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Control S (eibPort)
Documentation

Version 3.0
Typ LAN / LAN PL / EnOcean
Artikel Nr.: 10104; 11104, 10504

Documentation version VI
Actual state 02/2012
Date: 24. Mai 2013

EN

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HomeInformationCenter (short: HIC) is also a visualisation, which doesn`t need Java supporting. Structure of this visualisation is built up consciously simple and clearly, to consider the needs of mobile units with small displays. Since the firmware version 0.11.5 (hardware version 2.1), it is also not necessary to unlock the HIC by a license, the HIC is activated from the outset.

Figure 1: HIC with iPhone (Control S)

1.1 SUPPORT TERMINALS

The Home Information Center supports all common devides types for JavaScript-compatible browsers. In previous versions of the firmware eibPort terminal types were divided into three different types of licenses. This is no longer necessary since the firmware 1.0.1, there are now supporting all popular mobile browser. This includes devices like the iPhone with iOS or Samsung Android operating system but also Nokia devices with Symbian OS, BlackBerry or HTC. Would you like to test whether the Home Information Center works with your phone model, there is the opportunity to review samples http://dmz.bab-tec.de:8081/web/hic use ("eibPort test").

1.2 CALL

The Home Information Centre (HIC), either on the eibPort Home "visualization"> "Home Information Center" or be called directly via a URL.

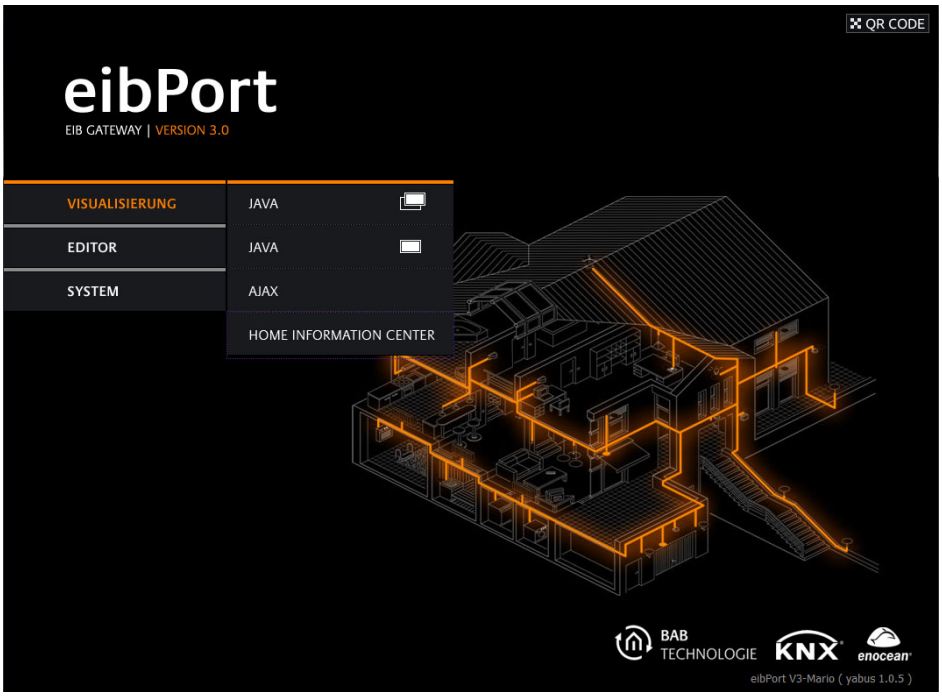

Figure 2: eibPort Home - HIC start

URL
http://<eibPort_IP>/web/hic

After the call, you get to the user login. Authentication is configured in Visualsierungseditor in the security settings.

1.3 IMPORTANT NOTES

Authentification
User authentication for the Home Information Center is administered in the security settings of the visualization editor. In the User Details can be accessed individually switched to the HIC for each user. For more information, see "HIC". It is strongly recommended to establish authentication!

