



The watchdog sensor application module is placed on a flush-mounted bus coupler or switch actuator/sensor.

In addition to motion detection, the sensor can pick up movement within a certain period using its integrated monitoring function. It is therefore possible to integrate the sensor in event signalling systems.

The movement detector also has a photo-electric sensor function. This function triggers telegrams when the brightness level exceeds or falls below set values.

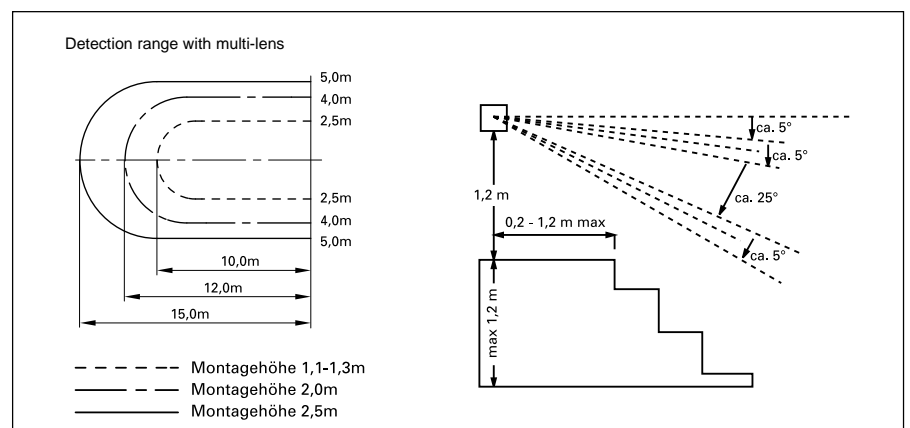
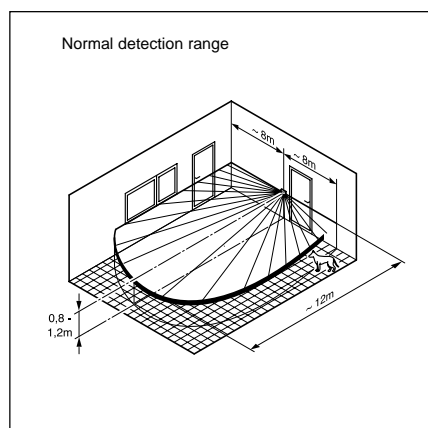
Using a slide switch, the movement detector can switch between the three operating modes ON / AUTOMATIC / OFF. The switch can be locked in the neutral position using the screw supplied.

The recovery time and the sensitivity of the integrated photo-electric switch can be set using the two potentiometers at the back of the movement detector or via the parameters in ETS.

It is also available with a multi-lens and modified detection range (see diagram).

