25 S1 Brightness Controller 909601

Use of the application program

Product family: Output
Product type: Controller
Manufacturer: Siemens

Name: UP 255/11 brightness controller or
                  AP 255/12 brightness controller
Order no.:   5WG1 255-4AB11 or
                  5WG1 255-4AB12

Functional description

The brightness controller UP 255/11 or AP 255/12 can be used both for a simple brightness on/off control (switching) as well as for a comfortable constant light level control (dimming).

With the **brightness on/off control**, the lighting is switched on as soon as the ambient light drops below the parameterized lower brightness threshold and switched off, when the parameterized upper brightness threshold is exceeded. This also makes it possible to use the brightness controller in systems that are exclusively equipped with switchable lights.

As a special feature of the brightness on/off control, the mode "**automatic switching-on only**" can be set. In this mode, the lighting is only switched on depending on brightness and must be switched off again either manually or via a time program.

As a further special feature of the brightness on/off control, the mode **"automatic switching-off only"** can be set. In this mode, the lighting is only switched off depending on brightness after it has been switched on either manually or via a time program.

With **constant light level control** all luminaires, depending on their illuminants, can be dimmed via dimming actuators or via switching/dimming actuators to their setpoint value, whereas the setpoint value can be selected as parameter or communication object. Additionally in "master/slave mode" up to 4 additional groups of luminaires can be dimmed as "slaves" either to the same or to a respective different value that differs from the master dimming value by a positive or negative offset. It is useful to control one or more groups of luminaires as a "slave", for example, when several workplaces are in the room, but a brightness controller has only been installed above one workplace. Depending on whether the "slave-workplaces" are closer to the window or further away

than the "master-workplace", the respective group of lamps must be dimmed lighter or darker accordingly.

The application program can be loaded with the Engineering Tool Software (ETS) up from version ETS2 V1.3. After downloading data with the ETS the automatic mode is always switched off.

Calibration of the brightness measurement

With the brightness measurement, there is always a calculation of the average between the last measured value and the new measured value in order to reduce leaps in brightness at the measurement stage.

In the brightness controller, the brightness measurement is pre-calibrated in the factory with an inserted optical fibre rod with a plane light-sensitive surface, at an installed height of 2.50 m above a workplace 0.75 m in height and a working surface with a reflection degree of approx. 30%. If required, a re-calibration of the brightness measurement after the installation of the controller is possible either without use of the ETS in a simple and quick way with the help of an infrared remote control (order no. 5WG1 255-7AB01) or with a little more effort by using the ETS for calibration via the bus.

For the **calibration via IR-remote control**, the controller has an integrated IR-receiver that is under the optical fibre rod, together with the brightness sensor and a red LED (the commissioning LED). In the commissioning or calibration mode via IR-remote control, the LED flashes at a frequency of 1 Hz. With the LED flashing, the brightness measurement takes place automatically in the pauses between flashes when the LED is switched off. The detection range for safe reception of the IR-telegrams as well as safe detection whether the LED is flashing or permanently switched off has a diameter of 1.6 m around the vertical from the controller to the table surface with a flashing LED, with outside light of up to 2000 Lux, a mounted height of the controller of 2.5 m on the ceiling, a table height of 0.75 m and an illumination level of 600 Lux measured with a calibrated Lux meter on the table surface.

If possible, the re-calibration of the brightness measurement value via IR-remote control should take place without daylight influence, i.e. in the evening or at night with the lighting switched on. On the brightness controller, only the bus voltage supply has to be present. An already functioning bus communication is not required. The illumination level is to be measured on the working surface directly under the controller with a calibrated Lux meter (if possible without daylight influence) and the

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measured Lux value is to be sent to the controller via remote control (detailed calibration procedure: see operating instructions of the IR remote control).