Concurrent Connections
In general, the number is unlimited. The actual number of connections depends on the message load on the KNX system and the number of parallel tasks to be performed the eibPort. The more tasks and messages must be treated simultaneously eibPort, the fewer resources remain for the designs of individual tasks such as communication with the visualization left.

1.4 AUTOLOGIN / LOG REMEMBER

In order to enter the user does not always have his access, there is the possibility of so-called "auto login" or "Remember Login" to use functions. Here, the application data when the visualization is transmitted to or stored on the client computer.

1.4.1 „REMEMBER ME“ LOGIN FOR THE HIC VISUALIZATION

The Home Information Centre (HIC) takes advantage of the visualization itself authentication such as the Control L visualization. You will also be parameterized on the security settings in visualization editor. So not again each time you access the user data must be entered, the user at logon check box "Remember Me" box. Thus, the local credentials stored on the device and are available for a period of 4 weeks. After that, once the "Remember Me" feature will be activated.

If this configuration is no longer required or should the appropriate user logged off the HIC logo is used in the visualization interface as a button to log out to make. When logging back then, the hook can be removed with "Remember Me" so that the user must authenticate to each application.

2 VISUALISATION EDITOR

2.1 SECURITY SETTINGS – USER ADMINISTRATION FOR THE VISUALISATION

In the security settings of the access to all the visualization interfaces is administrated (Java, C and HIC). The access is controlled individually for each user. For Java and Control L the visualization, entire projects or selected pages to be released.

Please note: User settings for editor and system will be defined with menue bar „use administration“ in configTool.

Switch to security settings
The security settings are accessed through the appropriate button in the menu bar of visualization editor. There, between "visualization", "Security Settings" and "Availability" will be changed.
Button of chosen sight always will be marked.

Figure 3: Altering between user management and visu-editor

Settings
User administration can be activated or not. In case it is disabled, no kind of user registration will appear. In delivery condition user administration is not activated. Showing the user list during the registration can be prevented additionally. This will require that the username must be entered manually.

Create/Delete User Account
New user account will be create with the help of the corresponding symbol. As a first step an unique name have to be assigned, which will accept automatically in the arrays „name of user“ and „title of user”. To delete an user account it has tobe marked in user overview. Deleting an user account will happen without any safety warning.

Figure 4: Editor - Create/Delete User Account

User
All applied user will display among each other.

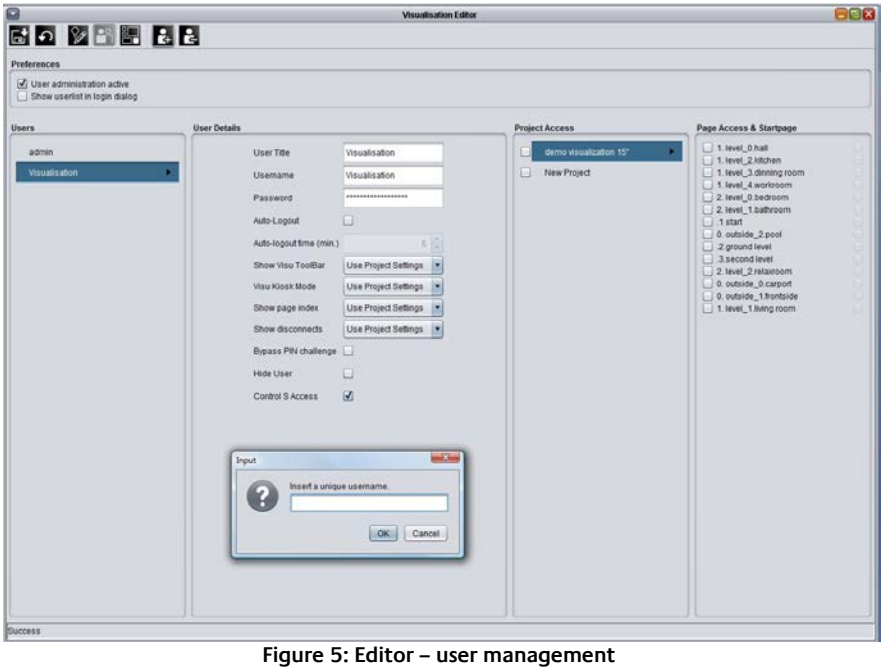

Figure 5: Editor – user management

Userdetails
Each user account will be allocated general settings:

