



BAB TECHNOLOGIE GmbH

Alexa voice control EIBPORT Documentation

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1 INTRODUCTION

With the Logic Element "Alexa device" of the **LOGIKEIDTOR** in **EIBPORT** you can connect devices from building automation with the Amazon Alexa voice control. Prerequisites are an Amazon Echo or Echo Dot, a valid Amazon account at Amazon DE or Amazon UK, the **BAB TECHNOLOGIE EIBPORT V3** skill and the connection to Alexa via the **BAB TECHNOLOGIE Service**. The **BAB TECHNOLOGIE EIBPORT V3** skill must be linked to the Amazon account.

Before you work with the Alexa voice control in EIBPORT, read the documentation completely to avoid setup and configuration errors.

Note: The EIBPORT must first be registered with the BAB TECHNOLOGIE service before the BAB TECHNOLOGIE EIBPORT V3 Skill is linked to the Amazon account.

2 CONFIGURING THE CONNECTION WITH BAB TECHNOLOGIE SERVICE

The connection of the **EIBPORT** with the **BAB TECHNOLOGIE Service** is configured in the "Settings" in the **LOGIKEDITOR**.

In the settings of the logic editor you will find a link to register the **EIBPORT** at the **BAB TECHNOLOGIE Service** <https://cs1.bab-tec.de:8085>. under the item Alexa. You cannot use the "Alexa voice control in **EIBPORT**" function without registering with the **BAB TECHNOLOGIE Service**.

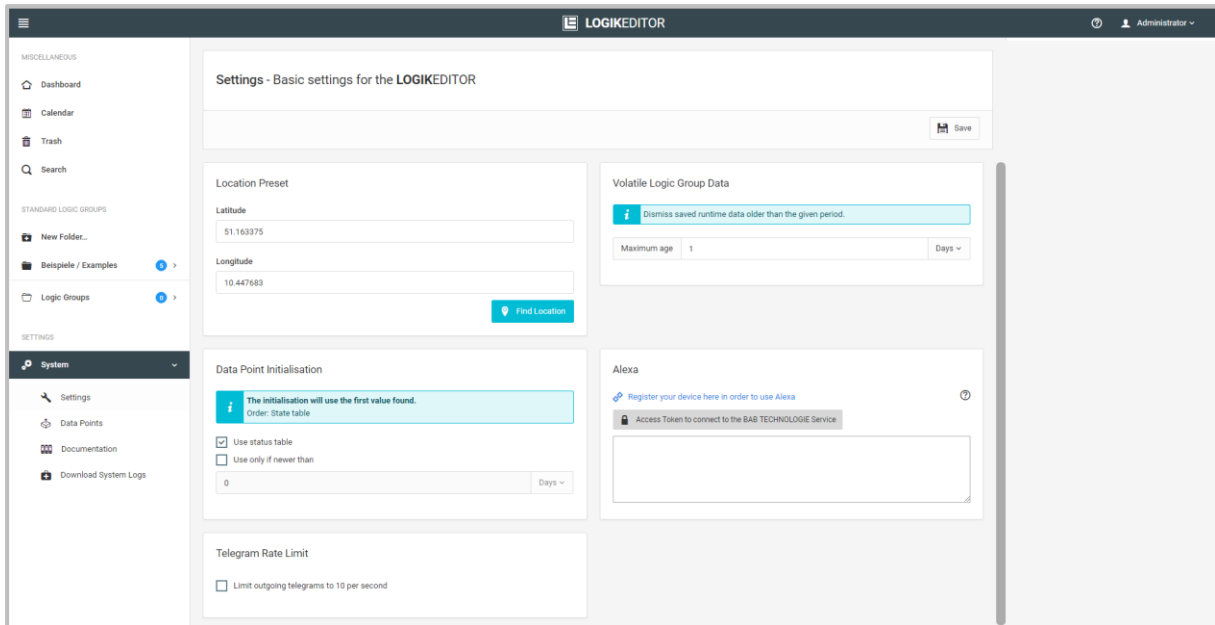


Figure 1: Settings LOGIKEDITOR

To register for the **BAB TECHNOLOGIE service**, you need a valid Amazon account for Amazon DE or Amazon UK. Log in with your Amazon data. Stay on the page until the configuration in the **LOGIKEDITOR** is complete.

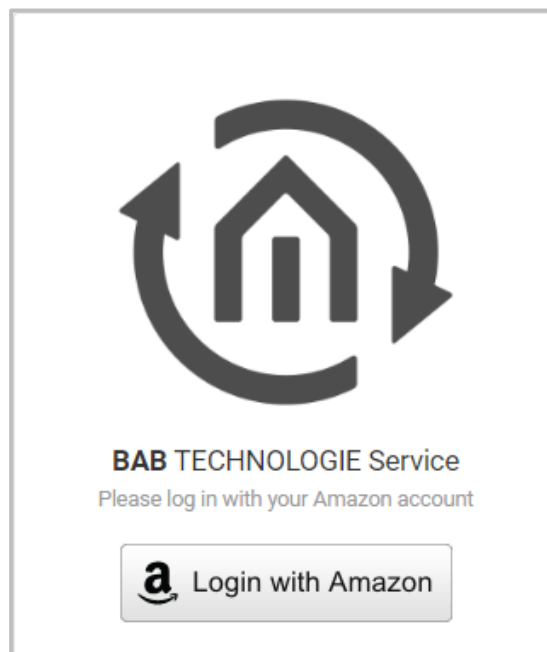


Figure 2: Registering with BAB TECHNOLOGIE Service



After logging on, enter the serial number of the **EIBPORT** and the **EIBPORT** string in the "Serial No." and "EIBPORT String or **APPMODULE** Registration Key" fields.

Device to connect with Alexa service

Please enter the registration information of your Device

Serial No.

