General description:

The device fits for the particular use of the following tasks:

To play a programmed melody over an external loudspeaker.

The audio interface has 12 predefined melodies + 6 places for individual MP3 files.

The predefined melodies can be listened to on the homepage:

https://www.hugo-mueller.de/en/products/connect-knx/knx-tp-products/audio-interfaces/chime-interface-as-26x1-knx/#downloads

Application program

Manufacturer:

Hugo Müller GmbH & Co KG
Karlstraße 90
D-78054 VS-Schwenningen, Germany

Application program name:

[AS 36.x3 knx] chime interface

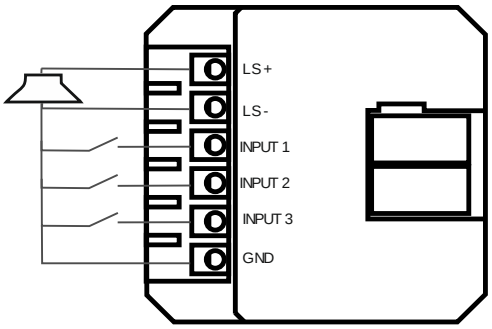
Installation:

Add the device to your device list and open a new project. You can download the ETS database on our webpage:
http://www.hugo-mueller.de/en/downloads/knx-product-database/

Technical Specifications

Supply voltage	via KNX bus voltage
Bus current	< 12 mA without output signal < 20 mA with output signal
Bus system	KNX
Input	3 binary inputs
Output	1 speaker output
Volume level	11 volume steps
Speaker output	max. 0,45 W
Impendence ext. speaker	4-8 Ohm
Melodies	12 preset tones 6 places for individual MP3 files
Application software	ETS5
Permitted ambient temperature	-10...45 °C
Housing	self-extinguishing thermoplastic
Dimensions AS36.03 knx	44x41,5x20 mm
Dimensions loudspeaker	⌀ 60 mm incl. mounting ring
Mounting	flush-mounting
Type of connection	KNX-Connector Screw-type terminals (for in-/outputs)
Type of protection	IP20 according to DIN EN 60529
Class of protection	III when installed according to regulations

Connection picture



Parameter overview

Parameter		Description
Global settings		Send in operation, mute function, Global blocking object, Behavior at bus recovery
Activation objects	Settings	Activation, Number of activation objects
	Activation object A: [*xyz*]	Description, Activate condition, Tone selection, Volume, Number of cycles, Volume changeable with object Blocking object Day / night operation **Activation objects A-J are identically structured**
Scenes	Settings	Activation, Number of activation objects
	Scene: [*xyz*]	Description, Scene number, Tone selection, Volume, Number of cycles or permanent activation
External input	General	Description, Limit number of telegrams, Limit number of telegrams per xxx seconds Function
	Input 1 General	Description Function Binary function
	Input 1 Scene	Input configuration on actuation Scene number on actuation Save scene Debounce time... in ms Blocking object

Input 1 multiple actuation

Input configuration on actuation

Debounce time ... in ms

Max. Number of actuations

Dispatched value

Maximum time between two actuations ... in s

Additional object for long actuation

Blocking object

Inputs 1-3 have identical structure

Parameter description

Global settings

Send in operation:

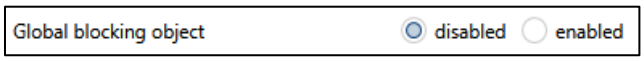
Sends the status of the device via object 2: „Send in operation”
It can be triggered via object 3: ”request status”

Mute function:

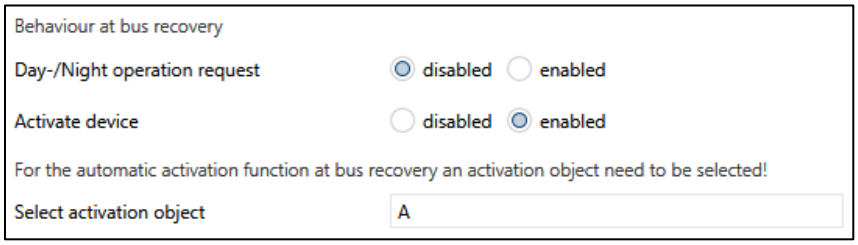
With the object 4: “mute function” it´s possible to mute the chime for a selected period. If the device is still active after that time, the sound will be continued.