- *User Title:* Title will be shown in selection menue. User will be identified with it by starting visualisation.
- *Username:* The name of user will be requested by log-in. In case list of user is activated during log in, name of user will be transferred to dialogue from register, after selecting title.
- *Password:* With the aid of this password, user has to identify himself.
- *Auto-Logout:* After finishing adjusted period of time, user will be asked for a new identification, if this function is activated.
- *Project Settings Parameters* Every user you can assign individual settings, according to project parameters „Visu-Toolbar“, Kiosk mode“, „Index of pages“ and “Connection problems”. Administration can assign individual settings (yes/no) to user, or those settings of the project (using project settings). Preferences „yes/no“ overwrite project settings.
- *Bypass PIN challange:* If this box is activated, user will not be asked for his PIN.
- *Hide User:* This user will not be displayed in the list of user.
- Home Information Center: The user data is requested in the case, when logging on to the HIC visualization. The HIC visualization is achieved via the "Home Information Center Editor" from the menu "Window" parameter.

Project Access
All defined projects are displayed. A complete project will be attached to a user, if you mark corresponding control box. In case several projects are connected with one user, a selection of the projects will be displayed after log in.

Page Access & Startpage
Attaching only individual project pages to a user, you can mark desired project in column. All pages of a project can be attached separately, by marking the corresponding control box. Behind the page name, hompage will be chosen, which the user should achieve. If pages of several projects will be involved, user will get a selection of projects as well after log in.

Saving settings
Created user settings will be stored by a click on button „Storing“ in menu bar (symbol of diskette)

3 CONTROL S (HIC)

HomeInformationCenter offers visualisation for mobile devices or for TVs. User interface is oriented especially for devices like mobiles (iPhone/iPod, Nokia, HTC, Blackberry). HIC visualisation is able to display and switch values of EIS 1, EIS 5, EIS 6 and EIS 14. Camera images, control of blinds and music controlling are contributed as well.

Call
It is called with the URL: http:// <eibPort_IP> / web / hic / index.php or by the eibPort Home. By default, the user authentication for the HIC enabled and can be configured in the security settings in visualization editor. It is strongly recommended to use the authentication.

License
Since the firmware version 0.11.5, no license is required to unlock the HIC for use! The HIC can be used immediately after setup.