For the **calibration via ETS** a functioning bus communication is required. With a constant light level control the illumination has to be switched on and either to be dimmed in such a way that the Lux-value shown on a calibrated Lux meter on the working surface directly under the controller corresponds to the current setpoint value for the constant light level control or the setpoint value for the constant light level control is first to be set to the measured Lux value. Then the communication object 8 "Setpoint value calibrate" is to be sent to the brightness controller and finally the setpoint value for the constant light level control is to be set to the desired value again. With an on/off brightness control and in the "only automatic switching-off" mode, the lighting is either to be set in such a way that the Lux value shown on the Lux meter corresponds to the current setpoint value for the switching-off of the lighting or the switching-off setpoint value is first to be set to the measured Lux-value. With the "only automatic switching-on" mode, the lighting is either to be dimmed in such a way that the Lux value shown on the Lux meter corresponds to the current setpoint value for the switching on of the lighting or the switching-on setpoint value is first to be set to the shown Lux-value. Then the communication object 8 "Setpoint value calibrate" is to be sent to the brightness controller (the content of the telegram, a logical "0" or a logical "1", has no meaning here) and finally the setpoint value is to be set to the desired value again. A successful calibration can be checked by reading the communication object 9 "Brightness, measured value". If the brightness is still the same as during the calibration the measured brightness value must correspond to the calibration value.

Behavior on bus voltage failure/recovery

In case of a bus voltage failure, the current status of the objects "Presence" and "Automatic mode" as well as the last switching command or dimming value sent by the controller are stored in non-volatile memory.
When the bus voltage is recovered, the brightness controller takes over the status of the saved objects "Presence" and "Automatic mode" and then goes into the operating condition specified by both status values or by the "Behaviour at bus voltage recovery" parameter. If automatic mode is switched on, it only sends a switching or dimming value telegram when the switching condition or dimming value calculated by the controller on the basis of the current lighting conditions deviates from the one sent last.

Communication objects

Maximum number of group addresses: 100
Maximum number of assignments: 120

Note

The view of the objects depends on the parameterization, i.e. the views may vary.

Number	Name	Object Function	Length	C	R	W	T	U
0	Presence	On / Off	1 bit	C	-	W	T	-
1	Automatic mode	On / Off	1 bit	C	R	W	-	-
2	Automatic mode Off via	switching	1 bit	C	-	W	-	-
3	Automatic mode Off via	dimming	4 bit	C	-	W	-	-
4	Automatic mode Off via	dimming value	1 Byte	C	-	W	-	-
8	Setpoint value	calibrate	1 bit	C	-	W	-	-
9	Brightness, measured value	value in Lux	2 Byte	C	R	W	T	-
10	Master, dimming value	8-bit value	1 Byte	C	R	-	T	-
16	Status dimming value of actuator	dimming value	1 Byte	C	-	W	T	U

Figure 1. Objects with manufacturer's default setting

Number	Name	Object Function	Length	C	R	W	T	U
0	Presence	On / Off	1 bit	C	-	W	T	-
1	Automatic mode	On / Off	1 bit	C	R	W	-	-
2	Automatic mode Off via	switching	1 bit	C	-	W	-	-
3	Automatic mode Off via	dimming	4 bit	C	-	W	-	-
4	Automatic mode Off via	dimming value	1 Byte	C	-	W	-	-
6	Setpoint value for switching On	value in Lux	2 Byte	C	R	W	-	-
7	Setpoint value for switching Off	value in Lux	2 Byte	C	R	W	-	-
8	Setpoint value	calibrate	1 bit	C	-	W	-	-
9	Brightness, measured value	value in Lux	2 Byte	C	R	W	T	-
15	Switching	On / Off	1 bit	C	-	W	T	-

