



ABB

—
SMART BUILDING

ABB PRESENCE DETECTORS

As versatile as your requirements

ENGINEERED
TO OUTFIT

Presence detectors automatically detect the presence of someone inside the room. The highly sensitive sensors can detect the smallest movements.

Modern presence detectors have experienced a clear boost in technology during the past years – both with regard to their precise detection quality and their intelligent networking. Aside from the efficient control of lighting, heating, ventilation and air-conditioning, today especially KNX and DALI-based solutions assert themselves more and more as future-safe standards.

They ensure a high degree of comfort, energy efficiency and flexibility – and make buildings smarter, more sustainable and considerably more comfortable.

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FOUR ESSENTIAL ADVANTAGES

01

Comfort

Light that responds automatically makes everyday life much easier. It switches on automatically when someone enters a room and immediately cares for orientation. This is especially helpful when your hands are full with purchased goods

or documents. Searching for the light switch is not necessary, dark rooms are brightly illuminated immediately. Also in unknown environments a noticeably added value is created.

02

Safety

Good illumination plays an important role for safety. It helps to clearly detect paths and prevent accidents. Especially for the aged does light support safe and

independent movement in every day life. On stairs or during the night on the way to the toilet does adequate illumination care for orientation and trust.

03

Efficiency

Light, only when it is actually needed. This saves energy and protects resources.

- Saving of energy from 30–60%, depending on the area of application
- In offices up to 50%, in corridors and stairwells up to 70%

- Amortization generally after 2–4 years
- Every kilowatt hour saved reduces the CO₂ emission by approx. 0.4 kg.

04

Intelligent control

Our presence detectors reliably detect whether a room is being used. Aside from the illumination, also heating and other building functions can be

controlled according to requirement – for greater comfort, safety and efficiency in the building.



ADVANTAGEOUS & SUSTAINABLE

ABB Presence detectors – the right solution for every purpose

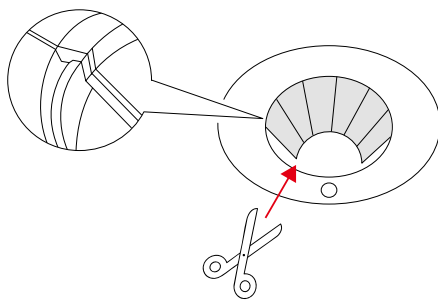
What is a presence detector?

Presence detectors switch light in dependence of movement and brightness in the room. The difference to classic movement detectors is that they also take into consideration the artificial light that has already been switched on. This supplements the light only when it is actually required.

If dimmable lamps are used, the brightness can be kept constant according to the type of the device. Presence detectors generally respond in an extremely sensitive way and also reliably detect small movements in close proximity.

Detection range

The detection range can be adjusted precisely to the room. With the aid of pre-moulded covering caps the detection can be adjusted to different areas, such as corridors, radial surfaces or high mounting points such as Sky applications.



Detection versions

ABB presence detectors are available with two sensor technologies. Used are PIR sensors on infrared basis and HF sensors with high-frequency technology.

Functioning

PIR presence detectors operate based on sight. They exclusively detect the room in which they are mounted. This is in many cases ideal in areas such as offices or corridors. However, in changing or sanitary areas it could be preferred to also detect movements behind partitioning walls or furniture. Here the infrared technology meets its limits.

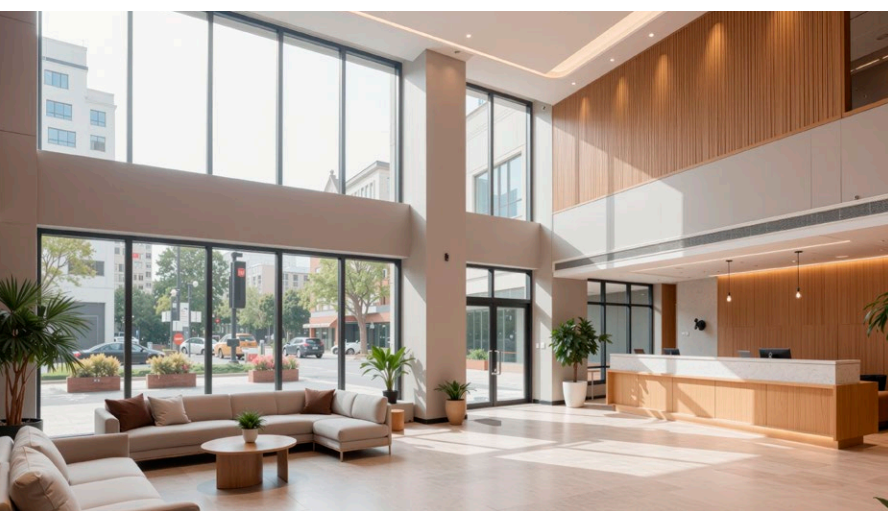
In such cases HF presence detectors are used. They operate with high-frequency waves and can also detect things through slight obstacles.

Detection quality

With PIR sensors the fineness of the sensor structure determines the precision of the detection. The more close-meshed the scanning, the more reliably movements are recognized. Here a distinction is made between movement detection such as in corridors, and presence detection in work areas. The suitable device should be selected for the respective application. While pure movement detection is mostly sufficient in corridors, in offices also the smallest movements must be reliably detected.

For HF sensors the frequency used plays a central role. Sensors with 5.8 GHz are suitable for more distinct movements and in their effect operate similar to classic movement detectors. Versions with 24 GHz are especially sensitive and also detect very fine movements, such as those typically occurring in offices.

Basically a HF detector requires a deliberate initial movement for switching on. Then it also detects the smallest movements reliably and in this way reduces unnecessary switching processes.





Detection via HF technology

HF presence detectors detect the room to the wall and can penetrate thin partitioning walls or furniture. The detection range can be set very precisely via the potentiometer. This is possible because the sensor can differentiate between reflections from different distances.

Detection area

The type of movement is important for the selection of the suitable device. A differentiation is made between radial and tangential movement.

At radial movement one approaches the detector directly. Since one moves in the direction of the sent beams, the detection often occurs a little later.

Tangential movements run crosswise to the direction of the beam. They are detected easier, which is why the detection range is larger.

The presence detection is also described as seated detection. It detects the smallest movements, like at the workplace, and so cares for reliable light control without unnecessary switching processes.

THE DECISION

After the selection of the detection quality, sensor technology and detection area, the next step follows. Now it has to be decided which loads are to be integrated and which electro-technical infrastructure is already available.

Three clearly defined systems are available. They make possible a customized and efficient implementation that is adjusted to requirements, buildings and use.

1. Conventional

BasicLINE

Offers starting devices for easy and self-sufficient detection. The presence detectors operate as stand-alone solutions and impress with their excellent detection quality and simple, discreet design. They are suitable for standard applications and also support DALI for conventional lighting technology.

Typical areas of application are smaller office buildings, administrations, conventional residential construction, underground car parks, schools, as well as private applications.

ABB flexTronics®

Is suitable especially for more complex room structures with angles and angled floor plans. The extension unit function allows presence detectors, movement detectors and comfort switches to be flexibly combined and to be used jointly for light control.

Additional functions such as soft switching on and off via dimmer inserts increases the comfort. The areas for use basically correspond to those of BasicLINE, yet are used especially where the room geometry makes greater demands.

