

Using ARGUS with alarm systems

KNX ARGUS 220

Operating instructions



Art. no. MTN6325..

Accessories

- Mounting bracket (Art. no. MTN565291)
- Programming magnet for EMO valve drive (Art. no. MTN639190)

For your safety

**DANGER**  
**Risk of fatal injury from electrical current.**  
 All work carried out on the unit may only be performed by skilled electricians. Observe the regulations valid in the country of use, as well as the valid KNX guidelines.

ARGUS introduction

The ARGUS 220 (subsequently called **ARGUS**) is a KNX movement detector which can be used both indoors and outdoors due to its IP 55 protection rating.

Surface monitoring of 220° for larger house fronts and areas of the house (max. range of 16 m) is combined with a 360° short-range zone with a radius of approx. 4 m. The operating elements for setting the brightness, time and sensitivity (range) as well as the programming area and a red LED for displaying the programming are located under the cover plate for protection. The physical address is programmed using a programming magnet (e.g. art. no. MTN639190).

The ARGUS can be mounted on the wall or ceiling and also on to corners or fixed pipes with the mounting bracket (art. no. MTN5652 ..) which is available as an accessory.

The integrated functional display lights up when movement is detected and thus simplifies the alignment of the device at the installation site. You can also optionally switch off the functional display via a parameter setting.

The area of detection can be adapted to the local conditions due to the horizontally, vertically and axially adjustable sensor head. You can also block unwanted zones or sources of interference (e.g. trees) from the area of detection using the masking segments provided.

The device is fitted with a light sensor whose brightness threshold can be set from approx. 3 to 1000 lux. Depending on the application, it is also possible to use the device as a light-sensitive switch or to link the brightness threshold with the detection of movement. Several movement detectors can be combined together in a system.

The power is supplied via the bus line. No additional mains connection is required. As the bus line is connected directly to the terminal block in the wall connection box, a bus connecting terminal is not required.

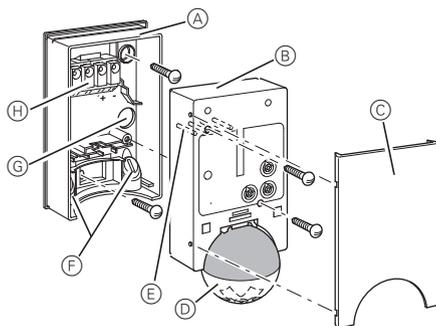
- i** Movement detectors are not suitable for use as components of an alarm system.
- i** Movement detectors can trigger false alarms if the installation site has been chosen unfavourably.

Movement detectors switch on as soon as they detect a moving heat source. This can be a person, but also animals, trees, cars or differences in temperature in windows. In order to avoid false alarms, the chosen installation site should be such that undesired heat sources cannot be detected.

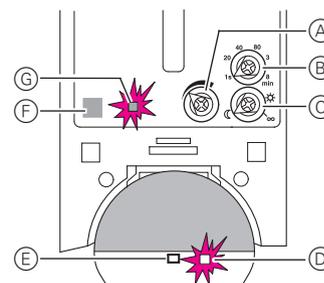
Undesired sources of heat could include the following:

- moving trees, shrubbery etc. with a temperature that differs from that of their surroundings.
- windows where the influence of sunlight and clouds could cause rapid changes in temperature.
- larger heat sources (e.g. cars), that are detected through windows.
- insects moving across the lens.
- small animals.
- rooms flooded with light where the light is reflected on objects (e.g. the floor), which can be the cause of rapid changes in temperature.

Connections, displays and operating elements



- (A) Wall connection box
- (B) Top section
- (C) Cover plate
- (D) Sensor head
- (E) Contact pins
- (F) Cable routing for bus line from underneath
- (G) Cable routing for bus line from behind
- (H) Terminal block for connecting the bus line and for locating the contact pins



- (A) Sensitivity controller
- (B) Time controller
- (C) Brightness controller
- (D) Functional display, lights up each time movement is detected
- (E) Brightness sensor
- (F) Programming area for magnet
- (G) Programming LED

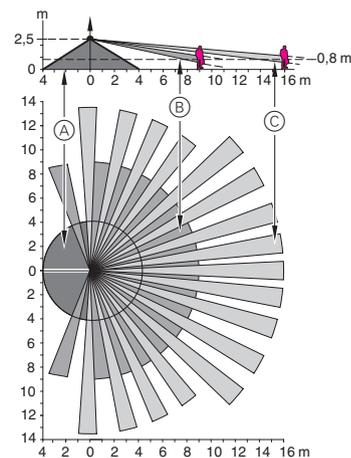
Selecting the installation site

Explanation of the symbols used

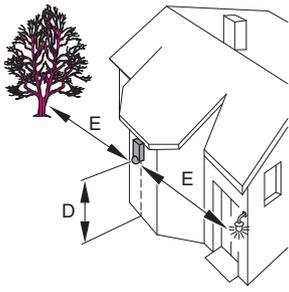
- Correct
- Not optimal
- Incorrect

When selecting a suitable installation site, you should take a number of factors into account so that the movement detector operates optimally.

