REAL SMART HOME GmbH

APPMODULE

BAB Assistant App Documentation

Version: 1.0.0
Type: Application
Article No.:

Documentation version I
Actual state 06/2019
Date: 7. June 2019

EN

REAL SMART HOME GmbH

Hörder Burgstraße 18
D-44263 Dortmund

Email: info[at]realsmarthome.de

Tel.: +49 (0) 231-586974-00
Fax.: +49 (0) 231-586974-15
www.realsmarthome.de

TABLE OF CONTENTS

1 INTRODUCTION

Thank you for your trust, and the purchase of the
BAB Assistant - app for the BAB **APP**MODULE. With BAB Assistant- app you integrate the voice control assistant from Google® into your smart home based on KNX, EnOcean and IP. This documentation will help you get started with the app and aims to improve your setup experience.

REAL SMART HOME GmbH

IMPORTANT INFORMATION ON THE OPERATING INSTRUCTIONS

We reserve the right continually improve the product. This entails the possibility that parts of this documentation might be out-of-date. You will find the latest information at:

www.bab-appmarket.de

This app is an independent product and has no legal connection to Google LLC.
Neither BAB APP MARKET GmbH nor the developer are in possession of the above-mentioned trademark.
This Smart Home App may be used in conjunction with third-party products or services. The respective manufacturer is responsible for data protection.

2 BAB ASSISTANT – FUNCTIONAL OVERVIEW

With this app you integrate the voice control assistant from Google® into your smart home based on KNX, EnOcean and IP.

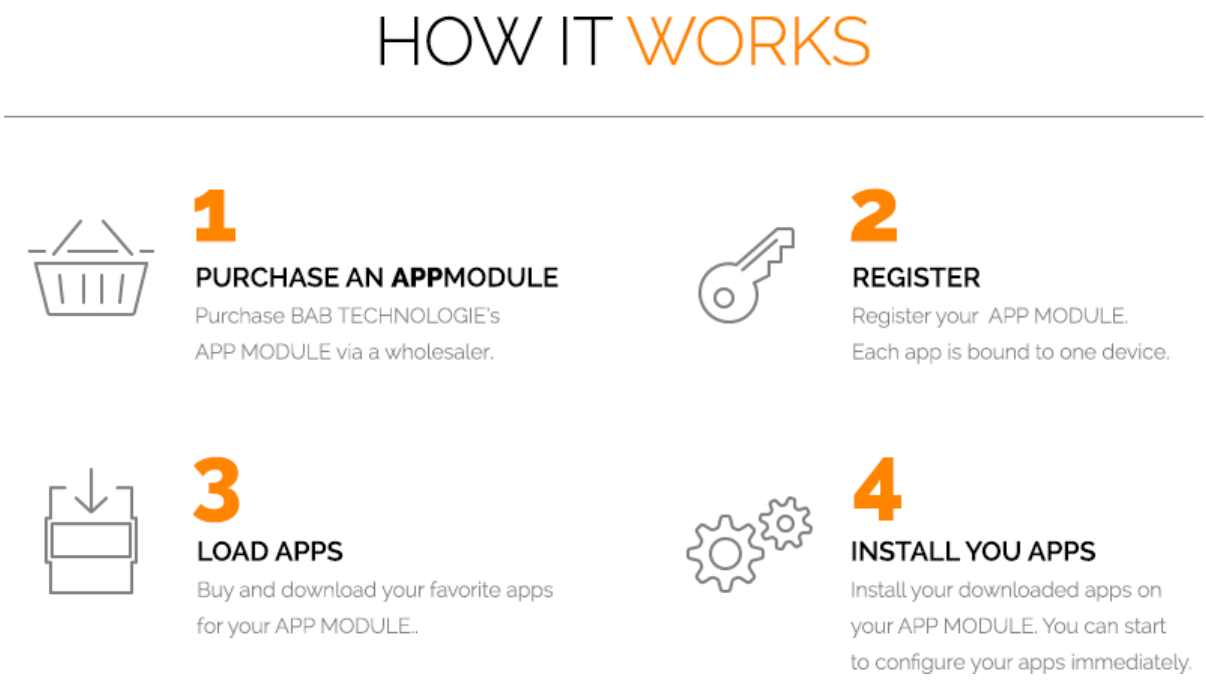
Highlights

Integrate:

- Switching
- Dimming
- Room Temperature Control
- Color Control
- Color Temperature Control
- Shutter / blind control

3 THE INNOVATIVE, MODULAR APP-CONEPT FOR THE BUILDING AUTOMATION

The innovative, modular app concept for building automation. The **APP**MODULE brings the innovative, modular app concept into building automation. You can mix and match any of the diverse applications that are available to ingrate third-party solutions. With these apps from the dedicated **BAB** APP MARKET, the **APP**MODULE becomes a tailor-made integration unit for your building automation.



Manufacturer of the **APP**MODULE BAB TECHNOLOGIE GmbH

Distribution of all apps for the **APP**MODULE BAB APP MARKET GmbH

App developer REAL SMART HOME GmbH

3.1 INFORMATION ABOUT THE APPMODULE

Please refer to the separate product documentation of the **APP**MODULE for a detailed product description and setup instructions.

http://www.bab-tec.de/index.php/download_de.html

Product variants:
The **APP**MODULE is available in three variants:

- **APP**MODULE KNX/TP – for stand-alone use on KNX/TP Bus
- **APP**MODULE EnOcean – for stand-alone use in the EnOcean wireless network
- **APP**MODULE IP – for use in an IP-based KNX installation (KNXnet/IP) or as extension for an EIB**PORT**

4 APP INSTALLATION / UPDATE

Please proceed as follows to install an App.

1. Open the APPMODULE web page: Enter <IP Address of APPMODULE> into your browser's address bar and press Enter. The APPMODULE web interface will appear.

2. Log in with your user credentials. Please refer to the APPMODULE documentation for login details.

3. Click on the menu entry "App Manager"

4. You are now on the page where already installed Apps are listed. The list will be empty if no apps have been installed. Click "Install App" in order to install a new app.

5. Now click on "Select App"; a file selector window will appear. Choose the app and click "OK". The App must first be downloaded from the **BAB** APP MARKET.

6. After the message "Installation successful" appears, click "OK". You are ready to configure the App.

7. For an update of the "BAB Assistant" click on "Search update".

8. If an update is available for the "BAB Assistant" app, this will be displayed to the right of the app name. Click on the button "Update available" A window with the Change Log of the app opens. Click here on "Update now" to update your app.

After the message "Installation successful" appears, click "OK". The app has been updated. Your instance configurations will remain unchanged.

Information

To configurate the App please use Google Chrome.

5 APP SETTINGS

With this app you integrate the voice control assistant from Google® into your smart home based on KNX, EnOcean and IP.

The Smart Home App "**BAB** Assistant" for the **APP**MODULE is the counterpart to the Google Action "**BAB** TECHNOLOGIE".
The "**BAB** TECHNOLOGIE Service" is used for a particularly comfortable setup of the system.
Like Google itself, it uses the Google "Sign in" authentication to ensure a secure and unambiguous connection between the **APP**MODULE and Google.
You use one and the same account (access data) to register on Google as well as on the BAB service.
Please note that within the framework of the OAuth registration procedure, which is particularly secure for you, your registration data will remain completely hidden from the BAB TECHNOLOGIE Service.
Google will issue the BAB TECHNOLOGIE Service with an encrypted character string with which it can act on your behalf.