2. ABB-free@home®

ABB-free@home® is a Smart-Home-System for residential buildings without long corridors and hallways. The focus here is on HF technology, since the detectors can be both surface-mounted or flush-mounted and look especially discreet due to their flat construction. They integrate harmoniously into the existing design concepts.

In living environments PIR detectors can meet their detection limits due to furnishings. HF detectors here offer advantages since their detection is more flexible. In combination with presence and movement detectors ABB-free@home® offers a variety of automations and raises efficiency and comfort with the networking of further elements such as blinds, heating and ventilation.

This, for example, allows a home office only to be heated when someone is present. If a movement detector senses activities, the system can also send a Push notification to the smartphone. In this way your home always remains under your control.

3. KNX

Presence detectors on the basis of the global KNX standard make a special comprehensive networking and automation possible. Aside from light, blinds and heating, also systems such as security and alarm technology as well as air-conditioning systems can be integrated. This allows complex automation scenarios to be implemented and centrally controlled. The result is maximum comfort and high energy efficiency in the entire building. BasicLINE KNX functionally and visually encompasses presence detectors that are kept simple for functional buildings, such as in schools or administrations. ABB KNX presence detectors are intended for high-quality applications such as villas or representative office buildings. They are available in different detection technologies and designs and can be selected to match the interior.

The KNX bus technology allows light, including switching, dimming and DALI, and also heating and blinds to be controlled. Typical areas of application are storage areas, offices, meeting rooms, hotels and high-quality private building projects.

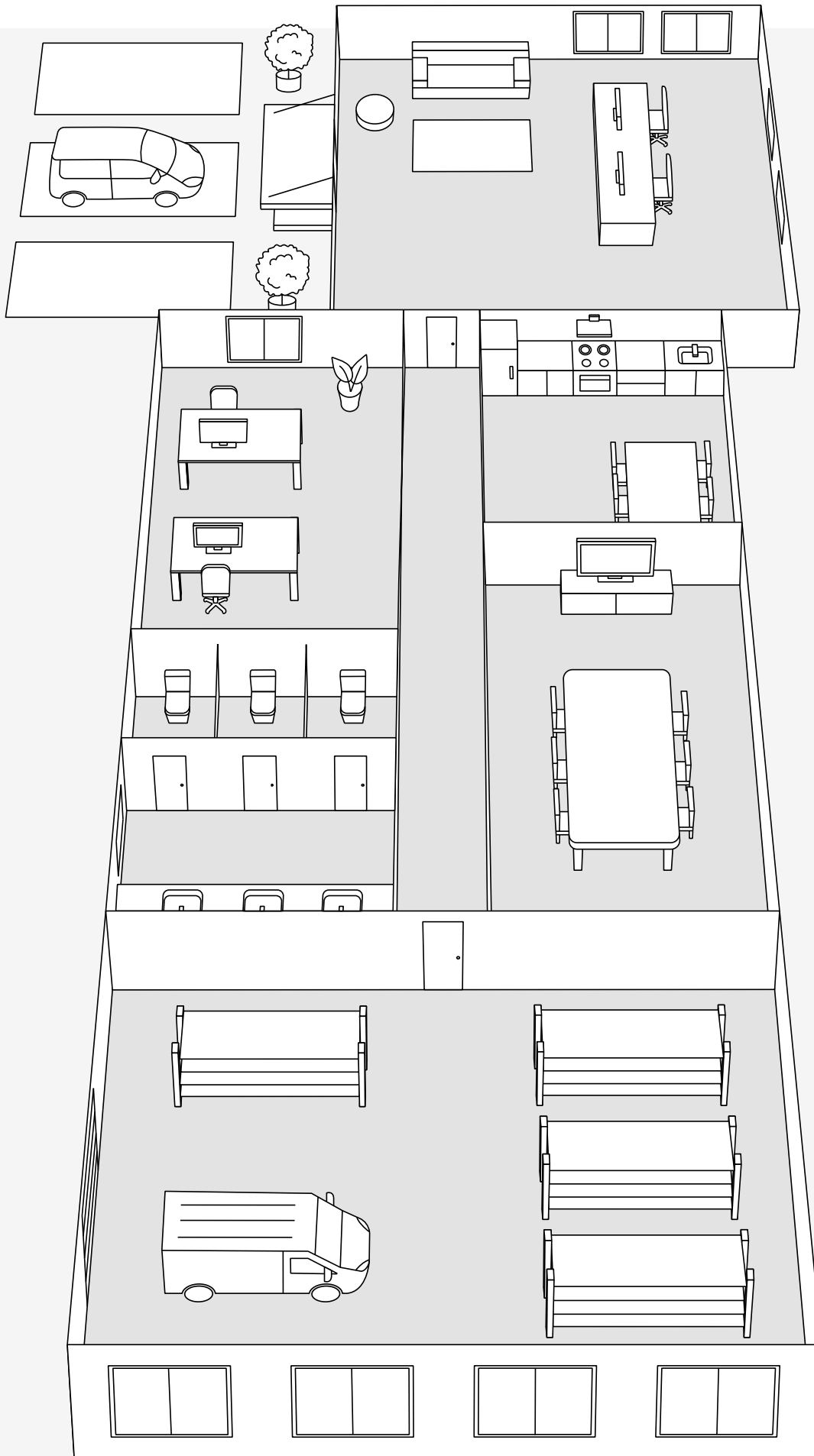


ABB PRESENCE DETECTORS

Overview

BASICLINE



ABB Presence Detector
BasicLINE Mini
6811 EB-916-500



ABB Presence Detector
BasicLINE Standard
6814/02-916-500



ABB Presence Detector
BasicLINE DALI Standard
6814/DALI-916-500



ABB Presence Detector
BasicLINE HF
6814/HF-916-500



ABB Presence Detector
BasicLINE Wide Range
6817-916-500



ABB Presence Detector
BasicLINE Corridor
6818-916-500



ABB Presence Detector
BasicLINE DALI Corridor
6818/DALI-916-500



IR service remote
control, PM BasicLINE
6843-101

ABB FLEXTRONICS®



Presence Detector
Universal ABB flexTronics®
12 meters
64753-24-500



Presence Detector Sky
ABB flexTronics®
24 meters
64754-24-500



Presence Detector
Corridor ABB flexTronics®
24 x 3 meters
64755-24-500



Also available in
aluminium.

xxxxx-183-500



IR service remote control
6843

ABB-FREE@HOME®



Movement Detector HF
ABB-free@home®
Basic
MDH-F-1.0.1-884



Presence Detector HF
ABB-free@home®
Premium
PDH-F-1.0.1-884



Also available in
black matt.

MDH-F-1.0.1-885
PDH-F-1.0.1-885

KNX

KNX BASICLINE



ABB Presence Detector
BasicLINE KNX Standard
PMB/U1.1-916



ABB Presence Detector
BasicLINE KNX Corridor
PMB/U2.1-916



ABB Presence Detector
BasicLINE KNX Wide
PMB/U3.1-916



ABB Presence Detector
KNX, flat
BMB/U1.1-916

KNX



ABB Presence Detector
Mini KNX, 8 meters
6131/20-24-500*



ABB Presence Detector Mini
KNX Premium, 8 meters
6131/21-24-500*



ABB Presence Detector
KNX, 12 meters
6131/30-24-500*



ABB Presence Detector
KNX Premium, 12 meters
6131/31-24-500*



ABB Presence Detector
Corridor KNX, 30 meters
6131/50-24-500*



ABB Presence Detector
Corridor KNX Premium,
30 meters
6131/51-24-500*



ABB Presence Detector
Sky KNX, 24 meters
6131/40-24-500**



*Also available in
black matt
xxxxx-885-500
and aluminium
xxxxx-183-500.