3.1 LAYOUT OF THE CONTROL S (HIC) - EDITOR

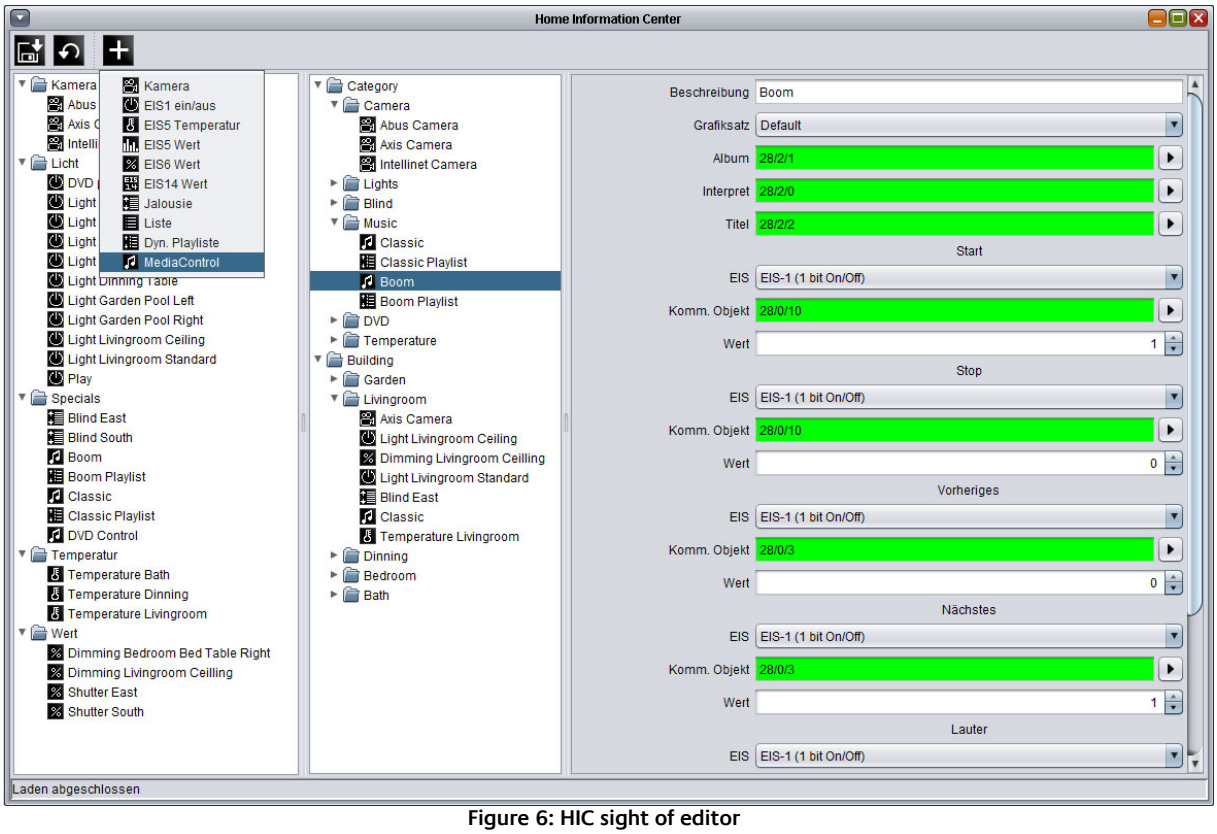

Figure 6: HIC sight of editor

With help of the editor, visualisation will be adjusted. Therfore three different columns are available, in which you can execute each and every step. Control menue is located above.

Control menue

With three symbols at the head of window, the HIC editor will be controlled. There you will find a button for “saving”, a symbol for „reload“ and a symbol for “new element” which allows you to add a new element into the project.

Figure 7: HIC Editor – control menue

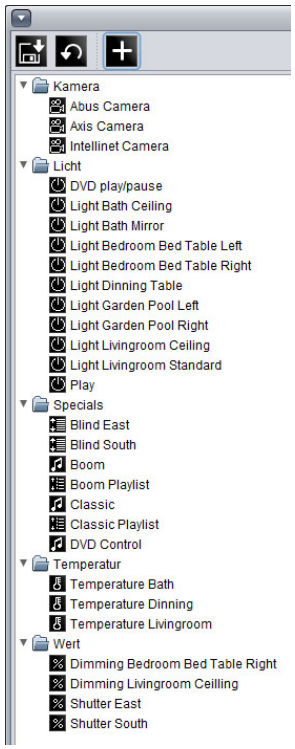

Figure 8: HIC editor - Elemente Overview

Left column – element overview

In the element overview first all required elements will be added. Every element will be created automatically in a category folder. For example, element “EIS 14 value” will be stored to folder “Value”.. In this column, all required elements are sorted by its category and can be configured over parametrization window (right column). To delete an element or the complete folder, please use the context menue.