EIBPORT String or **APPMODULE** Registration Key

Figure 3: Registration of the EIBPORT

Confirm your entries with "Submit". The access token for the connection to the BAB TECHNOLOGIE Service is then created and displayed.

BAB TECHNOLOGIE Service
Connect your EIBPORT or **APPMODULE** to your Amazon account

BAB TECHNOLOGIE

Your linked device

DETAILS

Serial Number

App-Token

Figure 4: Access Token

Copy the Access Token to the clipboard. Then insert the access token into the appropriate field in the **LOGIKEDITOR**.

Alexa

[Register your device here in order to use Alexa](#)

Figure 5: Input Field for the Access Token

Save the Access Token in the **LOGIKEDITOR** by clicking on Save in the Logic Editor at the top right of the page (floppy disk symbol). The token is checked. The check can take up to 1 minute, as long as the display remains red Configuration and connection status.

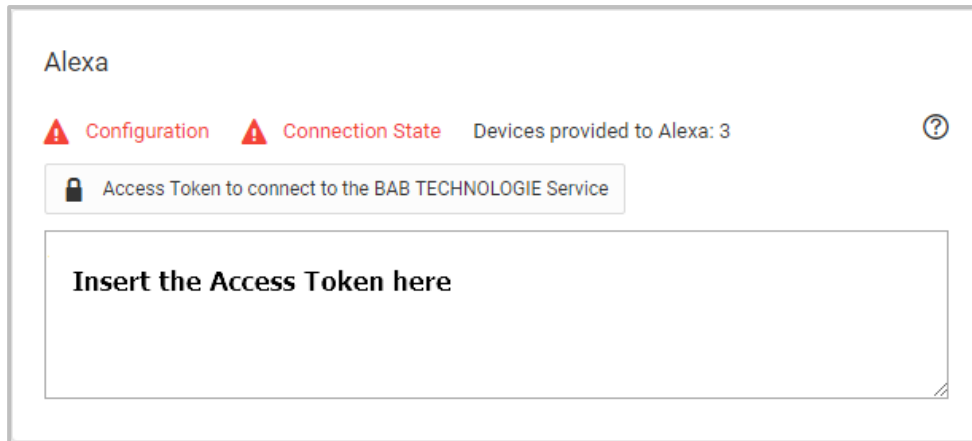


Figure 6: Configuration and connection status check

If the Access Token check is successful, the "Configuration" display turns green. The connection status is then checked. This may take a little longer. However, if the connection status is still red after 5 minutes, check the network settings in your network, router and EIBPORT. The EIBPORT must have a valid IP address and a subnet mask suitable for the IP address. For a private default IP address 192.168.x.x the subnet mask is 255.255.255.0, for another IP address ask your network administrator or check with the Internet. Furthermore, the EIBPORT requires a valid gateway address and a valid DNS server address. For a private Internet connection, the gateway address and DNS server address are the IP address of the router. In other cases, consult your network administrator or your Internet provider.

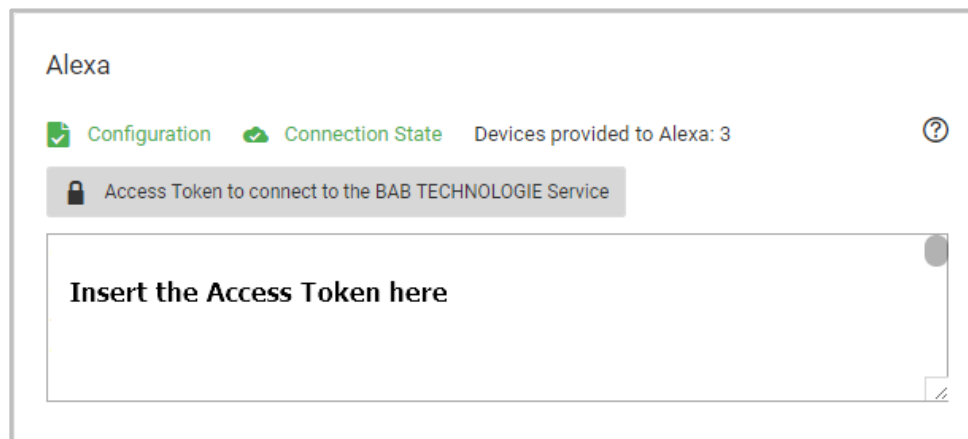


Figure 7: Successful configuration and connection to BAB TECHNOLOGIE Service



3 CONFIGURING ALEXA DEVICE IN THE LOGIKEDITOR

To configure "Alexa devices", open the **LOGIKEDITOR** and create a "New Logic Group". Add the "Alexa Device" element to the logic group by clicking "Add", a new window with the available elements opens. Select the "Alexa Device" element and specify the desired number you want to add to this logic group. To confirm the selection, click on "Add selection".

Click with the left mouse button on the "Alexa device" element added to the logic group, it opens the configuration interface (red) in the right area of the **LOGIKEDITOR**.