**Also available in
black matt
xxxxx-885-500.

KNX HF



ABB Movement Detector
HF KNX
BMH/U2.1.1-884



ABB Movement Detector
HF KNX IP55
BMH/U2.55.1-884



ABB Movement Detector
HF KNX Premium
BMH/U4.5.1-884



ABB Presence Detector
HF KNX
PMH/U2.1.1-884



ABB Presence Detector
HF KNX Premium
PMH/U4.5.1-884

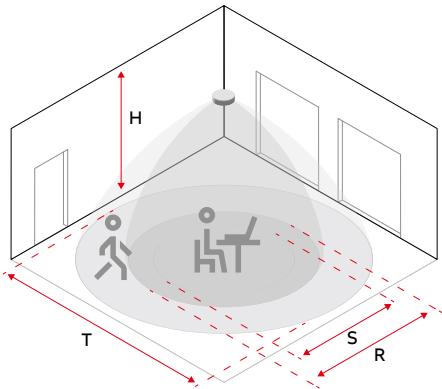


Also available in
black matt.

BMH/xxx-885
PMH/xxx-885

Presence detector for universal detection

In most cases the presence detectors are to monitor rooms brightness-dependent and, most important, switch the lighting presence and brightness dependent. This requires a radial detection that detects both moving persons and small movements at the desk. Main applications are offices, hallways, warehouses, archives and entrance areas.



6814/02-916-500

Conventional

Next to a switching output for the lighting, the presence detector (6814/02-916-500) offers a second switching output for the activation of heating, ventilation or additional lighting circuits. This can be switched with a second time function and so makes flexible use possible.

ABB-free@home®

If for the installation a room including small movements at the desk are to be monitored, such as in the home office, the 24-GHz version is recommended. It detects the smallest movements reliably and controls the lighting or the heating brightness-dependent via the networking.

KNX

For professional building automation in the office or functional buildings, the KNX version is the best choice. The presence detector communicates with all participants in the system via the KNX bus and makes complex automation scenarios possible. Aside from the lighting and the heating, also blinds, ventilation and air-conditioning systems can be controlled brightness-dependent.



PMB/U2.1-916



Infrared remote control for BasicLINE 6843-101

Product

Article no.:

Range, radial (R)

Range, tangential (T)

Range, seated (S)

Mounting height (H)

uP/aP/EB

Detection type PIR/HF

Main/extension unit operation

Push-button extension

Load

Additional information



**ABB Presence Detector
BasicLINE Standard**

**ABB Presence Detector
Universal
ABB flexTronics®**

**Presence Detector HF
ABB-free@home®
Premium**

**ABB Presence Detector
KNX**

**ABB Movement
Detector HF KNX**

**ABB Presence Detector
BasicLINE KNX
Standard**

6814/02-916-500

64753-24-500
64821 U-500
(Relay insert 2gang)

PDH-F-1.0.1-884
PDH-F-1.0.1-885

6131/30-24-500
6131/30-183-500
6131/30-885-500

PMB/U2.1.1-884
PMB/U2.1.1-885

PMB/U2.1-916

8-12 m

7-10 m

10 m

7-10 m

10 m

8-12 m

6-12 m

10-16 m

10 m

10-16 m

10 m

6-12 m

2-3 m

8-10 m

6-8 m

8-10 m

6-8 m

2-3 m

2.5-4 m

2.5-4 m

2.5-4 m

2.5-4 m

2.5-4 m

2.5-4 m

IP20/IP54/IP20

IP20/IP20/-

IP20/IP20/IP20

IP20/IP20/-

IP20/IP20/IP20

IP20/IP54/IP20

PIR

PIR

HF

PIR

HF

PIR

No

Yes

Via bus

Via bus

Via bus

Via bus

Yes

Yes

No

Yes

No

Yes

2200 W/1250 W Ω
400 W/250 W LED

2 x 1840 W Ω
2 x 300 VA LED

Load selectable via
actuator

Load selectable via
actuator

Load selectable via
actuator

Load selectable via
actuator

Infrared remote control
6843-101

Combinable with relay
insert flex and with
other ABB flexTronics®
inserts

Presence detection with light control

The requirements for light depend on the use of the room. Presentations, concentrated work or joint learning require different lighting situations. Presence detectors with light control ensure that the light is adjusted automatically and yet, can still be influenced manually at all times.

These presence detectors are used in areas where the lighting is not only to be switched but also dimmed. Especially relevant here is the so-called semi-automatic. It makes possible an adapted interaction of manual operation and automatic light control. During manual intervention the movement detection is temporarily deactivated.

Classic application areas are meeting or class rooms for talks, offices, kitchens and laboratories. The constant light control creates an even and pleasant illumination.

Conventional with DALI

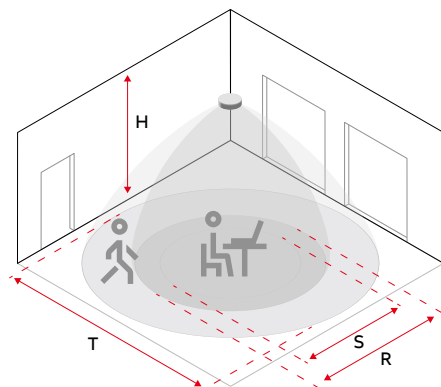
The presence detectors 6814/DALI-916-500 and 6818/DALI-916-500 have an integrated DALI adaptor and can activate up to 50 DALI lamps in broadcast operation. All connected lamps are switched or dimmed simultaneously independent of programming and addressing. This is how constant light control can be implemented in connection with dimmable lamps. Also manual operation is possible via a push-button extension unit.

KNX

KNX presence detectors are especially suited for demanding office environments with high requirements of comfort and efficiency. Thanks to constant light control and several switching channels, flexible light concepts can be implemented that adapt automatically to presence and daylight.