Middle column – sight of visualisation

The middle column correspond to the sight of the visualisation. The here performed arrangement will be seen later on in the display of your mobile. The user is able to create folders by him and distribute elements at his will. You can create a folder by context menue (right click to column). Elements, which are parametrized in left column before, will be drawn simply by “drag and drop” to desired folder. Display arrangement of can happen, according to floors and rooms and/or to functions, for example.

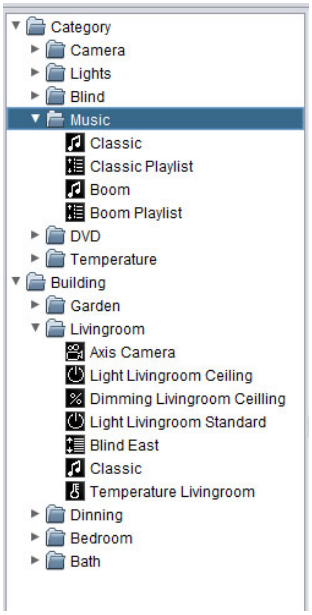

Figure 9: HIC editor – Sight of visualisation

Right column – parametrization window

In the right column the parameters of the elements will be entered. The parameters will be displayed, when an element is chosen in left or middle column. By parametrization it makes no different, in which column elements will be marked.

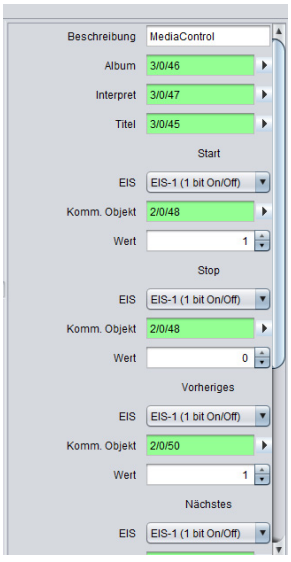

Figure 10: HIC editor – Parameterization window

Address assignments

Address assignments in HIC editor happens conveniently over ESF dialoque, like it does in other editors. The dialogue will open by clicking on the arrow symbol near the data entry field for the addresses. An overview will be displayed, which contains all addresses of loaded up ESF files and/or a address matrix. You can allocate an address to an object by a double click. To every input object you can assign maximal 5 addresses. Addresses for feedback will be entered in brackets, separated with comma, behind the used address.

3.2 VERFÜGBARE ELEMENTTYPEN

EIS 1 on/off
If “is control?” is activated ON/OFF will be sent, in case it is disabled this element can be used as a simple status indication.

EIS 5 temperature
Displays the current and setpoint temperature in EIS 5 format. Is controlling activated, you will be able to set the setpoint temperature by “+/-“ in a defined step width. In case “operating” is inactivated, element is just an indicator.

EIS 5 value floating point
Represent EIS 5 values. Maximum and minimum value can be adjusted, step width also. Element can work as a control or as an indicator (“is control?”).

EIS 6 value 0-100%
Represent EIS 6 values. The values 0 – 255 will be converted to 0 – 100 %. Additional maximum and minimum values as well as step width can be adjusted for operation. Element can work as a control or as an indicator (“is control?”).

EIS14 value 0-255
Represent EIS 14 values (0-255). You can specify minimum or maximum value. Step width for adjustment can be defined. Element can work as a control or as an indicator (“is control?”).

Camera with controlling
This element shows pictures from a camera. Therefore the URL to the fixed frame of the camera must be entered. When open the the element in HIC, it will be requested several times in a second, so that a moving pictures will appear. The syntax of the URL behind the camera address will depend on the camera manufacturer.

The entry arrays below the camera URL are for the controlling of the camera by http requests, in case of camera is supporting this. Thereby the camera is told by an URL which position it has to take. The user then has the possibility to control his camera by hitting the image in his mobile on the four cardinal points.

This function is only available together with the job “HTTP-Requests”. This job has to be created before ind Job editor and must be parameterized correctly (for hints please see into the description of the http request). After that the “http-request address” of the camera element can be connected with the job. Please consider to set the EIS 14 values correctly.