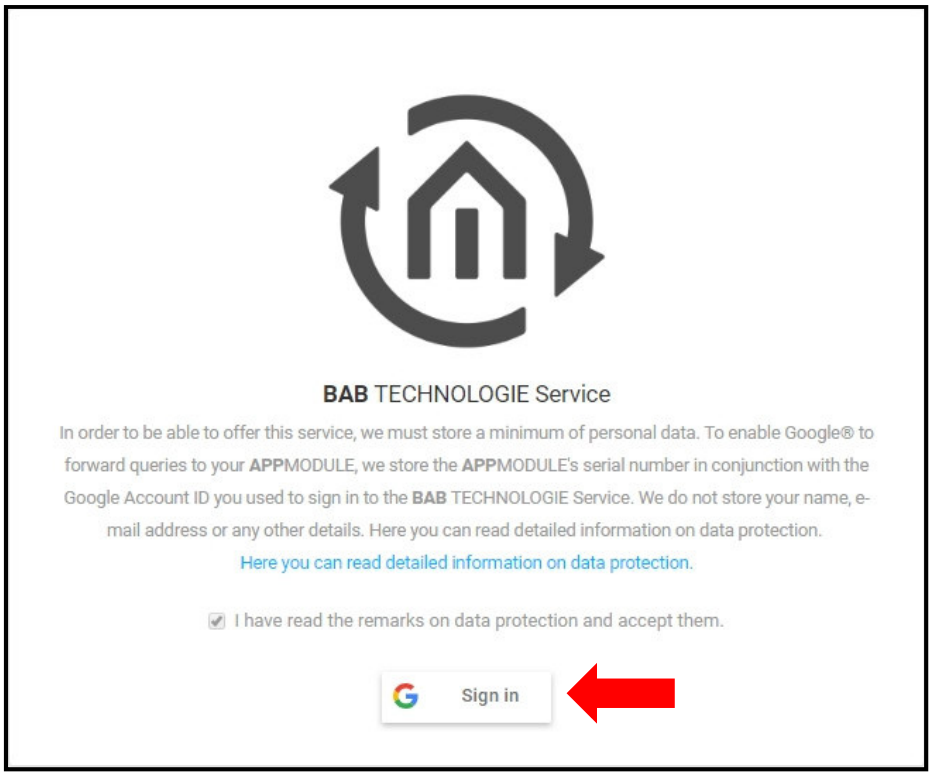
Proceed as follows to connect your **APP**MODULES with Google:

1. Open the configuration interface of the APPMODULE and navigate to the Smart Home App "**BAB** Assistant" in the "App Manager" area.
2. Click on "the **BAB** TECHNOLOGY Service link and log in to the "**BAB** TECHNOLOGY Service".
3. Enter the serial number and the registration key of the **APP**MODULE.
4. Copy the generated access token to the clipboard.
5. Return to the configuration interface of the APPMODULE and insert the access token.
6. Click Verify access token to allow the access token to be verified.
7. The connection status is not checked or displayed until the instance is saved, because only then the connection is established.
8. Go to the Google Home App or Google Assistant and navigate to the “Manage Accounts” section.
9. In the "Manage accounts" section, select the BAB TECHNOLOGIE action and link it to your account

The connection of your **APP**MODULE is now set up and Google voice commands are forwarded to your APP MODULE via the "**BAB** TECHNOLOGIE Service".
Continue now with the further configuration of the Smart Home App.

