

MARCH 2020

Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

Webinar – Competence Center Europe – Smart Buildings

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Agenda

SUG-F-1.1 free@home Split Unit Gateway:

Introduction and Device Overview

Application and Benefits

DG-M-1.16.1 free@home DALI Gateway:

Introduction and Motivation

Commissioning

Partner Integration in free@home:

Home Connect, Miele@home



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Split Unit Gateway

Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

SUG-F-1.1 free@home Split Unit Gateway

Motivation & Goals

- HVAC control is a vital part of home automation systems
- Now we integrate Split Unit control to free@home
- This enables sales of the free@home system in markets where the integration of Split Units is a must have
- Gaining new customers and increasing market share in the Building Automation Business thus strengthening ABB’s global market position.
- Allow integration of Split Units into the free@home system



Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

SUG-F-1.1 free@home Split Unit Gateway

Functions

- The Split Unit Gateway forms the interface between free@home and climate control equipment from a wide range of manufacturers, also referred to as „split unit“
- The device is installed near the split unit and the transmitter of the supplied cable is bonded to the receiver of the unit itself
- Thereafter, the climate control equipment no longer receives commands from a remote control but instead can be operated from the free@home system



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SUG-F-1.1 free@home Split Unit Gateway

Integration of HVAC systems into free@home with easy and “free@home-like” commissioning

Easy commissioning

Large number of Split Units already available in our database

Reliable hardware platform

Based on ABB i-bus KNX Split Unit gateway

Picture



Flexibility

New Split Unit models can be added upon request if necessary in a project

Integration

Integrate HVAC systems („Split Units“) into free@home and allow operation and control

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SUG-F-1.1 free@home Split Unit Gateway

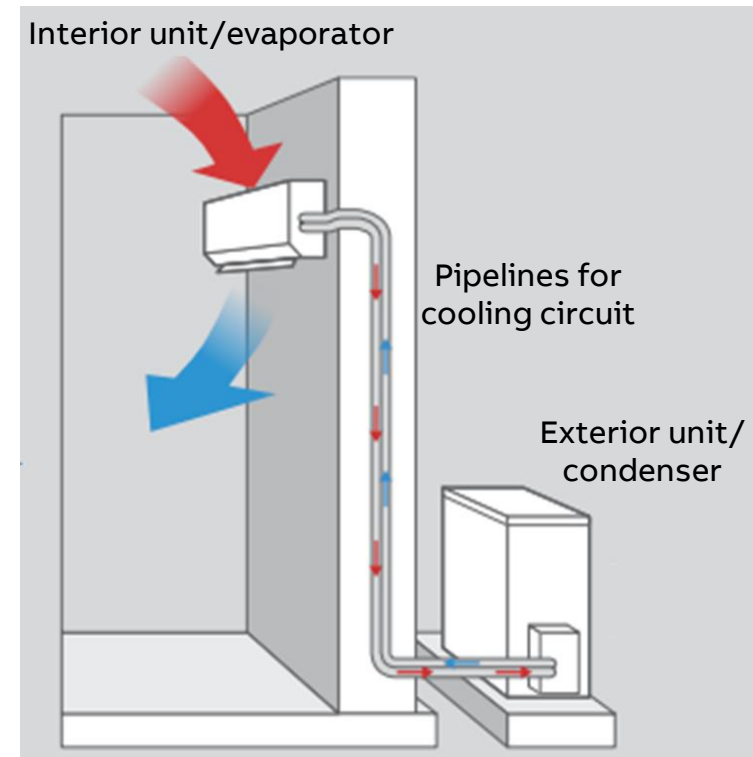
Decentralized Building air-conditioning Systems

Split units:

- With a decentralized air-conditioning system in the form of a split unit, the refrigerant is compressed outdoors, while the air-treatment processes (air conveyance, filtering and temperature control) are performed in the room to be cooled
- Many small units only recirculate the room air to cool it
- Some devices draw in a small amount of air ahead of the facade (independently of the building’s orientation), blow it into the room and usually discharge the same quantity of exhaust air from the room to the outside

Source: WIKIPEDIA

Solution



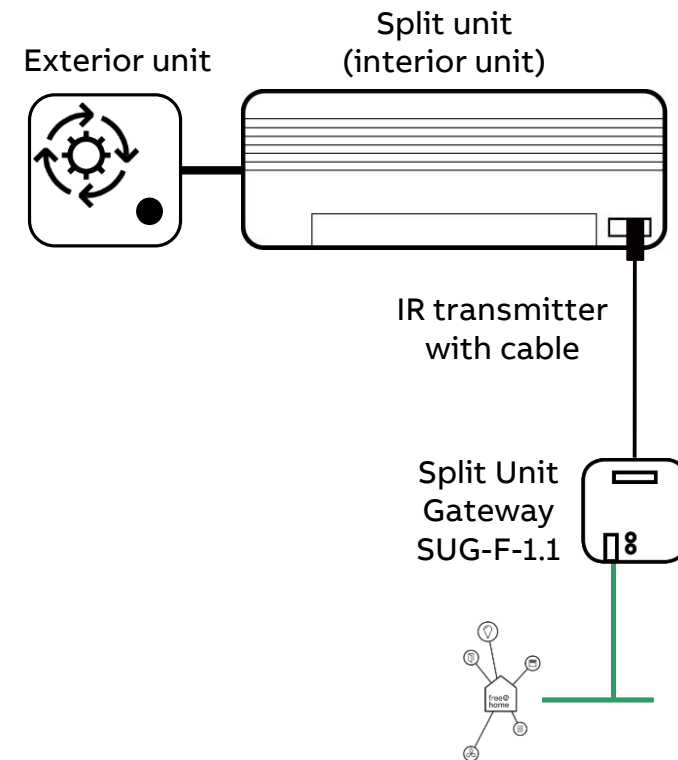
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SUG-F-1.1 free@home Split Unit Gateway

What is a Split Unit Gateway?

- Many manufacturers’ air-conditioning units, so-called split units, are operated using an infrared remote control from the manufacturer
- The Split Unit Gateway now replaces this remote control
- The Split Unit Gateway forms the interface between the free@home system and the air-conditioning systems from many manufacturers, also referred to as split units
- It allows users to integrate the split unit into a free@home system for convenient, energy efficient control