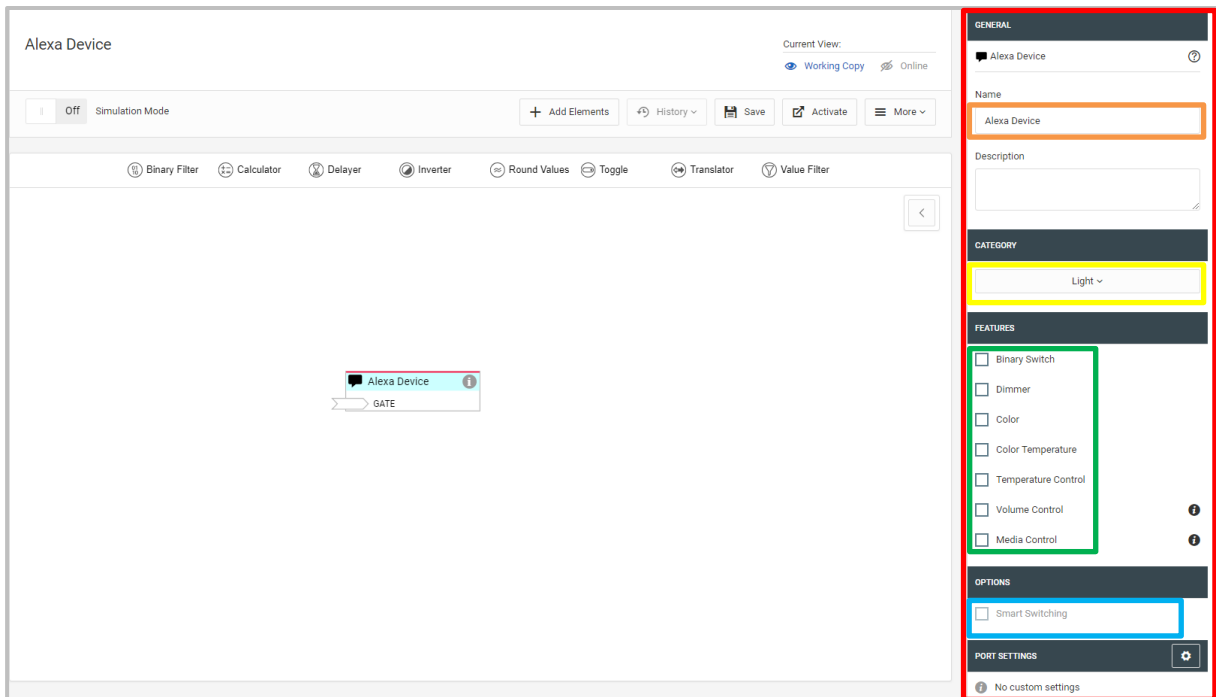


Figure 8: LOGIKEDITOR with open configuration for the "Alexa device".

Enter a unique name (device name (orange)), e.g. ceiling lamp, for the "Alexa device". This name is used for voice control. Select a function (green). Select a category (yellow) to which the device to be controlled belongs. At the time of the last update of this documentation (June 2018), Amazon only used this information to assign a corresponding icon to the device in Amazon's Alexa app, i.e. a lamp icon for Lamp category, a thermostat icon for temperature control, etc.

Note:

If you select "switch" and "dimmer" simultaneously, or "switch" or "dimmer" in combination with "color" or "color temperature", then you can activate "intelligent on/off" (blue). This option switches the switch on automatically as required, e.g. off when the dimming value 0 is received or on when a colour command is received but the switch is still off. This setting is for operation and display in Amazon's own Alexa App.

Assign a unique name, e.g. living room ceiling lamp, to the "Alexa device".



3.1 ALEXA DEVICE

Except for the fixed input GATE, the inputs and outputs of the logic element are variable, depending on which functions you activate in the configuration of the element. Optionally connect the inputs to the same data point as the outputs to send status changes to Alexa.

Add the corresponding number of value inputs and outputs to the logic element by pressing the "Add" button. A new pop-up window opens. Select the required number of value inputs and value outputs. To confirm the selection, click on "Add selection".

For information on configuring the value inputs and outputs, see the documentation for the LOGIKEDITOR. You can find the documentation by clicking on the question mark in the top right corner of the Logik Editor and then navigating to "About the LOGIKEDITOR".

Note:

Alexa will detect one device to be controlled per logic element "Alexa device". This device can support several of the functions that Amazon has defined at the same time, such as switches, dimmers, color and color temperature. Select the functions accordingly.

Important:

Only connected outputs will be advertised to Alexa as supported features of the device during device discovery.

3.1.1 FUNCTION BINARY SWITCH

Select the "Switch" function. An input and output called "SWITCH" is added to the "Alexa device"

Inputs:

- SWITCH
sends the switching state to Alexa (Boolean)

Outputs:

- SWITCH
receives switch commands from Alexa (Boolean)

3.1.2 FUNCTION DIMMER

Select the "Dimmer" function. An input and output called "DIM" is added to the "Alexa device".

Inputs:

- DIM
sends the current dimming value to Alexa. (DPT 5.001)

**Outputs:**

- DIM

receives dimming values from Alexa as absolute percentages. If the user says "Alexa make it brighter", the logic element will determine the new percentage before sending it to this output, if either a brightness level exists at the corresponding input or the user had set an absolute brightness via Alexa some time before.

For the dimmer function you can specify the dimmer types (standard, brightness and strength/intensity). This has currently partial influence on the voice commands available for the dimmer (type brightness for example). Further differentiation on the part of Amazon is conceivable in the future.

3.1.3 FUNCTION COLOR

Select the "Color" function. An input and output with the designation "COLOR" is added to the "Alexa device".

Inputs:

- COLOR

sends the current color to Alexa. (DPT 236.600)

Outputs:

- COLOR

receives new colors from Alexa. (DPT 236.600)

If it is not possible to control the terminal devices with the value color (DPT 236.600) or you want to use the individual color values, you have the option of converting the color value with the "Data Converter".

Colour → RGB

Colour → RGBW

Colour → HSB

3.1.4 FUNCTION COLOR TEMPERATURE

The specifications allow for integer values between 1000 and 10000K. Of course, not every lamp will support the full range.



White Shades	Colour temperature in Kelvin
Warm, warm white	2200k
Warm white, incandescent	2700k
white	4000k
Daylight, daylight white	5500k
Cold White	7000k

Select the "Color temperature" function. An input and output with the designation "CTEMP" is added to the "Alexa device".