Global blocking object:

With the object 5: “global blocking object” the complete device can be blocked. The chime can only sound after deactivate that blocking object.



Behavior at bus recovery:
At the day / night operation you can read the status of that operation.
It´s possible to activate the device directly after bus recovery, e.g. to show a bus disconnection. It´s necessary to parametrize an activation object for that and select it.



Activation objects

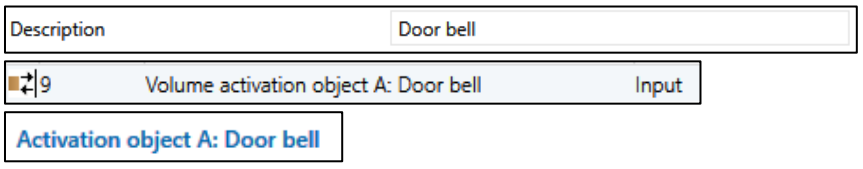
Settings

Activation objects:
Here the activation objects are selected and the number is set. There is a maximum of 10 objects.
The priority looks like that:
A > B > C > D > E > F > G > H > I > J

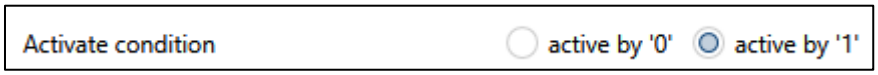
Example:
- Object B is active
- Now object A is activated
- Object B stops and object A starts
- To start the object B, the object A needs to be stopped and object A activated again.

Activation object A: *[description]*

Description:
You can write a description/name for the activation object. That will also be taken for the communication objects and in the parameter overview.



Activate condition:
The object can be activated with a “0” or a “1” (default)



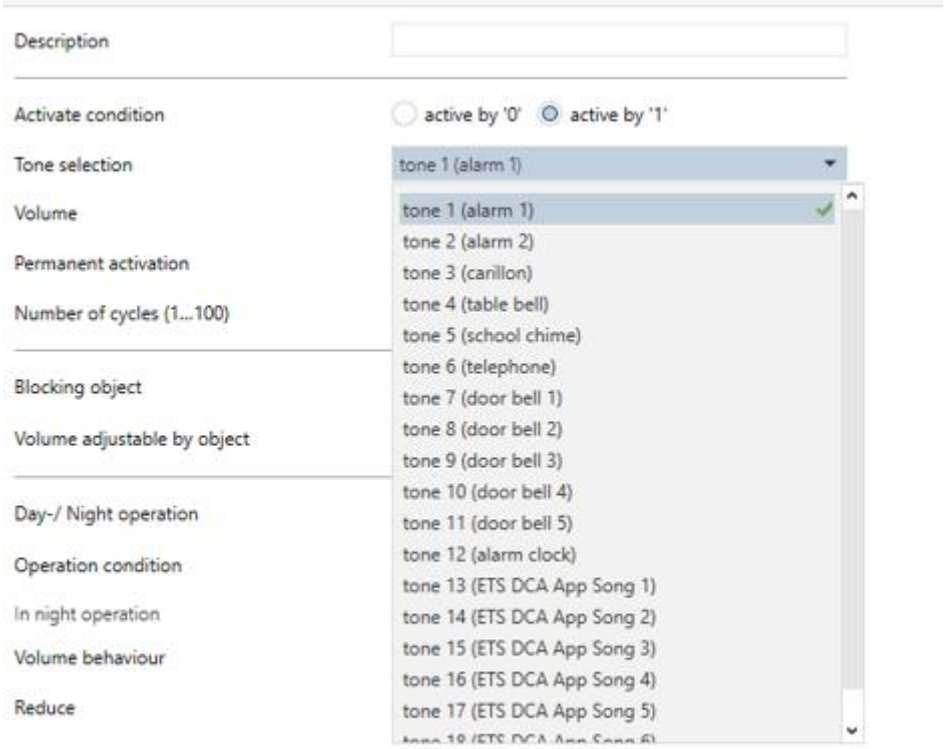
Tone selection:
There are 12 pre-defined tones selectable. You can test them on our homepage:

https://www.hugo-mueller.de/en/products/connect-knx/audio-interfaces/audio-interface-as-36x3-knx/#downloads

There is also the possibility to play 6 individual MP3 files.

