KNX
Product documentation

GIRA

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KNX motion detector Cube 240
Order no. 2194 ..

GIRA

1. Information about the product

1.1. Detector function

The KNX motion detector Cube consists of three passive infrared (PIR) motion detectors with integrated brightness sensor, integrated IR receiver and integrated red light emitting diode (LED) for indicating a detected movement in test mode.

- Improved detection also of radial movements
- Insensitivity to heat sources in the detection range
- Diffuse and directional light measurement
- Dynamic self-learning delay time

1.2. Functions

- Light outputs 1-2 output – switching the lighting for up to 2 light outputs
- Presence output – brightness-independent switching in the event of presence
- Absence output – brightness-independent switching in the event of absence
- Twilight sensor output – brightness-dependent switching regardless of presence
- Brightness output – output of the measured brightness value
- IR remote control PIR KNX

Which of these functions is to be used (activated) is set using the "General Settings" parameter window with the Engineering Tool Software (ETS), version ETS 4.0 and higher.

1.3. Light output

The motion detector has two independent light outputs. Each light output can be parametrised with its own switching threshold. Several data point types are available for the output object. Depending on the data point type of the output object, input objects can be used for overriding accordingly. The light output can be set to fully or semi-automatic mode. The delay time can be set permanently or a dynamic delay time can be configured.

It is possible to set whether the light output uses the motion detector logic or the presence detector logic can be . With the motion detector logic, the sensor does not switch off according to the incident daylight. With the presence detector logic, the lighting is switched off when there is sufficient daylight. The presence detector logic is parametrised with an offset. If the measured brightness exceeds the "Twilight stage + twilight stage offset OFF" value, the delay time is not re-triggered when presence is detected. The output switches off when the delay time has expired.

In example one, presence is detected at the time t_1 and the light output switches on. From now on, presence is detected continuously.
At the time t_2 the sudden change in brightness is determined. From t_3 on, the brightness increases further. The measured brightness exceeds the "Twilight stage + twilight stage offset OFF" value from t_4 on.
Only from time t_5 on is the delay time no longer re-triggered. Here the measured brightness exceeds the "Twilight stage + twilight stage offset OFF + offset". At the time t_6 the delay time has passed and the light output is switched off.

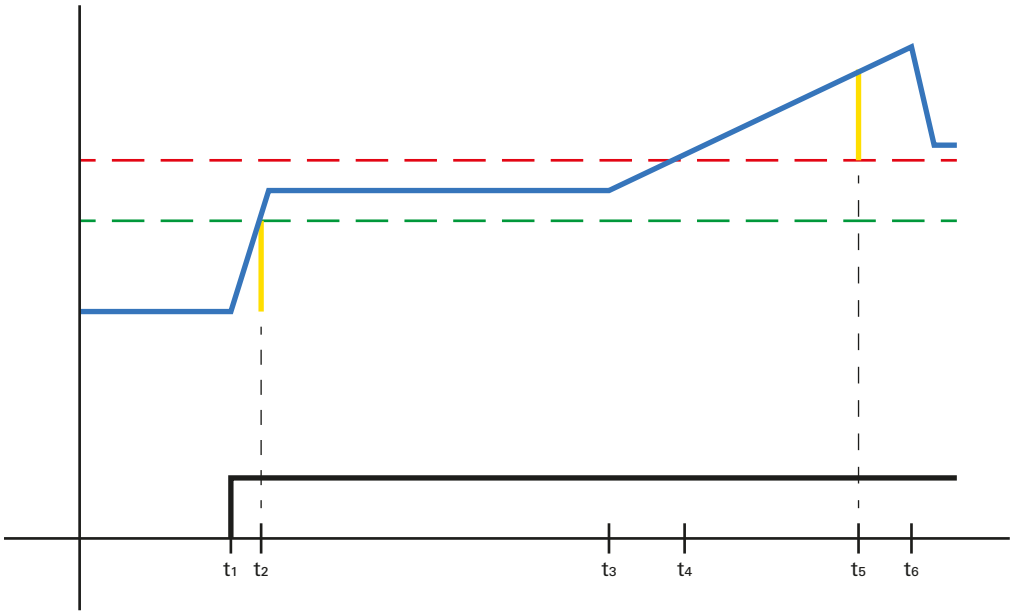


Bild 1: Example 1, brightness-based switching off

In example two, the light output 1 switches on first (t_1). The sudden change in brightness is determined at t_2. Then the measured brightness falls below the switching threshold of the light output 2 and switches the light output 2 on (t_3).

The sudden change in brightness is determined in t_4 and added to an offset with the sudden change in brightness of light 1.