Figure 2. Max. number of objects for on/off control

Number	Name	Object Function	Length	C	R	W	T	U
0	Presence	On / Off	1 bit	C	-	W	T	-
1	Automatic mode	On / Off	1 bit	C	R	W	-	-
2	Automatic mode Off via	switching	1 bit	C	-	W	-	-
3	Automatic mode Off via	dimming	4 bit	C	-	W	-	-
4	Automatic mode Off via	dimming value	1 Byte	C	-	W	-	-
5	Setpoint value for constant light level control	value in Lux	2 Byte	C	R	W	-	-
8	Setpoint value	calibrate	1 bit	C	-	W	-	-
9	Brightness, measured value	value in Lux	2 Byte	C	R	W	T	-
10	Master, dimming value	8-bit value	1 Byte	C	R	-	T	-
11	Slave 1, dimming value	8-bit value	1 Byte	C	R	-	T	-
12	Slave 2, dimming value	8-bit value	1 Byte	C	R	-	T	-
13	Slave 3, dimming value	8-bit value	1 Byte	C	R	-	T	-
14	Slave 4, dimming value	8-bit value	1 Byte	C	R	-	T	-
16	Status dimming value of actuator	dimming value	1 Byte	C	-	W	T	U

Figure 3. Max. number of objects for constant light level control

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Obj	Object name	Function	Type	Flag
0	Presence	On / Off	1 bit	CWT

This object must with be linked to the On/Off command sent by a presence detector or presence pushbutton.

The "Presence On/Off" object is used to switch on/off both the on/off brightness control or the constant light level control as well as the automatic mode of the brightness controller. If there is "Presence status = OFF" and a "Presence = ON" telegram is received, then control and automatic mode are switched on. If there is on the other hand "Presence status = ON" and another "Presence = ON" telegram is received, then the status of the "Automatic mode" object is not changed by this (i.e. a possibly locked constant light level control remains locked).

If there is "Presence status = OFF" and a "Presence = ON" telegram is received and the room brightness lies below the parameterized setpoint value, then with on/off brightness control the lighting is switched on or with constant light level control, depending on parameterization, the lighting is either switched on (to the switching-on value parameterized on the actuator) and is subsequently automatically dimmed in such a way that the actual brightness value and the setpoint brightness value agree or a dimming value telegram is sent immediately.

If at the time the "Presence = ON" telegram is received the room is sufficiently bright, then the lighting is only switched on automatically through the switched-on brightness or constant light level control later, when the room brightness has dropped below the setpoint value.

Obj	Object name	Function	Type	Flag
1	Automatic mode	On / Off	1 bit	CRW

This object can be linked with a pushbutton via which the automatic mode of the brightness controller can be switched on or off, i.e. the brightness control or constant light level control can be released or locked.

The "Automatic mode = Off" command is used, with activated (i.e. switched on) brightness control, to lock the switching on or off of the lighting and, with constant light control, to stop the sending of dimming values. With constant light level control the current dimming value of the lighting is "frozen" by this, or the lighting can be permanently dimmed subsequently by the user of the room to a desired value without this immediately being overruled by the constant light level control.

If "Automatic mode = On" is received, then the switching or the sending of dimming values is released and the constant light level control re-started.

Obj	Object name	Function	Type	Flag
2	Automatic mode Off via	switching	1 bit	CW

This is where the group address is to be entered via which the lighting is switched on/off manually. When receiving a switching command via this object, the brightness or constant light level control is deactivated, independent of the content of the telegram (logical 0 or 1). The lighting setting is then no longer changed by the controller until automatic mode is switched on again via object 1.

Obj	Object name	Function	Type	Flag
3	Automatic mode Off via	dimming	4 bit	CW

This is where the group address is to be entered via which the lighting is dimmed brighter/darker manually. When receiving a dimming command via this object, the brightness or constant light level control is deactivated, independent of the content of the telegram (dimming brighter or darker). The lighting setting is then no longer changed by the controller until automatic mode is switched on again via object 1.

Obj	Object name	Function	Type	Flag
4	Automatic mode Off via	dimming value	1 byte	CW

This is where the group address is to be entered via which the lighting is set manually to a dimming value. When receiving a dimming value command via this object, the brightness or constant light level control is deactivated, independent of the content of the telegram (dimming value in %). The lighting setting is then no longer changed by the controller until automatic mode is switched on again via object 1.

Note: In no case may the group address be entered here that is used in object 10 via which the controller sends the dimming value in the constant light control, since it would lock itself when sending the first dimming value!