Thus, up to 18 melodies can be played.

(Places 1-12 predefined melodies / places 13-18 individual Mp3 files).

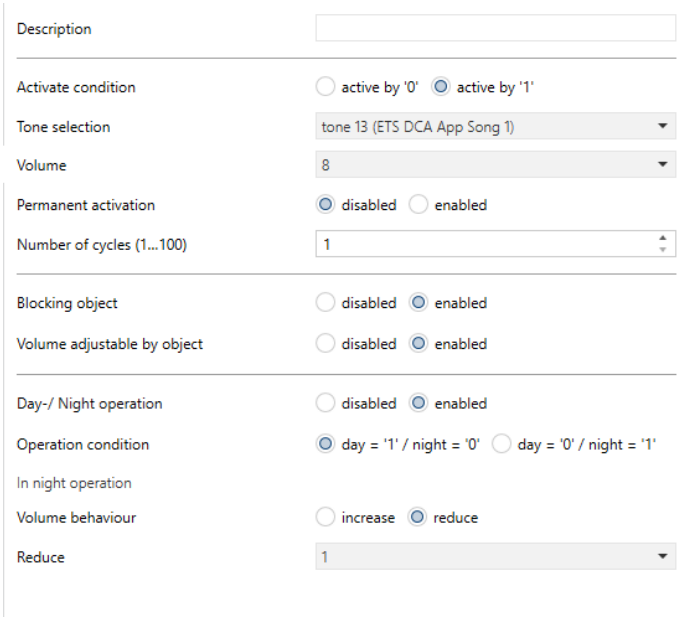


Volume:
The volume can be adjusted in 11 steps. At the step „min“ there is still a minimum sound hearable.

Min 1 2 3 4 5 6 7 8 9 Max

Insert Mp3 files:

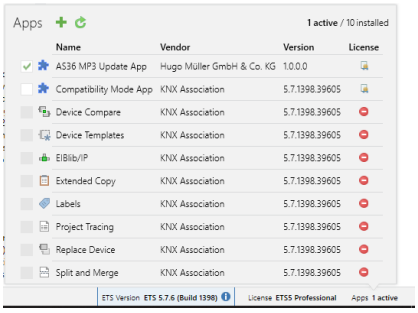
It is possible to load up to 6 individual MP3 files to the device. For this, a place with the description DCA APP song xx is selected.



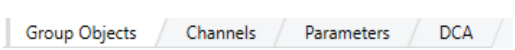
To get the MP3 file on the audio interface an app is necessary. You can find it on our Homepage:

https://www.hugo-mueller.de/en/products/connect-knx/audio-interfaces/audio-interface-as-36x3-knx/#downloads

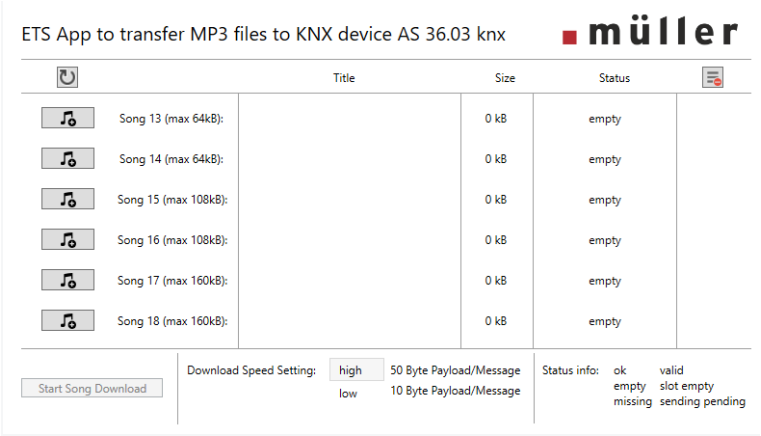
this app must now be installed in the ets



Now next to the parameters DCA is shown:



To upload a file, select a place and search for the file. Then click Start Song Download to start the download. Please note the maximum file size noted to the right of each song + number.