From time t_5 on, the measured brightness exceeds the "Light 2 switching threshold + light 2 OFF switching threshold offset + offset" value and the delay time for light 2 is no longer re-triggered. Light 2 switches the output off after the delay time has passed (t_6). The sudden change in brightness is determined at t_7 and added to the offset.

From time t_8 on, the measured brightness exceeds the "Light 1 switching threshold + light 1 OFF switching threshold offset + offset" value and the staircase light time for light output 1 is no longer re-triggered. The light output 1 switches off after the delay time has passed (t_9).

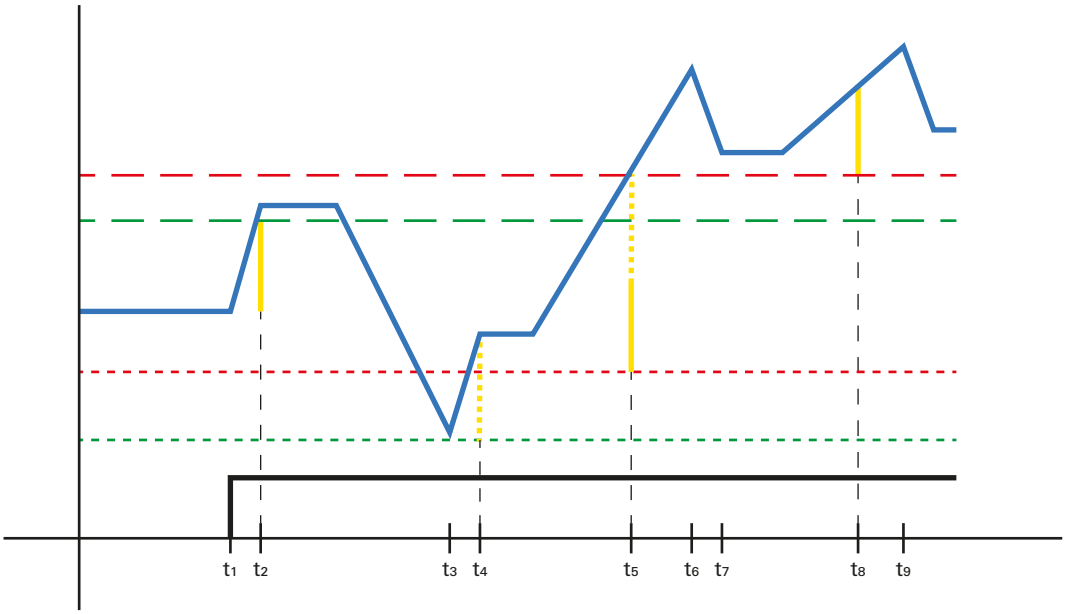


Bild 2: Example 2, brightness-based switching off

1.3.1. Dynamic delay time

If much movement is detected, the delay time is increased (5...20 min), so that the probability of switching off is small if there are still persons present.

However, if there is little movement, a short delay time is selected. If motion is detected the light is only on for a short time.

1.4. Presence output

The presence output operates independently of brightness. A switch-on delay and a delay time can be parametrised. It is possible to send the current status cyclically depending on the status.

1.5. Absence output

Just like the presence output, the absence output operates independently of brightness. A switch-on delay and a delay time can be parametrised. In this case the delay time passes as soon as someone enters the detection range. It is possible to send the current status cyclically depending on the status.

1.6. Twilight sensor

The twilight sensor output operates only according to the measured twilight stage and independent of the presence of persons. If the measured value is below the set threshold, the output is switched. Switching off the output takes place with a delay of 3 minutes.

1.7. Brightness measurement

The brightness measurement output sends the measured brightness value of the sensor on the bus either after a minimum change of the value or cyclically after a permanently defined interval.

2. Fully & semi-automatic

A parameter can be used to set whether the KNX motion detector Cube should operate in fully automatic or semi-automatic mode. The mode of operation can be set for the light outputs via the "Operating mode" parameter.

If operated in fully automatic mode, the lighting is switched on automatically when persons are present and, depending on the setting, either automatically or not depending on the brightness, and is switched off automatically when persons are absent or if brightness is sufficient.

If operated in "semi-automatic" mode, the lighting must be switched on manually. However, it is automatically switched off either depending on the brightness (depending on the setting) or when there is no longer a person in the detection range of the detector.

3. Day-night switchover

The "Day/night switchover" parameter can be used to define different settings for the switch-on and switch-off values of the lighting, delay times and twilight stage for the light output 1-2 outputs.

For each light output there is an input object that can be used to switch to "night mode".