The following diagram shows the ranges of the ARGUS. They are based on average temperature conditions at a mounting height of 2.5 m. The range of a movement detector can fluctuate considerably at variable temperatures.

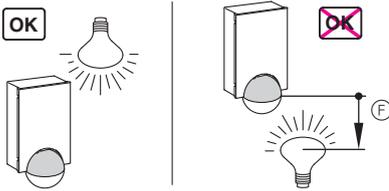


- (A) Inner security zone with an angle of detection of 360° and a radius of approx. 4 m.
- (B) Central security zone with an angle of detection of 220° and an area of detection of approx. 9 m x 18 m.
- (C) Outer security zone with an angle of detection of 220° and a detection area of approx. 16 m x 28 m.



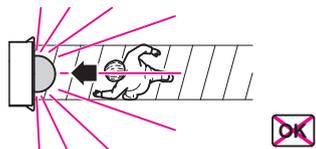
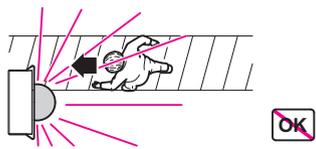
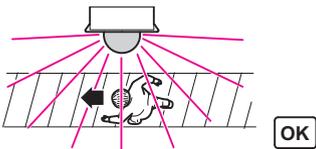
- ④ Select a mounting height between 2 m and 3 m. For optimum monitoring, we recommend a height of 2.5 m on a solid and even base.
- ⑤ Maintain a distance of at least 5 m from sources of optical interference. Use the masking segments provided if necessary.

In principle, you should not mount the luminaire underneath the ARGUS. The radiated heat from the luminaire can influence the function of the movement detector and lead to a permanent lighting circuit under certain conditions.



- ⑥ A minimum distance of 5 m should be maintained between the luminaire and the movement detector. If this distance cannot be achieved, you can use the segments provided to "mask" the light source from the area of detection.

If possible, install the movement detector sideways to the direction of movement.

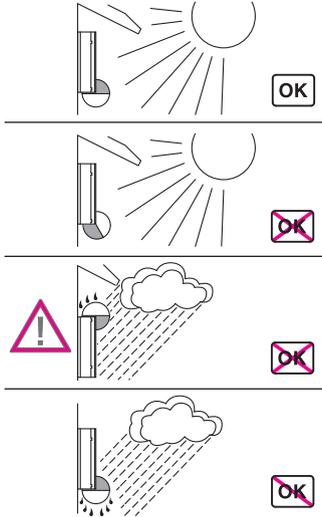


### CAUTION

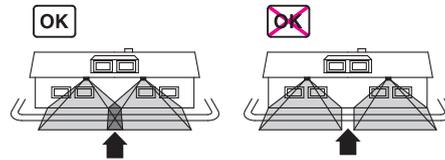
**The device can become damaged.**

If installation is not carried out correctly, water can penetrate the movement detector and damage it. Always mount it with the spherical head pointing downwards.

To avoid the connected load being switched on due to environmental influences, the ARGUS should be installed so that it is protected against rain and direct sunlight. A raindrop running over the lens, for example, can activate the movement detector.

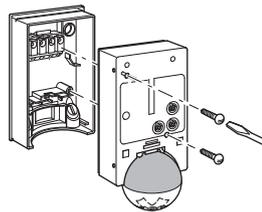


If you wish to attach several movement detectors, install them so that the detection areas of the individual movement detectors intersect each other.

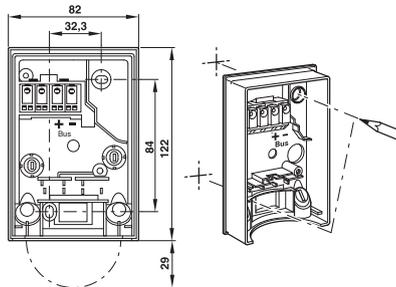


### ARGUS installation

- ① Undo both screws and remove the wall connection box from the device.

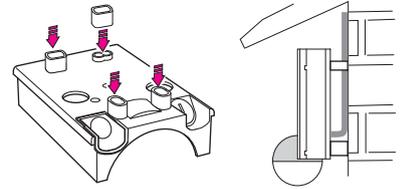


- ② Mark drill holes on the mounting surface.