Attention!!

The audio interface can output songs up to a certain volume. If this volume is exceeded, the amplifier switches off to avoid a defect. Therefore, the following procedure should be followed:

1. the MP3 file should be normalized before downloading, this is an increase in amplitude to achieve the maximum volume. (Tools e.g. Audacity or mp3gain)

If the volume is now too loud and the amplifier switches off directly, it is recommended to either reduce the volume using MP3 Tool and then download again via the ETS DCA APP or regulate the volume using ETS down.

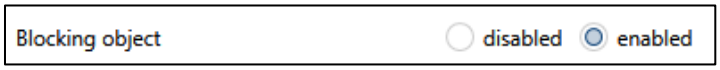
While downloading a song in the DCA app, the window must remain open to prevent interruption of the download. If this happens, the device must be completely unloaded and reprogrammed via the ETS.

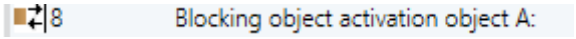
To achieve the shortest possible transfer time, it is recommended to program the interface as a stand-alone device, since the duration of the transfer can be considerable depending on the bus load.

Permanent activation & number of cycles:
A permanent activation can be selected. Then it´s only possible to stop it with a deactivation of the object or start a higher prioritized object.
If a permanent activation is not needed then a number of cycles need to be selected.

Blocking object:

A communication object - "Blocking object" can be made available for the specific activation object. Disable objects and day / night objects are saved. These must be actively deleted again by deactivating.

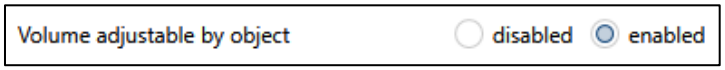




Volume changeable via object:
A communication object can change the volume if that function is active.
Note:

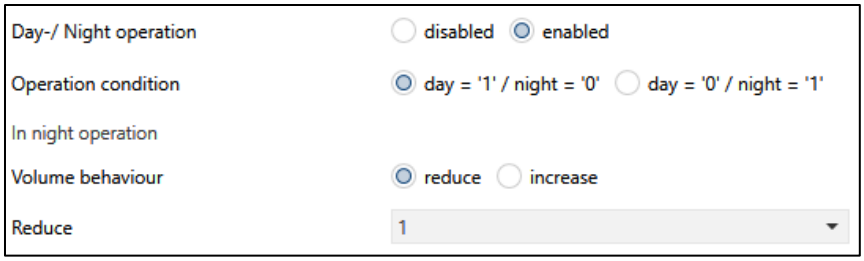
That object is set in %. The value will be rounded up or down. e.g.

4% -> Min. Step / 5% -> 1. Step / 14% -> 1. Step / 16% -> 2. Step / 95% -> Max.



Day- / Night operation:
With the object 6: “Day-/Night operation” a day or night operation can be simulated. You can select an increase or decrease of the global volume. That setting affects all activation types! You need to select the increase/decrease step of the volume.

Note: At a maximum decrease of the volume there is still a minimum tone hearable. For example: If the volume is set on “5” and the night decrease is “6” then the value is on “min”.
For a stop of the sound output you need to deactivate the activation object or mute it for a certain time.



Scenes

Settings

Scene activation:
Here you select the activation via scenes and set the needed amount of scenes. It´s possible to choose up until 16 scenes.
Note: The activation objects have a higher priority than the scenes!

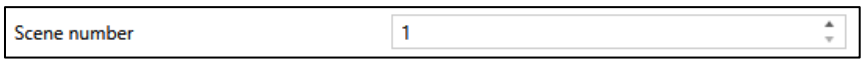
Scene A: *[description]*

Description:
You can write a description/name for the scene.

Scene number:
A scene number need to be selected.
Note: In case of duplicated scene numbers, only the first one will be activated!

Example:

Scene 1 and 2 both have scene number 1 Scene 1 is always executed, scene 2 never!