Inputs:

- CTEMP
sends the current color temperature to Alexa. (DPT 7.001)

Outputs:

- CTEMP
receives new color temperatures from Alexa. If the user says "Alexa make the light warmer", the logic element will determine the next step out of the steps Amazon has predefined (2200, 2700, 4000, 5500, 7000), if either a color temperature exists at the corresponding input or the user had set an absolute color temperature via Alexa some time before. (DPT 7.001)

3.1.5 FUNCTION VOLUME CONTROL

Select the "Volume Control" function. Two inputs and outputs labeled "VOL" and "MUTE" are added to the "Alexa device".

Inputs:

- VOL
sends the current volume to Alexa (DPT 5.001)
- MUTE
sends the current mute state to Alexa (**Boolean**)

Outputs:

- VOL
receives volume commands from Alexa as absolute percentages. If the user says "Alexa increase the volume", the logic element will determine the new percentage before sending it to this output, if either a volume level exists at the corresponding input or the user had set an absolute volume level via Alexa some time before.



- MUTE

receives mute/unmute commands from Alexa (**Boolean**)

note:

Please note that this feature is currently only available in English. If you want to use this function, you must change the language settings on the echo or echo dot to English. This has an effect on all voice commands. All other functions are then only available in English.

3.1.6 FUNCTION MEDIA CONTROL

Select the "Media Control" function. Five outputs with the names "PLAY", "PAUSE", "STOP", "NEXT" and "PREV" are added to the "Alexa device". Because Amazon does not currently support sending status information for media control, this feature has no inputs.

Outputs:

- PLAY

receives play commands from Alexa (**Boolean true**)

- PAUSE

receives pause commands from Alexa (**Boolean true**)

- STOP

receives stop commands from Alexa (**Boolean true**)

- NEXT

receives skip to next commands from Alexa (**Boolean true**)

- PREV

receives skip to previous commands from Alexa (**Boolean true**)

note:

Please note that this feature is currently only available in English. If you want to use this function, you must change the language settings on the echo or echo dot to English. This has an effect on all voice commands. All other functions are then only available in English.



3.1.7 FUNCTION TEMPERATURE CONTROL

Select the "Temperature control" function. Three inputs and two outputs with the names "SETP", "MODE" and TEMP for the inputs and "SETP" and "MODE" for the outputs are assigned to the "Alexa device".

Inputs:

- SETP

sends the current setpoint to Alexa. Will be interpreted as a value representing degrees Celsius. (DPT 9.001)

- MODE

sends the current thermostat mode to Alexa (Integer 1 = Heating, 2 = Auto, 3 = Eco, 4 = Off, 5 = Cooling) (DPT 5.010)

- TEMP

sends the current temperature to Alexa. Will be interpreted as a value representing degrees Celsius. (DPT 9.001)

Outputs:

- SETP

receives setpoints from Alexa in degrees Celsius (Float). If the user says "Alexa make it warmer", the logic element will determine the new setpoint before sending it to this output, if either a temperature value exists at the corresponding input or the user had set an absolute temperature via Alexa some time before. (DPT 9.001)

- MODE

receives commands to switch the thermostat mode from Alexa (Integer 1 = Heating, 2 = Auto, 3 = Eco, 4 = Off, 5 = Cooling)

3.1.8 NAME

Select a univocally name for the "Alexa device" used for the voice command. For example, for a ceiling lamp in the living room the name living room ceiling lamp. You can also assign several names to an "Alexa device" under which the "Alexa device" can be addressed. The names are entered in the Name field, separated by a comma. Please make sure that the names are as univocally as possible.

3.1.9 DESCRIPTION

This field is optional.



4 EXAMPLE LOGIC GROUPS ALEXA DEVICE

The following example logic groups are for the individual functions of the "Alexa device".

4.1 FUNCTION SWITCH

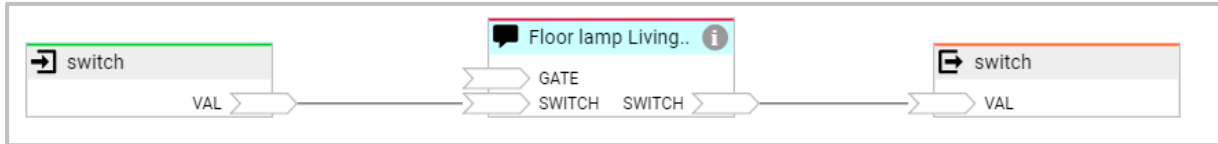


Figure 9: Function Switch

With this logic group you can trigger switching operations by voice command.
Example: "Alexa, switch on the living room floor lamp."

4.2 FUNCTION SWITCH AND DIMMER

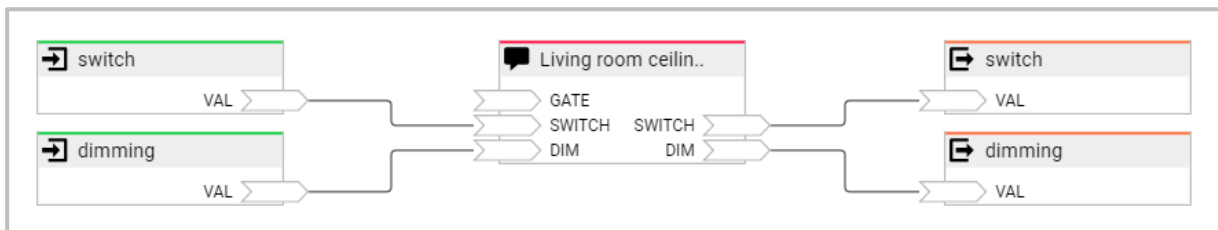


Figure 10: Function Switch and Dimmer

With this logic group you can trigger switching and dimming processes by voice command.
Example: "Alexa, turn on living room ceiling light."

"Alexa, make living room ceiling light brighter."

You can also switch on a switched-off lamp directly with a dimming command (absolute value).