6814/DALI-916-500





Infrared remote control for BasicLINE 6843/101



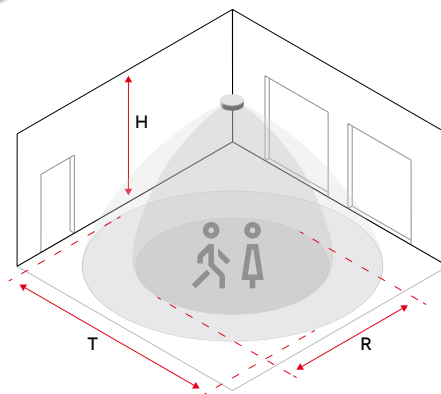
Product	ABB Presence Detector BasicLINE DALI Standard	ABB Presence Detector Universal ABB flexTronics®	ABB Presence Detector KNX Premium	ABB Presence Detector HF KNX Premium
Article no.:	6814/DALI-916-500	64753-24-500 64851 U-500	6131/31-24-500 6131/31-183-500 6131/31-885-500	PMH/U4.5.1-884 PMH/U4.5.1-885
Range, radial (R)	8–12 m	7–10 m	7–10 m	10 m
Range, tangential (T)	6–12 m	10–16 m	10–16 m	10 m
Range, seated (S)	2–3 m	8–10 m	8–10 m	8 m
Mounting height (H)	2.5–4 m	2.5–4 m	2.5–4 m	2.5–4 m
uP/aP/EB	IP20/IP54/IP20	IP20/IP20/-	IP20/IP20/-	IP20/IP20/IP20
Detection type	PIR	PIR	PIR	HF
Main/extension unit operation	No	Yes	Via bus	Via bus
Push-button extension	Yes	Yes	Yes	No
Load	50 Lamps	3-240 W/VA	Load selectable via actuator	Load selectable via actuator
Additional information	Infrared operation, basic lighting, constant light control	With LED dimmer insert flex	With integrated room-temperature controller	

Presence detector Mini – for small applications

The light is often forgotten and not often used in small rooms, which wastes energy. This includes, among others, storage rooms, technology and server rooms or even tea kitchens. With small detection areas also partial sectors within a room can be automated, such as waiting areas.



6811 EB-916-500



Conventional

The 6811 EB-916-500 is almost unobtrusive. With its modular construction of detection lens and switch element it can be installed almost invisibly in intermediate ceilings. The detection lens with its small size does not obtain large detection ranges. Here the presence detector is optimally suited for small rooms and applications.

ABB-free@home®

In the HF versions the range of the presence detector can be set very accurately. This allows smaller rooms and ancillary areas to be monitored precisely, such as wardrobe areas in corridors or WCs for guests.

KNX

The compact presence detector reliably detects movements even in the smallest area. Via the KNX bus it not only controls the lighting, but also additional loads such as ventilation or socket outlets.

PDH-F-1.0.1-884



BMB/U1.1-916





Product	ABB Presence Detector BasicLINE Mini	ABB Presence Detector HF ABB-free@home® Premium	ABB Presence Detector KNX Mini	ABB Presence Detector KNX, flat
Article no.:	6811 EB-916-500	PDH-F-1.0.1-884 PDH-F-1.0.1-885	6131/20-24-500 6131/20-183-500 6131/20-885-500	BMB/U1.1-916
Range, radial (R)	3–4 m	10 m	7–10 m	2–5 m
Range, tangential (T)	6–8 m	10 m	10–16 m	9–12 m
Mounting height (H)	2.5–3 m	2.5–4 m	2.5–4 m	2.5–4 m
uP/aP/EB	–/–/IP20	IP55/IP55/IP55	IP20/IP20/IP20	–/–/IP20
Detection type	PIR	HF	PIR	PIR
Main/extension unit operation	No	Via bus	Via bus	Via bus
Push-button extension	No	No	No	Yes
Load	2000 W Ω 105 W LED	Load selectable via actuator	Load selectable via actuator	Load selectable via actuator
Additional information	Installation depth (t ₂) 205 mm			

Presence detectors for corridors

Corridors, hallways and stairwells are the areas that are used by many and different groups of persons. Greater comfort here means: no search for a light switch – the presence detector switches the light on and off automatically. The long and small detection areas here present a special challenge. Special corridor detectors reliably detect movements over the entire length of the corridor and specifically leave out adjacent rooms.

Conventional

Aside from a switching output for the lighting, the 6818-916-500 offers a push-button extension unit for manual operation. This, for example, allows corridor buttons to be connected to the office doors.

The 6818/DALI-916-500 also makes a basic lighting possible that remains active even without movement and only switches off after a preset time. This is possible with the integrated DALI adapter with which up to 50 DALI lamps can be activated in broadcast operation. The dimmable lamps provide an increased feeling of safety in office corridors during hours in the evening. A push-button extension unit also makes manual operation possible here.

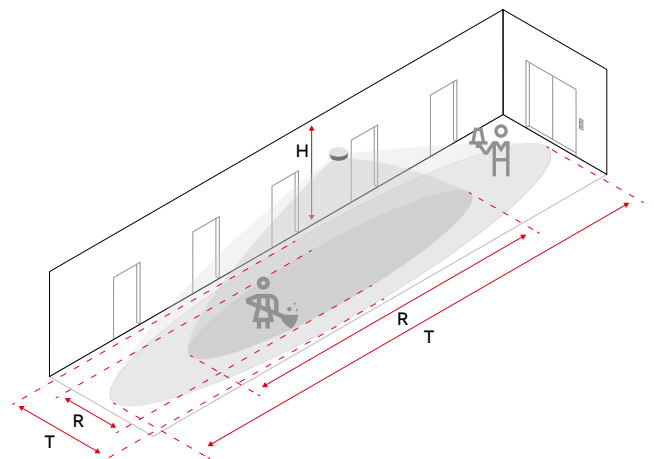
KNX

For corridors and long hallways the KNX version is the ideal solution for intelligent path illumination. The presence detector with linear detection characteristic detects movement along the entire path and controls the lighting via the KNX bus zone-wise or completely. Several detectors can be networked and care for uniform light guidance without interruptions. Individual switch-off delays can be set via ETS, which prevents an early switch-off



6818-916-500

and at the same time saves energy. Also emergency lighting, escape route signs or ventilation can be integrated in the automation. The brightness-dependent control uses the available daylight optimally and dims the lighting according to need. This is how each part of the corridor becomes a safe, comfortable and energy-efficient building concept.





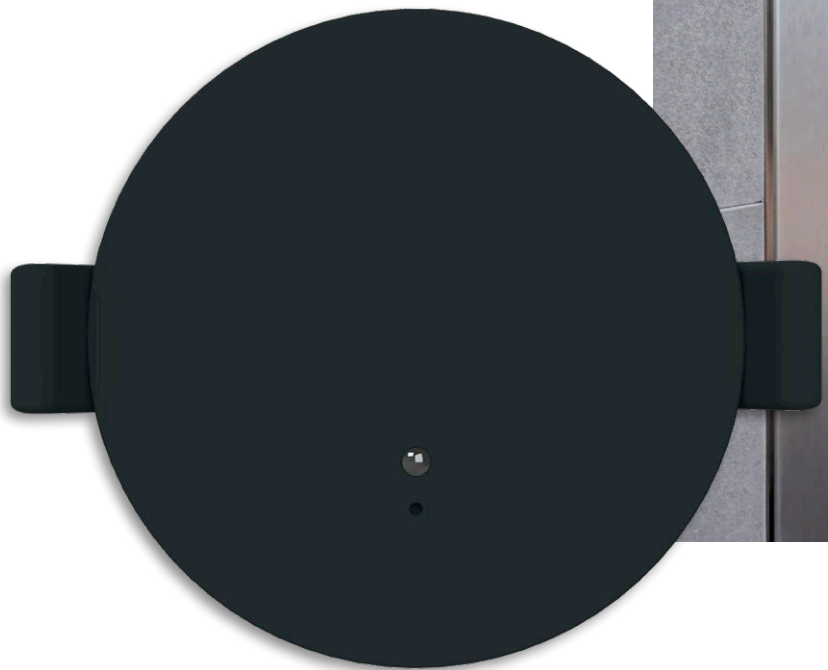
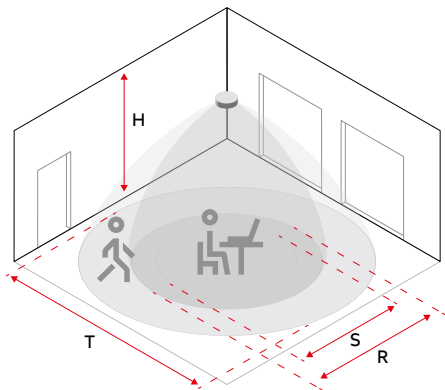
Infrared remote control
for BasicLINE 6843/101



