / Enable*	*With this parameter, objects with incorrect group address are activated.*
5	*Central ECG fault*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, the object that can receive information as an alarm when any ballast fails is activated.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
6	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
7	*Central lamp fault*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, the object that can receive information as an alarm when a ballast lamp fails is activated.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
8	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
9	*Number of ECG fault*	*Disable* *On request*	*This parameter activates the object that can receive the total number of faulty ballasts.*

No	Name	Value	Description
		On request or on change *On request or on cyclically*	*On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
10	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
11	*Number of lamp fault*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, the object that can receive the total number of lamp faulty ballasts is activated.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
12	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
13	*Addressed DALI fault*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, if there is a fault in any ballast or group, the object whose address can be used to get information is activated.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
14	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
15	*Combined DALI channel faults*	*Disable* *On request*	*With this parameter, the object that can receive certain errors occurring in the channel together is activated.*

No	Name	Value	Description
		On request or on change *On request or on cyclically*	*On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
16	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
17	*Combined ECG fault*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*With this parameter, the object that can receive all faulty ballasts together is activated.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
18	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*
19	*Combined lamp fault*	*Disable* *On request* *On request or on change* *On request or on cyclically*	*This parameter activates the object that can be used with all lamp faulty ballasts.* *On request: When this value is selected, the object must be read manually.* *On request or on change: When this value is selected, the object can be read manually and at the same time the last value is printed on the KNX bus when its value changes.* *On request or on cyclically: When this value is selected, the object can be read manually and at the same time the last value is cyclically printed on the KNX bus.*
20	*Period*	*3…255 s*	*This parameter determines how many seconds intervals the messages to be sent to the KNX bus will be sent cyclically.*

Table 106

7.4.9.2 Faults tab objects

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4018	*DALI Channel A Fault*	*Acknowledge Fault Messages*	*0 / 1*	*1.016 acknowledge*	*C*		*W*		*U*

Table 107

This object triggers the reset of channel error objects.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4019	*DALI Channel A Fault*	*Disable Fault Messages*	*0 / 1*	*1.003 enable*	*C*		*W*		*U*

Table 108

With this object, the update of error objects in the channel can be disabled.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4020	*DALI Channel A Fault*	*Show Address of Faulty ECGs*	*0...63 address 255 no error*	*5.010 counter pulses(0..255)*	*C*	*R*		*T*	

Table 109

With this object, faulty ballasts in the channel can be observed in sequence. The "Next/Previous" object is used to trigger.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4021	*DALI Channel A Fault*	*Show Address of Next/Previous Faulty ECG*	*0 / 1*	*1.008 up/down*	*C*		*W*		*U*

Table 110

This object triggers the switching between faulty objects and receives information from the error tracking object.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4022	*DALI Channel A Fault*	*Show Address of Faulty Groups*	*0...15 address 255 no error*	*5.010 counter pulses(0..255)*	*C*	*R*		*T*	

Table 111

With this object, groups of faults in the channel can be observed in sequence. The "Next/Previous" object is used to trigger.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4023	*DALI Channel A Fault*	*Show Address of Next/Previous Faulty Group*	*0 / 1*	*1.008 up/down*	*C*		*W*		*U*

Table 112

This object triggers the switching between faulty objects and receives information from the error tracking object.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4024	*DALI Channel A Fault*	*Central ECG Fault*	*0 / 1*	*1.005 alarm*	*C*	*R*		*T*	

Table 113

This object is used to determine whether there is any faulty ballast in the channel.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4025	*DALI Channel A Fault*	*Central ECG Fault*	*0 / 1*	*1.005 alarm*	*C*	*R*		*T*	

Table 114

With this object, information is obtained whether there is any faulty ballast in the channel.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4026	*DALI Channel A Fault*	*Number of ECG Fault*	*0...64*	*5.010 counter pulses (0..255)*	*C*	*R*		*T*	

Table 115

With this object, the number of faulty ballasts in the channel is retrieved.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4027	*DALI Channel A Fault*	*Number of Lamp Fault*	*0...64*	*5.010 counter pulses (0..255)*	*C*	*R*		*T*	

Table 116

With this object the number of faulty ballasts in the channel is taken.

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4028	*DALI Channel A Fault*	*Addressed DALI Fault*		*237.600 dali diagnostic*	*C*	*R*		*T*	

Table 117

With this object, the last ballast or lamp faulted ballast or group is retrieved with address information. It is used in the following format.