Please note: For retrieval the picture from off site, also the camera image has to be reached from outside. Normally therefore a port will be fowarded to the camera. As address of camera, external address of router (fixed IP or dyndns) with corresponding port will be entered

Jalousie
Element for controlling shutters or window shades. Some shutter actuators require inverting of telegrams.

MediaControl
Control element for a network music player connected to the system. *eibPort* offers the possibilty to controll the Squeezebox™ devices. Element offers functions like “play/stop”, “back/forward” and “volume up/volume down”. Furthermore informations of album, title and artist will be displayed.

Please note: Controlling by HIC only can be realized, if one job (xPL-sender and receiver, or SB-Control) will be applied in job editor before. Element “media control” uses comunication objects of this job. Therefore a perfect function of jobs is absolutely necessary.

List
With this element the playlists of the Squeezebox™ devices will be controlled. Playlists can be triggered by EIS 1 or EIS 14 telegrams. There are 4 possible entries. Name of playlist will not be oulined, but has to be entered before.

Please note: Triggering of a play list can only be realized in connection with considering xPL job (xPL-sender or SB-Control). Communication objects of the job will be used, therefore perfect function has to be assured before.

Dyn. Playlist
This element enables dynamical control of playlists. Communication objects “Current PL” and “PL Display #1 - #4” are EIS 15 ouput values. By using “Scroll Displays“, playlist display will be moved 4 prompts above or below. By menue item “Select PL“, one of the playlists in „PL Display #1 - #4“ will be elected. This happens by a EIS 14 telegram, thereby value 0-3 for line 1-4 will be valid. See also job “SB control”.

Please note: For the functions of dynamical play list, job „SB control“with respective entries is absolutely necessary. If job once is created correctly, values can be transferred simply.

3.3 HIC USER AUTHENTICATION

To protect the HIC visualization the application provides the user a menu "Security Settings" within the visualization editor. The parameterization of the user login can be done there across all three types of visualization.

Each user can then individually created there, access is controlled to the HIC. This is in the "User Details" check box "Home Information Center." If the flag is set, can be accessed through the respective user data in the Home Information Center visualization. All other settings return to the "Security Settings", refer to the corresponding chapter in "visualization editor."

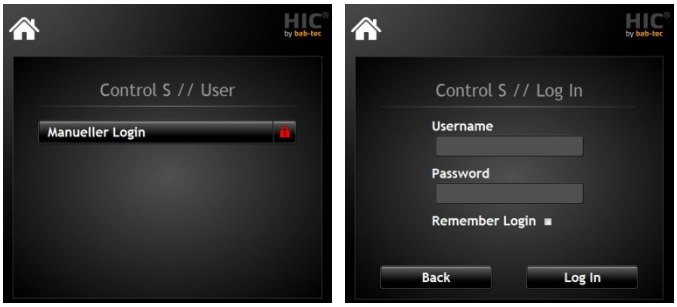

Figure 11: HIC Authentication

Automatic Login
To use an automatic log of the HIC visualization you have the ability to activate at logon check box for "Remember Me". Thus, the credentials are stored locally on the device and not tried. To unsubscribe from the visualization but the HIC logo is used in the visualization interface. When clicked it will return to the login screen and you can adjust the setting to "Remember Me" again.