Product	ABB Presence Detector BasicLINE Corridor	ABB Presence Detector BasicLINE DALI Corridor	ABB Presence Detector Corridor ABB flexTronics®	ABB Presence Detector KNX Corridor Premium	ABB Presence Detector BasicLINE KNX Corridor
Article no.:	6818-916-500	6818/DALI-916-500	64755-24-500 64814 U-500	6131/51-24-500 6131/51-183-500 6131/51-885-500	PMB/U2.1-916
Range, radial (R)	16 x 3 m	16 x 3 m	14 x 3 m	14 x 3 m	16 x 3 m
Range, tangential (T)	40 x 5 m	40 x 5 m	24 x 3 m	24 x 3 m	40 x 5 m
Mounting height (H)	2.5–3 m	2.5–3 m	2.5–4 m	2.5–4 m	2.5–4 m
uP/aP/EB	IP20/IP54/IP20	IP20/IP54/IP20	IP20/IP20/-	IP20	IP20/IP54
Detection type	PIR	PIR	PIR	PIR	PIR
Main/extension unit operation.	No	No	Yes	Via bus	Via bus
Push-button extension	Yes	Yes	Yes	No	Yes
Load	2200 W Ω 400 W LED	50 Lamps	10 - 240 W 3 - 240 VA LED	Load selectable via actuator	Load selectable via actuator
Additional information	Infrared remote control 6843-101	Infrared operation, basic lighting, constant light control	Combinable with e-contact insert and with other ABB flexTronics® inserts		

Presence detector HF

They are always used when barriers exist during detection, such as partitioning walls or when the optic plays a bigger role. HF detectors are often smaller and flatter than their infrared counterparts. The frequency used determines the accuracy of the detection. While detectors with 5.8 GHz mainly detect larger movement, 24 GHz versions respond already to smaller gestures.



PMH/U4.5.1-885

Conventional

The 6814/HF-916-500 convinces with a simple, discreet design and an excellent detection quality for standard applications. Thanks to the flexible mounting options on plaster, below plaster or as ceiling installation, it is versatile for use in interior areas.

ABB-free@home® and KNX

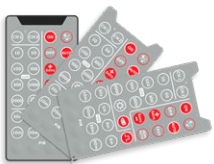
For demanding room situations with visual barriers the HF presence detectors are the ideal solution. In contrast to PIR sensors they operate with radar technology and detect movements also behind partitioning walls, shelves, furniture or glass surfaces.

For this, ABB offers two technologies:

The 5.8 GHz version is suited for storage rooms with high shelves, angled offices or areas with changing room division. The 24 GHz technology also detects the smallest movements, such as during activities while seated at the workplace. Lighting, heating and other systems can be controlled precisely via the bus network. The sensitivity of the HF presence detectors can be precisely adjusted in the ETS or the ABB-free@home® Next App when the conventional detection reaches its limits.



6814/HF-916-500



Infrared remote control for BasicLINE 6843/101



	ABB Presence Detector BasicLINE HF	ABB Presence Detector HF ABB-free@home® Premium	ABB Movement Detector HF KNX Premium	ABB Presence Detector HF KNX Premium
Product				
Article no.:	6814/HF-916-500	PDH-F-1.0.1-884 PDH-F-1.0.1-885	BMH/U4.5.1-884 BMH/U4.5.1-885	PMH/U4.5.1-884 PMH/U4.5.1-885
Range, radial (R)	10 m	10 m	10–12 m	10 m
Range, tangential (T)	10 m	10 m	10–12 m	10 m
Range, seated (S)	2.5–10 m	6–8 m	–	6–8 m
Mounting height (H)	2.5–4 m	2.5–4 m	2.5–4 m	2.5–4 m
uP/aP/EB	IP20/IP54/IP20	IP20/IP20/IP20	IP20/IP20/IP20	IP20
Detection type	HF	HF	HF	HF
Main/extension unit operation	No	Via bus	Via bus	Via bus
Push-button extension	Yes	No	No	No
Load	2200 W Ω 400 W LED	Load selectable via actuator	Load selectable via actuator	Load selectable via actuator
Additional information	Infrared remote control 6843-101			

Presence detector wide range

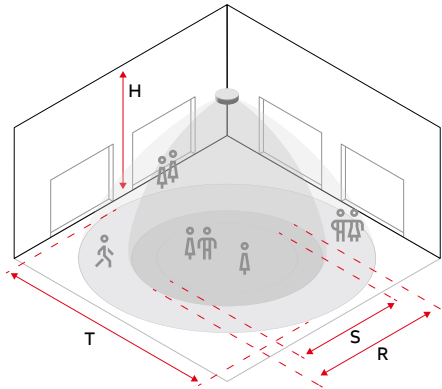
In reception areas, lobbies or shopping malls movements must be detected fast and reliably in larger areas. For ceiling heights of 2.5 to 4 m Wide Range presence detectors are precisely designed for these requirements.

Conventional

Aside from a switching output for the lighting, the 6817-916-500 offers a push-button extension unit for manual operation. This, for example, allows push-buttons to be attached to doors when additional light is required during the day.

KNX

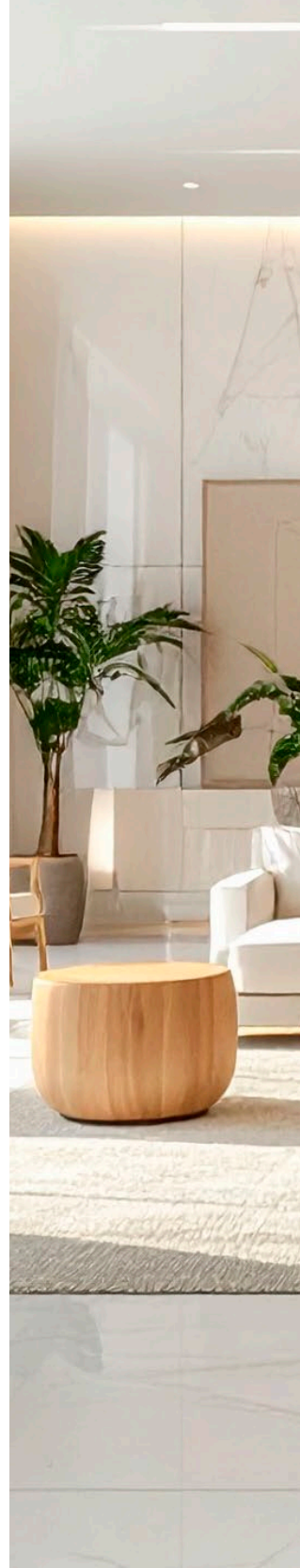
KNX is widely used in functional buildings. The reliable movement detection cares for efficient light control in large areas. Its simple design blends in unobtrusively with every environment. Several detectors can be flexibly combined and allocated to different lamp groups via the bus.