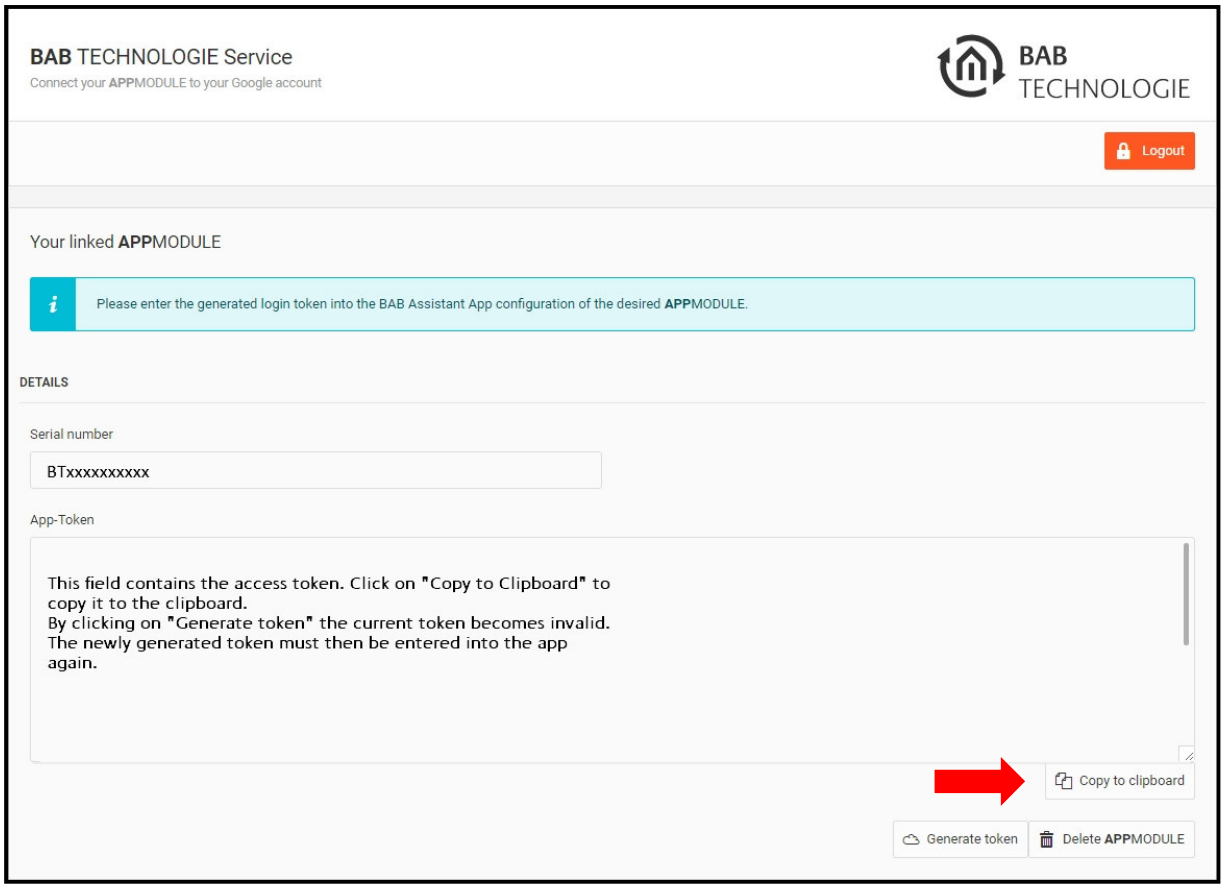
5.1 ACCESS TOKEN

The **APP**MODULE must be registered in the **BAB** TECHNOLOGIE Service "https://google1.home.bab-tec.de/".
For the registration you need the serial number of the **APP**MODULE (BTxxxxxxxxxx) and the registration key for the **BAB** APP MARKET. The serial number can be found on the rear side of the **APP**MODULE or - if you have logged in to the **APP**MODULE web interface - under Information. The registration key can be found on the packaging and on the enclosed map of the **APP**MODULE. Log in to the **BAB** TECHNOLOGIE service with your Google account data.