Example: "Alexa, dimmed living room ceiling light to 60%."

4.3 FUNCTION SWITCH AND COLOR TEMPERATURE

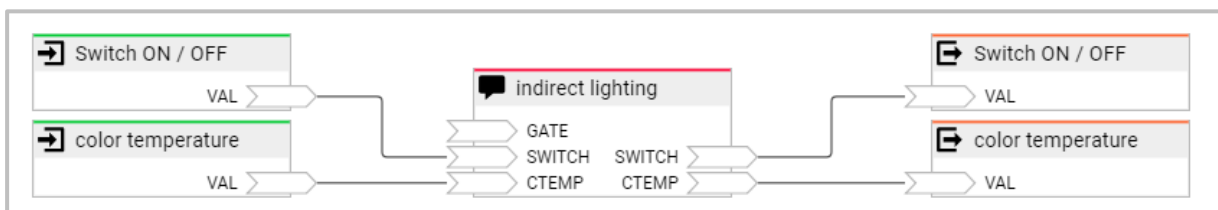


Figure 11: Function Switch and Color Temperature

With this logic group you can trigger switching commands by voice command and set the color temperature of a lamp by voice command. The lamp must support the adjustment of the color temperature.

Example: "Alexa, indirect lighting on."

"Alexa, put indirect lighting on warm white."

4.4 FUNCTION SWITCH AND COLOR

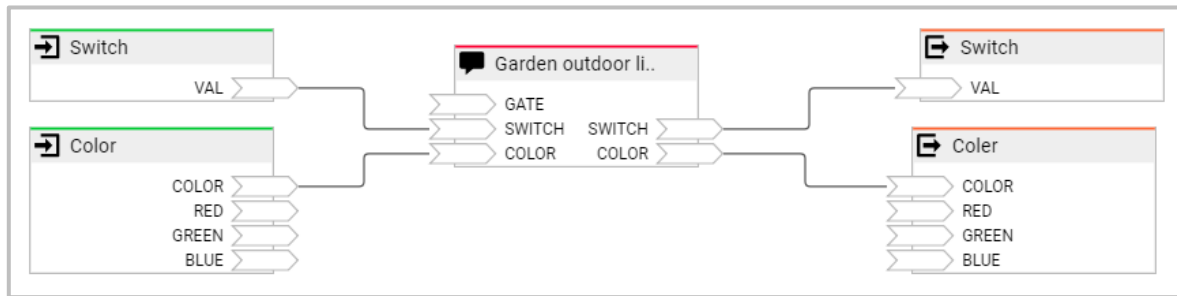


Figure 12: Function Switch and Color

With this logic group you can trigger switching commands by voice command and set the colour of the lamp. The lamp must support the choice of colour. The colour value is sent to the lamp with a combined colour value (DPT 236.600).

Example: "Alexa, garden outdoor lighting on."
"Alexa, make garden outdoor blue."

4.5 FUNCTION SWITCH AND COLOR WITH DATA CONVERTER

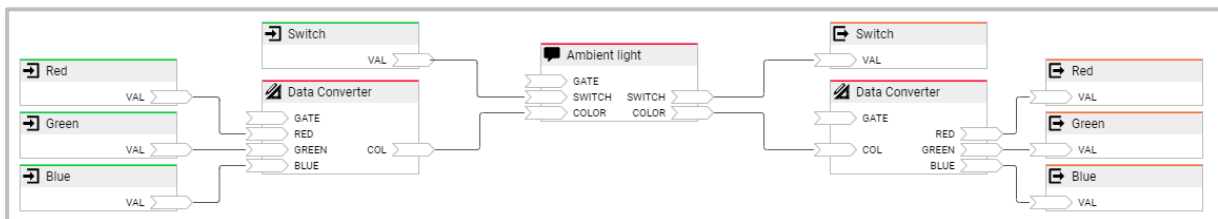


Figure 13: Function Switch and Color with Data Converter

See 4.4.

In this example, the data converter converts the color value (DPT 236.600) into a 3*1-byte RGB color value.



4.6 FUNCTION TEMPERATURE CONTROL

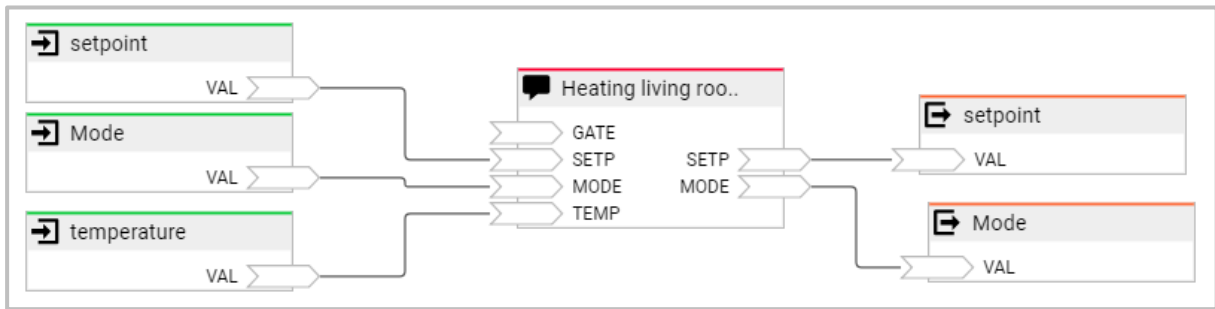


Figure 14: Function Temperature Control

With this logic group you can control an RTR by voice command. Functions available are: Query actual temperature, set and query setpoint temperature, set and query mode or operating mode.

Example: "Alexa, set the temperature for living room heating to 20 degrees."

"Alexa, how's the heating setting in the living room?" Inquiry of the set temperature.

"Alexa, what's the temperature of heating living room?" Inquiry of the actual temperature.