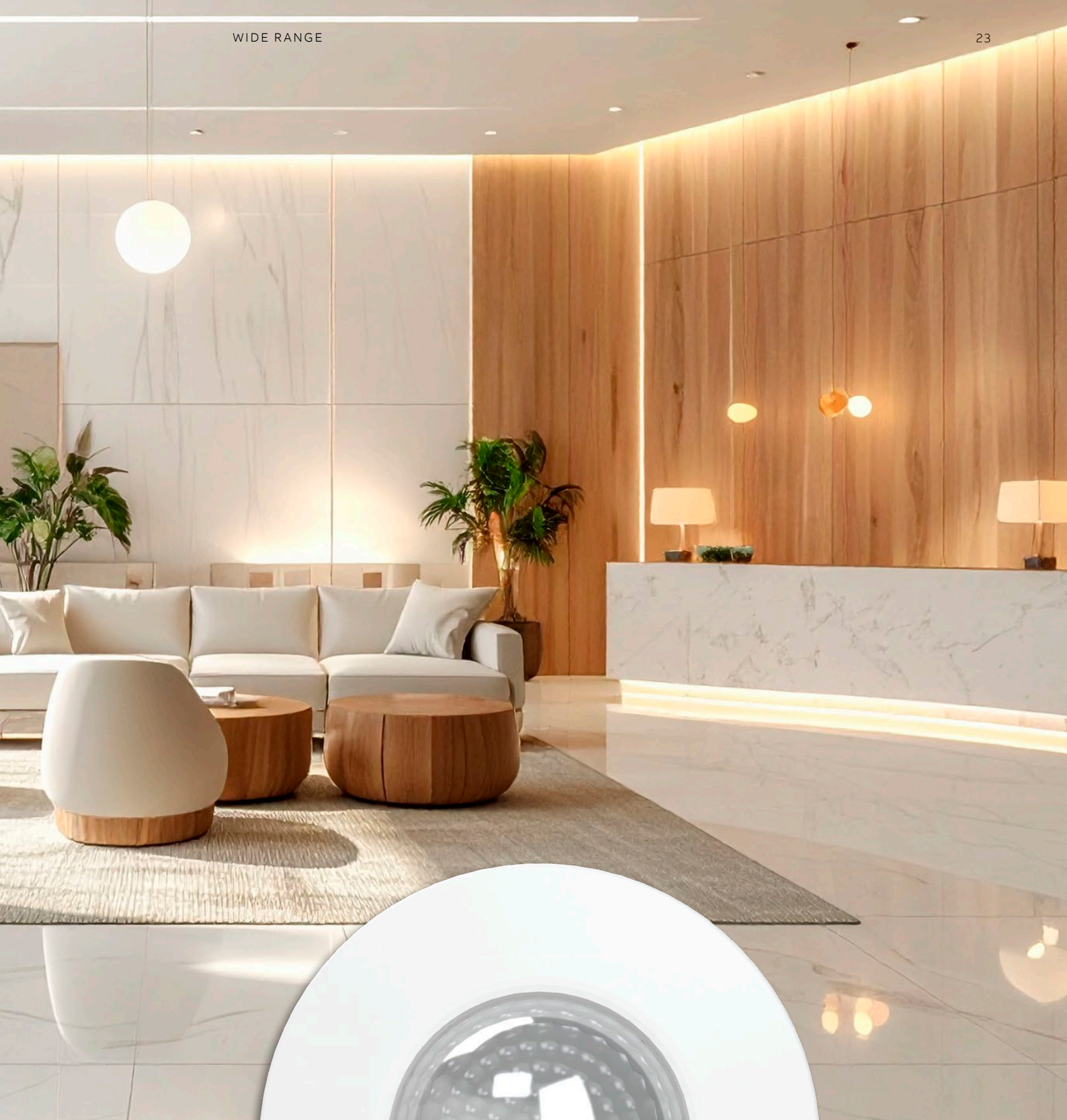


Infrared remote control for BasicLINE 6843/101



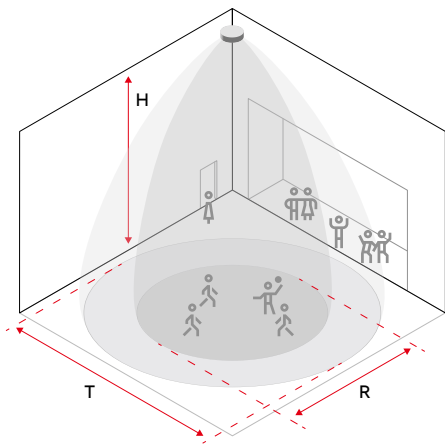
Product	ABB Presence Detector BasicLINE Wide	ABB Presence Detector BasicLINE KNX Wide
Article no.:	6817-916-500	PMB/U3.1-916
Range, radial (R)	3–4 m	3–4 m
Range, tangential (T)	18–24 m	18–24 m
Mounting height (H)	2.5–4 m	2.5–4 m
uP/aP/EB	IP20/IP54/IP20	IP20/IP54/IP20
Detection type	PIR	PIR
Main/extension unit operation	No	Via bus
Push-button extension	Yes	Yes
Load	2200 W Ω 400 W LED	Load selectable via actuator
Additional information	Infrared remote control 6843-101	





Presence detector Sky

In sports halls, large halls and storage areas detection from a great height is required to reliably cover vast areas. The Sky presence detectors have been precisely designed for this and detect movements from high installation heights via great distances.



64754-24-500

Conventional

For these requirements the modular ABB-free@home®, ABB flexTronics® offer the solution. Presence detector Sky ABB-free@home® wireless can, for example, be used in combination with relay insert 64811,U-500. If larger detection areas are required, additional presence and movement detectors can be supplemented via the extension unit insert.

KNX

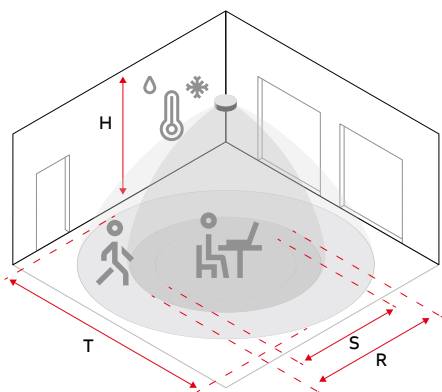
For the specific switch-on and switch-off of lights in dependence of the room or hall brightness, the KNX version is ideal. The detection takes place via four sensors that can be allocated flexibly up to two channels. As an option, a two-stage switch-off function makes possible the implementation of basic lighting with the use of dimmable lamps.



Product	Presence Detector Sky ABB flexTronics® 24 metres	ABB Movement Detector Sky KNX
Article no.:	64754-24-500 64811 U-500	6131/40-24-500 6131/40-885-500
Range, radial (R)	10–18 m	10–18 m
Range, tangential (T)	18–24 m	18–24 m
Mounting height (H)	4–12 m	4–12 m
uP/aP/EB	IP20/IP20/IP20	IP20/IP20/IP20
Detection type	PIR	PIR
Main/extension unit operation	Yes	Via bus
Push-button extension	Yes	No
Load	2300 W Ω 300 W LED	Selectable via actuator
Additional information	With relay insert flex 1-gang, also combinable with other ABB flexTronics® inserts	

Presence detector IP protection

Presence detectors can also be used in outdoor areas, or in areas where increased climatic conditions occur, such as canopies, underground car parks and passages. Here an increase in IP protection is required that is obtained with a suitable surface-mounted housing (aP), depending on the presence detector range. In these application areas often simple and functional solutions are required that are met with the BasicLINE presence detector.



