



REAL SMART HOME

REAL SMART HOME GmbH

APPMODULE

WEATHER App Documentation

Version: 1.2.6

Type: Application

Article No.: BAB-022

Documentation version I
Actual state 09/19
Date: 12. September 2019

EN

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1 INTRODUCTION

Thank you for your trust, and the purchase of the **WEATHER** -app for the BAB **APPMODULE**. With the **WEATHER** -app you obtain professional integration of internet weather with comprehensive weather data into building automation. This documentation will help you get started with the app and aims to improve your setup experience.

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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 This entails the possibility that parts of this documentation might be out-of-date.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, with no legal ties to OpenWeatherMap®. Neither **BAB APP MARKET** GmbH nor the developer of this app take any claim in the trademarks owned by OpenWeatherMap®.

2 WEATHER – FUNCTIONAL OVERVIEW

WEATHER connects your building control with data from OpenWeatherMap (openweathermap.org) in an intelligent manner. The data allows you to integrate the weather forecast into various algorithms. If, for example, a long dry period is forecast, the watering system can react appropriately and available sun protection systems can be brought into position. If a storm is forecast, the necessary protective measures can be taken automatically. OpenWeatherMap offers codes for a wide range of weather definitions – so-called "Weather condition codes". These codes simplify parameterisation of the system and allow for the clear classification of conditions. Of course current weather information can also easily be shown in the visualisation.

2.1 HIGHLIGHTS

- Current weather for a location per instance
- Multi-lingual
- Various measurement systems
- Automatic or manual "Refresh"
- Current temperature
- Weather description in the preferred language
- Atmospheric pressure
- Humidity
- Visibility
- Wind speed
- Cloud cover

2.2 LIMITATIONS OF THE LITE VERSION

- Only information about the current weather.

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

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

HOW IT WORKS

**1****PURCHASE AN APPMODULE**

Purchase BAB TECHNOLOGIE'S APP MODULE via a wholesaler.

**2****REGISTER**

Register your APP MODULE. Each app is bound to one device.

**3****LOAD APPS**

Buy and download your favorite apps for your APP MODULE..

**4****INSTALL YOU APPS**

Install your downloaded apps on your APP MODULE. You can start to configure your apps immediately.

Manufacturer of the **APPMODULE**

<http://bab-tec.de/>

Distribution of all apps for the **APPMODULE**

<https://www.bab-appmarket.de/de/>

App developer

<http://www.realsmarthome.de/>

3.1 INFORMATION ABOUT THE APPMODULE

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

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

Product variants:

The **APPMODULE** is available in three variants:

- **APPMODULE KNX/TP** – for stand-alone use on KNX/TP Bus
- **APPMODULE EnOcean** – for stand-alone use in the EnOcean wireless network
- **APPMODULE Extension** – for use in an IP-based KNX installation (KNXnet/IP) or as extension for an **EIBPORT**

4 APP INSTALLATION

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 »Weather« and click "OK". The Smart Home App "Weather" must first be downloaded from the BAB APP MARKET (www.bab-appmarket.de).
6. After the message "Installation successful" appears, click "OK". You are ready to configure the App.
7. To update an already installed app, click on the App icon in the "App Manager".
8. The detail view of the App appears. Click on "Update App" to select the app package and start the update. The update version must be downloaded from the BAB APP MARKET.

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

WEATHER connects your building control with data from OpenWeatherMap (openweathermap.org) in an intelligent manner. The data allows you to integrate the weather forecast into various algorithms. If, for example, a long dry period is forecast, the watering system can react appropriately and available sun protection systems can be brought into position. If a storm is forecast, the necessary protective measures can be taken automatically. OpenWeatherMap offers codes for a wide range of weather definitions – so-called "Weather condition codes". These codes simplify parameterisation of the system and allow for the clear classification of conditions. Of course current weather information can also easily be shown in the visualisation.

5.1 INSTANCE

Information

The browser-session expires after a period of 60 minutes due to inactivity. Unsaved changes to the configuration will be lost.

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 following symbol "Create Instance".

5.1.1 WEATHER

Instance Name:

Choose a name for this new instance.

Comment:

Insert a description what this instance does.

5.1.2 MAIN SETTINGS

API Key:

In order to retrieve weather information from openweathermap.org, you must first register on the website and obtain an api key. Registration is free, and the free api access terms are well-suited for the usage of this app. See for more details:

<http://openweathermap.org/api>

City:

Insert the name of the city you want to receive weather information about. In case there are several cities with the name, a selection of all cities found will be generated in the dropdown menu right below, with which you are able to select your desired city. These cities can then be distinguished by country ID and/or geographical coordinates.