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5 APPENDIX

Appendix 1: EIS types

Pos.	EIS-Type	Description	Resolution	Datatype	Range
1	EIS 1	switching	1 Bit	DPT 1.001	[0 .. 1]
2	EIS 2	switching	1 Bit	DPT 1.001	[0 .. 1]
3	EIS 2	dimming relatively	4 Bit	DPT 3.007	[brighter .. darker .. stop]
4	EIS 2	dimming value absolut	1 Byte	DPT 5.001	[0% .. 100%] (step size 0,4%)
5	EIS 3	time	3 Byte	DPT10.001	
6	EIS 4	date	3 Byte	DPT 11.001	
7	EIS 5	number of floating points	2 Byte	DPT 9.xxx	[-671088.64 .. 670760.96]
8	EIS 6	skale	1 Byte	DPT 5.xxx	[0x .. 255x] (step size x)
9	EIS 6	percent	1 Byte	DPT 5.001	[0% .. 100%] (step size 0,4%)
10	EIS 6	angle	1 Byte	DPT 5.003	[0° .. 360°] (step size 1,41°)
11	EIS 7	drive control drive (direction)	1 Bit	DTP 1.008	[up (0) .. down (1)]
12	EIS 7	drive control step (direction) / stop	1 Bit	DTP 1.007	[up (0) .. down (1)]
13	EIS 9	number of floating points, (high accuracy)	4 Byte	DPT 14.xxx	[- 3.4028*10^38 .. 3.4028*10^38]
14	EIS 10	unsigned integer	2 Byte	DPT 7.001	[0 .. 65535]
15	EIS 10	integer with sign	2 Byte	DPT 8.001	[-32768 .. 32767]
16	EIS 11	unsigned integer (high range)	4 Byte	DPT 12.001	[0 .. 4294967296]
17	EIS 11	integer with sign (high range)	4 Byte	DPT 13.001	[-2147483648 .. 2147483647]
18	EIS 14	unsigned integer (small range)	1 Byte	DPT 5.010	[0 .. 255]
19	EIS 14	integer with sign (small range)	1 Byte	DPT 6.001	[-128 .. 127]
20	EIS 15	character string (14 ASCII digity)	14 Byte	DPT 16.000	

Anhang 2: DTP (data point type)

Pos.	Datatype	Description	Resolution	EIS Type	Range
1	DPT 1.001	switching	1 Bit	EIS 1	[0 .. 1]
2	DPT 1.001	switching	1 Bit	EIS 2	[0 .. 1]
3	DTP 1.007	drive control step (direction) / stop	1 Bit	EIS 7	[up (0) .. down (1)]
4	DTP 1.008	drive control (direction)	1 Bit	EIS 7	[up (0) .. down (1)]
5	DPT 3.007	dimming relative	4 Bit	EIS 2	[brighter .. darker .. stop]
6	DPT 5.xxx	scale	1 Byte	EIS 6	[0x .. 255x] (step size x)
7	DPT 5.001	dimming value absolut	1 Byte	EIS 2	[0% .. 100%] (step size 0,4%)
8	DPT 5.001	percent	1 Byte	EIS 6	[0% .. 100%] (step size 0,4%)
9	DPT 5.003	angle	1 Byte	EIS 6	[0° .. 360°] (step size 1,41°)
10	DPT 5.010	unsigned integer (low range)	1 Byte	EIS 14	[0 .. 255]
11	DPT 6.001	integer with sign (low range)	1 Byte	EIS 14	[-128 .. 127]
12	DPT 7.001	unsigned integer	2 Byte	EIS 10	[0 .. 65535]
13	DPT 8.001	integer with sign	2 Byte	EIS 10	[-32768 .. 32767]
14	DPT 9.xxx	number of floating points	2 Byte	EIS 5	[-671088.64 .. 670760.96]
15	DPT 10.001	time	3 Byte	EIS 3	
16	DPT 11.001	date	3 Byte	EIS 4	
17	DPT 12.001	unsigned integer (high range)	4 Byte	EIS 11	[0 .. 4294967296]
18	DPT 13.001	integer with sign (high range)	4 Byte	EIS 11	[-2147483648 .. 2147483647]
19	DPT 14.xxx	number of floating points (high accurarcy)	4 Byte	EIS 9	[-3.4028*10^38 .. 3.4028*10^38]
20	DPT 16.000	Character string (14 ASCII digits)	14 Byte	EIS 15	