Conventional

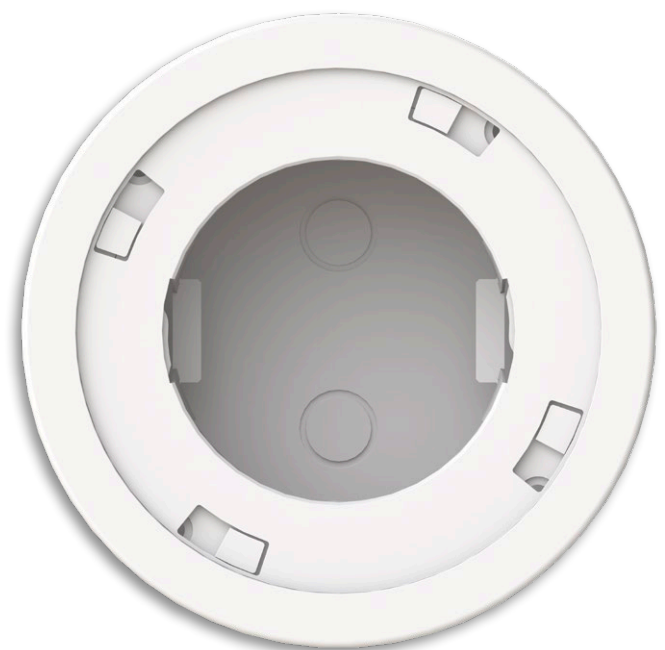
All presence detectors of the BasicLINE series (except 6811 EB-916-500) can be fitted with the surface-mounted housing 6884-916-500 and in this way receive IP54 protection.

ABB-free@home® and KNX

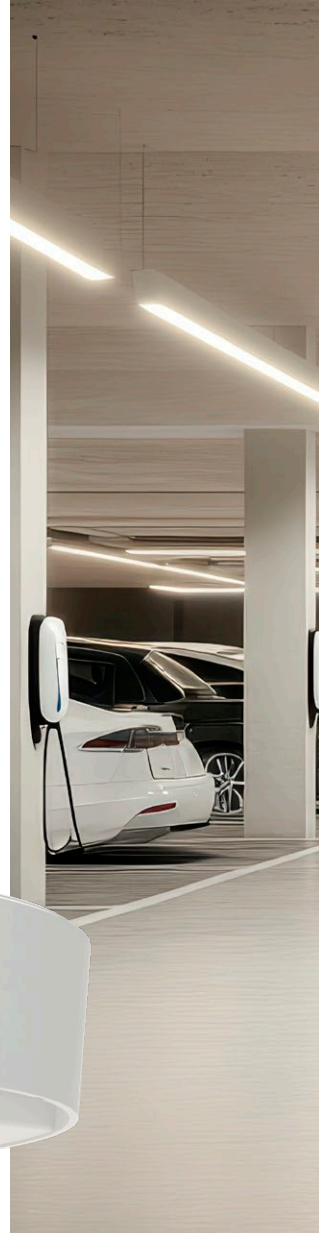
Due to the increase of IP55 protection, these movement detectors can also be installed without surface-mounted housing. Yet, housings and the corresponding mounting accessories are still on offer.



6884-916-500



PMA/A1.11-884
installation box for HF movement and
presence detectors KNX and ABB-free@home®,
also in black matt -885.





Infrared remote control
for BasicLINE 6843/101



Product	ABB Presence Detector BasicLINE Standard	ABB Presence Detector BasicLINE DALI Standard	ABB Movement Detector HF ABB-free@home® Basic	ABB Movement Detector HF KNX IP55
Art.-Nr.:	6814/02-916-500	6814/DALI-916-500	MDH-F-1.0.1-884 MDH-F-1.0.1-885	BMH/U2.55.1-884 BMH/U2.55.1-885
Reichweite, radial (R)	8–12 m	8–12 m	10 m	10 m
Reichweite, tangential (T)	6–12 m	6–12 m	10 m	10 m
Reichweite, sitzend (S)	2–3 m	2–3 m	–	–
Montagehöhe (H)	2.5–4 m	2.5–4 m	2.5–4 m	2.5–4 m
uP/aP/EB	IP20/IP54/IP20	IP20/IP54/IP20	IP55/IP55/IP55	IP55/IP55/IP55
Erfassungstyp	PIR	PIR	HF	HF
Haupt-/Nebenstellenbetr.	No	No	Via bus	Via bus
Tasternebenstelle	Yes	Yes	No	No
Last	2200 W/1250 W Ω 400 W/250 W LED	50 Lamps	Load selectable via actuator	Load selectable via actuator
Zusätzliche Info	Infrared remote control 6843-101	Infrared remote control, Basic lighting, constant light control		

Presence detectors

Overview



MDH-F-1.0.1-885



	ABB Presence Detector BasicLINE Mini	ABB Presence Detector BasicLINE Standard	ABB Presence Detector BasicLINE DALI Standard	ABB Presence Detector BasicLINE HF
	6811 EB-916-500	6814/02-916-500	6814/DALI-916-500	6814/HF-916-500
In general				
Supply voltage	230 V	230 V	230 V	230 V
Installation type	Flush-mounted/ surface-mounted	Flush-mounted/ surface-mounted	Flush-mounted/ surface-mounted	Flush-mounted/ surface-mounted
Programming button accessible from the outside	■	■	■	■
Remote control	-	6843-101	6843-101	6843-101
Detection range (seated/radial/tangential)				
Mounting height 3.0 m	- / 3-4 m/ 6-8 m	2-3 m/ 3-5 m/ 8-12 m	2-3 m/ 3-5 m/ 8-10 m	6-8 m/ 10 m/ 10 m
Recommended mounting height	2.5-3 m	2-4 m	2-4 m	2-4 m
Lens cover (detection limit)	-	Blinds	Blinds	Potentiometer
Miscellaneous				
Switching capacity Ω	2000 W	2200/1150 W	50 DALI lamps	2200 W
Switching capacity LEDi	105 W	400 W	50 DALI lamps	400 W
Presence detector extension unit	-	-	-	-
Push-button extension unit	-	■	■	■
Detection	IR	IR	IR	HF
IP protection uAP/aP /installation	-/-/ IP20	IP20/IP54/IP20	IP20/IP54/IP20	IP20/IP54/IP20