"Alexa, set mode living room heating to automatic."

"Alexa, set living room heating mode to off."

4.7 FUNCTION VOLUME

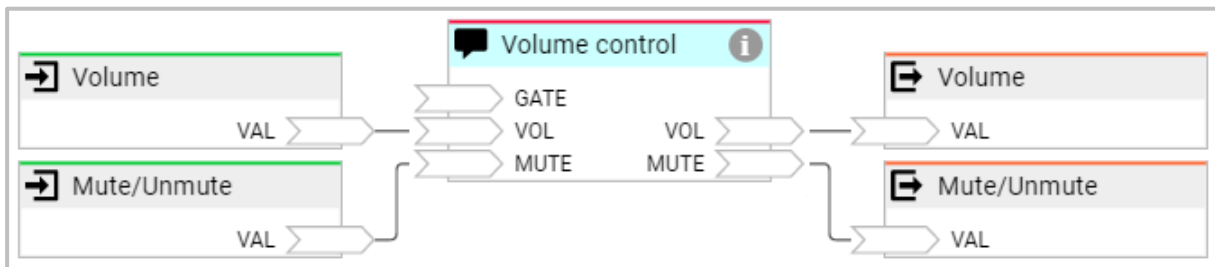


Figure 15: Function Volume

With this logic group you can set the volume by voice command and mute/unmute. This feature is currently only available in English.

For example, "Alexa, set the volume of Volume control to 50%."

"Alexa, turn the volume down on Volume control by 20."

"Alexa, mute/unmute volume control."

4.8 FUNCTION MEDIA CONTROL

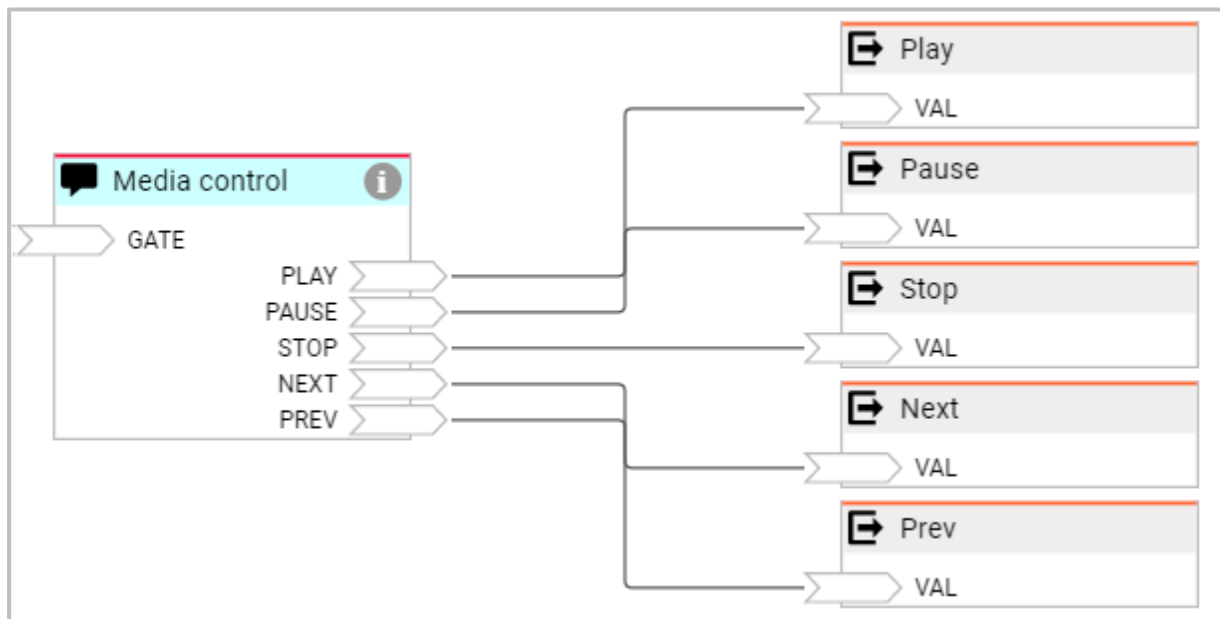


Figure 16: Function Media Control

With this logic group you can trigger switching commands for Play, Pause, Stop, Next and Preview by voice command. This feature is currently only available in English.

Example: "Alexa, play Media control."

"Alexa, stop media control."

"Alexa, next song on media control."

Because Amazon does not currently support sending status information for media control, this feature has no inputs