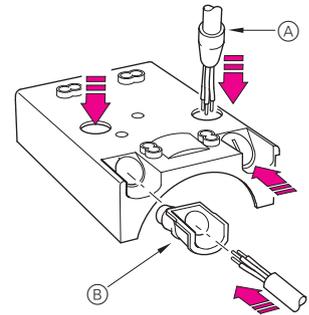


- ③ Feed in the bus line.

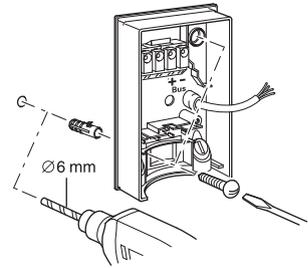
- To feed the bus line into the back of the device from above, attach the spacers supplied to the wall connection box.



- Feeding in the bus line from behind: slide the rubber grommet A supplied over the stripped bus line.
- Feeding in the bus line from below: cut the rubber insert B supplied according to the cable thickness. Insert the rubber insert into the wall connection box. Push the bus line through.



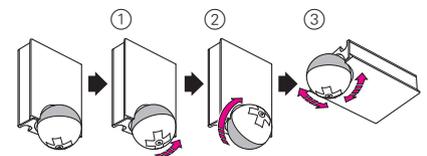
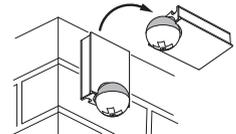
- ④ Mount the wall connection box.



### Installing the ARGUS on the ceiling

In order to install the ARGUS on the ceiling, you must rotate the sensor head. Change the direction of rotation once you have reached the end stops.

- ① Turn the sensor head upwards as far as it will go.
- ② Turn the sensor head clockwise as far as it will go.
- ③ Align the sensor head.





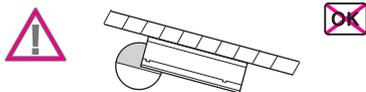
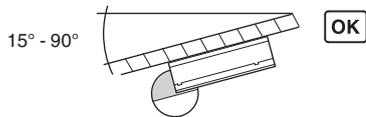
### CAUTION

If not installed correctly, the device can be damaged by condensation.

In the case of sloping ceilings, install the device so that spherical head is pointing down and always at an angle of 15° - 90°. When the spherical head points downwards, any water from condensation could run down the device.

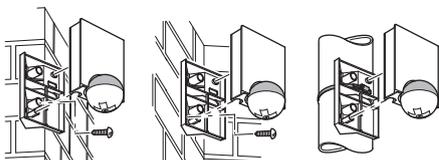


Type of protection IP 55 cannot be guaranteed if the mounting bracket is not 15° - 90°.

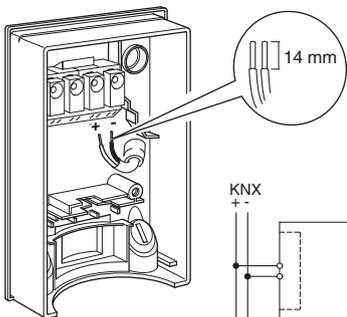


### Installing the ARGUS on corners and fixed pipes

You can attach the ARGUS to inner/outer corners or fixed pipes using the Merten mounting bracket (art. no. MTN5652...). You can feed the bus line to the device from behind through the mounting bracket.



### Connecting KNX



You can wire the bus line through the two terminals (+) and (-) without encountering problems.

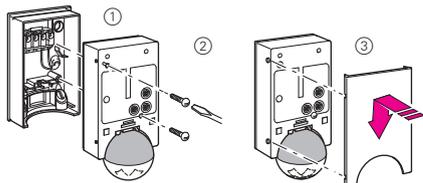
### Installation of the top section of the ARGUS

1 Place the top section on the wall connection box from the front.

2 Fasten the top section with the screws provided.

The electrical connection from the terminal box to the contact pins is established automatically when the screws are tightened.

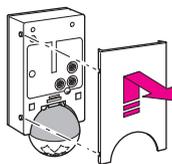
3 Position the cover plate at the markings on the side, and guide it upwards.



### Putting ARGUS into operation

The ARGUS operating elements are protected under a cover plate. The arrow's position on the controllers shows you the set values.

1 Push up the cover plate until you feel it hit the stop (approx. 5 mm) and pull it off.



2 Guide a programming magnet (e.g. art. no. MTN639190) over the programming area.

The programming LED lights up.

3 Load the physical address and application into the device from the ETS.

The programming LED goes out when the application has been loaded successfully. This device is ready for operation.

### Conducting a functional test

The brightness sensor must not be covered up.

1 Set the time controller to 1 second (left-hand stop).

Depending on the application program, you can either set the time in the software or on the device.