4. Remote control, programming mode and feedback LED

4.1. Remote control

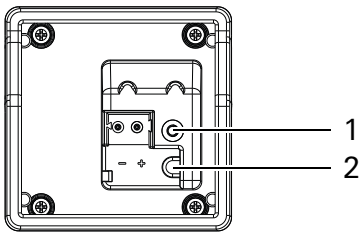
The remote control functions can be activated or deactivated under "General".

4.2. Remote control & programming mode

Via the IR remote control PIR KNX the security light can be set to KNX programming mode. Press the ☾ → ⛅ → 🚶 → ☼ buttons one after the other to do this.

4.3. Programming mode via programming button

Alternatively, a programming button (1) is available for activating programming mode, for programming the physical KNX address using the ETS. The LED (2) lights up red as soon as programming mode is activated.



4.4. Feedback LED

Function	Colour	Type	Note
Initialisation of the sensor after download or bus voltage recovery (already parametrised)	Red	Flashing	1x per sec.
Remote control command accepted	Red	Rapid flashing	1x
KNX programming mode	Red	On	
Normal mode		Off	

5. Changing the values via the bus

Some of the setting parameters can be changed via the bus. For the light outputs, these are the switching thresholds or setpoints and time settings. The time settings for presence and absence.

6. Performance after a bus voltage failure and recovery or restart and download

In the event of a bus voltage failure, the KNX motion detector Cube fails because the electronics are supplied via the bus voltage. Before a bus voltage failure, all user inputs are saved (brightness values, delay times, switching thresholds, hystereses and disabled objects) so that they can be automatically restored when the bus voltage recovers after the bus voltage failure.

After bus voltage recovery as well as after a complete or partial loading of the product database into the motion detector using ETS (i.e. after a restart), the motion detector undergoes a disable time of between 10 and 40 seconds. At the start of the disable time the lighting is switched on and at the end of the disable time it is switched off for approx. 3 seconds. From then on the motion detector is ready for operation and sends the current telegrams of the outputs.

7. Communication objects

The maximum number of communication objects listed below are available for the KNX motion detector Cube. Which of them are visible and can be linked to group addresses is determined both by the setting in the "General" parameter window and by setting further parameters for desired functions and communication objects.

Object	Object name	Function	DPT	Flag
1	Status	Status	5.001	KLÜ
2	Sensitivity	0 to 100%	5.001	KLSÜ
20	Measured brightness value	Lux	9.004	KLÜ
25	Twilight sensor output	ON/OFF	1.001	KLÜ
26	Twilight stage	2...1000 lux	9.004	KLSÜ
27	Disable twilight sensor output	ON/OFF	1.001	KSÜ
28	Twilight sensor output disable status	ON/OFF	1.001	KLÜ
35	Presence output presence	ON/OFF	1.001	KLÜ
36	Presence output delay time	1s...65535s	7.005	KLSÜ
37	Presence output switch-on delay	0s...10s	7.005	KLSÜ
38	Disable presence output	ON/OFF	1.001	KSÜ
39	Presence output disable status	ON/OFF	1.001	KLÜ
45	Absence output absence	ON/OFF	1.001	KLÜ
46	Absence output delay time	1s...65535s	7.005	KLSÜ
47	Absence output switch-on delay	1s...10s	7.005	KLSÜ
48	Disable absence output	ON/OFF	1.001	KSÜ
49	Absence output disable status	ON/OFF	1.001	KLÜ
55	Switch light output 1	ON/OFF	1.001	KLSÜ
56	Light output 1 switch input	ON/OFF	1.001	KSÜ
57	Light output 1 dimming value	0 to 100%	5.001	KLÜ
58	Dim light output 1 (DPT3)	brighter/darker	3,007	KLÜ
59	Light output 1 dim input	brighter/darker	3,007	KSÜ
60	Light output 1 dimming value input	0 to 100%	5.001	KSÜ
61	Light output 1 scene	Call up scene	18.001	KLÜ
62	Light output 1 auxiliary unit input	ON/OFF	1.001	KSÜ
63	Light output 1 switching threshold	2...1000 lux	9.004	KLSÜ
64	Light output 1 delay time	10s...65535s	7.005	KLSÜ
65	Light output 1 external brightness	Lux	9.004	KSÜ
66	Light output 1 night input	ON/OFF	1.001	KSÜ
67	Disable light output 1	ON/OFF	1.001	KSÜ
68	Light output 1 disable status	ON/OFF	1.001	KLÜ
75	Switch light output 2	ON/OFF	1.001	KLSÜ
76	Light output 2 switch input	ON/OFF	1.001	KSÜ
77	Light output 2 dimming value	0 to 100%	5.001	KLÜ
78	Dim light output 2 (DPT3)	brighter/darker	3.007	KLÜ
79	Light output 2 dim input	brighter/darker	3.007	KSÜ
80	Light output 2 dimming value input	0 to 100%	5.001	KSÜ
81	Light output 2 scene	Call up scene	18.001	KLÜ