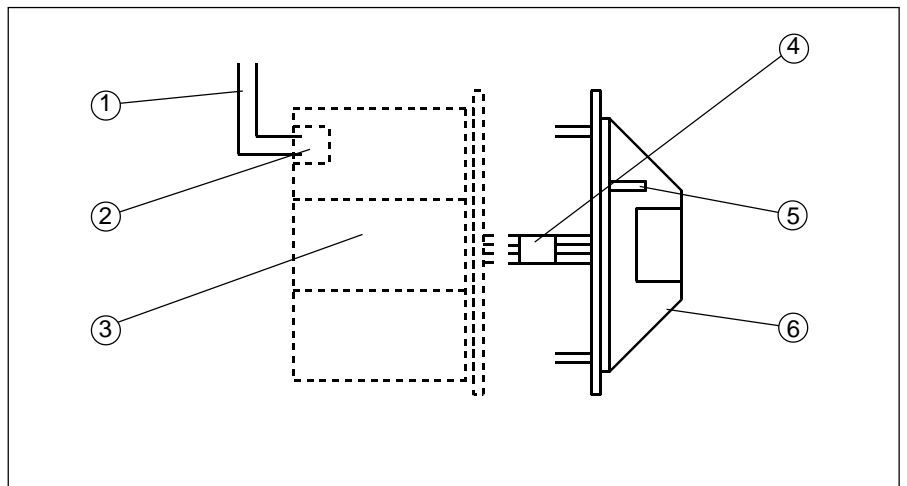
Technical data

Power supply	– EIB	24 V DC, via the bus line
Operating and display elements	– Slide switch	
	– Potentiometer	Photo-electric sensor 5 ... 1000 Lx
	– Potentiometer	Recovery time 10 s ... 17 min
Connections	– Flush-mounted bus coupler or	10-pole plug connector
	– Flush-mounted switch actuator/sensor	
Type of protection	– IP 20, EN 60 529	
Ambient temperature range	– Operation	- 5 °C ... 45 °C
	– Storage	-25 °C ... 55 °C
	– Transport	-25 °C ... 70 °C
	– solo®	– future
Design	– savanne / elfenbein	– savanne / elfenbein
	– davos / studioweiß	– davos / studioweiß
Farbe	– manhattan / graphit	– manhattan / graphit
	– samoa / hellgrün	– stone / lichtgrau
	– toscana / purpurrot	
	– attica / taubenblau	
	– latched onto flush-mounted unit	
	– 63 x 63 mm (H x W)	
Weight	– 0.04 kg	
Certification	– EIB-certified	
CE norm	– in accordance with the EMC guideline and the low voltage guideline	

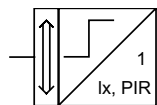


Application programs	Number of communication objects	Max. number of group addresses	Max. number of associations
For flush-mounted bus coupler:			
Switch Value Cyclic Monitoring Threshold /1	12	21	21
For flush-mounted switch actuator/sensor:			
Switch Value Cyclic Monitoring Threshold /1	12	21	21

Circuit diagram



- 1 Bus cable
- 2 Bus terminal
- 3 Flush-mounted bus coupler
- 4 Adapter for adjustments
- 5 Slide switch
- 6 Application module

**Switch Value Cyclic Monitoring
Threshold / 1****Selection in ETS2**

- ABB
 - └ Phys. Sensors
 - └ Movement

Using this application program, the movement detector can pick up movement in its detection range and send switching or value telegrams.

When assigning parameters, it should be noted that some parameters are only visible when “High Access” is selected and can only be modified at this point.

The setting of the threshold for the light sensor as well as the recovery time can be carried out using the potentiometer at the back of the movement detector. There is also a separate setting aid. Alternatively, the settings can be carried out in ETS. To do this, the parameter settings should be changed from “Potentiometer” to “ETS”. With the parameter “Threshold”, it is possible to indicate which brightness value triggers the movement detector. The value “0” means dark while “255” means maximum brightness. The recovery time can be set with the two parameters “Time base of recovery time” and “Time factor of recovery time”. The base and factor are multiplied to produce the recovery time:

$$\text{Recovery time} = \text{Base} * \text{Factor}$$

The operating mode of the movement detector can be set via the slide switch. If the slide switch is moved into position “1”, the movement detector sends a “1” to its communication object “Movement / Telegr. switch”. If it is moved into position “0”, it sends a “0”. The modified operating mode is thus transferred on the bus. In both cases, the monitoring function is inactive.

The current status of the slide switch is sent on the bus via the object “Movement / Activation”. It is therefore guaranteed that other movement detectors assume the operating mode simultaneously.

Switch

The movement detector sends switching telegrams to the communication object “Movement / Telegr. switch” when it picks up some movement in its detection range. The value of the switching telegram can be set with the parameter “Sending at detection”.

It is possible to send an “ON telegram”, an “OFF telegram” or “no telegram” when movement is detected. The “ON” or “OFF” telegrams can also be sent cyclically.

If the movement detector senses no further movement once the recovery time has elapsed, it is possible to send an “ON telegram”, an “OFF telegram” or “no telegram”. The “ON” or “OFF” telegrams can also be sent cyclically in this case. This is determined with the parameter “Telegram after recovery time”.

It is also possible to disable the movement detector. The communication object “Movement / Activation” is used for this. It is visibly switched with the parameter “Activation object movement”.