4.9 FUNCTION VOLUME AND MEDIA CONTROL

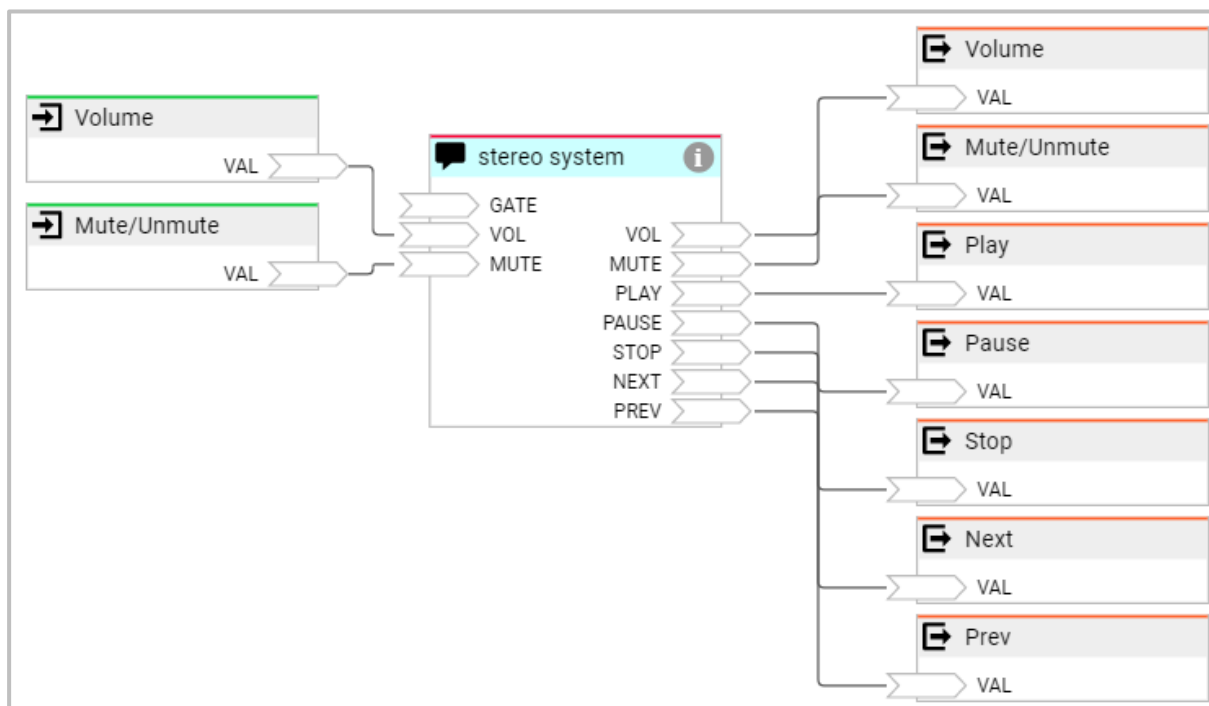


Figure 17: Function Volume and Media Control

This logic group is a combination of volume and media control (see 4.7 and 4.8). This feature is currently only available in English.

5 CONFIGURING ALEXA SCENES IN LOGIKEDITOR

To configure "Alexa Scenes", open the LOGIKEDITOR and create a "New Logic Group". Add the "Alexa Scene" element to the logic group by clicking "Add", a new window with the available elements opens. Select "Alexa Scene" and specify the number of elements you want to add to this logic group. To confirm the selection, click on "Add selection".

The "Alexa Scene" element has only the fixed GATE input and one output.

Click with the left mouse button on the "Alexa Scene" element added to the logic group, it opens the configuration interface (red) in the right area of the LOGIKEDITOR.

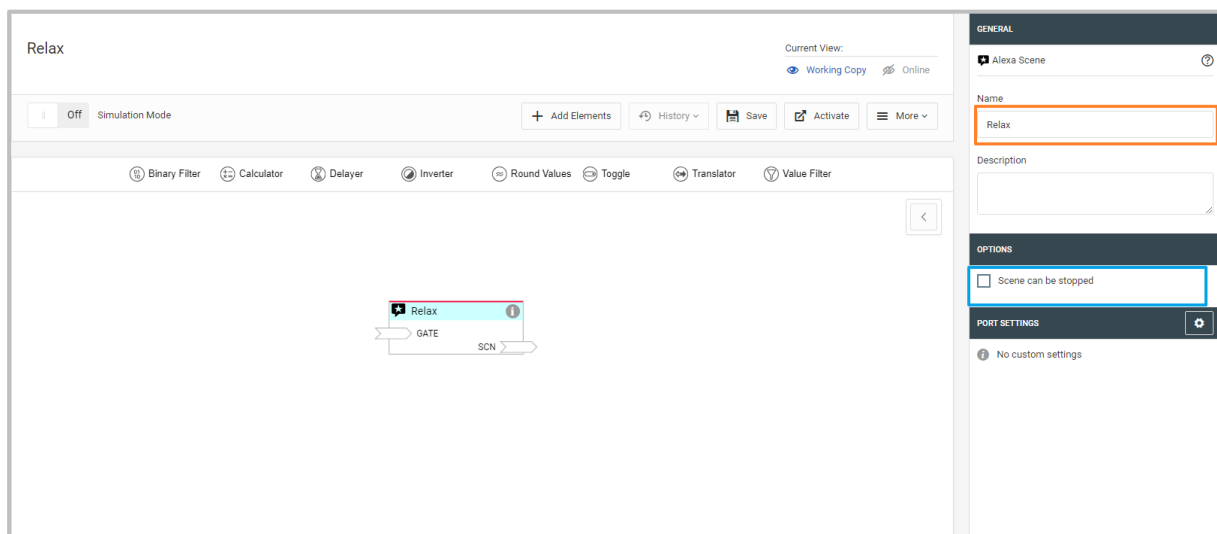


Figure 18: Configuring Alexa Scenes in LOGIKEDITOR

Enter a unique name (device name (orange)), for example Relax, for the "Alexa scene". This name is used for voice control.

Under "Setting" you can optionally set "Scene can be switched off". If "Scene can be turned off" is activated, Alexa sends back a false (0) when Alexa is asked to stop the scene.

If the scene is started, Alexa sends a true (1) back



5.1 EXAMPLE LOGIC GROUP ALEXA SCENE

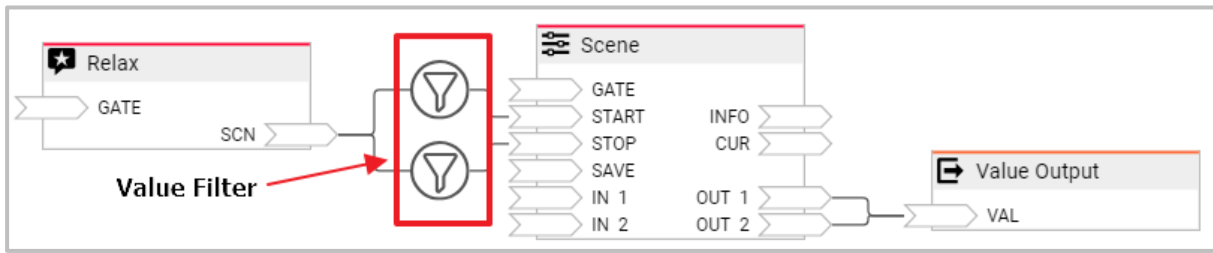


Figure 19: Alexa Scene with Scene Element

With this logic group you can start and stop or stop a scene configured in the **Logikeditor**. Stop behaviour can be configured in the Scene item. The configuration options of the scene element are described in the documentation for the logic editor. In this example logic group, 2 different values are sent with a time delay to one value output.