Object	Object name	Function	DPT	Flag
82	Light output 2 auxiliary unit input	ON/OFF	1.001	KSÜ
83	Light output 2 switching threshold	2...1000 lux	9.004	KLSÜ
84	Light output 2 delay time	10s...65535s	7.005	KLSÜ
85	Light output 2 external brightness	Lux	9.004	KSÜ
86	Light output 2 night input	ON/OFF	1.001	KSÜ
87	Disable light output 2	ON/OFF	1.001	KSÜ
88	Light output 2 disable status	ON/OFF	1.001	KLÜ

7.1. Description of status communication object

Object	Description
Status	This object is always present. This object is used to return whether the selected sensor under the sensor selection parameter matches the attached sensor in the general settings. If the sensor matches, the corresponding sensor type is returned. If the combination does not match, an error is returned and the sensor does not work.

7.2. Description of light output X (1..2) communication objects

Object	Description
Light output X Switching	This object is always present when the light output is activated. This object is used to switch the light output X. The group address linked to this object is used to send the switching command to the actuator via the bus or to request the switching status from the motion detector.
Light output X Switch input	This object is always present when the light output is activated. If the "Operating mode" parameter is set to "Fully automatic" and a telegram is received via this object, light output X is disabled because the room user wants to switch the light output on or off permanently. It remains disabled until either a telegram for enabling is received via the "Disable light output X" object or until the motion detector detects that there is no longer a person in the room, enables light output X again and switches it off. If the "Operating mode" parameter is set to "Semi-automatic" and a telegram "1" is received via this object, light output X is switched on for the set delay time. Every detected presence in the switched-on state triggers the delay time. If a "0" is received, the light output X switches off without disabling.
Light output X Dimming value	This object is only visible if the "Light output X function" parameter is set to "Dimming value transmitter". The group address linked to this object is used to send the dimming value to the actuator via the bus or to request it from the motion detector.
Dim light output X (DPT3)	This object is only visible if the "Light output X function" parameter is set to "Dimming value transmitter".

Object	Description
Light output X Dim input	This object is only visible if the "Light output X function" parameter is set to "Dimming value transmitter". If a telegram is received via this object, light output X is disabled because the room user wants the light output to be permanently set to a different dimming value. It remains disabled until either a telegram for enabling is received via the "Disable light output X" object or until the motion detector detects that there is no person in the room any more, enables light output X again and switches it off. When enabled, the light output X sends its set value via the bus.
Light output X Dimming value input	This object is only visible if the "Light output X function" parameter is set to "Dimming value transmitter". If a telegram is received via this object, light output X is disabled because the room user wants the light output to be permanently set to a different dimming value. It remains disabled until either a telegram for enabling is received via the "Disable light output X" object or until the motion detector detects that there is no longer a person in the room, enables light output X again and switches it off. When enabled, the light output X sends its set value via the bus.
Light output X Scene	This object is only visible if the "Light output X function" parameter is set to "Light scene auxiliary unit". The group address linked to this object is used to send the scene to the actuator via the bus or to request it from the detector.
Light output X Auxiliary unit input	This object is only visible if the "Auxiliary unit" parameter is not set to "inactive". The group address linked to this object is used to receive the presence status from the auxiliary unit via the bus.
Light output X Switching threshold	This object is always present when the light output is activated. The group address linked to this object is used to receive or request the switching threshold (in lux) for the light output via the bus.
Light output X Delay time	This object is always present when the light output is activated. The group address linked to this object is used to receive the delay time for light output X via the bus. A received value that is outside the permissible range is rejected. This object can also be used to request the current delay time.
Light output X External brightness	This object is only visible if the "Brightness sensor ON" parameter is set to "External". The group address linked to this object is used to receive the brightness value measured by a brightness sensor and compare it with the switching threshold.
Light output X Night input	This object is only visible if the "Day-night switchover" parameter is not set to "Inactive". The group address linked to this object is used to receive the switchover between day and night. A "0" activates the parameters for the day. A "1" activates the parameters for the night.
Light output X Disabling	This object is only visible if the "Polarity of disable object" parameter is not set to "No". The "Polarity of disable object" parameter is also used to set whether disabling is to be carried out by a received value of "1" or a received value of "0". If the output is disabled, the output does not send any telegrams. An exception is manual overriding via the input objects.