The movement detector is activated or deactivated if a telegram is received at this object. With the parameter “At ... movement”, it can be set whether an “ON telegram”, an “OFF telegram” or “no telegram” is sent once via the communication object “Movement / Telegr. switch”.

Example:

In a functional building, all the movement detectors are enabled in the morning at a specific time. To do this, a “1” is sent with a time switch to the control centre and received at the communication object “Movement / Activation”. In this example, the parameter “Enabling movement at” is set to “ON telegram”.

Value

It is also possible to send values when movement is detected. To do this, the parameter “Type of movement object” must be changed to “Value (EIS 6)”. Dimming actuators can for example be dimmed to a value that is smaller than the maximum value.

The parameter settings “Sending at the beginning/end of the detection”, determine the size of the value that is sent. The option “no telegram” can also be selected.

Cyclic

All switching telegrams can also be sent cyclically. It should be ensured that the setting "ON telegram cyclically" or "OFF telegram cyclically" is selected in the respective parameter.

The total cyclic time can be set with the parameters "Time base for cyclical sending" and "Time factor for cyclic sending".

The cyclic sending interval for a telegram is calculated by combining the base and factor:

$$\text{Cyclic time} = \text{Base} * \text{Factor}$$

Monitoring

It is possible to activate a monitoring function. To do so, the general parameter "Monitoring function" must be set to "yes". The monitoring function represents a quasi alarm signal which is not triggered at the slightest thermal movement but only if a significant power source is registered in a short time period by the movement detector or several weaker sources are detected over a longer period.

If the monitoring function is activated, there is a further communication object available "Signal / Telegr. ...", which is independent of the photo-electric sensor. The device detects the intensity and amount of movement within a time period and only sends telegrams once a specific sensitivity threshold has been exceeded. The parameter "Threshold" indicates the level of sensitivity. The value "255" denotes the maximum level of sensitivity while "0" indicates the minimum level.

On a further parameter page "Monitoring function", it is possible to select the type of the monitoring object (1 bit or 1 byte), the type of telegram at the start and end of the detection and the cyclical sending behaviour.

It can also be set when the movement detector is in the monitoring function mode. This time is similar to the cyclic time in that it is calculated by combining a time base and factor.

If the monitoring function is to be enabled externally, this can be carried out with the communication object "Signal / Activation". The parameter "Activation object monitoring" must previously be set to "available".

Pull off detection

Pull off detection represents a further security function. If the movement detector is removed from the bus/mains coupler, it sends a "0" via its communication object "Pull off detection / Telegr. switch". It is therefore possible to detect any possible tampering by thieves.

Photo-electric sensor

It is also possible to activate a photo-electric sensor function. The general parameter "Photo-electric sensor" must be set to "yes".

On a further parameter page "Photo-electric sensor", the type of the object can be set (1 bit or 1 byte) together with the value that is sent when the lower or upper threshold is reached as well as the cyclical sending behaviour.

With the parameter "Ignore artificial light", it is determined whether the movement detector only reacts to daylight or not.

The parameters "Lower threshold" or "Upper threshold" indicate when the telegrams should be sent by the photo-electric sensor. The value "0" means dark while "255" means maximum brightness.

If the photo-electric sensor function is to be enabled externally, this can be carried out with the communication object "Photo-electric sensor / Activation". The parameter "Activation object photo-electric sensor" must previously be set to "available".

Communication objects

No.	Type	Object name	Function
0	1 bit	Pull off detection	Telegr. switch
1	1 bit	Movement	Telegr. switch

Communication objects
with sending of value telegrams

No.	Type	Object name	Function
0	1 bit	Pull off detection	Telegr. switch
1	1 byte	Movement	Telegr. value

Communication objects
with activation object and brightness-
dependent switching activation object

No.	Type	Object name	Function
...			
2	1 bit	Movement	Activation
3	1 bit	Brightness dependent switching	Activation

Communication objects
with monitoring, photo-electric sensor
and activation objects

No.	Type	Object name	Function
...			
5	1 bit	Signal	Telegr. switch
6	1 bit	Signal	Activation
10	1 bit	Photo-electric sensor	Telegr. switch
11	1 bit	Photo-electric sensor	Activation

Communication objects
with monitoring and photo-electric
sensor values and activation objects

No.	Type	Object name	Function
...			
5	1 byte	Signal	Telegr. value
6	1 bit	Signal	Activation
10	1 byte	Photo-electric sensor	Telegr. value
11	1 bit	Photo-electric sensor	Activation

Parameters for "Low Access"
The default setting for the values is **printed in bold type**.