Language Select:

Select the language you want the information to be displayed in:

- Bulgarian
- English
- French
- German
- Portuguese
- Swedish
- Turkish
- Croatian
- Dutch
- Italian
- Romanian
- Russian
- Spanish
- Ukrainian
- Catalan
- Chinese Traditional
- Chinese Simplified
- Finnish
- Polish

Unit Format Select:

Select the unit format for the display of values such as temperature or wind speed:

- metric
- imperial

Manual Information Update (EIS 1):

Insert the group address of the KNX Device with which to trigger an update of weather information. This Setting is optional.

Automatic Information Update:

Check if you want the weather information to be updated every 30 minutes.

5.1.3 GENERAL DISPLAY ADDRESSES (OPTIONAL)

Country Code Display (EIS 15):

Insert the group address of the display on which the country code will be displayed.

City Display (EIS 15):

Insert the group address of the display on which the city will be displayed.

5.1.4 CURRENT WEATHER ADDRESSES (OPTIONAL)

Temperature Display (EIS 15)

Insert the group address of the display on which the temperature will be displayed.

Temperature Value Output

Insert the group address of the temperature value output.

Temperature Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Weather Description Display (EIS 15)

Insert the group address of the display on which the weather description will be displayed.

Pressure Display (EIS 15)

Insert the group address of the display on which the atmospheric pressure will be displayed.

Pressure Value Output

Insert the group address of the atmospheric pressure value output.

Pressure Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Humidity Display (EIS 15)

Insert the group address of the display on which the humidity will be displayed.

Humidity Value Output (EIS 14)

Insert the group address of the humidity value output.

Visibility Display (EIS 15)

Insert the group address of the display on which the visibility will be displayed.

Wind Speed Display (EIS 15)

Insert the group address of the display on which the wind speed will be displayed.

Wind Speed Value Output

Insert the group address of the wind speed value output.

Wind Speed Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Wind Direction Display (EIS 15)

Insert the group address of the display on which the wind direction will be displayed (in degrees).

Wind Direction Value Output (EIS 10)

Insert the group address of the wind degree value output (0 - 360).

Clouds Display (EIS 15)

Insert the group address of the display on which the amount of clouds will be displayed.

Weather ID (EIS 10)

Insert the group address of the weather ID output.

5.1.5 WEATHER FORECASTS (OPTIONAL)

Forecast List

Up to 50 weather forecasts can be configured and compiled on this list. Click 'Add' for further details concerning configuration parameters of each list component.

Name

Insert the name of the forecast.

Forecast Time

Choose the date (viewed from the present) for which the forecast data will be called.

- Day five, 3:00 a.m.
- Day five, 9:00 a.m.
- Tomorrow, 6:00 a.m.
- Tomorrow, 6:00 p.m.
- Day four, 9:00 a.m.
- Tomorrow, 0:00 p.m.
- Day four, 6:00 a.m.
- Day five, 6:00 p.m.
- Today, 3:00 a.m.
- Tomorrow, 0:00 a.m.
- Tomorrow, 9:00 a.m.
- Today, 3:00 p.m.
- Tomorrow, 9:00 p.m.
- Day after tomorrow, 9:00 p.m.
- Day four, 6:00 p.m.
- Today, 6:00 a.m.
- Today, 9:00 a.m.
- Today, 0:00 p.m.
- Day five, 3:00 p.m.
- Today, 9:00 p.m.
- Day four, 0:00 p.m.
- Day five, 0:00 p.m.
- Day four, 9:00 p.m.
- Day five, 6:00 a.m.
- Today, 6:00 p.m.
- Day after tomorrow, 0:00 p.m.
- Day four, 3:00 p.m.
- Day four, 0:00 a.m.
- Day four, 3:00 a.m.
- Day five, 0:00 a.m.
- Tomorrow, 3:00 p.m.
- Day after tomorrow, 0:00 a.m.
- Day after tomorrow, 3:00 p.m.
- Today, 0:00 a.m.
- Day after tomorrow, 3:00 a.m.
- Day after tomorrow, 6:00 p.m.
- Day five, 9:00 p.m.
- Tomorrow, 3:00 a.m.
- Day after tomorrow, 6:00 a.m.
- Day after tomorrow, 9:00 a.m.