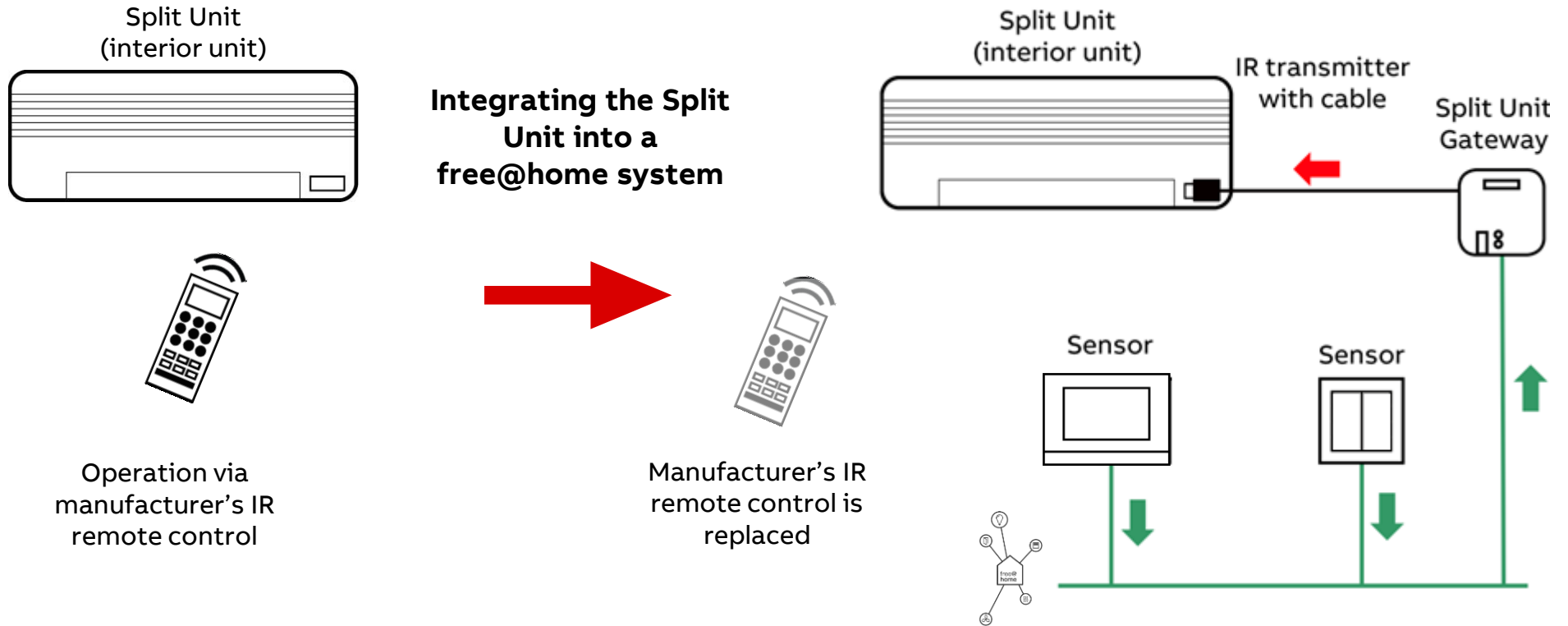
Solution



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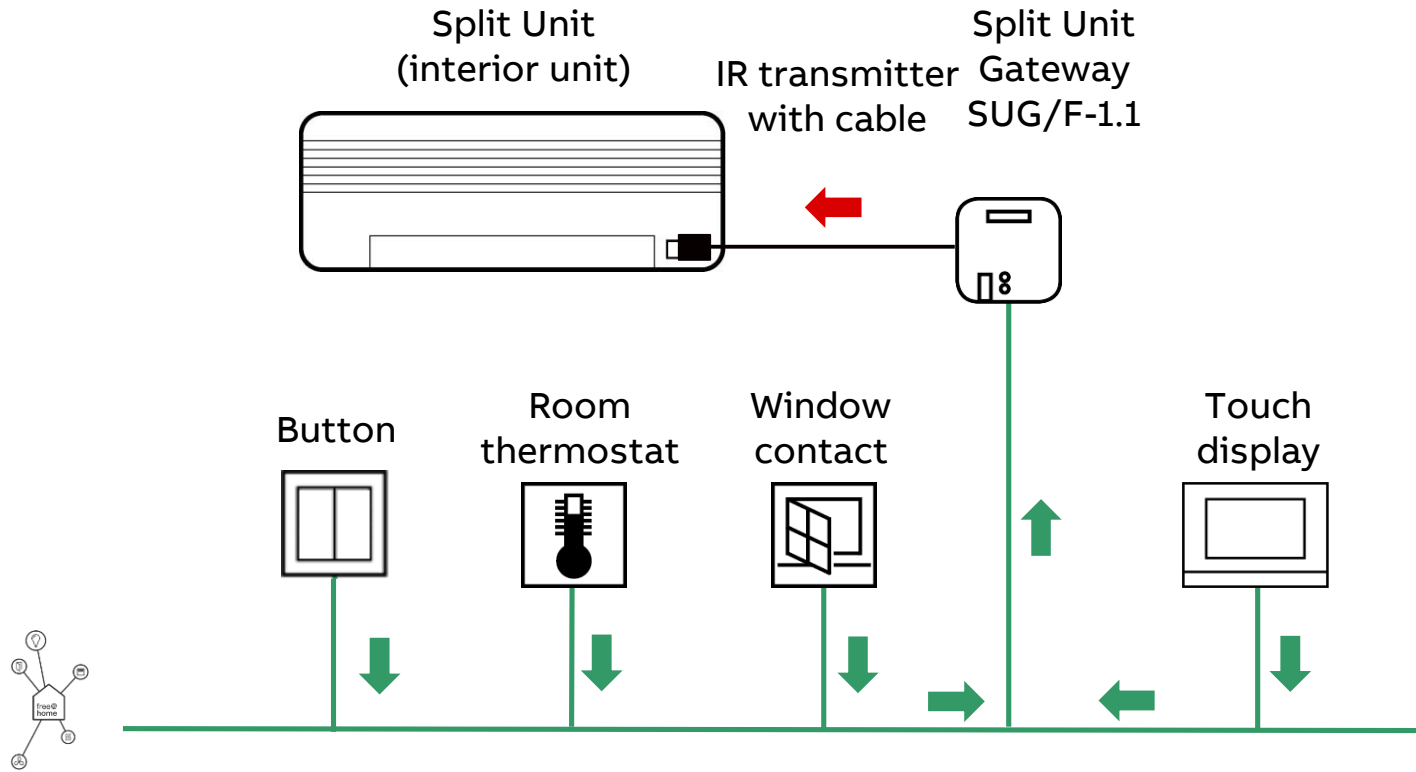
What is a Split Unit Gateway?



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What is a Split Unit Gateway?



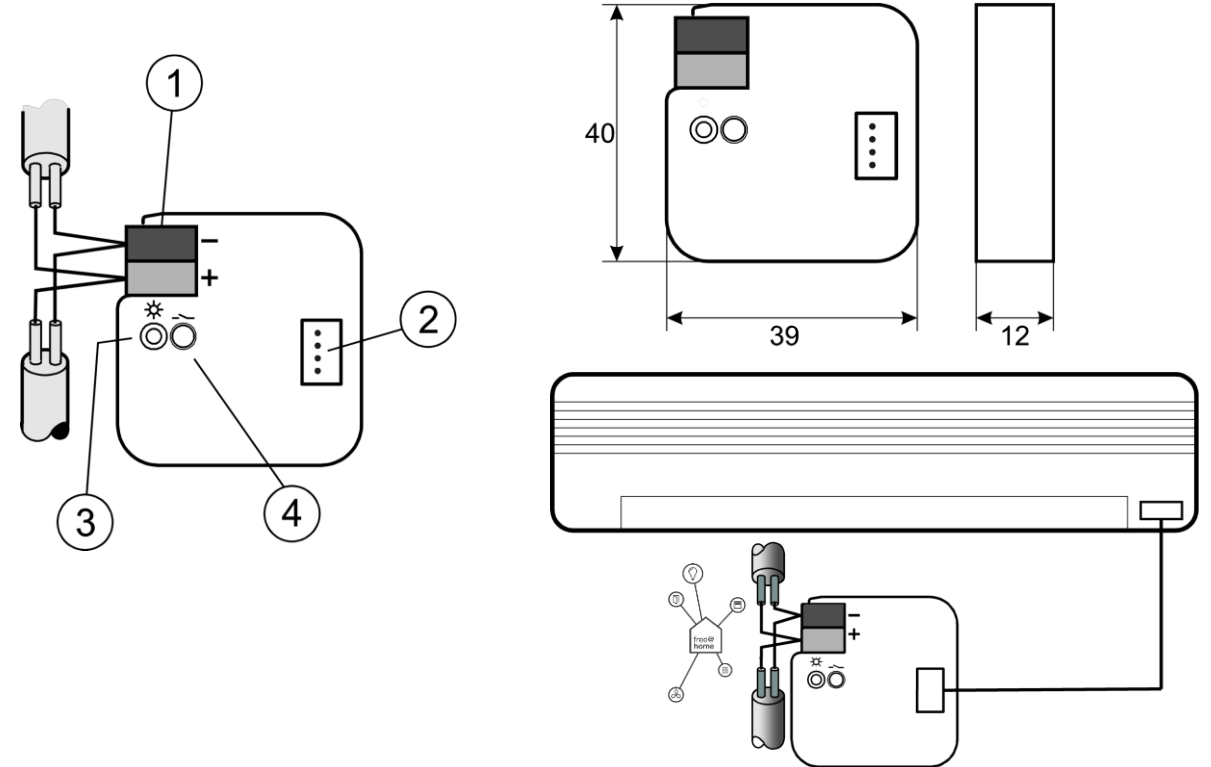
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SUG-F-1.1 free@home Split Unit Gateway

Product Overview

- Device can be installed in a flush-mounted or surface-mounted installation box
- The transmitter of the supplied IR cable (2m) is bonded to the receiver of the split unit
- No auxiliary voltage necessary (power from free@home)
- Dimensions 39 x 40 x 12 mm (H x W x D)

Solution



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SUG-F-1.1 free@home Split Unit Gateway

Functions, depending on the specific Split Unit

The following functionality can be controlled via free@home:

- Switching on/off – Switches the Split Unit on or off
- Specifying the set-point temperature including parameterizable set-point temperature limit
 - The setpoint is sent to the Split Unit
 - The control is then carried out by the Split Unit
- Setting the operating mode (Automatic, Heating, Cooling, Ventilation, Drying)
- Control of fan speed level
 - The fan speed level can be controlled
 - There are 3 fan speed levels (1, 2, 3) and the fan speed level can also be controlled automatically
 - The Split Unit then adjusts the fan speed level itself
- Slat adjustment horizontal and vertical
 - The movement of the slats can be activated/deactivated for many Split Units
 - The slats adjust the direction of flow
- Activation of silent mode
 - Many of the latest Split Units support this function
 - If this function is activated, the outdoor unit of the Split Unit runs with reduced power, which reduces the creation of noise, e.g. at night

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SUG-F-1.1 free@home Split Unit Gateway

Configuration

- Automatic detection
- Selection of remote model (manufacturer and type)
- Further settings
 - Temperature limitation
 - Max./Min. setpoint temperature
- Silent Mode
- „Send IR always“ (in case of parallel operation with remote control)



Impression free@home

ALLOCATION SPLIT UNIT GATEWAY

Split Unit Gateway	
WAU	
#0002D040B650	>
Split Unit Gateway	

Actuator	
Floor	Ground floor
Room	Test Room
Nome	Split Unit Gateway
Serial Number	0002D040B650
Short ID	WAU

Actuator	
Nome	Split Unit Gateway

✕ ✓

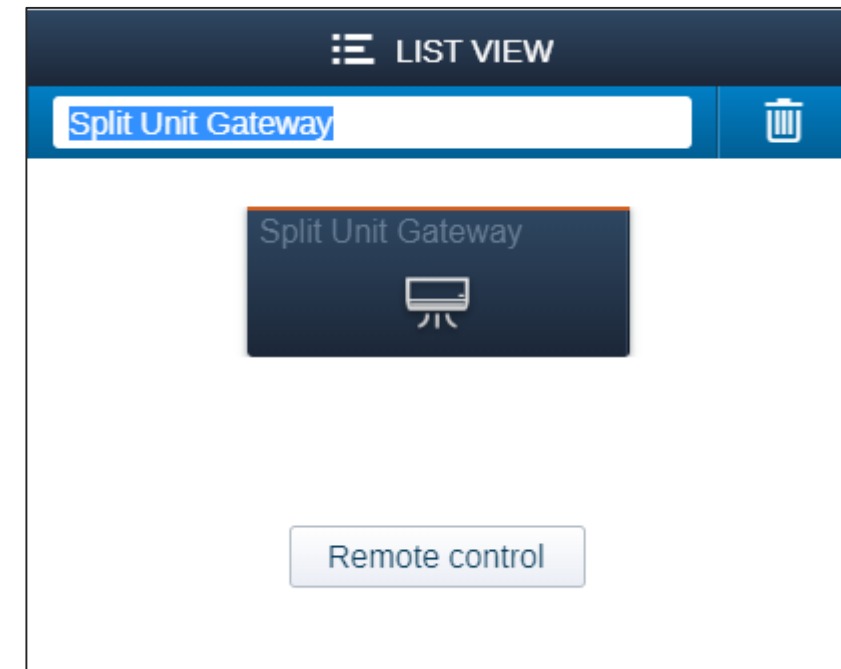
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SUG-F-1.1 free@home Split Unit Gateway

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Impression free@home



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SUG-F-1.1 free@home Split Unit Gateway

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Impression free@home

SPLIT UNIT GATEWAY IR CONFIGURATION

Please select the manufacturer and the remote device to configure the split unit gateway.