Movement detector parameters with low access:

– Activation object movement	not available available
only if "available" is selected:	
– Enabling movement at	ON telegram OFF telegram
– At disabling the movement	do not send a telegram send ON telegram once send OFF telegram once
– At enabling the movement	do not send a telegram send ON telegram once send OFF telegram once
– Type of movement object	Switching (EIS 1)
– Sending at detection	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Telegram after recovery time	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Time base for cyclical sending	130 ms / 2.1 s / 34 s / 9 min
– Time factor for cyclic sending	100

Additional parameters for high access:

General:

– Monitoring function	yes no
only if "yes" is selected:	
Monitoring function:	
– Activation object monitoring	not available available
only if "available" is selected:	
– Enabling monitoring function at	ON telegram OFF telegram
– Type of monitoring object	Switching (EIS 1) Value (EIS 6)
only if "Switching (EIS 1)" is selected:	
– Sending at the beginning of detection	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Sending at the end of detection	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Time base for cyclical sending	130 ms / 2.1 s / 34 s / 9 min
– Time factor for cyclic sending	100
only if "Value (EIS 6)" is selected:	
– Sending at the beginning of detection	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
– Sending at the end of detection	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
– No alarm sends	0
– Threshold (1: sensitive / 255: insensitive)	4
– Time base till watch dog is in monitoring function	0.5 ms / 8.2 ms / 130 ms / 2.1 s / 34 s / 9 min
– Time factor till watch dog is in monitoring function	35

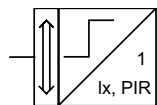
Parameters for "High Access"
The default setting for the values is **printed in bold type**.

Parameters for “High Access”
The default setting for the values
is **printed in bold type**.

– Photo-electric sensor	yes no
only if “yes” is selected:	
Photo-electric sensor:	
– Activation object photo-electric sensor	not available available
only if “available” is selected:	
– Enabling threshold sensor at	ON telegram OFF telegram
– Ignore artificial light	yes no
– Type of threshold object	Switching (EIS 1) Value (EIS 6)
only if “Switching (EIS 1)” is selected:	
– Sending at upper threshold	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Sending at lower threshold	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Time base for cyclical sending	130 ms / 2.1 s / 34 s / 9 min
– Time factor for cyclic sending	100
only if “Value (EIS 6)” is selected:	
– Sending at upper threshold	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
– Sending at lower threshold	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
– Lower threshold: (0: dark / 255: bright)	10
– Upper threshold (0: dark / 255: bright)	200
Behaviour at bus recovery: (communication objects)	
– Brightness dependent switching	enabled disabled
– Movement	enabled disabled
Movement detector:	
– Activation object brightness dependent switching	not available available
– Type of movement object	Switching (EIS 1) Value (EIS 6)
only if “Switching (EIS1)” is selected:	
– Sending at detection	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Telegram after recovery time	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Time base for cyclical sending	130 ms / 2.1 s / 34 s / 9 min
– Time factor for cyclic sending	100
only if “Value (EIS 6)” is selected:	
– Sending at detection	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
– Telegram after recovery time	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram

Parameters for “High Access”
The default settings for the values
is **printed in bold type**

Adjustments:	
- Threshold of light sensor is adjustable with	Potentiometer
only if “ETS” is selected:	ETS
- Threshold (0: dark / 255: bright)	100
- Recovery time adjustable with	Potentiometer
only if “ETS” is selected:	ETS
- Potentiometer should not be at TEST	
- Time base of recovery time	0.5 ms / 8.2 ms / 130 ms / 2.1 s / 34 s / 9 min
- Time factor of recovery time	100

**Switch Value Cyclic Monitoring
Threshold /1****Selection in ETS2**

- ABB
 - └ Phys. Sensors
 - └ Movement for 1 SA

The application program is intended for the movement detector combined with the flush-mounted switch actuator/ sensor.