■ = Function is supported

- = Function is not supported



ABB Presence Detector BasicLINE Wide Range	ABB Presence Detector BasicLINE Corridor	ABB Presence Detector BasicLINE DALI Corridor	ABB Presence Detector Universal ABB flexTronics® 12 metres	ABB Presence Detector Sky ABB flexTronics® 24 metres	ABB Presence Detector Corridor ABB flexTronics® 24 x 3 metres	ABB Movement detector HF ABB-free@home® Basic	ABB Movement detector HF ABB-free@home® Premium
6817-916-500	6818-916-500	6818/DALI-916-500	64753-xx	64754-xx	64755-xx	MDH-F-1.0.1-xxx	PDH-F-1.0.1-xxx
230 V	230 V	230 V	230 V	230 V	230 V		
Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted
■	■	■	■	■	■	-	-
6843-101	6843-101	6843-101	6843	6843	6843	ABB-free@home® Next App	ABB-free@home® Next App
-/ 3-3.5 m/ 18-24 m	-/ 16 x 3 m/ 40 x 5 m	-/ 16 x 3 m/ 40 x 5 m	10-12 m/ 10-12 m/ 10-12 m	-/ 18-24 m/ 18-24 m	-/ 24 x 3 m/ 24 x 3 m	10-12 m	10-12 m
2-10 m	2.5-3 m	2.5-3 m	2.5-3 m	4-12 m	2.5-3 m	2-4 m	2-4 m
Blinds	Blinds	Blinds	-	-	-	f@h App	f@h App
2200 W	2200 W	50 DALI lamps	See insert	See insert	See insert	Depending on actuator	Depending on actuator
400 W	400 W	50 DALI lamps	See insert	See insert	See insert	-	-
-	-	-	■	■	■	■	■
■	■	■	■	■	■	-	-
IR	IR	IR	IR	IR	IR	HF	HF
IP20/IP54/IP20	IP20/IP54/IP20	IP20/IP54/IP20	IP20/IP20/-	IP20/IP20/-	IP20/IP20/-	IP55/IP55/IP55	IP20/IP20/IP20

KNX

The world-wide standard



	Mini Basic	Mini Premium	Basic	Premium	Sky	Corridor Basic	Corridor Premium
	6131/20-xxx-500	6131/21-xxx-500	6131/30-xxx-500	6131/31-xxx-500	6131/40-xxx-500	6131/50-xxx-500	6131/51-xxx-500
In general							
Supply voltage							
Installation type	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted
Programming button accessible from the outside	■	■	■	■	■	■	■
Detection range (seated/radial/tangential)							
Mounting height 2.5 m	Max. 5.0 m/ 4.5 m/ 6.5 m	Max. 5.0 m/ 4.5 m/ 6.5 m	Max. 8.0 m/ 7.0 m/ 10.0 m	Max. 8.0 m/ 7.0 m/ 10.0 m	-	Max. -/ 18 x 2.5 m/ 24 x 2.5 m	Max. -/ 18 x 2.5 m/ 24 x 2.5 m
Mounting height 3.0 m	Max. 6.5 m/ 6.0 m/ 8.0 m	Max. 6.5 m/ 6.0 m/ 8.0 m	Max. 10.0 m/ 8.0 m/ 12.0 m	Max. 10.0 m/ 8.0 m/ 12.0 m	-	Max. -/ 20 x 2.5 m/ 30 x 2.5 m	Max. -/ 20 x 2.5 m/ 30 x 2.5 m
Mounting height 4.0 m	Max. 9.0 m/ 7.0 m/ 10.5 m	Max. 9.0 m/ 7.0 m/ 10.5 m	Max. 14.0 m/ 10.0 m/ 16.0 m	Max. 14.0 m/ 10.0 m/ 16.0 m	-	Max. -/ 20 x 2.5 m/ 30 x 2.5 m	Max. -/ 20 x 2.5 m/ 30 x 2.5 m
Mounting height 6.0 m	-	-	-	-	Max. -/ 18.0 m/ 18.0 m	-	-
Mounting height 12.0 m	-	-	-	-	Max. -/ 18.0 m/ 18.0 m	-	-
Channels							
Total number of channels	2	4	2	4	2	2	4
Movement sensors	2	4	2	4	2	2	4
Constant light switch	2	4	2	4	2	2	4
Constant light controller	-	2	-	2	-	-	2
Heating/cooling/ventilation systems (HVAC)	-	1	-	1	-	-	1
Miscellaneous							
Integrated room temperature controllers for objects	-	1	-	1	-	-	1
Temperature sensor	-	■	-	■	-	■	-
Integrated moisture controller with dew-point alarm	-	-	-	-	-	-	-
Moisture sensor	-	-	-	-	-	-	-
Brightness measurement	■	■	■	■	■	■	■
Calibration of brightness sensor via ETS group objects	■	■	■	■	■	■	■
IP protection	IP20	IP20	IP20	IP20	IP20	IP20	IP20
KNX data security	-	-	-	-	-	-	-
The programming mode can be activated via the IR 6010-25 remote control	-	■	-	■	■	-	■
Programming the LED can be activated via ETS group objects	■	■	■	■	■	■	■
Number of logic functions	-	5	-	5	-	-	5

■ = Function is supported
- = Function is not supported



Standard	Corridor	Wide Range	Flat	Basic	Basic IP55	Premium	Basic	Premium
PMB/U1.1-916	PMB/U2.1-916	PMB/U3.1-916	BMB/U1.1-916	BMH/U2.1.1-xxx	BMH/U2.55.1-xxx	BMH/U4.5.1-xxx	PMH/U2.1.1-xxx	PMH/U4.5.1-xxx
Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted	Flush-mounted/surface-mounted
-	-	-	■	■	■	■	■	■
Max. 4.5 m/2.5 m/8.0 m	Max. -/12 x 2.5 m/32 x 2.5 m	Max. 4.5 m/2.5 m/20.0 m	Max. 4.0 m/2.0 m/9.0 m	Max. -/8.0 m/10.0 m	Max. -/8.0 m/10.0 m	Max. -/8.0 m/10.0 m	Max. 8.0 m/8.0 m/10.0 m	Max. 8.0 m/8.0 m/10.0 m
Max. 6.0 m/4.0 m/10.0 m	Max. -/16 x 3.0 m/40 x 5.0 m	Max. 6.0 m/4.0 m/24.0 m	Max. 6.0 m/4.0 m/11.0 m	Max. -/10.0 m/12.0 m	Max. -/10.0 m/12.0 m	Max. -/10.0 m/12.0 m	Max. 8.0 m/8.0 m/10.0 m	Max. 8.0 m/8.0 m/10.0 m
Max. -/5.0 m/12.0 m	Max. -/16 x 3.0 m/40 x 5.0 m	Max. -/5.0 m/30.0 m	Max. -/5.0 m/12.0 m	Max. -/8.0 m/10.0 m	Max. -/8.0 m/10.0 m	Max. -/8.0 m/10.0 m	Max. 8.0 m/8.0 m/10.0 m	Max. 8.0 m/8.0 m/10.0 m
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
4	4	4	4	2	2	4	2	4
2	2	2	2	2	2	4	2	4
-	-	-	-	2	2	4	2	4
1	1	1	1	-	-	4	-	4
1	1	1	1	-	-	4	-	4
-	-	-	-	-	-	1	-	1
■	■	■	■	■	-	■	■	■
-	-	-	-	-	-	1	-	1
-	-	-	-	■	-	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
IP20	IP20	IP20	IP20	IP20	IP55	IP20	IP20	IP20
■	■	■	■	■	■	■	■	■
-	-	-	-	-	-	-	-	-
■	■	■	■	■	■	■	■	■
1	1	1	1	1	1	5	1	5



—
ABB Ltd
go.abb/contact
More information



<https://new.abb.com/low-voltage/products/wiringaccessories/presence-detection>