Temperature Display (EIS 15)

Insert the group address of the display on which the temperature will be displayed.

Temperature Value Output

Insert the group address of the temperature value output.

Temperature Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Minimum Temperature Display (EIS 15)

Insert the group address of the display on which the minimum temperature will be displayed.

Minimum Temperature Value Output

Insert the group address of the minimum temperature value output.

Minimum Temperature Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Maximum Temperature Display (EIS 15)

Insert the group address of the display on which the maximum temperature will be displayed.

Maximum Temperature Value Output

Insert the group address of the maximum temperature value output.

Maximum Temperature Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Pressure Display (EIS 15)

Insert the group address of the display on which the atmospheric pressure will be displayed.

Pressure Value Output

Insert the group address of the atmospheric pressure value output.

Pressure Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Sea Level Pressure Display (EIS 15)

Insert the group address of the display on which the atmospheric pressure on sea level will be displayed.

Sea Level Pressure Value Output

Insert the group address of the atmospheric pressure on sea level value output.

Sea Level Pressure Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Ground Level Pressure Display (EIS 15)

Insert the group address of the display on which the atmospheric pressure on ground level will be displayed.

Ground Level Pressure Value Output

Insert the group address of the atmospheric pressure on ground level value output.

Ground Level Pressure Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Humidity Display (EIS 15)

Insert the group address of the display on which the humidity will be displayed.

Humidity Value Output (EIS 14)

Insert the group address of the humidity value output.

Weather Description Display (EIS 15)

Insert the group address of the display on which the weather description will be displayed.

Cloudiness Display (EIS 15)

Insert the group address of the display on which the cloudiness will be displayed.

Cloudiness Value Output (EIS 14)

Insert the group address of the cloudiness value output.

Wind Speed Display (EIS 15)

Insert the group address of the display on which the wind speed will be displayed.

Wind Speed Value Output

Insert the group address of the wind speed value output.

Wind Speed Value Data Type

The data type for this floating point value

- EIS 9: 4 Byte Floating Point
- EIS 5: 2 Byte Floating Point

Wind Direction Display (EIS 15)

Insert the group address of the display on which the wind direction will be displayed (in degrees).

Wind Direction Value Output (EIS 10)

Insert the group address of the wind direction value output (in degrees).

Rain Volume Display (EIS 15)

Insert the group address of the display on which the rain volume for the last three hours will be displayed.

Rain Volume Value Output

Insert the group address of the rain volume (for the last three hours) value output.

Rain Volume Value Data Type

The data type for this floating point value

- EIS 9: 4 Byte Floating Point
- EIS 5: 2 Byte Floating Point

Snow Volume Display (EIS 15)

Insert the group address of the display on which the snow volume for the last three hours will be displayed.

Snow Volume Value Output

Insert the group address of the snow volume (for the last three hours) value output.

Snow Volume Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Weather ID (EIS 10)

Insert the group address of the weather ID output.

5.1.6 DYNAMIC WEATHER FORECAST ADDRESSES (OPTIONAL)

Get Forecast (x hours)

A telegram on this group address with initiates a forecast call. The sent value is interpreted as hours, and determines for how many hours in the future the forecast data will be. Openweathermap provides forecasts for 3 hour segments. Values such as 3, 9, 12, i.e. multiples of three are thus sensible. Other values will be rounded to the next forecast.

Temperature Display (EIS 15)

Insert the group address of the display on which the temperature will be displayed.

Temperature Value Output

Insert the group address of the temperature value output.

Temperature Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Minimum Temperature Display (EIS 15)

Insert the group address of the display on which the minimum temperature will be displayed.

Minimum Temperature Value Output

Insert the group address of the minimum temperature value output.

Minimum Temperature Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Maximum Temperature Display (EIS 15)

Insert the group address of the display on which the maximum temperature will be displayed.

Maximum Temperature Value Output

Insert the group address of the maximum temperature value output.

Maximum Temperature Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Pressure Display (EIS 15)

Insert the group address of the display on which the atmospheric pressure will be displayed.

Pressure Value Output

Insert the group address of the atmospheric pressure value output.

Pressure Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Sea Level Pressure Display (EIS 15)

Insert the group address of the display on which the atmospheric pressure on sea level will be displayed.

Sea Level Pressure Value Output

Insert the group address of the atmospheric pressure on sea level value output.

Sea Level Pressure Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Ground Level Pressure Display (EIS 15)

Insert the group address of the display on which the atmospheric pressure on ground level will be displayed.