Using this application program, the movement detector can pick up movement in its detection range and send switching or value telegrams.

When assigning parameters, it should be noted that some parameters are only visible when "High Access" is selected and can only be modified at this point.

The setting of the threshold for the light sensor as well as the recovery time can be carried out using the potentiometer at the back of the movement detector. There is also a separate setting aid. Alternatively, the settings can be carried out in ETS. To do this, the parameter settings should be changed from "Potentiometer" to "ETS". With the parameter "Threshold", it is possible to indicate which brightness value triggers the movement detector. The value "0" means dark while "255" means maximum brightness. The recovery time can be set with the two parameters "Time base of recovery time" and "Time factor of recovery time". The base and factor are multiplied to produce the recovery time:

$$\text{Recovery time} = \text{Base} * \text{Factor}$$

The operating mode of the movement detector can be set via the slide switch. If the slide switch is moved into position "1", the movement detector sends a "1" to its communication object "Movement / Telegr. switch". If it is moved into position "0", it sends a "0". The modified operating mode is thus transferred on the bus. In both cases, the monitoring function is inactive.

The current status of the slide switch is sent on the bus via the object "Movement / Activation". It is therefore guaranteed that other movement detectors assume the operating mode simultaneously.

Switch

The movement detector sends switching telegrams to the communication object "Movement / Telegr. switch" when it picks up some movement in its detection range.

The value of the switching telegram can be set with the parameter "Sending at detection". It is possible to send an "ON telegram", an "OFF telegram" or "no telegram". The "ON" or "OFF" telegrams can also be sent cyclically.

If the movement detector senses no further movement once the recovery time has elapsed, it is possible to send an "ON telegram", an "OFF telegram" or "no telegram". The "ON" or "OFF" telegrams can also be sent cyclically in this case. This is determined with the parameter "Telegram after recovery time".

It is also possible to disable the movement detector. The communication object "Movement / Activation" is used for this. It is visibly switched with the parameter "Activation object movement".

The movement detector is activated or deactivated if a telegram is received at this object. With the parameter "At ... movement", it can be set whether an "ON telegram", an "OFF telegram" or "no telegram" is sent once via the communication object "Movement / Telegr. switch".

Example:

In a functional building, all the movement detectors are enabled in the morning at a specific time. To do this, a "1" is sent with a time switch to the control centre and received at the communication object "Movement / Activation". In this example, the parameter "Enabling movement at" is set to "ON telegram".

Value

It is also possible to send values when movement is detected. To do this, the parameter "Type of movement object" must be changed to "Value (EIS 6)". Dimming actuators can for example be dimmed to a value that is smaller than the maximum value.

The parameter settings "Sending at the beginning/end of the detection" determine the size of the value that is sent. The option "no telegram" can also be selected.

Cyclic

All switching telegrams can also be sent cyclically. It should be ensured that the setting "ON telegram cyclically" or "OFF telegram cyclically" is selected in the respective parameter.

The total cyclic time can be set with the parameters "Time base for cyclical sending" and "Time factor for cyclic sending".

The cyclic sending interval for a telegram is calculated by combining the base and factor:

$$\text{Cyclic time} = \text{Base} * \text{Factor}$$

Monitoring

It is possible to activate a monitoring function. To do so, the general parameter "Monitoring function" must be set to "yes". The monitoring function represents a quasi alarm signal which is not triggered at the slightest thermal movement but only if a significant power source is registered in a short time period by the movement detector or several weaker sources are detected over a longer period.

If the monitoring function is activated, there is a further communication object available "Signal / Telegr. ..." which is independent of the photo-electric sensor. The device detects the intensity and amount of movement and only sends telegrams once a specific sensitivity threshold has been exceeded. The parameter "Threshold" indicates the level of intensity. The value "255" denotes the maximum level of sensitivity while "0" indicates the minimum level.