If the scene is started by voice command Alexa sends a true (1) to the scene output (SZN), if the scene is stopped Alexa sends a false (0) to the scene output (SZN).

Since the scene inputs START and STOP can be triggered with any values, a value filter has been set in front of each input, which only lets the set value through. The upper value filter only lets the value true (1) through and the lower value filter the value false (0). If Alexa is asked to start the scene, the value true (1) sent back by Alexa is only sent to the START input and the scene starts. If Alexa is asked to stop the scene, the value false (0) returned by Alexa is only sent to the STOP input and the scene is stopped depending on the setting in the Scene Element

Example: "Alexa, switch Relax on."
"Alexa, stop relax."



6 EXAMPLES OF VOICE COMMANDS

The voice commands listed here serve for an easier entry into the Alexa voice control in EIBPORT. Since the Alexa voice control from Amazon is a learning system, other voice command combinations may also work and new commands may be added in the future.

6.1 ALEXA DEVICE

Function Switch:

"Alexa, turn on [device]."
"Alexa, turn off [device]."

Examples:

"Alexa, turn on Living Room Ceiling Light."
"Alexa, turn off the floor lamp."
"Alexa, turn off the hallway light."

Dimming function:

"Alexa, set [device] to 50%."
"Alexa, [device] 75%."
"Alexa, dim [device] to 40%."
"Alexa, dim [device] by 30%."
"Alexa, brighten [device]."
"Alexa, [device] darker."

Examples:

"Alexa, set living room ceiling lamp to 50%."
"Alex, 75% bedroom reading light."
"Alexa, dim the bathroom light to 40%."
"Alexa, dim kitchen light by 40%."
"Alexa, brighten up the exterior lighting."
"Alexa, lamp children's room darker."

Function Colour:

"Alexa, turn the devices red."
"Alexa, device gold."

Example:

"Alexa, turn the indirect lighting red."
"Alexa, Indirect Lighting Gold."

Currently supported colors can be seen in the Amazon app.



Function Colour temperature:

Directly selectable colour temperatures according to Amazon specification

warm white

Warm White

white

daylight white

Cold White

"Alexa, set devices to warm white."

"Alexa, device soft white."

"Alexa, make device Daylight white."

"Alexa, make equipment warmer."

"Alexa, device colder."

Examples:

"Alexa, set living room light to warm white."

"Alexa, bath soft white."

"Alexa, make office lighting daylight white."

"Alexa, warm up the office lights."

"Alexa, living room light colder."

Temperature control function:

"Alexa, set the temperature in the [device] to 20 degrees."

"Alexa, make [device] warmer."

"Alexa, raise the temperature inside [device]."

"Alexa, make [device] cooler."

"Alexa, lower the temperature inside [device]."

"Alexa, how mode is in [device]."

"Alexa, set [device] mode to automatic."

"Alexa, set [device] mode to heating."

"Alexa, how's the temperature inside [device]?"

"Alexa, how's the heater set in the [device]?"

Examples:

"Alexa, set the temperature in the bedroom to 20 degrees."

"Alexa, warm up bedrooms."

"Alexa, raise the temperature in the bedroom."

"Alexa, lower the temperature in the bedroom."

"Alexa, how's the mode in the bedroom?"

"Alexa, set mode in the bedroom to automatic."

"Alexa, set mode in the bedroom to heating."

"Alexa, how's the temperature in the bedroom?"

"Alexa, how's the heating in the bedroom set?"

Volume function:

„Alexa, set the volume of [device] to 50.“

“Alexa, turn the volume down on [device] by 20.“

“Alexa, turn the volume up on [device] by 40.“

“Alexa, mute [device].“

“Alexa, unmute [device].“

Examples:

„Alexa, set the volume of [stereo system] to 50.“

“Alexa, turn the volume down on [stereo system] by 20.“

“Alexa, turn the volume up on [stereo system] by 40.“



"Alexa, mute [stereo system]."
"Alexa, unmute [stereo system]."

note:

Please note that this feature is currently only available in English. If you want to use this function, you must change the language settings on the echo or echo dot to English. This has an effect on all voice commands. All other functions are then only available in English.

Media control function:

"Alexa, resume [device]."
"Alexa, play [device]."
"Alexa, pause [device]."
"Alexa, stop [device]."
"Alexa, next song/video/photo on [device]."
"Alexa, go forward on [device]."
"Alexa, go back on [device]."

Examples:

"Alexa, resume [stereo system]."
"Alexa, play [stereo system]."
"Alexa, pause [stereo system]."
"Alexa, stop [stereo system]."
"Alexa, next song [stereo system]."
"Alexa, go forward on [stereo system]."

note:

Please note that this feature is currently only available in English. If you want to use this function, you must change the language settings on the echo or echo dot to English. This has an effect on all voice commands. All other functions are then only available in English.

6.2 ALEXA SCENE

"Alexa, launch [scene]."
"Alexa, stop [scene]."

Examples:

"Alexa, start party lights."
"Alexa, stop party lights."



7 APPENDIX

Appendix 5: 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	



Appendix 6: 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	DPT 1.007	drive control step (direction) / stop	1 Bit	EIS 7	[up (0) .. down (1)]
4	DPT 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	