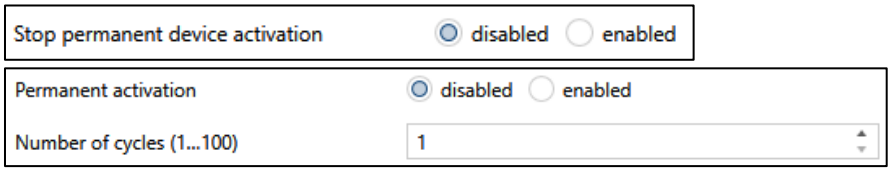
Tone selection:
There are 12 pre-defined tones selectable. You can test them on our homepage:
https://www.hugo-mueller.de/produkte/vernetzen-knx/knx-tp-produkte/audio-schnittstellen/gong-schnittstelle-as-26x1-knx/#downloads

There is also the possibility to play 6 individual MP3 files.

Volume:
The volume can be adjusted in 11 steps. At the step „min“ there is still a minimum sound hearable.

Min 1 2 3 4 5 6 7 8 9 Max

Permanent activation & number of cycles:
You can set a permanent activation of the device. Die tone can only be deactivated with the start of a second scene and the function “Stop permanent device activation”. If a permanent activation is not needed then a number of cycles need to be selected.



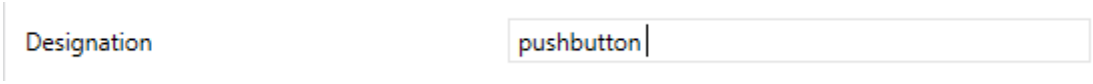
External input

General

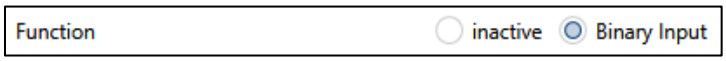
Limit number of telegrams:
To limit the data transfer on the bus the telegrams can be limited.

Input 1 General

Designation:
A designation can be assigned to the input.

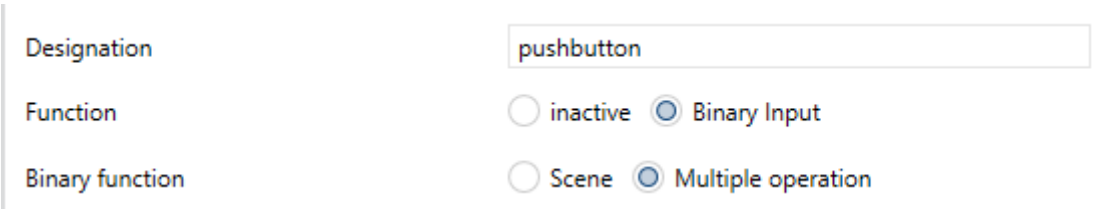


Function:
The binary input can be activated here.



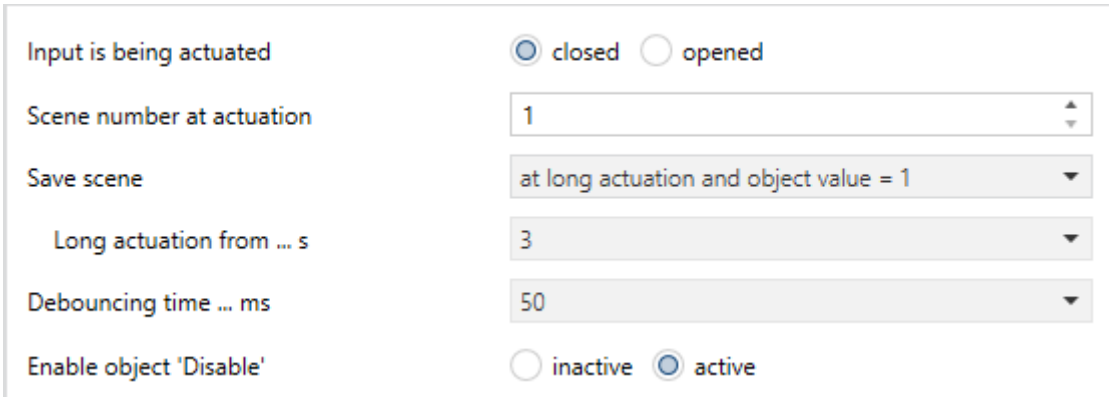
Binary Input:

The function at the binary input can be selected and parameterized accordingly. For this purpose, a distinction is made between scene and multiple actuation.