Manufacturer: PANASONIC

Device: HISENS, HITACHI, HIYASU, IEB

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SUG-F-1.1 free@home Split Unit Gateway

Configuration

- Automatic detection
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- Further settings
 - Temperature limitation
 - Max./Min. setpoint temperature
- Silent Mode
- „Send IR always“ (in case of parallel operation with remote control)

Impression free@home

Parameters		
Use temperature limitation		
<input type="text" value="No"/>		
Maximum setpoint temperature [°C]		
–	<input type="text" value="28"/>	+
Minimum setpoint temperature [°C]		
–	<input type="text" value="20"/>	+
Silent mode during night		
<input type="text" value="No"/>		
Send ir always		
<input type="text" value="No"/>		

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Adding a new Remote Control

General information:

- In general, it is possible to add a new remote control to the database
- Attention: we do not add the Split Unit!
- ABB **doesn't guarantee** that the teach-in process will be successful. Remote controls, which can't be integrated, are also listed in the linked file below

List of all integrated remote controls: [Link](#)

Process

1. The ABB local sales unit (LSU) sends the remote control to ABB in Poland
2. ...
3. ...
4. ...
5. The remote control will be sent back to the LSU

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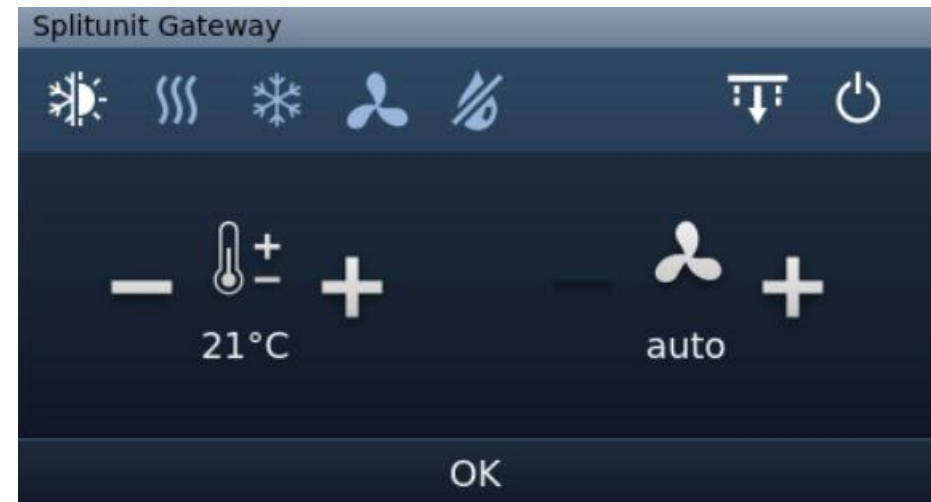
SUG-F-1.1 free@home Split Unit Gateway

Operation

Operation via

- Panel
 - 4,3” free@home panel
 - IP touch 7” / 10”
 - 7” free@home panel
- App
- Any switches (scenes)
 - Operation and indication, no temperature controller from free@home, it’s done in the Split Unit itself
 - Replacement of Split Unit remote control

Impression free@home



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DALI Gateway

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free@home DALI Gateway – Motivation

Why

- Traditionally the strengths of ABB’s intelligent installation products portfolio have always been in the field of lighting control. Now we are expanding this competence to the free@home system
- DALI is increasingly gaining relevance in home automation systems
- Enable sales of the free@home system in markets where DALI is a key feature

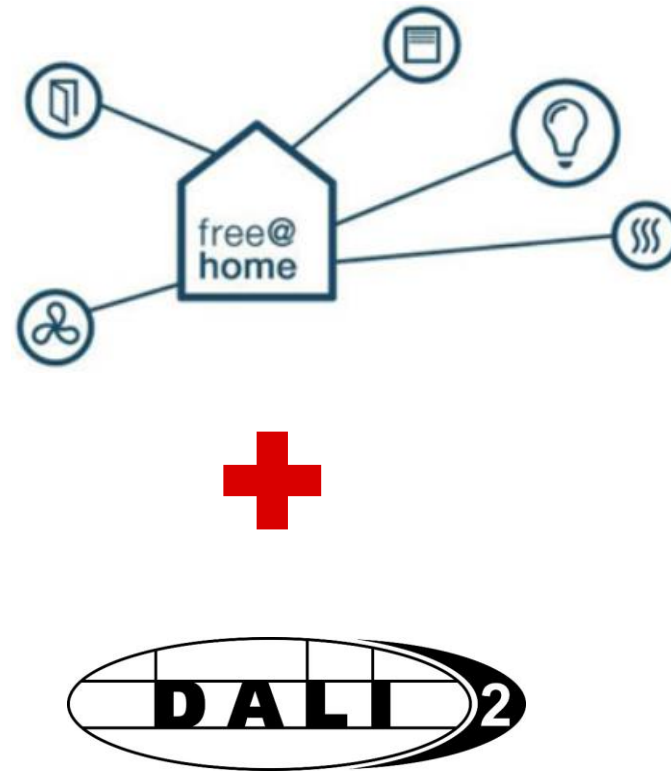


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free@home DALI Gateway – Motivation

Goals

- Gaining new customers and increasing market share in the Building Automation Business thus strengthening ABB’s global market position
- Allow integration of DALI devices into the free@home system
- Reduce the complexity of the DALI system with the easy commissioning and integration of free@home



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free@home DALI Gateway – Main Applications

Functions

- Interface between DALI and free@home
- Incorporated DALI power supply
- The DALI Gateway behaves similar to a conventional dimmer in the free@home system.
- Up to 16 DALI devices are assigned to a free@home channel each („normal“ DALI luminaires DTO)
- Power-on-Level and System-failure level can be set per Gateway
- Functions like tunable white and DALI groups not yet available

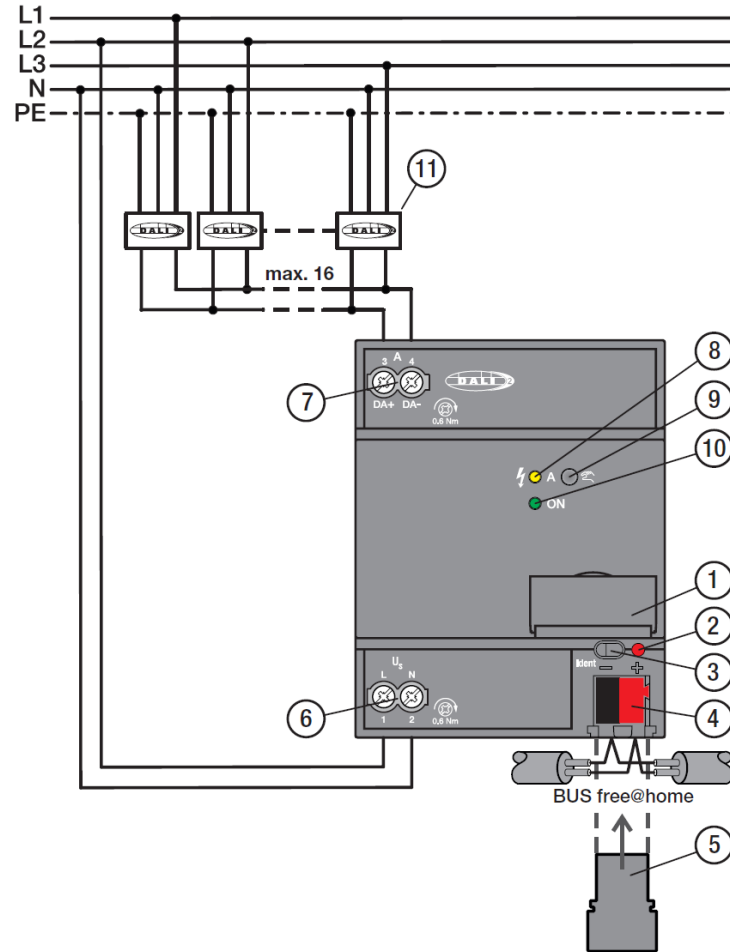


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free@home DALI Gateway – Technical Data I

DG-M-1.16.1


- DIN-rail product, width 4 TE (70 mm)
- Supply voltage 100V - 240V AC/DC, 50/60Hz wide-range input suitable for worldwide use
- One complete DALI output, 230 V voltage proof
- Integrated DALI power supply
- 16 DALI devices per output



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free@home DALI Gateway – Technical Data II

DG-M-1.16.1

- Simple installation: no tools required for assembly
- Labeling field: Clear, easy marking
- U_n -wide-range input: Flexible use
- 230V proof DALI output: Safe installation
- Combi-head screw 6 mm²: Quick installation
- LED for device ON and DALI error
-  - Button:
 - Simple and intuitive manual operation



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free@home DALI Gateway – Functions

Functions on Gateway Level

- Up to 16 DALI devices are automatically addressed and assigned to a channel of the DALI Gateway each
- Possible settings per gateway
 - Setting of Power-On-Level (Brightness value after a supply voltage recovery of the DALI device)
 - Setting of System Failure Level (Reaction of the DALI device in case of a free@home voltage failure)

The screenshot displays the 'Parameters' section of the DALI Gateway configuration. It features two adjustable parameters: 'Power on level [%]' and 'System failure level [%]', both currently set to 100. Below these are seven channels labeled A0 through A6, with A0 specifically identified as 'Living Room'. Each channel has a right-pointing chevron icon. A back arrow is visible at the bottom of the interface.

Parameter	Value
Power on level [%]	100
System failure level [%]	100

Channel	Label
A0	Living Room
A1	
A2	
A3	
A4	
A5	
A6	

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free@home DALI Gateway – Functions

Functions on Device Level

- Available parameters per channel similar to the f@h dimmer:
 - Minimum brightness
 - Maximum switch-on brightness day/night
 - Autonomous switch-off time
 - Switch-on mode