Object	Description
Light output X Disable status	This object is only visible if the "Polarity of disable object" parameter is not set to "No". Via the group address linked to this object, the disable status is automatically sent via the bus with every change or the disable status can be requested at any time.

7.3. Description of presence output communication objects

Object	Description
Presence output presence	This object is always present when the presence output is activated. The group address linked to this object is used to send information to the actuator via the bus on whether the presence of persons was detected (output="ON") or not (output="OFF") or the presence status can be requested at any time from the motion detector.
Presence output delay time	This object is always present when the presence output is activated. The group address linked to this object is used to receive the delay time for the presence output via the bus. A received value that is outside the permissible range is rejected. This object can also be used to request the current delay time.
Presence output switch-on delay	This object is always present when the presence output is activated. The group address linked to this object is used to receive the switch-on delay for the presence output via the bus. A received value that is outside the permissible range is rejected. This object can also be used to request the current delay time.
Disable presence output	This object is only visible if the "Polarity of disable object" parameter is not set to "No". The "Polarity of disable object" parameter is also used to set whether disabling is to be carried out by a received value of "1" or a received value of "0". If the output is disabled, the output does not send any telegrams.
Presence output disable status	This object is only visible if the "Polarity of disable object" parameter is not set to "No". Via the group address linked to this object, the disable status is automatically sent via the bus with every change or the disable status can be requested at any time.

7.4. Description of absence output communication objects

Object	Description
Absence output absence	This object is always present when the absence output is activated. The group address linked to this object is used to send information to the actuator via the bus on whether the absence of persons was detected (output="ON") or not (output="OFF") or the absence status can be requested at any time from the motion detector.
Absence output delay time	This object is always present when the absence output is activated. The group address linked to this object is used to receive the delay time for the absence output via the bus. A received value that is outside the permissible range is rejected. This object can also be used to request the current delay time.

Object	Description
Absence output switch-on delay	This object is always present when the absence output is activated. The group address linked to this object is used to receive the switch-on delay for the absence output via the bus. A received value that is outside the permissible range is rejected. This object can also be used to request the current delay time.
Disable absence output	This object is only visible if the "Polarity of disable object" parameter is not set to "No". The "Polarity of disable object" parameter is also used to set whether disabling is to be carried out by a received value of "1" or a received value of "0". If the output is disabled, the output does not send any telegrams.
Absence output disable status	This object is only visible if the "Polarity of disable object" parameter is not set to "No". Via the group address linked to this object, the disable status is automatically sent via the bus with every change or the disable status can be requested at any time.

7.5. Description of twilight switch communication objects

Object	Description
Twilight sensor output	This object is always present when the twilight sensor is activated. The group address linked to this object is used to send information to the actuator via the bus on if the measured brightness is below the set twilight stage (output="ON") or not (output="OFF") or the twilight sensor status can be requested at any time by the motion detector.
Twilight stage	This object is always present when the twilight switch is activated. The group address linked to this object is used to receive or request the switching threshold (in lux) for the light output via the bus.
Disable twilight sensor output	This object is always present if the twilight switch output is activated and the "Polarity of disable object" parameter is not set to "No". The "Polarity of disable object" parameter is also used to set whether disabling is to be carried out by a received value of "1" or a received value of "0".
Twilight sensor output disable status	This object is only visible if the "Polarity of disable object" parameter is not set to "No". Via the group address linked to this object, the disable status is automatically sent via the bus with every change or the disable status can be requested at any time.

7.6. Description of brightness measurement communication objects

Object	Description
Measured brightness value	This object is always present when brightness measurement is activated. Via the group address linked to this object, the internal brightness value measured by the detector is sent via the bus or it can be requested from the detector at any time.

8. ETS parameters

8.1. General parameters

General parameters		
Name	**Settings**	**Factory setting**
Number of light outputs	0…2	1
This parameter is used to set how many light outputs should be available.		
Presence output	inactive active	inactive
active: The presence output with the corresponding parameters is also available. inactive: The presence output is not available.		
Absence output	inactive active	inactive
active: The absence output with the corresponding parameters is also available. inactive: The absence output is not available.		
Twilight sensor	inactive active	inactive
active: The twilight sensor output with the corresponding parameters is also available. inactive: The twilight sensor output is not available.		
Brightness measurement	inactive active	inactive
active: The measured brightness value output with the corresponding parameters is also available. inactive: The measured brightness value output is not available.		
Remote control	inactive active	
active: The IR remote control is activated. Some parameters, such as delay times, sensitivity and switch-on thresholds, can be changed with the IR remote control. inactive: The IR receiver integrated in the motion detector is deactivated.		