Input 1 Scene control

If scene control is used, the input can be parameterized accordingly. In addition, the scene number and the debounce time can be set. A blocking object can also be activated.



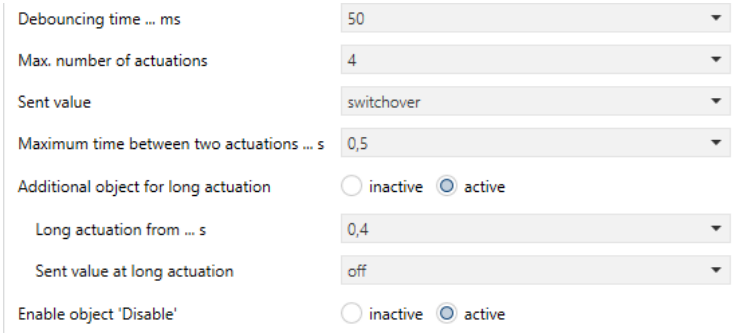
Input 1 Multiple actuation

Input 1 on actuation

If multiple actuation is activated, the input can be parameterized. It is important to note when the input is to be recognized as active. Either in the closed state (e.g. when a button is pressed) or in the open state (e.g. when the button is released).

Setting the scanning frequency

The debounce time can be set between 10 and 150 ms. In addition, up to 4 actuations can be processed, which in turn can be set with a maximum time between two actuations and an additional object for a long actuation. This time can be set between 0.3 and 10 seconds, and the value sent can be selected between off / on and toggle.



Blocking Object

A communication object - "blocking object" can be made available for the specific activation object.

Communication objects

Object number	Object name	Object function	Object size	Flag* C - R - W - T- U	Data Type
2	Send in operation	Output	1 bit	--CT--	DPT switch
3	Request status	Input	1 bit	-WC---	DPT trigger
4	Mute function	Input	1 bit	-WC---	DPT switch
5	Global blocking object	Input	1 bit	-WC---	DPT enable
7	Activation object A:	Input	1 bit	-WC---	DPT switch
8	Blocking object activation object A:	Input	1 bit	-WC---	DPT enable
9	Volume activation object A:	Input	1 Byte	-WC---	DPT percent (0-100%)
10	Day/night operation Activation object A	Input	1 bit	-WC---	DPT switch
11	Activation object B:	Input	1 bit	-WC---	DPT switch
12	Blocking object activation object B:	Input	1 bit	-WC---	DPT enable
13	Volume activation object B:	Input	1 Byte	-WC---	DPT percent (0-100%)
14	Day/night operation Activation object B	Input	1 bit	-WC---	DPT switch
15	Activation object C:	Input	1 bit	-WC---	DPT switch
16	Blocking object activation object C:	Input	1 bit	-WC---	DPT enable
17	Volume activation object C:	Input	1 Byte	-WC---	DPT percent (0-100%)
18	Day/night operation Activation object C	Input	1 bit	-WC---	DPT switch
19	Activation object D:	Input	1 bit	-WC---	DPT switch
20	Blocking object activation object D:	Input	1 bit	-WC---	DPT enable
21	Volume activation object D:	Input	1 Byte	-WC---	DPT percent (0-100%)
22	Day/night operation Activation object D	Input	1 bit	-WC---	DPT switch
23	Activation object E:	Input	1 bit	-WC---	DPT switch
24	Blocking object activation object E:	Input	1 bit	-WC---	DPT enable
25	Volume activation object E:	Input	1 Byte	-WC---	DPT enable
26	Day/night operation Activation object E	Input	1 bit	-WC---	DPT switch
27	Activation object F:	Input	1 bit	-WC---	DPT switch