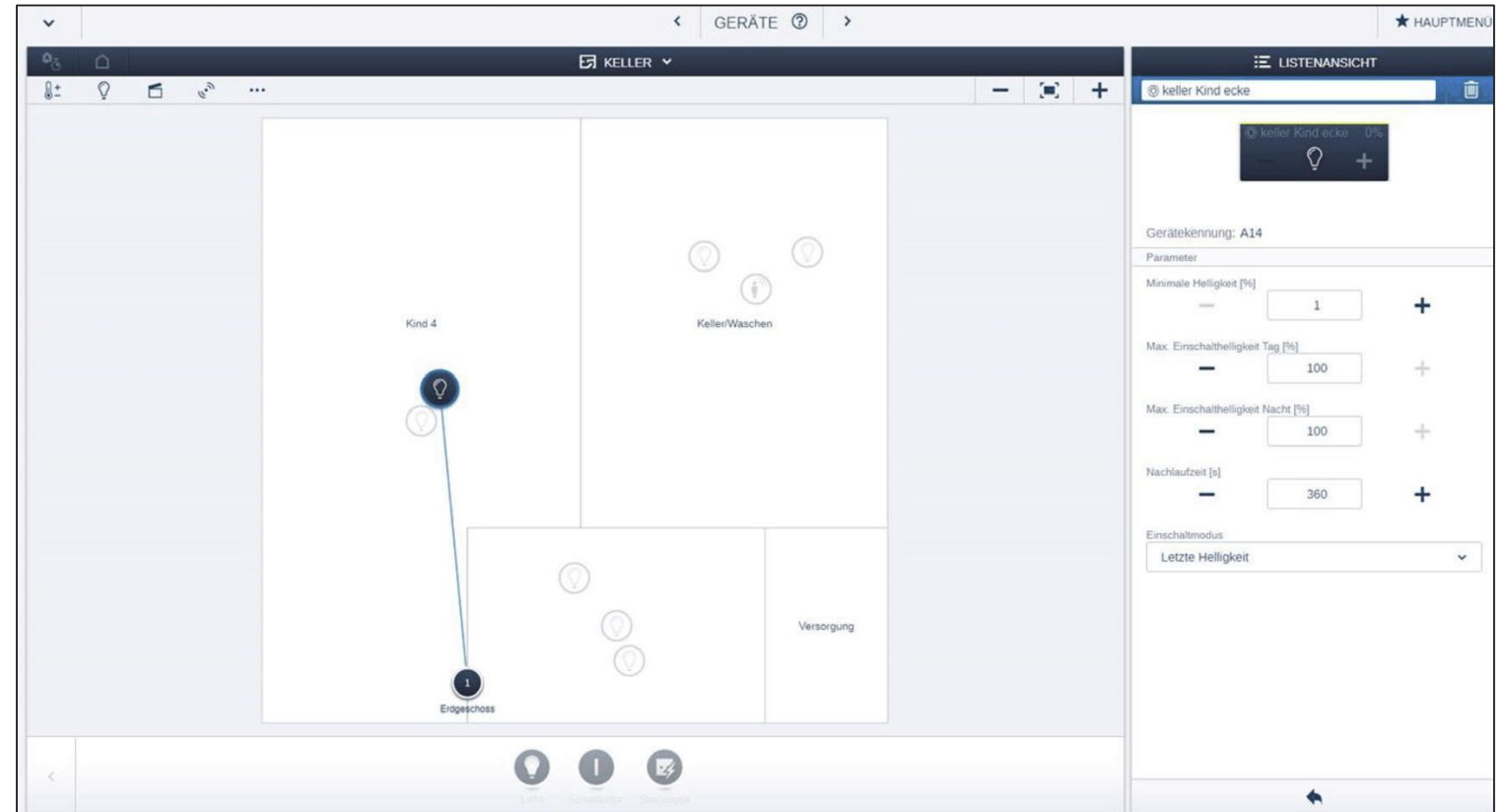
Device detection: A0		
Position		
Floor		
Erdgeschoss		▼
Room		
Neuer Raum		▼
Parameters		
Minimum brightness [%]	— [1] +	
Maximum switch-on brightness, day [%]	— [100] +	
Maximum switch-on brightness, night [%]	— [100] +	
Autonomous switch off time duration [s]	— [360] +	
Switch-on mode		
Last brightness		▼

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free@home DALI Gateway – Functions

Linking

- Linking via „device“ menu in free@home
- Via „panel“ menu



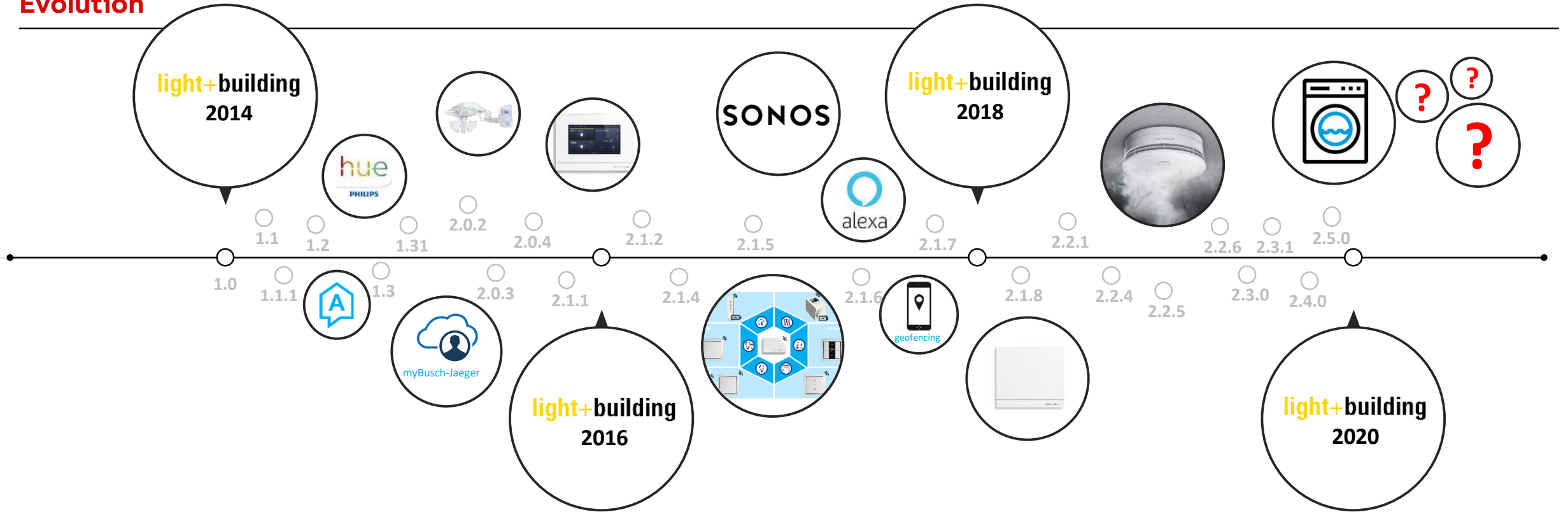
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Partner Integration in free@home: Home Connect, Miele@home

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Partner Integration in free@home: Home Connect, Miele@home - Motivation

Evolution



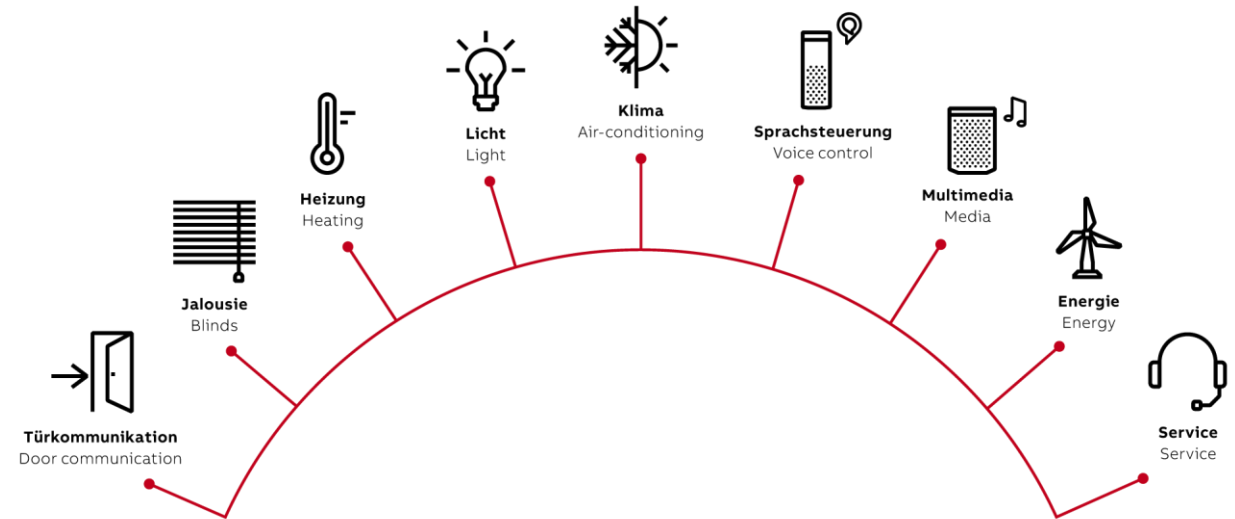
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Partner Integration in free@home: Home Connect, Miele@home - Motivation

Goals

- Customers are able to integrate home appliances from major brands into free@home and to use them like any other native free@home device.
- Connected Home Appliances appear with dedicated icons in the free@home.
- Full interaction as known from free@home is possible: controlling, getting status, adding to scenes (e.g. all-off switch), usage inside conditions or actions.

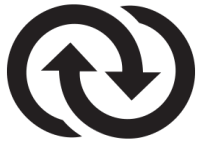
Giving our customers the feeling of one overall smart home regardless of source and matter



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Partner Integration in free@home: Home Connect, Miele@home - USPs

Seamless Integration into one System



Seamless integration into a professional-installed smart home system.

Add home appliance functions to sensors, panel displays, scenes and applications like timers or actions.

Smartphone app is not needed for everyday usage.

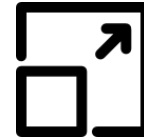
Protecting Customers' Data



ABB and the home appliance partners protect the end-customer data.

End-customer data is not shared with or collected by other 3rd party companies.

Targeting different Building Segments



Suitable for single family house, where end-user will integrate the home appliance into free@home.

Suitable for pre-fitted apartments, that come with free@home and the home appliances.

Easy to expand



Easy to expand with other home appliances brands due to open platform approach.

Suitable for global and regional brands to ensure for high take-up rate in local markets.



Use Cases:

Early Bird Switch -> Dims up the light, raises the temperature and preheats the coffee machine

Fridge Alarm -> An inadvertently left open door of the fridge by flashing a light

Occupancy Sensor -> The kitchen cabinet lighting turns on as soon as the dish washer is opened

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Partner Integration in free@home: Home Connect, Miele@home - Functions

General Functions

Every home appliance device will ...