On a further parameter page "Monitoring function", it is possible to select the type of the monitoring object (1 bit or 1 byte), the type of telegram at the start and end of the detection and the cyclical sending behaviour.

It can also be set when the movement detector is in the monitoring function mode. The time is similar to the cyclic time in that it is calculated by combining a time base and factor.

If the monitoring function is to be enabled externally, this can be carried out with the communication object "Signal / Activation". The parameter "Activation object monitoring" must previously be set to "available".

Pull off detection

Pull off detection represents a further security function. If the movement detector is removed from the bus/mains coupler, it sends a "0" via its communication object "Pull off detection / Telegr. switch". It is therefore possible to detect any possible tampering by thieves.

Photo-electric sensor

It is also possible to activate a photo-electric sensor function. The general parameter "Photo-electric sensor" must be set to "yes".

On a further parameter page "Photo-electric sensor", the type of the object can be set (1 bit or 1 byte) together with the value that is sent when the lower or upper threshold is reached as well as the cyclical sending behaviour.

With the parameter "Ignore artificial light", it is determined whether the movement detector only reacts to daylight or not.

The parameters "Lower threshold" or "Upper threshold" indicate when the telegrams should be sent by the photo-electric sensor. The value "0" means dark while "255" means maximum brightness.

If the photo-electric sensor function is to be enabled externally, this can be carried out with the communication object "Photo-electric sensor / Activation". The parameter "Activation object photo-electric sensor" must previously be set to "available".

Relay

The relay can be selected as a normally open contact or normally closed contact for various applications.

The relay output has its own communication object available "Output / Switch". The relay output can thus be switched via the EIB independently of the movement detector. If the relay is to be controlled by the movement detector, the communication objects "Movement / Telegr. switch" and "Output / Switch" must be linked with a common group address.

In normal mode, the relay output can

also be assigned switch ON and switch OFF delays. These delays are calculated by combining a base and factor.

In the staircase lighting mode, there is a switch ON delay available as in normal mode. The period of the staircase lighting function is assigned via a base and factor.

The actuator can send its status on the EIB. To do so, the parameter "Status response" must be set to "yes". In this case the communication object "Output / Status" is available. If the value "1" is sent, this means that the relay has picked up.

Communication objects
with activation object

No.	Type	Object name	Function
0	1 bit	Pull off detection	Telegr. switch
1	1 bit	Movement	Telegr. switch
2	1 bit	Movement	Activation
7	1 bit	Output	Switch

Communication objects
with sending of value telegrams and status response

No.	Type	Object name	Function
0	1 bit	Pull off detection	Telegr. switch
1	1 byte	Movement	Telegr. value
...			
7	1 bit	Output	Switch
8	1 bit	Output	Status

Communication objects
with brightness-dependent switching activation object

No.	Type	Object name	Function
...			
3	1 bit	Brightness dependent switching	Activation
...			

Communication objects
with monitoring, photo-electric sensor and activation objects

No.	Type	Object name	Function
...			
5	1 bit	Signal	Telegr. switch
6	1 bit	Signal	Activation
10	1 bit	Photo-electric sensor	Telegr. switch
11	1 bit	Photo-electric sensor	Activation

Communication objects
with monitoring and photo-electric sensor values and activation objects

No.	Type	Object name	Function
...			
5	1 byte	Signal	Telegr. value
6	1 bit	Signal	Activation
10	1 byte	Photo-electric sensor	Telegr. value
11	1 bit	Photo-electric sensor	Activation

Parameters for “Low Access”
The default setting for the values
is **printed in bold type**.