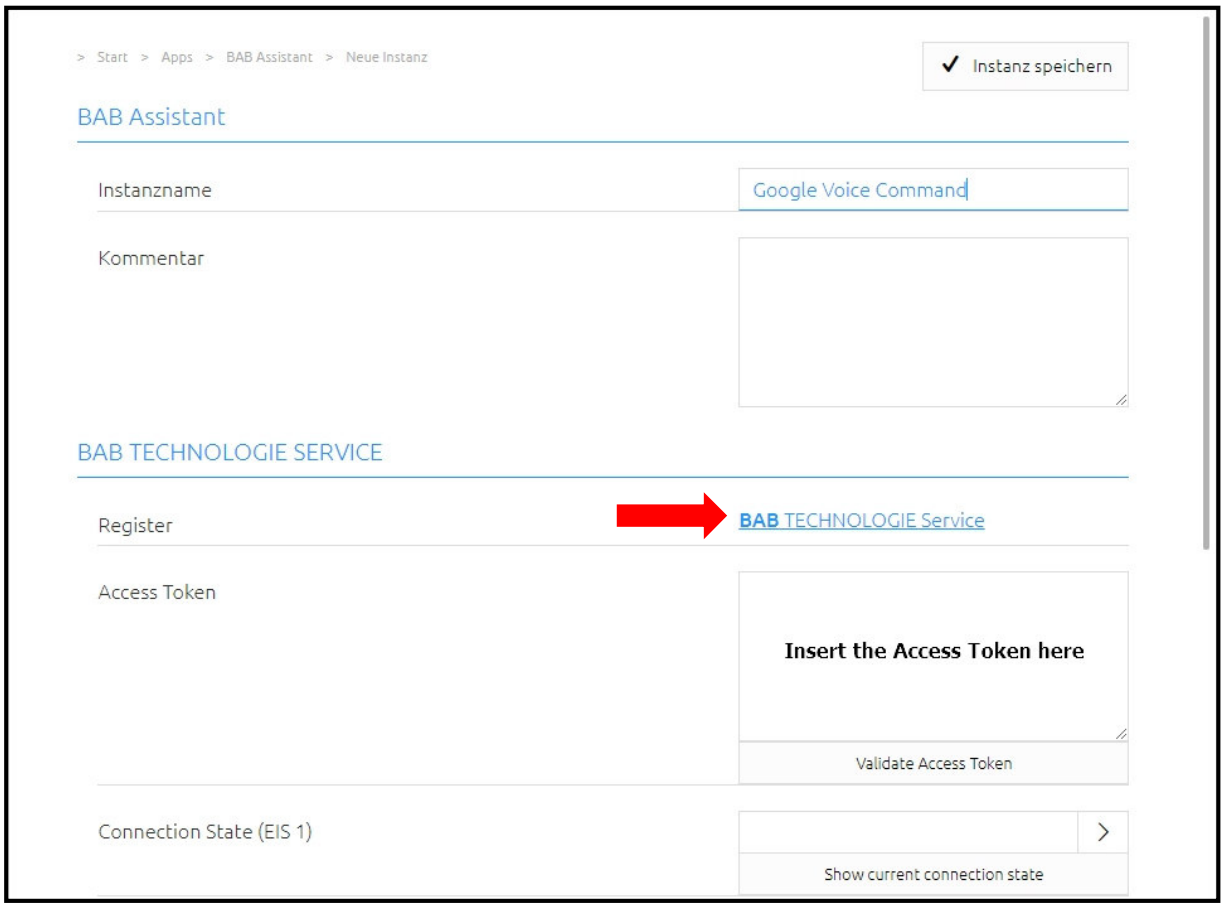


You will be redirected to a registration page of Google. Enter your Google account data here. Afterwards you will be redirected to the BAB TECHNOLOGIE Service page.
Now enter the serial number of the APPMODULE and the registration key.

“Submit "completes the registration and creates the access token. Copy the access token into the clipboard.



Insert the token from the clipboard into the corresponding field in the Smart Home App "BAB Assistant".



The registration process is completed by saving the instance.

5.2 BAB ASSISTANT

With this app, you can integrate the Google® Voice Control Assistant into your Smart Home based on KNX, EnOcean and IP.

As soon as the app is installed, you can create so called “Instance”. An Instance is one of several objects of the same class.

In order to create an instance, click on the symbol "Create Instance".

Instance Name:

Choose a name for this new instance.

Comment:

Insert a description what this instance does.

5.3 BAB TECHNOLOGIE SERVICE

Register:

Register your device with BAB TECHNOLOGIE service to get an access token. The access token is necessary to use this app.

Access Token:

The access token is needed to connect and identify with BAB TECHNOLOGIE Service.

Connection State (EIS 1):

Indicates whether the app is connected to the BAB TECHNOLOGIE service and can process requests.

5.4 NAMES

Device Type:

Google device type selection. Select the appropriate device type here. This selects the function under "Option" and displays the associated group addresses and settings.

- Switch
- Outlet (switchable)
- Light
- Scene
- Thermostat
- Blind / Shutter height
- Blind / Shutter angle

Name:

Name of the device. Note that this name will not be visible in the Google Home App.

Nicknames:

Comma separated list of names by which to call the device.

Room:

Room where the device is located.

Structure:

Enter the name you chose in the Google Home App for "My Home Name" here. The default name in the Google Home App is "Home".

5.5 DEVICE CAPABILITIES

Switch:

Device has switch capability.

- **Switch (EIS 1):**

  Switching on and off as 1-bit value (switching on with value 1, switching off with value 0).

- **Status Switch (EIS 1):**

  Status for switching on and off as 1-bit value (switching on with value 1, switching off with value 0) for feedback to Google.

Brightness / Dimmer:

Device has a dimmer or percentage value.

- **Brightness (EIS 6 0%...100%):**

  Brightness in percent.