Obj	Object name	Function	Type	Flag
5	Setpoint value for constant light level control	value in Lux	2 bytes	CRW

This object is only available when the "Operating mode" parameter is set to "Constant light level control" and the "Setpoint value as" parameter is set to "communication object". Then the parameterized brightness setpoint value can be changed via this object, if required. A received new setpoint value is immediately stored permanently in the non-volatile memory of the brightness controller and used for the control.

Obj	Object name	Function	Type	Flag
6	Setpoint value for switching On	value in Lux	2 bytes	CRW

This object is only available when the "Operating mode" parameter is set to "Brightness on/off control" or "only automatic switching-on" and the "Setpoint value as" parameter is set to "communication object". Then the parameterized switching-on setpoint value can be changed via this object, if required. A received new setpoint value is immediately stored permanently in the non-volatile memory of the brightness controller and used for the control.

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Obj	Object name	Function	Type	Flag
7	Setpoint value for switching Off	value in Lux	2 bytes	CRW
This object is only available when the "Operating mode" parameter is set to "Brightness on/off control" or "only automatic switching-off" and the "Setpoint value as" parameter is set to "communication object". Then the parameterized switching-off setpoint value can be changed via this object, if required. A received new setpoint value is immediately stored permanently in the non-volatile memory of the brightness controller and used for the control.				
8	Setpoint value	calibrate	1 bit	CW
The "Setpoint value calibrate" object can, as an alternative to the calibration via an IR-Handset, be used to initiate the storing of the currently measured brightness value as a calibration value, if required. This requires that the measured brightness corresponds to the current setpoint value. That is why it may be necessary to first set the setpoint value (depending on the selected mode, either the setpoint value for the constant light level control or the switching-off setpoint value in on/off control and with only automatic switching-off or the switching-on setpoint value with only automatic switching-off) to the measured Lux value before this object is sent. After this, the setpoint value is to be set back to the desired value for the set type of brightness control. The calibration takes place independently of the content of the telegram, i.e. independently of whether a log. 0 or a log. 1 was sent. Note: It is recommended to carry out a calibration with as little as possible daylight influence on the workplace lighting.				
9	Brightness, measured value	value in Lux	2 bytes	CRWT
If required, the measured brightness value can be sent or queried via the group address linked to this object.				
10	Master, dimming value	8-bit value	1 byte	CRT
This object is only available with the operating mode "Constant light level control". The master dimming value can be sent or queried via the group address linked to this object.				
11	Slave 1, dimming value	8-bit value	1 byte	CRT
This object is only available for "Constant light level control" in the master/slave mode when the number of slaves is set to $\geq$ 1. The slave dimming value can be sent or queried via the group address linked to this object.				
12	Slave 2, dimming value	8-bit value	1 byte	CRT
This object is only available for "Constant light level control" in the master/slave mode when the number of slaves is set to $\geq$ 2. The slave dimming value can be sent or queried via the group address linked to this object.				

Obj	Object name	Function	Type	Flag
13	Slave 3, dimming value	8-bit value	1 byte	CRT
This object is only available for "Constant light level control" in the master/slave mode when the number of slaves is set to $\geq$ 3. The slave dimming value can be sent or queried via the group address linked to this object.				
14	Slave 4, dimming value	8-bit value	1 byte	CRT
This object is only available for "Constant light level control" in the master/slave mode when the number of slaves is set to 4. The slave dimming value can be sent or queried via the group address linked to this object.				
15	Switching	On / Off	1 bit	CWT
This object is always available for on/off brightness control and for constant light level control only when the "Start and finish constant light level control with" parameter has been set to "Switching telegram". This object is used to switch the lighting on or off. With a constant light level control after this the lighting is dimmed via object 10 to the set brightness.				
16	Status dimming value of actuator	dimming value	1 byte	CWTU
This object is used to read the current dimming value status from the dimming actuator or switching/dimming actuator. Therefore this object must be linked with the status object of the actuator which must be released for readout. When switching on the brightness control, the control is started proceeding from the read out value. If the object is not linked, the brightness control is started proceeding from a dimming value of 0%.				