28	Blocking object activation object F:	Input	1 bit	-WC---	DPT enable
29	Volume activation object F:	Input	1 Byte	-WC---	DPT switch
30	Day/night operation Activation object F	Input	1 bit	-WC---	DPT switch
31	Activation object G:	Input	1 bit	-WC---	DPT switch
32	Blocking object activation object G:	Input	1 bit	-WC---	DPT enable
33	Volume activation object G:	Input	1 Byte	-WC---	DPT percent (0-100%)
34	Day/night operation Activation object G	Input	1 bit	-WC---	DPT switch
35	Activation object H:	Input	1 bit	-WC---	DPT switch
36	Blocking object activation object H:	Input	1 bit	-WC---	DPT enable
37	Volume activation object H:	Input	1 Byte	-WC---	DPT percent (0-100%)
38	Day/night operation Activation object H	Input	1 bit	-WC---	DPT switch
39	Activation object I:	Input	1 bit	-WC---	DPT switch
40	Blocking object activation object, I:	Input	1 bit	-WC---	DPT enable
41	Volume activation object I:	Input	1 Byte	-WC---	DPT enable
42	Day/night operation Activation object I	Input	1 bit	-WC---	DPT switch
43	Activation object J:	Input	1 bit	-WC---	DPT switch
44	Blocking object activation object J:	Input	1 bit	-WC---	DPT enable
45	Volume activation object J:	Input	1 Byte	-WC---	DPT percent (0-100%)
46	Day/night operation Activation object J	Input	1 bit	-WC---	DPT switch
47	Scene chime interface	Input	1 Byte	-WC---	DPT Scene number
80	E1 scene	Output	1 bit	-WCT--	DPT scene
84	E1 save scene	Output	1 bit	-WCT--	DPT enable
82	E1 Scene storage display	Input	1 bit	-WC---	DPT enable
98	E1 blocking object:	Input	1 bit	-WC---	DPT enable
80	E1 switching 1 actuation	Output	1 bit	-WCT--	DPT switch
81	E1 switching 2 actuations	Output	1 bit	-WCT--	DPT switch
82	E1 switching 3 actuations	Output	1 bit	-WCT--	DPT switch
83	E1 switching 4 actuations	Output	1 bit	-WCT--	DPT switch

84	E1 Switching long operation	Output	1 bit	-WCT--	DPT switch
98	E1 blocking object:	Input	1 bit	-WC---	DPT enable
100	E2 Scene	Output	1 bit	-WCT--	DPT scene number
104	E2 save scene	Input	1 bit	-WCT--	DPT enable
102	E2 Scene storage display	Input	1 bit	-WCT--	DPT enable
118	E2 blocking object:	Output	1 bit	-WCT--	DPT enable
100	E2 switching 1 actuation	Output	1 bit	-WCT--	DPT switch
101	E2 switching 2 actuations	Output	1 bit	-WCT--	DPT switch
102	E2 switching 3 actuations	Output	1 bit	-WCT--	DPT switch
103	E2 switching 4 actuations	Output	1 bit	-WCT--	DPT switch
104	E2 Switching long operation	Output	1 bit	-WCT--	DPT switch
118	E2 blocking object:	Output	1 bit	-WCT--	DPT enable
120	E3 Scene	Output	1 Byte	-WCT--	DPT scene number
124	E3 save scene	Input	1 bit	-WCT--	DPT enable
124	E3 Release save	Output	1 bit	-WCT--	DPT enable
122	E3 Scene storage display	Output	1 bit	-WCT--	DPT enable
138	E3 blocking object:	Input	1 bit	-WCT--	DPT enable
120	E3 switching 1 actuation	Output	1 bit	-WCT--	DPT switch
121	E3 switching 2 actuations	Output	1 bit	-WCT--	DPT switch
122	E3 switching 3 actuations	Output	1 bit	-WCT--	DPT switch
123	E3 switching 4 actuations	Output	1 bit	-WCT--	DPT switch
138	E3 blocking object	Input	1 bit	-WCT--	DPT enable

*Flag	Name	Meaning
C	Communication	Object can communicate
R	Read	Object status can be requested (ETS, display etc.)
W	Write	Object can receive information
T	Transmit	Object can send information
U	Update	Object can request a value from another bus participant. The answer is interpreted as write command and updates the value of the communication object. This is typically used to request external sensor data after a bus voltage recovery.