- be visible in free@home as a native device
- have a main function, which the user can use by tapping the control
- show additional available information on its control, e.g. remaining time or errors
- be usable in conditions/ actions as input but also output
- be usable inside time schedule with its main function
- be placeable on free@home panel

Feature	Function	Dishcare	Oven	Fridge	Freezer	Coffee Machine	Dryer	Wasching Machine	Hood
Controlling the device	on/off	X	X			X	X	X	X
Showing the status of the white good device inside free@home	Status on / off	X	X	X	X	X	X	X	X
	operation mode ¹	X	X	X	X	X	X	X	X
	Error state ²	X	X	X	X	X	X	X	X
Showing program information of the white good device inside free@home	remaining time	X	X			X	X	X	
	start time	X	X						
Showing the temperature of white good devices	current and target temp		X	X	X	X			
activating and Showing status special mode of device in and from f@h	supercool			X					
	superfreeze				X				
Raising an alarm in f@h when certain state raises	door open (too long)			X	X	-			
Integrating white good functionality into f@h scene	main function of HA	X	X	X	X	X	X	X	X
Using Home Appliances device in f@h automation tools	conditions/actions	X	X	X	X	X	X	X	X
	timetable	X	X	X	X	X	X	X	X

¹ available operation mode states are depending on the vendor device: Standby, Preparing (e.g. heating up), Ready, running, paused, finished, Operation aborted, Delayed start, Manual interaction needed

² available error states are depending on the vendor device

 main function in free@home

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Partner Integration in free@home: Home Connect, Miele@home - Main Applications

Compatible Devices

Supported Brands:

- Siemens B/S/H/
- Bosch B/S/H/
- NEFF B/S/H/
- Gaggenau B/S/H/
- Miele



Miele

Reference URLs for Home Connect: [here](#)

Reference URLs for Miele: [here](#)

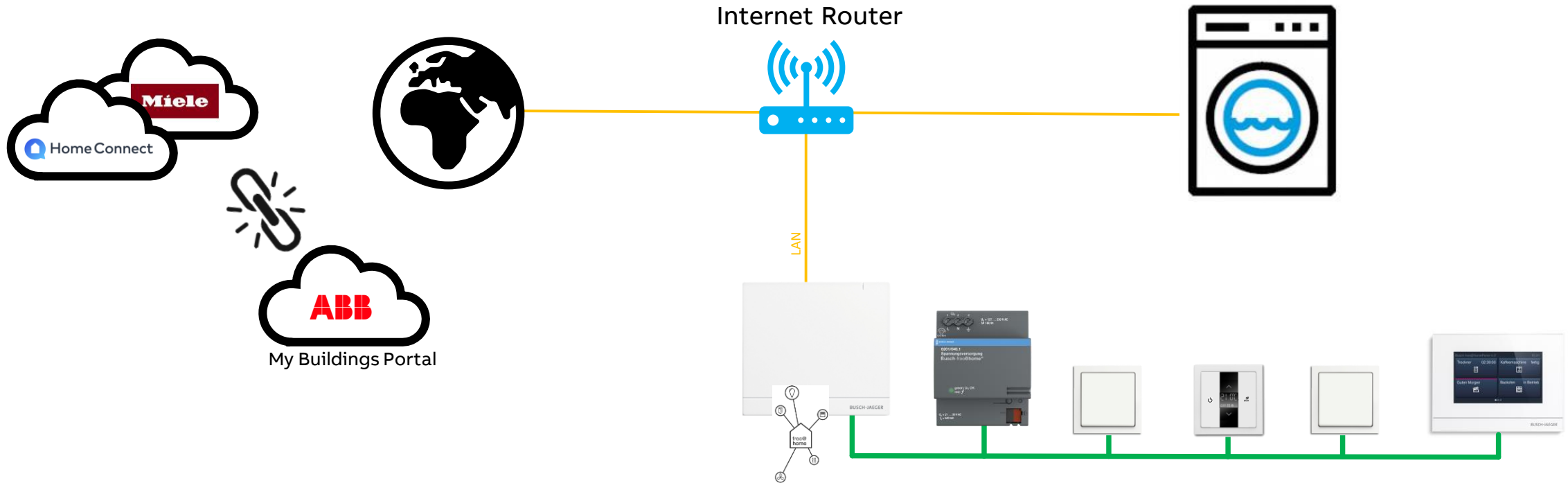
Available with Firmware Update 2.5.0 in March



Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

Partner Integration in free@home: Home Connect, Miele@home - Solution

Solution



Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

Partner Integration in free@home: Home Connect, Miele@home – Configuration (1)

Check-Out of Home Appliances Service


The service will be available on both, the myBUSCH-JAEGER Portal and the ABB MyBuildings Portal.

1. Log in on ABB MyBuildings Portal
2. Navigating to „My Home -> ABB-free@home -> extensions
3. Checking out the „Home Appliance“ Service as known from other already existing services

Prerequisite:

1. ABB MyBuildings Portal Account is created
2. free@home SysAP is registered to ABB MyBuildings Account
3. free@home API is activated
4. 3rd party Account (Miele / B/S/H/) is created and devices are added there

ABB-free@home®



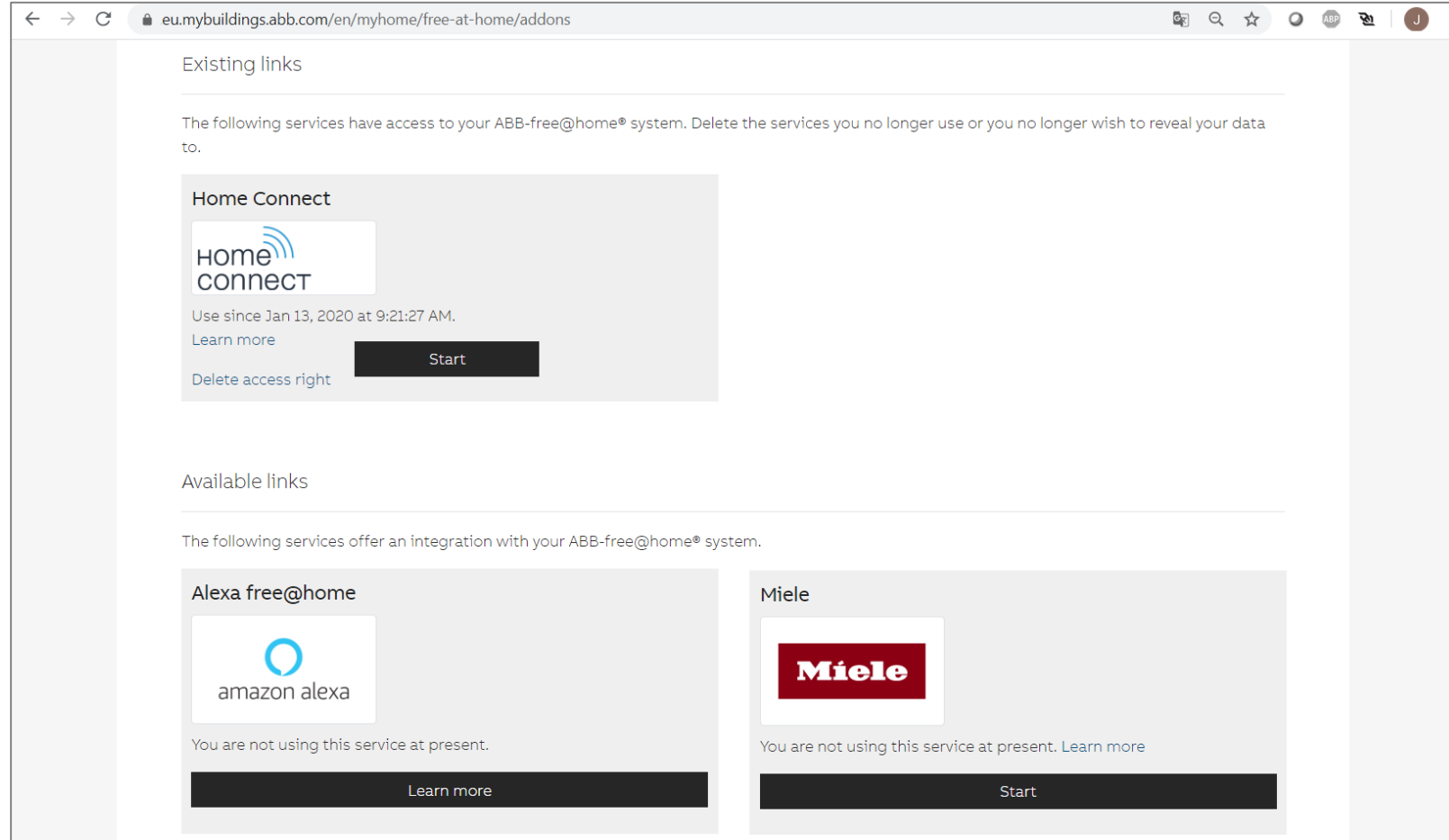
Advice:
The ABB-free@home® remote access requires the updated ABB-free@home® app (from iOS app version 2.0 / from Android app version 3.0).
The remote access via MyBuildings portal offers you a convenient and secure cloud solution, with point-to-point encryption. Therefore no changes at your internet router are necessary. Entering your MyBuildings portal login data in the free@home System Access Point and in the free@home app is sufficient to set up the remote access.

Devices	Extensions
<p>SM-G950F Edit Delete available since: Feb 20, 2020 ID: 7e48a26c-976b-4476-a91e-aea8c09bb25c Software-Version: 3.0.5-143 Remote access status: activated</p>	<p>iPad von Martin Edit Delete available since: Feb 6, 2020 ID: a6056e22-49aa-4239-8652-dcb2b6d722ea Software-Version: 2.0.12-5 Remote access status: activated</p>

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Partner Integration in free@home: Home Connect, Miele@home – Configuration (2)

Selecting the service
you want to connect



The screenshot shows a web browser window with the URL `eu.mybuildings.abb.com/en/myhome/free-at-home/addons`. The page is divided into two main sections: "Existing links" and "Available links".