2 Set the brightness controller to daytime operation (infinity symbol/right-hand stop) or select the setting "independent of brightness" in ETS.

3 Set the sensitivity controller to maximum (right-hand stop).

The functional display lights up each time movement is detected.

### Setting ARGUS

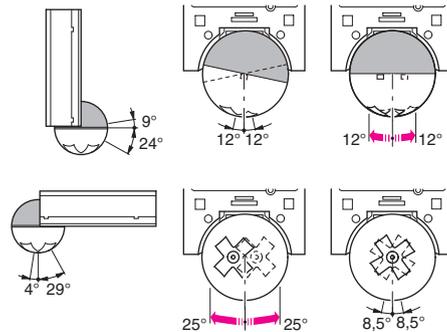


### CAUTION

The device could become damaged.

The sensor head should only be rotated until it reaches the stop and no further. To achieve an angle "above" the stop, change the direction of rotation.

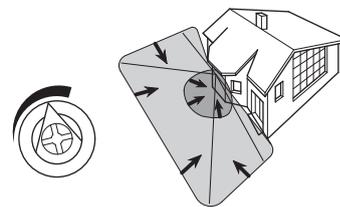
1 Align the sensor head in the direction of the area that is to be monitored.



2 From its edge step into the area of detection to see whether the ARGUS switches the load and the functional display as required.

### Setting the sensitivity

Here you can infinitely set the distance up to which ARGUS detects movements (any distance up to max. 16 m).



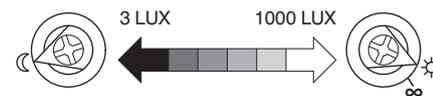
### Setting the brightness threshold

Here you can infinitely set the ambient brightness level at which the ARGUS detects movements and triggers a switching procedure.

– Moon symbol (left stop) The ARGUS will only detect movements during the hours of darkness (approx. 3 lux).

– Sun symbol: The ARGUS detects movements up to approx. 1000 lux.

– Infinity symbol (right-hand stop): The ARGUS detects movements regardless of the ambient brightness.



### Setting the time

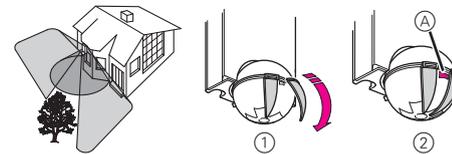
This makes it possible to set the overshoot time of the connected loads. This is the time period from the last detected movement until the load is switched off. Depending on the ETS application, the overshoot time is either set in the ETS program (infinitely variable between 3 seconds and 152 hours) or directly on the ARGUS (six steps of approx. 1 second to approx. 8 minutes).



Once the load has been switched on, the set brightness threshold is ignored. Depending on the settings in ETS, each registered movement can reset the overshoot time. If the movement detector no longer switches off, it is probably because it is continually detecting new movement and is thus always extending the overshoot time.

### Blocking out individual areas

Using the four segments supplied, you can block out unwanted zones and sources of interference from the area of detection.



Ensure that the brightness sensor (A) is not covered, as the sensitivity to light is otherwise reduced.

## Technical data

Nominal voltage:	DC 24 V (+6 V / -4 V)
KNX connection:	via terminal block
Power consumption:	approx. 7 mA
Angle of detection:	220°
Range:	max. 16 m
Number of levels:	7
Number of zones:	112 with 448 switching segments
Minimum mounting height:	1.7 m
Recommended mounting height:	2.5 m
Sensitivity:	infinitely adjustable externally
Light sensor:	infinitely adjustable externally, from approx. 3 lux to approx. 1000 lux
Time:	infinitely adjustable in the software from 3 seconds to 152 hours or adjustable externally in 6 steps from approx. 1 second to approx. 8 minutes.
Programming:	magnet-sensitive sensor for assigning the physical address.
Display elements:	1 red LED: Programming check, 1 red LED: Functional display
Possible settings for the sensor head:	
Wall mounting:	9° up, 24° down, 12° left/right, ± 12° axial
Ceiling mounting:	4° up, 29° down, 25° left/right, ± 8.5° axial
Type of protection:	IP 55 at an angle of inclination from 15° to 90°
Ambient temperature:	-25 °C to +55 °C
EC guidelines:	Low Voltage guideline 73/23/EEC, EMC guideline 89/336/EEC
Initialisation:	Due to the limitation of the telegram rate, a telegram cannot be generated until at least 17 s after the initialisation.

## Schneider Electric Industries SAS

If you have technical questions, please contact the Customer Care Center in your country.

[www.schneider-electric.com](http://www.schneider-electric.com)

This product must be installed, connected and used in compliance with prevailing standards and/or installation regulations. As standards, specifications and designs develop from time to time, always ask for confirmation of the information given in this publication.