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Parameters

Parameter window "Functions, objects"

Parameter	Setting
Operating mode	**constant light level control;** brightness on/off-control; only automatic switching-on; only automatic switching-off
This parameter is used to set whether a constant light level control is desired for dimmable lights or an on/off brightness control or only the switching on or off for switchable luminaires.	
Number of slave	**0;** 1; 2; 3; 4
This parameter is visible only if the previous "Operating mode" parameter is set to "Constant light level control".	
This parameter is used to set the number of desired slave light groups whose dimming value in relation to the master dimming value can be shifted by a positive or negative value. Corresponding to the selected number of slaves, the corresponding number of "Slave x, dimming value" communication objects as well as "Offset for slave x to the master dimming value in percent (-100...100)" parameters is supplemented in the "Constant light level control" parameter window.	
Note: The slave operation makes it possible to dim different luminaires via **one** brightness sensor to the same dimming value or to different dimming values. This does not ensure that exactly the same brightness level is reached under a slave lamp as under the master lamp, since only this one is used to measure and regulate the brightness.	

Parameter	Setting
Send measured brightness value	**via read request only;** cyclically; on change of brightness value; on change of brightness value & cyclically
This parameter establishes whether or how the brightness reading is sent to the bus. "via read request only": The brightness reading is not sent to the bus independently, but can be read out. "cyclically": The brightness reading is automatically sent to the bus after the parameterized cycle time. "on change of brightness value": The brightness reading is sent after a change by the parameterized value. "on change of brightness value & cyclically": The brightness reading is sent after a change by the parameterized value and in addition sent to the bus after the expiration of the set cycle time.	
Minimum variation of brightness for transmission of the new value	15 Lux; **30 Lux;** 45 Lux; 60 Lux
This parameter is used to set from which minimum brightness change a new brightness reading is to be sent automatically.	
Cycle time for measured brightness value	15s; 30s; **60s;** 5 min.; 10 min.; 15 min.; 30 min.; 60 min.
If a cyclical sending of the brightness reading was released, then the cycle time of the sending is set via this parameter.	
Send switching or dimming command cyclically every	**no**; 15 min.; 30 min.; 60 min.
This parameter can be used to activate an additional cyclical sending of the last controller-switching command or dimming value, if required. Cyclical sending only takes place with automatic mode switched on.	
Behavior at bus voltage recovery	**as before bus voltage failure;** automatic mode Off
If the automatic mode is to be switched off when the bus voltage supply is recovered, then this can be adjusted via this parameter.	

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Parameter window "Constant light level control"

Parameter	Setting
Setpoint value as	parameter communication object
With constant light level control this parameter is used to set whether the setpoint value as a parameter has to be set to a fixed value that can respectively only be changed with the help of the ETS (Engineering Tool Software) or whether the corresponding parameter set by the manufacturer should be changeable via a communication object at any time via the bus. The value received via the communication object immediately overwrites the parameter value set by the manufacturer and is stored permanently.	
Setpoint value in Lux (250 – 1600)	600
This parameter is used to set the brightness setpoint value for the constant light control.	
Maximum variation from setpoint value	15 Lux; **30 Lux;** 45 Lux; 60 Lux
This parameter specifies how accurately the desired setpoint value is adjusted. This is necessary since the control takes place via dimming steps. That is why it can happen, if the maximum deviation from the setpoint value is too small, that with an additional setting stage for "brighter" the setpoint value is already exceeded and with a setting stage "darker" the value already drops below the setpoint value. This leads to a constant dimming up and down (= permanent brightness fluctuations). If this is the case, then the permissible deviation from the setpoint value must be enlarged or the step width during dimming reduced.	
Max. step size for dimming	0.5 %; 1%; 1.5%; **2 %**; 2.5 %; 3%; 5%
This parameter is used to set the maximum "step size" for dimming (that is the maximum value by which a new dimming value in constant light level control can be greater or smaller than the previous one).	