8.2. Light output 1..2

8.2.1. General

Light output X = 1…2		
Name	**Settings**	**Factory setting**
Light output X function	Switching Dimming value transmitter Light scene auxiliary unit	Switching
This parameter is used to set the object with which the output sends.		
Dimming value at start of detection (0…100%)	0%…100%	100%

Light output X = 1...2		
Name	**Settings**	**Factory setting**
This parameter is used to set which dimming value is sent for the ON state.		
Dimming value at end of detection (0...100%)	0%...100%	0%
This parameter is used to set which dimming value is sent for the OFF state.		
Send switching objects	ON/OFF telegram ON telegram OFF telegram	ON/OFF telegram
This parameter is used to set whether the ON and OFF switching commands or only ON or only OFF are to be sent for the dimming value transmitter function.		
Light scene number at start of detection (1...64)	1...64	1
This parameter is used to set which scene is sent for the ON state.		
Light scene number at end of detection (1...64)	1...64	2
This parameter is used to set which scene is sent for the OFF state.		
Send status cyclically	Do not send status cyclically ON/OFF ON OFF	Do not send status cyclically
This parameter is used to set whether the output should not only be sent after each change but also cyclically and at which status. Do not send status cyclically: No status is sent cyclically. ON/OFF: The ON and OFF status is sent cyclically ON: Only the ON status is sent cyclically. OFF: Only the OFF status is sent cyclically.		
Time for cyclic transmission	hh:mm:ss	00:00:30
Time interval at which cyclic transmission takes place. The maximum time interval is 18:12:15.		
Operating mode	Fully automatic (Auto ON, Auto OFF) Semi-automatic (Manual ON, Auto OFF)	Fully automatic (Auto ON, Auto OFF)
This parameter is used to set whether the light output should be switched on and off automatically (fully automatic) or whether it should only be switched off automatically (semi-automatic).		
Dynamic delay time	Active Inactive	Inactive

Light output X = 1...2		
Name	**Settings**	**Factory setting**
This parameter is used to set whether the light output delay time is to be selected via a parameter (inactive) or whether the dynamic delay time is to automatically and continuously adapt the delay time between 5 and 20 minutes to the use of the room (active).		
Light output delay time	hh:mm:ss	00:05:00
The delay time is started if no presence is detected. It is used to prevent the output from being switched off immediately when the room is briefly left and being switched on again when the room is returned. The delay time can be set from 00:00:10 to 18:12:15.		
Auxiliary unit	Inactive ON telegram ON/OFF telegram	ON
This parameter defines whether the auxiliary unit input expects an ON telegram or an ON and OFF telegram.		

8.2.2. Brightness

Light output X = 1...2		
Name	**Settings**	**Factory setting**
Day mode	Yes No	NO
Setting whether the light output should switch independently of the brightness.		
Brightness sensor ON	Internal External	Internal
This parameter defines the brightness measurement with which the sensor compares its switching threshold.		
External brightness sensor initial value	2 lux ... 1000 lux	200 lux
This parameter defines the value with which the sensor operates until the first value is received via the KNX bus.		
External brightness sensor weighting	1 % ... 100 %	100 %
This value defines to what extent the external value is weighted.		
Twilight stage ON	2 lux...1000 lux	50 lux
This parameter is used to set the brightness and detected presence used to switch on the light output.		
Switch off depending on brightness	Yes No	Yes

Light output X = 1...2		
Name	**Settings**	**Factory setting**
Yes: The light output is switched off when there is sufficient brightness despite presence detection. No: The light output remains switched on until the delay time has passed. The delay time is re-triggered when presence is detected.		
Twilight stage offset OFF	10 lux...1000 lux	100 lux
This parameter is used to set the offset above which the light output is switched off.		

8.2.3. Day-night parameters

Light output X = 1...2		
Name	**Settings**	**Factory setting**
Day-night switchover	Inactive Active	Inactive
If day/night switchover is activated, the parameter setting can be switched over via an input object.		
Dimming value at start of detection (0...100%) (only for "General" parameter: light output X function, dimming value)	0%...100%	100%
This parameter is used to set which dimming value is sent for the ON state.		
Dimming value at end of detection (0...100%) (only for "General" parameter: light output X function, dimming value)	0%...100%	0%
This parameter is used to set which dimming value is sent for the OFF state.		
Light scene number at start of detection (1...64%) (only for "General" parameter: light output X function, light scene auxiliary unit)	1...64	1
This parameter is used to set which scene is sent for the ON state.		
Light scene number at end of detection (1...64%) (only for "General" parameter: light output X function, light scene auxiliary unit)	1...64	2
This parameter is used to set which scene is sent for the OFF state.		
Day mode	Yes No	No
Setting whether the light output should switch independently of the brightness.		