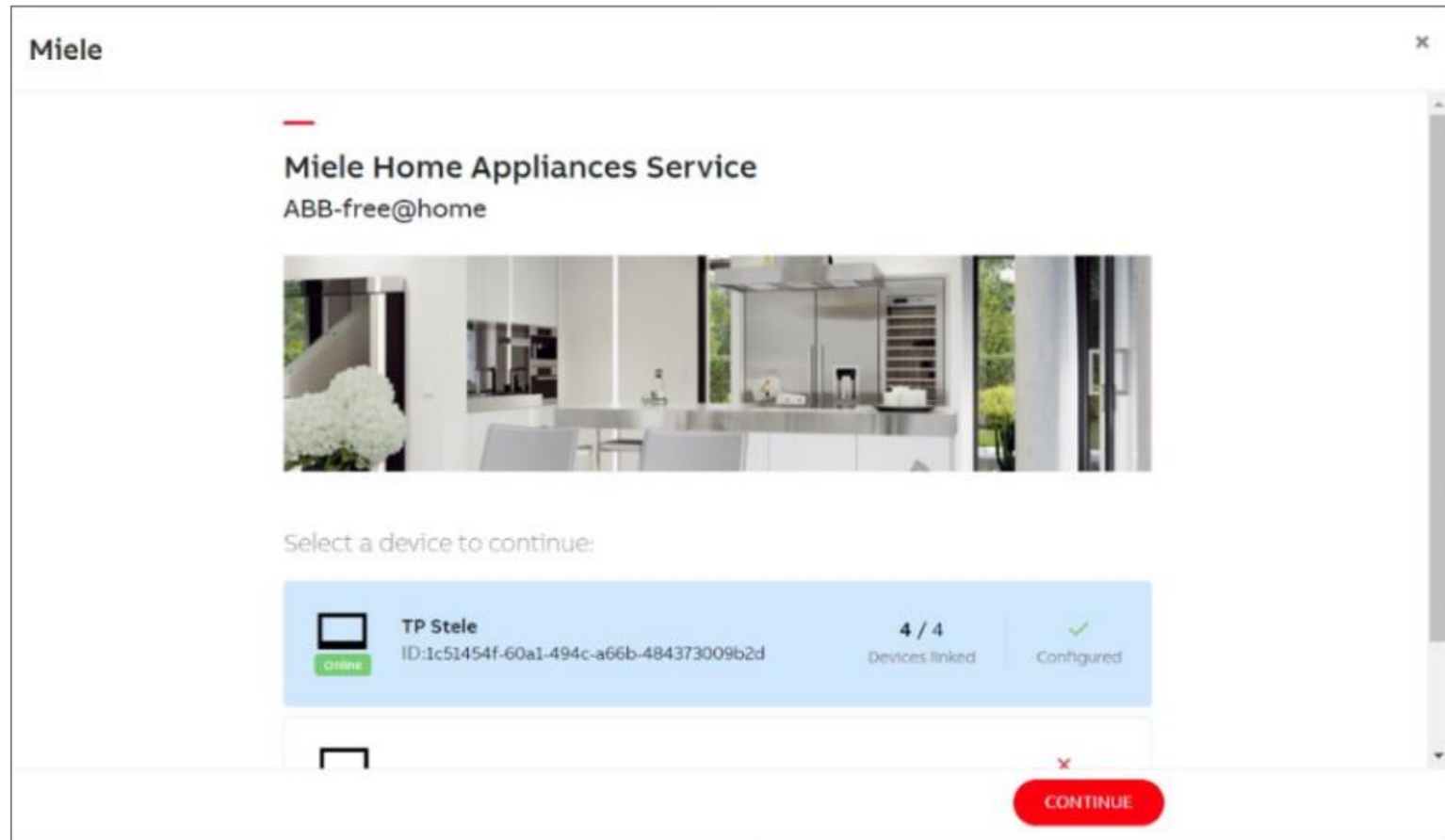
Existing links: This section contains a card for "Home Connect". It features the Home Connect logo, the text "Use since Jan 13, 2020 at 9:21:27 AM.", a "Learn more" link, and a "Delete access right" link. A prominent black "Start" button is visible at the bottom right of the card.

Available links: This section contains two cards. The first is for "Alexa free@home", featuring the Amazon Alexa logo and the text "You are not using this service at present." with a "Learn more" button. The second is for "Miele", featuring the Miele logo and the text "You are not using this service at present." with a "Learn more" link and a "Start" button.

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Partner Integration in free@home: Home Connect, Miele@home – Configuration (3)

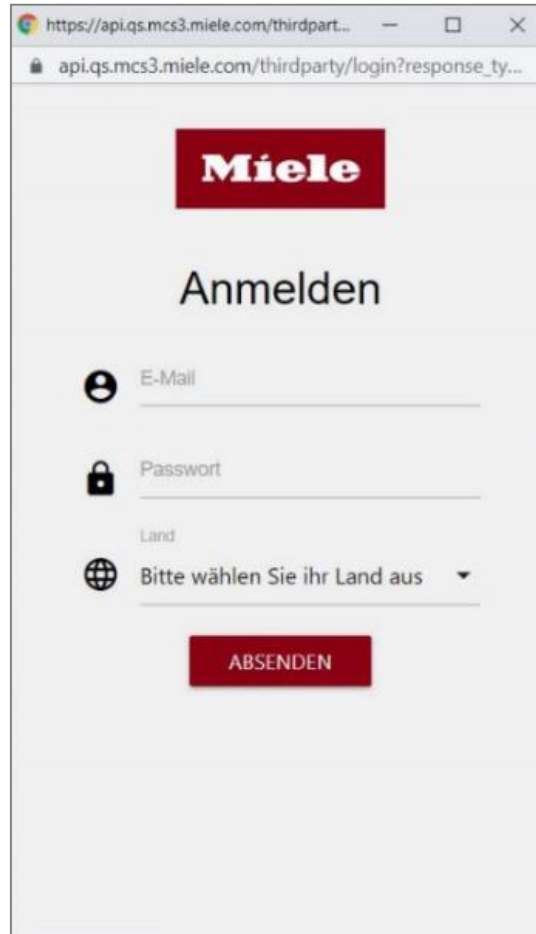
Selecting the SysAP to which the service should be applied to



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Partner Integration in free@home: Home Connect, Miele@home – Configuration (4)

Enter 3rd party account data to establish cloud connection

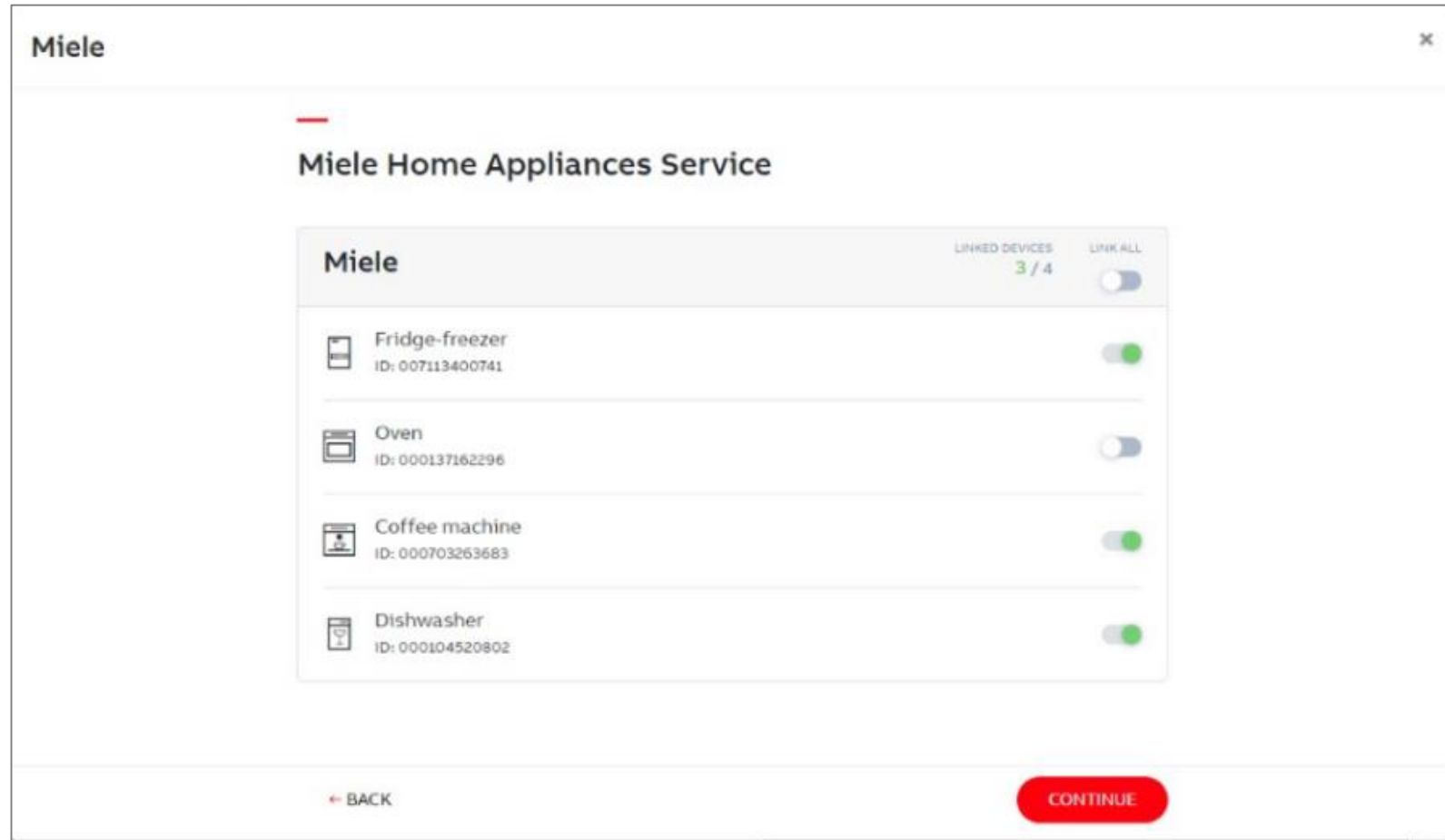


The screenshot shows a web browser window with the URL `https://api.qs.mcs3.miele.com/thirdpart...` and a sub-url `api.qs.mcs3.miele.com/thirdparty/login?response_ty...`. The page features the Miele logo at the top, followed by the heading "Anmelden". Below this are three input fields: "E-Mail" with a person icon, "Passwort" with a lock icon, and "Land" with a globe icon and the text "Bitte wählen Sie ihr Land aus". A red "ABSENDEN" button is positioned at the bottom of the form.