Movement detector parameters with low access:	
– Contact on bus voltage recovery	ON OFF
Movement detector:	
– Activation object movement	not available available
only if “available is selected”:	
– Enabling movement at	ON telegram OFF telegram
– At disabling the movement	do not send a telegram send ON telegram once send OFF telegram once
– At enabling the movement	do not send a telegram send ON telegram once send OFF telegram once
– Type of movement object	Switching (EIS1)
– Sending at detection	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Telegram after recovery time	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Time base for cyclical sending	130 ms / 2.1 s / 34 s / 9 min
– Time factor for cyclic sending	100
Output:	
– Operating mode	Normal operation Staircase lighting function
– Switch ON delay	yes no
only if “yes” is selected:	
– Time base for switch ON delay	0.5 ms / 8.2 ms / 130 ms / 2.1 s / 34 s / 9 min
– Factor for switch ON delay (1 ... 255)	10
only for “normal operation”:	
– Switch OFF delay	yes no
only if “yes” is selected:	
– Time base for switch OFF delay	0.5 ms / 8.2 ms / 130 ms / 2.1 s / 34 s / 9 min
– Factor for switch OFF delay (1 ... 255)	10
only for “staircase lighting function”:	
– Time base for staircase lighting function	0.5 ms / 8.2 ms / 130 ms / 2.1 s / 34 s / 9 min
– Factor for staircase lighting function (1 ... 255)	10
– Status response	yes no
– Relay is	normally open contact normally closed contact

Parameters for "High Access"
The default setting for the values
is **printed in bold type**.

Additional parameters for high access:	
General:	
- Monitoring function	yes no
only if "yes" is selected:	
Monitoring function:	
- Activation object monitoring	not available available
only if "available" is selected:	
- Enabling monitoring function at	ON telegram OFF telegram
- Type of monitoring object	Switching (EIS 1) Value (EIS 6)
only if "Switching (EIS 1)" is selected:	
- Sending at the beginning of detection	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
- Sending at the end of detection	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
- Time base for cyclical sending	130 ms / 2.1 s / 34 s / 9 min
- Time factor for cyclic sending	100
only if "Value (EIS 6)" is selected:	
- Sending at the beginning of detection	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
- Sending at the end of detection	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
- No alarm sends	0
- Threshold (1: sensitive / 255: insensitive)	4
- Time base till watch dog is in monitoring function	0.5 ms / 8.2 ms / 130 ms / 2.1 s / 34 s / 9 min
- Time base till watch dog is in monitoring function	150
- Photo-electric sensor	yes no
only if "yes" is selected:	
Photo-electric sensor:	
- Activation object photo-electric sensor	not available available
only if "available" is selected:	
- Enabling threshold sensor at	ON telegram OFF telegram
- Ignore artificial light	yes / no
- Type of threshold object	Switching (EIS 1) Value (EIS 6)
only if "Switching (EIS 1)" is selected:	
- Sending at upper threshold	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
- Sending at lower threshold	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
- Time base for cyclical sending	130 ms / 2.1 s / 34 s / 9 min
- Time factor for cyclic sending	100

Parameters for “High Access”
The default setting for the values
is **printed in bold type**.

only if “Value (EIS 6)” is selected:	
– Sending at upper threshold	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
– Sending at lower threshold	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
– Lower threshold: (0: dark / 255: bright)	100
– Upper threshold (0: dark / 255: bright)	200
Behaviour at bus recovery: (communication objects)	
– Brightness dependent switching	enabled disabled
– Movement	enabled disabled
– Contact on bus voltage recovery	ON OFF
Movement detector:	
– Activation object brightness dependent switching	not available available
– Type of movement object	Switching (EIS 1) Value (EIS 6)
only if “Switching (EIS 1)” is selected:	
– Sending at detection	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Telegram after recovery time	ON telegram OFF telegram ON telegram cyclically OFF telegram cyclically no telegram
– Time base for cyclical sending	130 s / 2.1 s / 34 s / 9 min
– Time factor for cyclic sending	100
only if “Value (EIS 6)” is selected:	
– Sending at detection	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
– Telegram after recovery time	100 % / 90 % / ... / 20 % / 10 % / OFF / no telegram
Adjustments:	
– Threshold of light sensor is adjustable with	Potentiometer ETS
only if “ETS” is selected:	
– Threshold (0: dark / 255: bright)	100
– Recovery time adjustable with	Potentiometer ETS
only if “ETS” is selected:	
– Potentiometer should not be at TEST	
– Time base of recovery time	0.5 ms / 8.2 ms / 130 ms / 2.1 s / 34 s / 9 min
– Time factor of recovery time	100