Light output X = 1...2		
Name	**Settings**	**Factory setting**
Twilight stage ON	2 lux...1000 lux	50 lux
This parameter is used to set the brightness and detected presence used to switch on the light output.		
Switch off depending on brightness	Yes No	No
This parameter is used to set whether the light output should switch off depending on brightness despite presence.		
Twilight stage offset OFF	10 lux...1000 lux	100 lux
This parameter is used to set the offset above which the light output is switched off.		
Light output delay time	hh:mm:ss	00:05:00
The delay time is started if no presence is detected. It is used to prevent the output from being switched off immediately when the room is only briefly left and being switched on again when the room is returned to. The delay time can be set from 00:00:10 to 18:12:15.		

8.2.4. Disabling

Light output X = 1...2		
Name	**Settings**	**Factory setting**
Polarity of the disable object	No 0 = enable / 1 = disable 0 = disable / 1 = enable	No
This parameter is used to set whether the output can be disabled and with which telegram the output is disabled and re-enabled. No: The output cannot be disabled. 0 = enable / 1 = disable: The output is disabled by a telegram with the value "1" for the disable object and enabled by a telegram "0". 0 = disable / 1 = enable: The output is disabled by a telegram with the value "0" for the disable object and enabled by a telegram "1".		
Telegram at start of disabling	None ON telegram OFF telegram	None
This parameter is used to set whether the output should be switched on or off before disabling or whether the output should remain unchanged. None: No further action is taken before disabling. ON telegram: The output is switched on before disabling. OFF telegram: The output is switched off before disabling.		

Light output X = 1...2		
Name	**Settings**	**Factory setting**
Telegram at the end of disabling	Enable and do not send a telegram Enable and send ON telegram Enable and send OFF telegram	Enable and do not send a telegram
This parameter is used to set whether the output resumes its activity after being enabled or whether the output is switched on or off first. Enable and do not send a telegram: The output is in normal mode immediately and sets the output according to the configuration. Enable and send ON telegram: After enabling, the output is switched on. After a waiting period of 5 seconds, normal mode is reactivated. Enable and send OFF telegram: After enabling, the output is switched off. After a waiting period of 5 seconds, normal mode is reactivated.		

8.3. Presence output

Presence output		
Name	**Settings**	**Factory setting**
Switch-on delay	0 s...10 s	1 sec.
A movement must be detected over the entire time of the switch-on delay. Only then does the output switch ON.		
Delay time	hh:mm:ss	00:00:10
The delay time is started if no presence is detected. It is used to prevent the output from being switched off immediately when the room is briefly left and being switched on again when the room is returned. The delay time can be set from 00:00:00 to 18:12:15.		
Send status cyclically	Do not send status cyclically ON/OFF ON OFF	Do not send status cyclically
This parameter is used to set whether the output should not only be sent after each change but also cyclically and at which status. Do not send status cyclically: No status is sent cyclically. ON/OFF: The ON and OFF status is sent cyclically ON: Only the ON status is sent cyclically. OFF: Only the OFF status is sent cyclically.		
Time for cyclic transmission	hh:mm:ss	00:00:30
Time interval at which cyclic transmission takes place.		
Polarity of the disable object	No 0 = enable / 1 = disable 0 = disable / 1 = enable	No

Presence output		
Name	**Settings**	**Factory setting**
This parameter is used to set whether the output can be disabled and with which telegram the output is disabled and re-enabled. No: The output cannot be disabled. 0 = enable / 1 = disable: The output is disabled by a telegram with the value "1" for the disable object and enabled by a telegram "0". 0 = disable / 1 = enable: The output is disabled by a telegram with the value "0" for the disable object and enabled by a telegram "1".		
Telegram at start of disabling	None ON telegram OFF telegram	None
This parameter is used to set whether the output should be switched on or off before disabling or whether the output should remain unchanged. None: No further action is taken before disabling. ON telegram: The output is switched on before disabling. OFF telegram: The output is switched off before disabling.		
Telegram at the end of disabling	Enable and do not send a telegram Enable and send ON telegram Enable and send OFF telegram	Enable and do not send a telegram
This parameter is used to set whether the output resumes its activity after being enabled or whether the output is switched on or off first. Enable and do not send a telegram: The output is in normal mode immediately and sets the output according to the configuration. Enable and send ON telegram: After enabling, the output is switched on. After a waiting period of 5 seconds, normal mode is reactivated. Enable and send OFF telegram: After enabling, the output is switched off. After a waiting period of 5 seconds, normal mode is reactivated.		