- **Brightness (EIS 6 0%...100%):**

  Status of brightness as percentage value for feedback to Google.

Color:

Device has a color spectrum or a color temperature value.

- **Color Red Channel (EIS 14u 0...255):**

  Red as 1-byte value 0-255.

- **Status Color Red Channel (EIS 14u 0...255):**

  Status of color channel red as 1-byte value 0-255 for feedback to Google.

- **Color Green Channel (EIS 14u 0...255):**

  Green as 1-byte value 0-255.

- **Status Color Green Channel (EIS 14u 0...255):**
  Status of color channel green as 1-byte value 0-255 for feedback to Google.
- **Color Blue Channel (EIS 14u 0...255):**
  Blue as 1-byte value 0-255.
- **Status Color Blue Channel (EIS 14u 0...255):**
  Status of color channel blue as 1-byte value 0-255 for feedback to Google.
- **All Color Channels sent (EIS 1):**
  Invoked when all color channels are sent.
- **Color RGB (DPT 232.600 3 Byte RGB):**
  Color as 3-byte value.
- **Status Color RGB (DPT 232.600 3 Byte RGB):**
  Status of color as 3-byte value for feedback to Google.
- **Color Temperature (Kelvin) (EIS 10u 0...65535):**
  Color temperature (ambient white) as kelvin value.
- **Status Color Temperature (Kelvin) (EIS 10u 0...65535):**
  Status of the color temperature for feedback to Google.
- **Color Temperature Minimum (Kelvin):**
  Minimal possible color temperature value. Usually around 2000 K.
- **Color Temperature Maximum (Kelvin):**
  Maximal possible color temperature value. Usually around 7500 K

Scene (Exclusive)

Start or reverse a scene.

- **Control Scene:**
  Group address for activation (respectively deactivation) of the scene.
- **Datatype of the scene trigger group address:**
  Sets the datatype to control the scene.
  - EIS 1
  - EIS 14u
- **Scene Reversible:**
  Turns this scene into a reversible scene.
- **Scene Byte Value Start:**
  Byte value that is sent to start the scene.
- **Scene Byte Value Reverse:**
  Byte value that is sent to revert the scene

Thermostat (Exclusive)

Device is controlling a thermostat.

- **Unit**

  Temperature unit °C or °F.

- **Setpoint value absolute (EIS 5 2 Byte FP):**

  Absolute setpoint value for temperature.

- **Status setpoint value absolute (EIS 5 2 Byte FP):**

  Status of the absolute setpoint temperature for feedback to Google.

- **Setpoint Adjustment (relative) (EIS 14s -128...127):**

  The current setpoint value is the base for the adjustment.

- **Send absolute Setpoint value:**

  Check this box to send the absolute setpoint value in addition to the setpoint adjustment.

- **Stepwidth Setpoint Adjustment:**

  How many degrees are adjusted per step. A stepwidth of 0.5 would change by 1 degree every 2 steps.

- **Current Temperature (EIS 5 2 Byte FP):**

  The current temperature should be provided by this group address.

- **Humidity (EIS 5 2 Byte FP) (optional):**

  The current humidity can be made available at this group address.

- **Thermostat Mode (EIS 14u 0...255):**

  Thermostat mode selection.

- **Status Thermostat Mode (EIS 14u 0...255):**

  Status of the current operating mode of the thermostat for feedback to Google.

- **Mode Heat – Available:**

  Activates the mode 'Heat' for this device.

- **Mode Heat – Value:**

  Value to be sent for the mode 'Heat'.

- **Mode Off – Available:**
- Activates the mode 'Off' for this device. Switching on again via the language assistant reactivates the last operating mode used.

- **Mode Off – Value:**

  Value to be sent for the mode 'Off'.

- **Mode Heat/Cool – Available:**

  Activates the mode 'Heat/Cool' for this device.

- **Mode Heat/Cool – Value:**

Value to be sent for the mode 'Heat/Cool'.

- **Mode Cool – Available:**

  Activates the mode 'Cool' for this device.

- **Mode Cool – Value:**

  Value to be sent for the mode 'Cool'.

Blind / Shutter (Exclusive):

Blind or shutter control.