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Partner Integration in free@home: Home Connect, Miele@home – Configuration (5)

Select home appliances
which should be matched
towards free@home

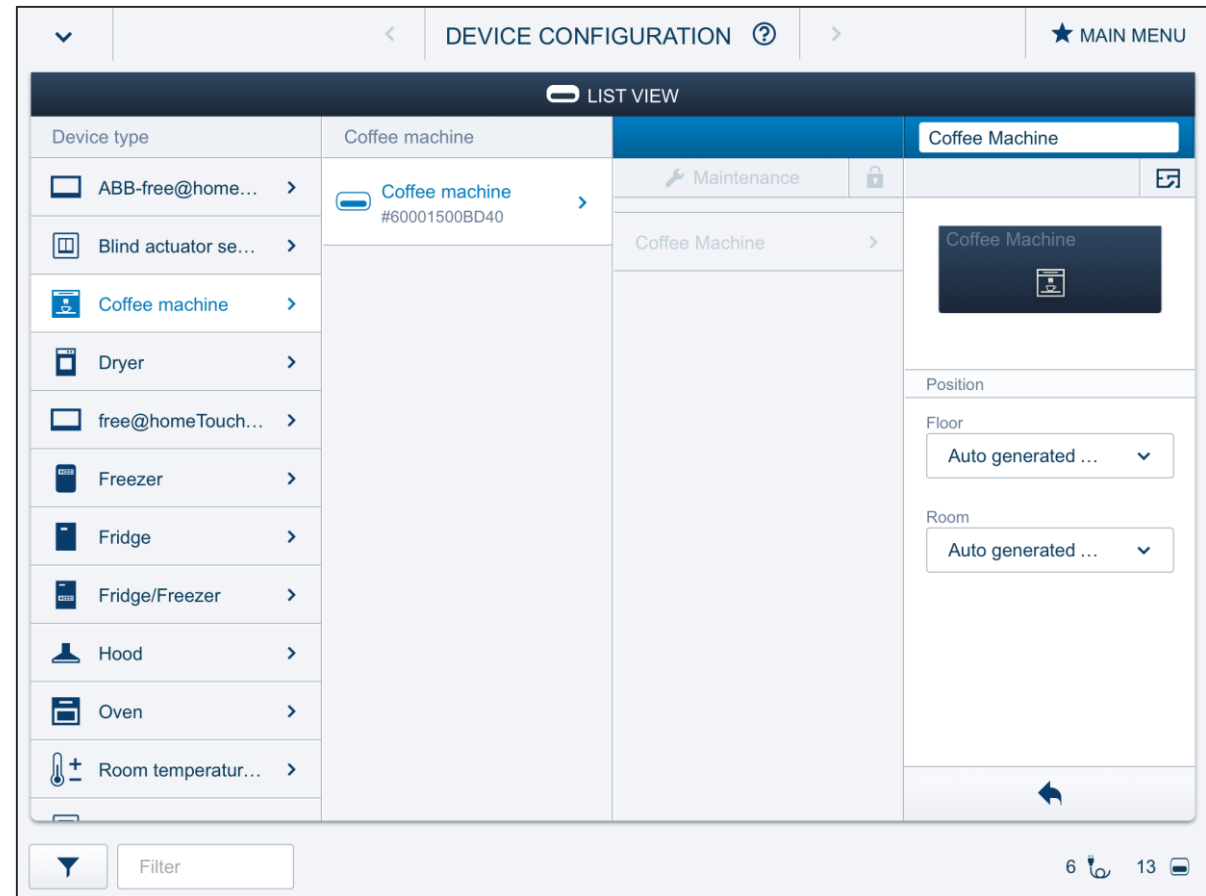


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Partner Integration in free@home: Home Connect, Miele@home – Configuration (6)

Commissioning of Home Appliances in f@h

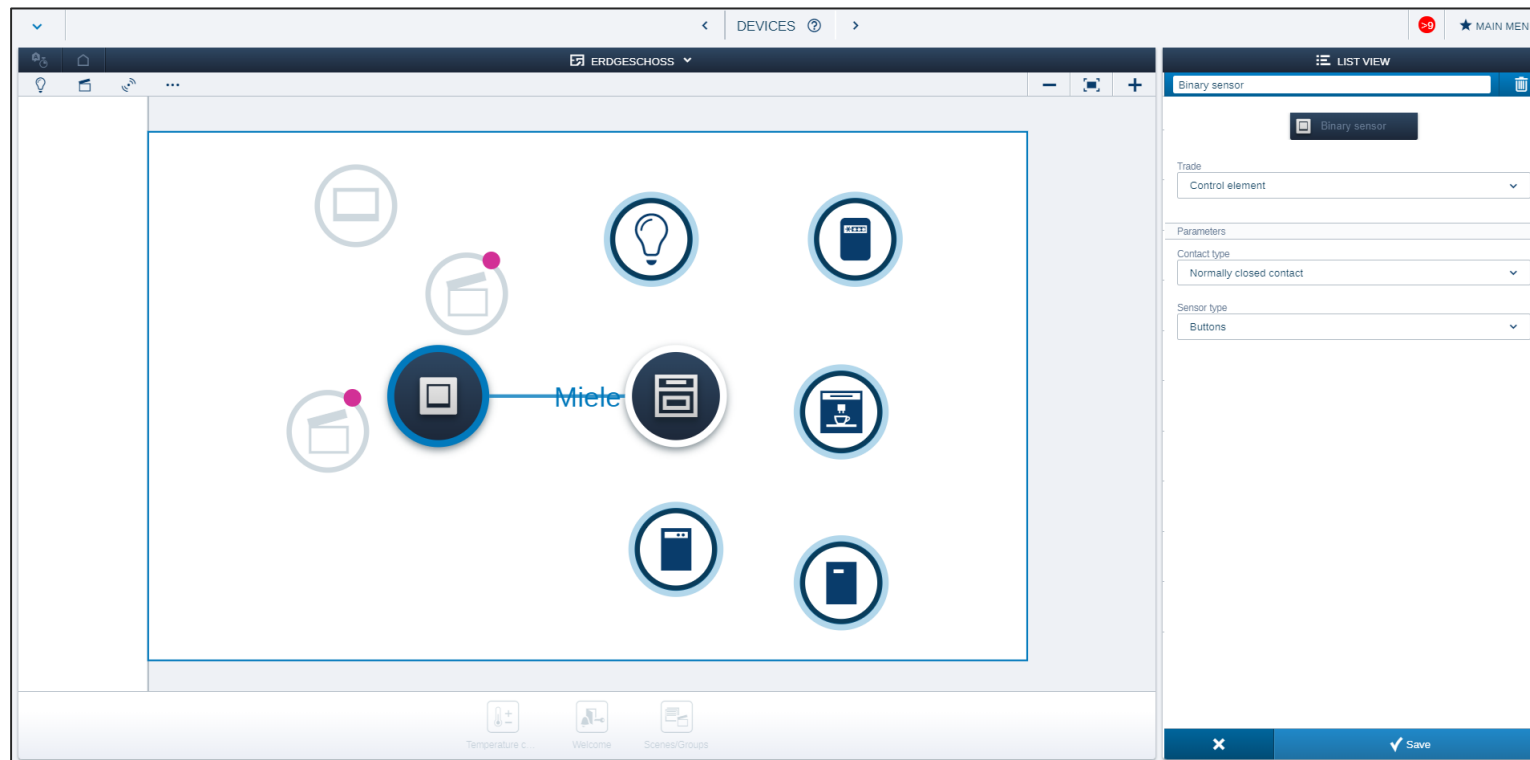
1. Opening local web interface of free@home SysAP and log in
2. When a popup appears of white good service grant the requested rights
3. Home Appliances should appear inside the device list
4. Working with the Home Appliances as with any other f@h device
 1. Locating inside the floor plan
 2. Connecting with other devices via drag and drop
 3. Using in scenes, conditions & actions and timetable



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Partner Integration in free@home: Home Connect, Miele@home – Operation

Operation via free@home Sensor



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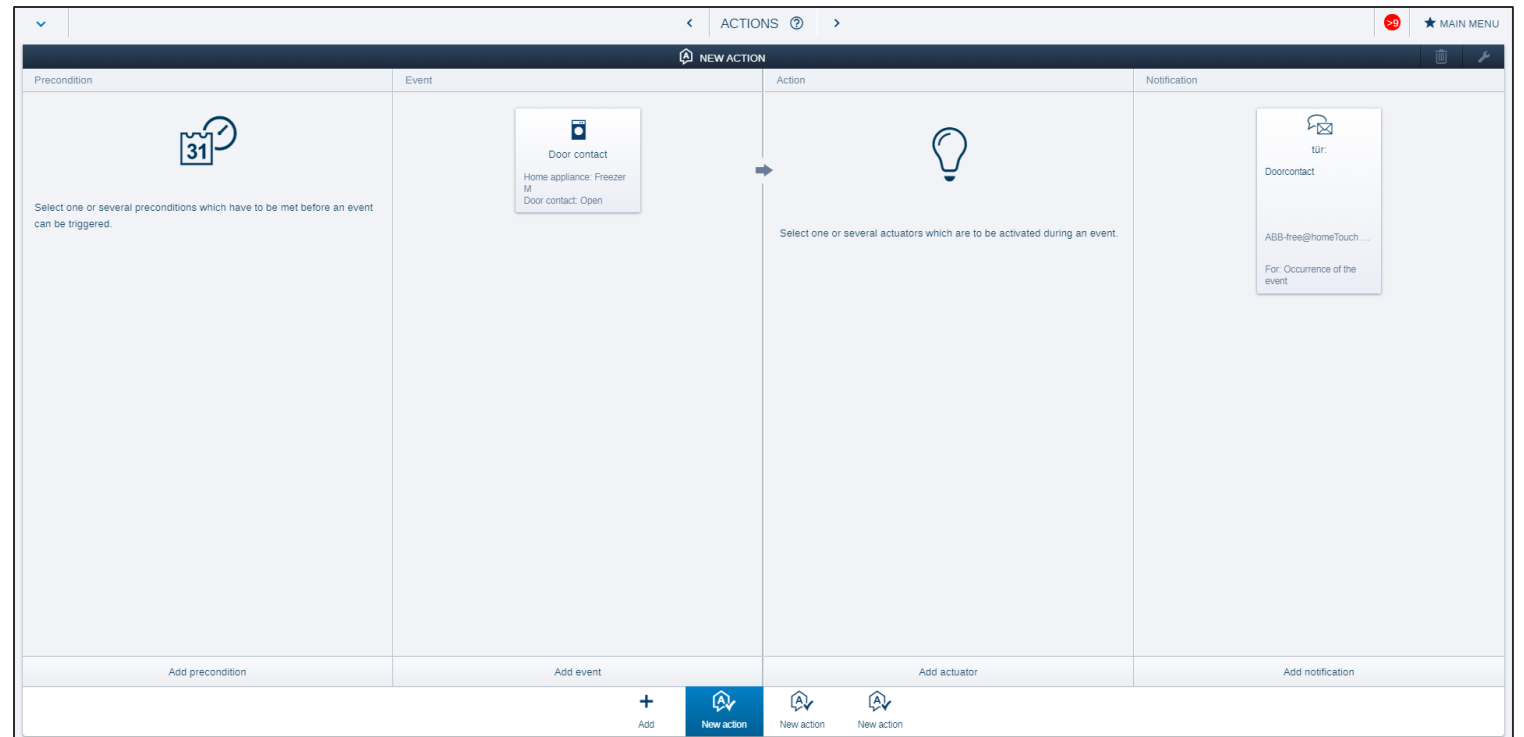
Partner Integration in free@home: Home Connect, Miele@home – Actions

Actions / Notifications

Depending on the functionality of the device, notifications and actions can be triggered via the „Actions“ menu