Format:	2 octets: $B_{10}U_6$															
octet nr.	2 MSB								1 LSB							
	b_{15}	b_{14}	b_{13}	b_{12}	b_{11}	b_{10}	b_9	b_8	b_7	b_6	b_5	b_4	b_3	b_2	b_1	b_0
field names	r	r	r	r	r	CE	BF	LF	RR	AI	Addr					
encoding	B	B	B	B	B	B	B	B	B	B	U_6					
PDT:	PDT_GENERIC_02															

Datapoint Types		
ID:	Name:	Use:
237.600	DPT_DALI_Control_Gear_Diagnostic	Lighting

Bit	Abbr.	Field name	Encoding	Range	Unit	Resol.
b_0 to b_5	Addr	AI = 0: DALI Device Address	U_6	0 to 63	none	1
		AI = 1: DALI Group Address	U_6	0 to 15	none	1
		This shall contain the DALI Device Address or the DALI Group Address, according the value of the field AI, for which the diagnostic information is given.				
b_6	AI	Address Indicator	0: Device Address 1: Group Address	{0,1}	none	n/a
		This field shall indicate whether the address contained in the field Addr contains a DALI Device Address (1) or a DALI Group Address (0).				
b_7	RR	Read or Response	0: Response or spontaneous sending 1: Read	{0,1}	none	n/a
		This field shall indicate whether this data is - a response to a read request or a spontaneous sending (output), or - a read request (input)				
b_8	LF	Lamp Failure	0: no error 1: error	{0,1}	none	n/a
		This shall signal whether or not there is a failure of the connected lamp.				
b_9	BF	Ballast Failure	0: no error 1: error	{0,1}	none	na
		This shall signal whether or not there is an internal device failure in the DALI control gear.				
b_{10}	CE	Convertor Error [25]	0: no error 1: error	{0,1}	none	na
		This field shall indicate whether or not there is a convertor error.				
b_{11} to b_{15}	r	These bits are reserved for future use and shall be 0.				

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4029	*DALI Channel A Fault*	*Combined DALI Channel Faults*		*5.010 counter pulses (0..255)*	*C*	*R*		*T*	

Table 118

With this object, the status of errors on the DALI channel is monitored. It is used in the following format.

Bit	Field name	
b0	ECG/Lamp Failure	0: No any ballast with ecg or lamp fault 1: Has at least one ballast with ecg or lamp fault
b1	Bus overloaded	0: No error 1: Error
b2	Bus overvoltage	0: No error 1: Error
b3	Bus shortcircuit	0: No error 1: Error
b4	Reserved	0
b5	Reserved	0
b6	Reserved	0
b7	Reserved	0

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4030	*DALI Channel A Feedback*	*Combined ECG Fault*		*10 bytes*	*C*	*R*		*T*	

Table 119

With this object, information about all faulty ballasts and groups can be obtained. It is used in the following format.

Byte	10	9	8	7	6	5	4	3	2	1
Info	Group (16-9)	Group (8-1)	ECG (64-57)	ECG (56-49)	ECG (48-41)	ECG (40-33)	ECG (32-25)	ECG (24-17)	ECG (16-9)	ECG (8-1)

No	Name	Function	Value	Type	Flags				
					C	R	W	T	U
4031	*DALI Channel A Feedback*	*Combined Lamp Fault*		*10 bytes*	*C*	*R*		*T*	

Table 120

With this object, information of all lamp faulty ballasts and groups can be obtained. It is used in the following format.

Byte	10	9	8	7	6	5	4	3	2	1
Info	Group (16-9)	Group (8-1)	ECG (64-57)	ECG (56-49)	ECG (48-41)	ECG (40-33)	ECG (32-25)	ECG (24-17)	ECG (16-9)	ECG (8-1)

8 User menu

No	Label	Use	Description
L1	A	A Channel LED	This LED indicates that the menu on the device display will be applied for channel A
L2	B	B Channel LED	This LED indicates that the menu on the device display will be applied for channel B
L3	MENU	Menu LED	This LED indicates that the device menu is active
L4	STATUS	Status LED	This LED indicates 2 states by illuminating with 2 different colors with a period of 1 second Green: The device works in active state Red: The device does not work in active state
L5	IP LINK	IP LED	This LED indicates 2 states with 2 different colors Green: IP Traffic Red: Ethernet cable plugged in
L6	KNX PROG	KNX LED	This LED indicates KNX status information Period blinking: No KNX line Fixed on: Device in KNX address identification mode
B1	◀	Left button	This button is used for menu navigation
B2	SET	Enter/Confirm button	This button is used for menu navigation and confirmation
B3	▶	Right button	This button is used for menu navigation
B4	ESC	Exit/Cancel button	This button is used for menu navigation and canceling

No	Label	Use	Description
B5		KNX button	This button puts the device in KNX address identification mode
D1		Display	This screen is used for user menu and information

Table 121