- **Invert absolute value:**

  The 'open' state is represented by 100% or the value 255 (1 byte) by default and the 'closed' state by 0% or the value 0 (1 byte) by analogy. If the option 'Invert absolute value' is activated, both states are exchanged such that the state 'open' is represented by 0% or the value 0 (1 byte) and the state 'closed' by 100% or the value 255 (1 byte).

  Note that the inversion only applies to the KNX bus, not to the Google assistant.

- **Shutter/Blind Absolute Position (EIS 14u 0...255):**

  The 'open' state is represented by 100% or the value 255 (1 byte) by default and the 'closed' state by 0% or the value 0 (1 byte) by analogy.

- **Status Shutter/Blind Absolute (EIS 14u 0...255):**

  Status address for the absolute value of shutter/blind position/angle.

6 APPENDIX

6.1 ADDITIONAL INFORMATION AND TIPS

Make sure that you use keywords such as lighting, lamp, light, socket, blind, scene or thermostat when naming the devices.

For example, if you have several lamps in a room and have light in the device name (ceiling light, TV light, etc.), Google will not switch the directly addressed lamp, but switches all lamps.

Examples of voice commands for the BAB TECHNOLOGIE Action can be found here:
https://assistant.google.com/services/a/uid/00000041c959910d?hl=

6.2 DATA TYPES

function	EIS type	DPT	typical function	typical values	data	identifier
PriorityPosi-tion	EIS1	DPT1	Wind alarm	1=high and inhibit	1 Bit	1-bit
Switch	EIS1	DPT1	Light switching	0=Off; 1=On	1 Bit	1-bit
DimControl	EIS2	DPT3	Dimming	0=Off; 1=On xxxx=relative dimming 0-255=absolute dimming	1Bit 4Bit 8Bit	3-bit controlled
Time	EIS3	DPT10	Time	Hhh:mm:ss	3 Byte	Time
Date	EIS4	DPT11	Date	dd:mm:yyyy	3 Byte	Date
Value	EIS5	DPT9	Value	0-255	1Byte	2-byte float value
DimValue	EIS6	DPT5	Percent	0-100%	1Byte	8-bit unsigned value
DriveBlade Value	EIS6	DPT5	Position value	0-100%; 0-255	1Byte	8-bit unsigned value
DriveShutter Value	EIS6	DPT5	Position value	0-100%; 0-255	1Byte	8-bit unsigned value
Position	EIS6	DPT5	Control value Heating	0-100%; 0-255	1Byte	8-bit unsigned value
DriveMove	EIS7	DPT1	Move shutter	0=up 1=down	1Bit	1-bit
DriveStep	EIS7	DPT1	Adjusting the slat blind	0=up; 1= down; 0 or 1 during movement=stop	1Bit	1-bit
PriorityCont-rol	EIS8	DPT2	Priority	0,1 switch; 3=forced off; 4=forced on	2Bit	1-bit controlled
FloatValue	EIS9	DPT14	IEEE	Floating-point value	4 Byte	4-byte float value
Counter 16bit	EIS10	DPT7	Counter 16 bit	0 - 65.535	2Byte	2-byte unsigned value
Counter 16bit	EIS10	DPT8	Counter 16 bit with sign	-32.768 - 32.767	2Byte	2-byte signed value
Counter 32bit	EIS11	DPT12	Counter 32 bit	0 - 4.294.967.295	4Byte	4-byte unsigned value
Counter 32bit	EIS11	DPT13	Counter 32 bit with sign	0 - 4.294.967.295	4Byte	4-byte signed value
Access Control	EIS12	DPT15	Access control	Card number	4Byte	Entrance access
Char	EIS13	DPT4	ASCII characters	Character	1Byte	Character
Counter 8bit	EIS14	DPT5	Value	0 - 255	1Byte	8-bit unsigned value
Counter 8bit	EIS14	DPT6	Value with sign	-128 - 127	1Byte	8-bit signed value
String	EIS15	DPT16	String	max. 14 characters	14 Byte	Character string

EIB/KNX devices exchange fixed prescribed data formats with each other. These are defined in types.
The old designations of the types are EIS (EIB Interworking Standard)
The new designations are DPT (Data Point Type)