8.4. Absence output

Absence output		
Name	**Settings**	**Factory setting**
Switch-on delay	0...10 sec.	1 sec.
No movement may be detected over the entire time of the switch-on delay. Only then does the output switch ON.		
Delay time	hh:mm:ss	00:00:10
The delay time is started if no absence is detected. It is used to prevent the output from being switched off immediately when the room is only briefly left and being switched on again when the room is returned to. The staircase light time can be set from 00:00:10 to 18:12:15.		

Absence output		
Name	**Settings**	**Factory setting**
Send status cyclically	Do not send status cyclically ON/OFF ON OFF	Do not send status cyclically
This parameter is used to set whether the output should not only be sent after each change but also cyclically and at which status. Do not send status cyclically: No status is sent cyclically. ON/OFF: The ON and OFF status is sent cyclically ON: Only the ON status is sent cyclically. OFF: Only the OFF status is sent cyclically.		
Time for cyclic transmission	hh:mm:ss	00:00:30
Time interval at which cyclic transmission takes place.		
Polarity of the disable object	No 0 = enable / 1 = disable 0 = disable / 1 = enable	No
This parameter is used to set whether the output can be disabled and with which telegram the output is disabled and re-enabled. No: The output cannot be disabled. 0 = enable / 1 = disable: The output is disabled by a telegram with the value "1" for the disable object and enabled by a telegram "0". 0 = disable / 1 = enable: The output is disabled by a telegram with the value "0" for the disable object and enabled by a telegram "1".		
Telegram at start of disabling	None ON telegram OFF telegram	None
This parameter is used to set whether the output should be switched on or off before disabling or whether the output should remain unchanged. None: No further action is taken before disabling. ON telegram: The output is switched on before disabling. OFF telegram: The output is switched off before disabling.		
Telegram at the end of disabling	Enable and do not send a telegram Enable and send ON telegram Enable and send OFF telegram	Enable and do not send a telegram
This parameter is used to set whether the output resumes its activity after being enabled or whether the output is switched on or off first. Enable and do not send a telegram: The output is in normal mode immediately and sets the output according to the configuration. Enable and send ON telegram: After enabling, the output is switched on. After a waiting period of 5 seconds, normal mode is reactivated. Enable and send OFF telegram: After enabling, the output is switched off. After a waiting period of 5 seconds, normal mode is reactivated.		

8.5. Twilight sensor

Twilight sensor		
Name	**Settings**	**Factory setting**
Twilight stage	2... 1000 lux	10 lux
This parameter is used to set the brightness above which the twilight sensor output switches on.		
Polarity of the disable object	No 0 = enable / 1 = disable 0 = disable / 1 = enable	No
This parameter is used to set whether the output can be disabled and with which telegram the output is disabled and re-enabled. No: The output cannot be disabled. 0 = enable / 1 = disable: The output is disabled by a telegram with the value "1" for the disable object and enabled by a telegram "0". 0 = disable / 1 = enable: The output is disabled by a telegram with the value "0" for the disable object and enabled by a telegram "1".		
Telegram at start of disabling	None ON telegram OFF telegram	None
This parameter is used to set whether the output should be switched on or off before disabling or whether the output should remain unchanged. None: No further action is taken before disabling. ON telegram: The output is switched on before disabling. OFF telegram: The output is switched off before disabling.		
Telegram at the end of disabling	Enable and do not send a telegram Enable and send ON telegram Enable and send OFF telegram	Enable and do not send a telegram
This parameter is used to set whether the output resumes its activity after being enabled or whether the output is switched on or off first. Enable and do not send a telegram: The output is in normal mode immediately and sets the output according to the configuration. Enable and send ON telegram: After enabling, the output is switched on. After a waiting period of 5 seconds, normal mode is reactivated. Enable and send OFF telegram: After enabling, the output is switched off. After a waiting period of 5 seconds, normal mode is reactivated.		

8.6. Brightness output

Brightness output		
Name	**Settings**	**Factory setting**
Send measured value	Change Cyclically	Change
This parameter is used to set whether the measured values are sent on the bus only when a change occurs or cyclically.		

Brightness output		
Name	**Settings**	**Factory setting**
Min. change in brightness	1...255 lux	30 lux
This parameter is used to set the minimum value by which the last measured value sent must have changed in order for the measured value to be sent again.		
Cyclic transmission of the measured value	hh:mm:ss	00:00:30
Time interval at which all measured brightness values are sent cyclically.		