Ground Level Pressure Value Output

Insert the group address of the atmospheric pressure on ground level value output.

Ground Level Pressure Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Humidity Display (EIS 15)

Insert the group address of the display on which the humidity will be displayed.

Humidity Value Output (EIS 14)

Insert the group address of the humidity value output.

Weather Description Display (EIS 15)

Insert the group address of the display on which the weather description will be displayed.

Cloudiness Display (EIS 15)

Insert the group address of the display on which the cloudiness will be displayed.

Cloudiness Value Output (EIS 14)

Insert the group address of the cloudiness value output.

Wind Speed Display (EIS 15)

Insert the group address of the display on which the wind speed will be displayed.

Wind Speed Value Output

Insert the group address of the wind speed value output.

Wind Speed Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Wind Direction Display (EIS 15)

Insert the group address of the display on which the wind direction will be displayed (in degrees).

Wind Direction Value Output (EIS 10)

Insert the group address of the wind direction value output (in degrees).

Rain Volume Display (EIS 15)

Insert the group address of the display on which the rain volume for the last three hours will be displayed.

Rain Volume Value Output

Insert the group address of the rain volume (for the last three hours) value output.

Rain Volume Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Snow Volume Display (EIS 15)

Insert the group address of the display on which the snow volume for the last three hours will be displayed.

Snow Volume Value Output

Insert the group address of the snow volume (for the last three hours) value output.

Snow Volume Value Data Type

The data type for this floating point value

- EIS 5: 2 Byte Floating Point
- EIS 9: 4 Byte Floating Point

Weather ID (EIS 10)

Insert the group address of the weather ID output.

6 ATTACHMENT

Function	EIS type	DPT	typical function	typical values	data	identifier
PriorityPosition	EIS1	DPT 1*	Wind alarm	1=high and inhibit	1 Bit	1-bit
Switch	EIS1	DPT 1*	Light switching	0=Off; 1=On	1 Bit	1-bit
DimControl	EIS2	DPT 3*	Dimming	0=Off; 1=On xxx=relative dimming 0-255=absolute dimming	1Bit 4Bit 8Bit	3-bit controlled
Time	EIS3	DPT 10*	Time	Hhh:mm:ss	3 Byte	Time
Date	EIS4	DPT 11*	Date	dd:mm:yyyy	3 Byte	Date
Value	EIS5	DPT 9*	Value	[-671088.64 ... 670760.96]	1Byte	2-byte float value
DimValue	EIS6	DPT 5*	Percent	0-100%	1Byte	8-bit unsigned value
DriveBlade Value	EIS6	DPT 5*	Position value	0-100%; 0-255	1Byte	8-bit unsigned value
DriveShutter Value	EIS6	DPT 5*	Position value	0-100%; 0-255	1Byte	8-bit unsigned value
Position	EIS6	DPT 5*	Control value Heating	0-100%; 0-255	1Byte	8-bit unsigned value
DriveMove	EIS7	DPT 1*	Move shutter	0=up 1=down	1Bit	1-bit
DriveStep	EIS7	DPT 1*	Adjusting the slat blind	0=up; 1= down; 0 or 1 during movement=stop	1Bit	1-bit
PriorityControl	EIS8	DPT 2*	Priority	0,1 switch; 3=forced off; 4=forced on	2Bit	1-bit controlled
FloatValue	EIS9	DPT 14*	IEEE	Floating-point value	4 Byte	4-byte float value
Counter 16bit	EIS10	DPT 7*	Counter 16 bit	0 - 65.535	2Byte	2-byte unsigned value
Counter 16bit	EIS10	DPT 8*	Counter 16 bit with sign	-32.768 - 32.767	2Byte	2-byte signed value
Counter 32bit	EIS11	DPT 12*	Counter 32 bit	0 - 4.294.967.295	4Byte	4-byte unsigned value
Counter 32bit	EIS11	DPT 13*	Counter 32 bit with sign	0 - 4.294.967.295	4Byte	4-byte signed value
Access Control	EIS12	DPT 15*	Access control	Card number	4Byte	Entrance access
Char	EIS13	DPT 4*	ASCII characters	Character	1Byte	Character
Counter 8bit	EIS14	DPT 5*	Value	0 - 255	1Byte	8-bit unsigned value
Counter 8bit	EIS14	DPT 6*	Value with sign	-128 - 127	1Byte	8-bit signed value
String	EIS15	DPT 16*	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)