- „If the door contact of the freezer is open for more than 20 seconds, turn a light on (red) and send a notification to my free@home panel“
- „Send me an email, as soon as the mashing machine is ready“

→Actions can be combined with all available free@home devices and all well known preconditions

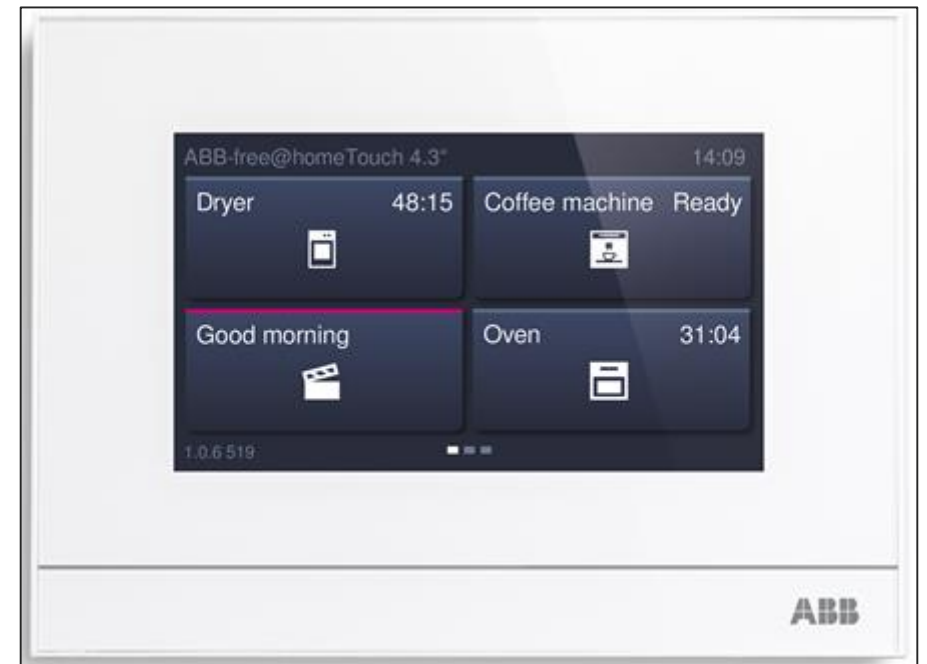


Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

Partner Integration in free@home: Home Connect, Miele@home – Operation

Operation via 4,3“ Panel & App

- Status of devices (remaining time, pre-heating)
- Turning on/off (main functions of devices)
- Activation and status of special mode



Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

Partner Integration in free@home: Home Connect, Miele@home

Troubleshooting



Devices are waiting for a manual operation on site or remote control functionality of the device is not activated.



If a device has no stand-by mode it will be turned off „completely“. Can be controlled in the partner app („Device not connected“)



Devices have been connected to free@home, but the connection is now deactivated.

Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

Partner Integration in free@home: Home Connect, Miele@home - Pricing

Pricing and Subscription Terms

- The usage of the home appliance integration in free@home is **free of charge**
- It is also independent of the brands, which are connected, e.g. using Miele and Bosch devices under one subscription is possible.

Availability: End of March 2020

Free service

Using the service for both manufactures is free of charge.

No paid subscription.

Name and E-Mail address has to be provided for account creation
payment data is not required.

Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”



Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

Training & Qualification Database

this database you can find the complete online training portfolio for ABB Home and Building Automation

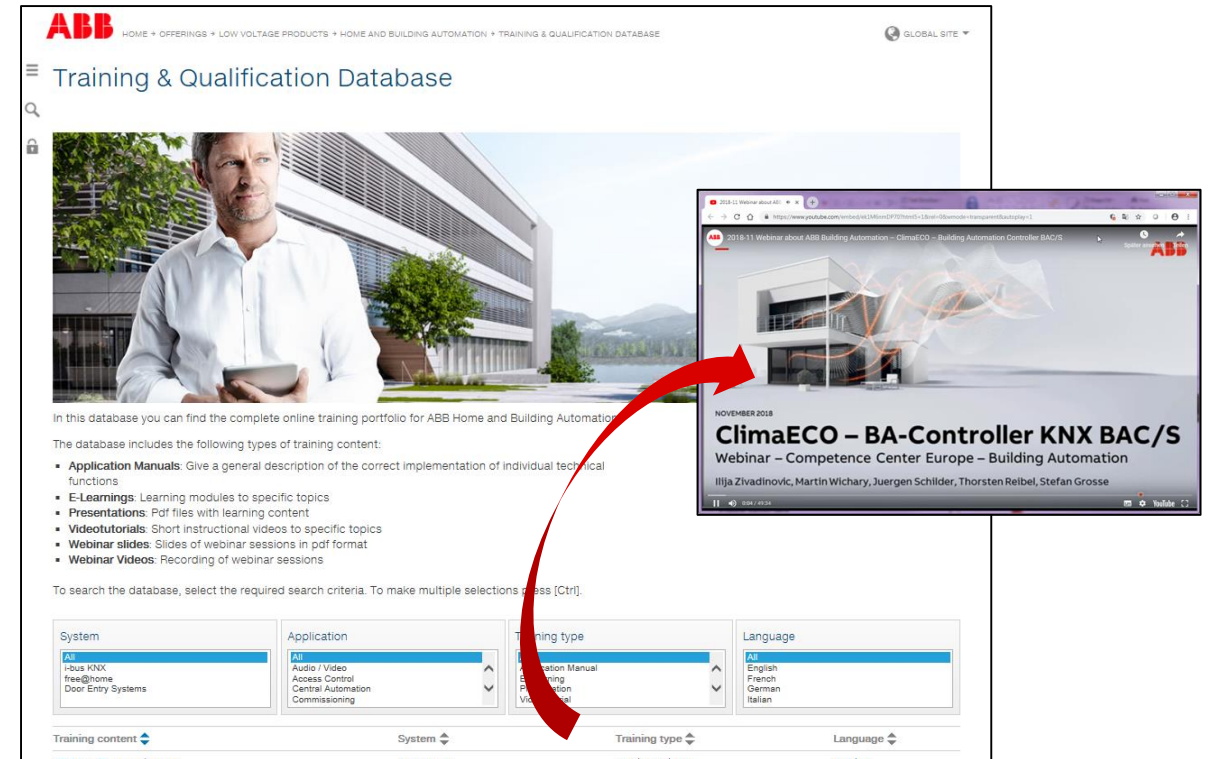
The database includes the following types of training content:

- Application Manuals
- E-Learnings
- Presentations
- Video tutorials
- Webinar slides and videos

www.abb.com/knx or <https://go.abb/ba-training>

→ Training and Qualification

→ Training Database



The screenshot displays the ABB Training & Qualification Database website. The page header includes the ABB logo and navigation links for HOME, OFFERINGS, LOW VOLTAGE PRODUCTS, HOME AND BUILDING AUTOMATION, and TRAINING & QUALIFICATION DATABASE. The main content area is titled "Training & Qualification Database" and features a large image of a man in a white shirt holding a tablet. Below the image, there is a list of training content types: Application Manuals, E-Learnings, Presentations, Video tutorials, and Webinar slides and videos. A red arrow points from the "Webinar Videos" section to a video player showing a webinar titled "ClimaECO – BA-Controller KNX BAC/S". The video player includes a title, a date (NOVEMBER 2018), and a list of speakers: Ilija Zivadinovic, Martin Wichary, Juergen Schilder, Thorsten Reibel, and Stefan Grosse. Below the video player, there is a search bar and a list of search criteria: System, Application, Training type, and Language. The System dropdown is set to "free@home", the Application dropdown is set to "Access Control", the Training type dropdown is set to "Webinar", and the Language dropdown is set to "English".

Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

Training & Qualification Calendar

In addition to the online modules and the traditional training programs offered by your local ABB sales team, we offer a variety of on-site trainings conducted by our specialists at different ABB training facilities

In this Training & Qualification Calendar you can find the educational events that are taking place during 2020

If you are interested in a training please click the training und you will be forwarded to register in “ABB MyLearning”

www.abb.com/knx or <https://go.abb/ba-training>

→ Training and Qualification

→ Training Calendar



ABB HOME • OFFERINGS • LOW VOLTAGE PRODUCTS • HOME AND BUILDING AUTOMATION • TRAINING AND QUALIFICATION • TRAINING & QUALIFICATION CALENDAR GLOBAL SITE

Training & Qualification Calendar

In addition to the online modules and the traditional training programs offered by your local ABB sales team, we offer a variety of webinars and on-site trainings conducted by our specialists at different ABB Competence Centers.

In this Training & Qualification Calendar you can find the educational events that are taking place during 2018.

If you are interested in a training please [REGISTER HERE](#).

To search the Calendar, select the required search criteria. To make multiple selections press [Ctrl].

System	Date	Location
All	All	Webinar
Door Entry Systems	January 2018	Heidelberg, Germany
Free@home	February 2018	Lödenscheid, Germany
Fire alarm systems	March 2018	S. Palomba (Rome), Italy
L-bus KNX	April 2018	Vittuone (Milan), Italy

Content	Date	Location	Language
KNX for Commercial Building	05.04.2018 - 06.04.2018	Lödenscheid, Germany	EN
Building Automation Light + Building 2018	10.04.2018	Webinar	EN
KNX in Hotels	19.04.2018 - 20.04.2018	Heidelberg, Germany	EN
HVAC Automation	23.04.2018 - 24.04.2018	Heidelberg, Germany	EN

ABB MyLearning
HOME CATALOG PROFILE ADMINISTER REPORTS MY LEARNING

CERTIFIED KNX BASIC COURSE
Code : 9CSC007151-GLB-EN-20190218_22
Certified KNX Basic Course at ABB in Heidelberg, Germany, 5 days
★★★★★ | Share

Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

KNX Certified Trainings 2020

Certified KNX Courses in Heidelberg

- Advanced Course: 13th to 17th Jul.
- Tutor Course: 19th to 23rd Oct.
- Basic Course : 16th to 20th Nov.
- Followed by two day application training

And many more training courses in the calendar
“International Training Dates 2020”

www.abb.com/knx or <https://go.abb/ba-training>

Safe the date!!!



Webinar “free@home: Split Unit & DALI Gateway, Partner Integration”

Next Webinar

The topic will be announced ...

Wednesday 6th May 2020

- Morning 09:00 am Europe Time (Berlin, UTC + 2h)
- Afternoon 03:00 pm Europe Time (Berlin, UTC + 2h)



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