Parameter	Setting
Transmit next dimming value after	0.5s; 1 s; **2 s**; 3 s; 5 s
This parameter is used to set the waiting time after which with constant light level control the next dimming step can first take place and in master mode may be sent. This ensures that with constant light level control even with short dimming times of the actuator no abrupt changes in brightness take place that a user of the room may find unpleasant.	
Start and finish constant light level control with	dimming-value telegram; switching telegram
This parameter is visible only if the "Operating mode" parameter is set to "Constant light level control". This parameter is used to set whether the switching-on of the lighting after the reception of a telegram "Presence = ON" (if the status previously was "Presence = OFF") is to take place via an ON switching command or via a dimming value command and accordingly the switching-off of the lighting is to take place via a dimming value command of 0% or an OFF switching command. When switching-on via an ON switching command, the lighting is switched to the value parameterized in the dimming actuator or switching/dimming actuator and proceeding from this value is subsequent slowly dimmed by the controller to the value at which brightness setpoint value and actual value correspond. To achieve this, the controller requests the dimming value status from the actuator 3 seconds after the sending of the switching-on telegram (by then, usually the switching-on process should be finished). If the dimming value status is received, then the brightness control begins with the current dimming value of the actuator. The light is dimmed brighter or darker corresponding to the deviation between actual and setpoint value. If within 2 seconds after the query no response from the actuator is received by the brightness controller, then the control is started while assuming an actuator dimming value of 0% (i.e. the controller begins its control with a dimming value of 0% instead of with the current dimming value). It is then dimmed brighter until the actual value of the brightness corresponds to the setpoint value. If when receiving a "Presence = ON" telegram the status of the presence is already set to "ON" or if a switched-off automatic mode is set to ON again, then the dimming value status of the actuator is requested immediately (since the actuator is set to a dimming value) and the procedure is followed as described above. If the dimming value of the actuator cannot be received (because, for example, the object is not linked to a group address), then the controller always begins its control with a dimming value of 0%. If a luminaire is already switched on, this can result in a transient effect that leads to the dimming value required for the lighting. The function of the brightness controller is not impaired by this, however.	

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Parameter	Setting
Offset for slave 1 to the master dimming value in percent (-100 ... 100)	0
This parameter is visible only if the corresponding number of slaves has been set. This parameter is used to set which offset value is to be added or subtracted for this slave in relation to the master dimming value.	
Offset for slave 2 to the master dimming value in percent (-100 ... 100)	0
This parameter is visible only if the corresponding number of slaves has been set. This parameter is used to set which offset value is to be added or subtracted for this slave in relation to the master dimming value.	
Offset for slave 3 to the master dimming value in percent (-100 ... 100)	0
This parameter is visible only if the corresponding number of slaves has been set. This parameter is used to set which offset value is to be added or subtracted for this slave in relation to the master dimming value.	
Offset for slave 4 to the master dimming value in percent (-100 ... 100)	0
This parameter is visible only if the corresponding number of slaves has been set. This parameter is used to set which offset value is to be added or subtracted for this slave in relation to the master dimming value.	

Parameter window "Brightness on/off control"

This parameter window can only be selected if in the "Functions, objects" parameter window the "Operating mode" parameter is set to "Brightness on/off control".

Parameter	Setting
Setpoint value as	**parameter** communication object
With on/off brightness control this parameter is used to set whether the setpoint values as parameters have to be set to a fixed value that can respectively only be changed with the help of the ETS (Engineering Tool Software) or whether the corresponding parameters set by the manufacturer should be changeable via communication objects at any time via the bus. The value received via a communication object immediately overwrites the parameter value set by the manufacturer and is stored permanently.	
Switch On if brightness value <=	**500** (250 – 1500)
This parameter is used to set which brightness reading has to be reached or dropped below so that the lighting is switched on by the controller. Note: Care should be taken that the brightness values for the switching-on and switching-off are clearly different to avoid minor changes in brightness leading to the constant switching on and off of the lighting. It is recommended to measure the difference in brightness before and after switching on the lighting with a calibrated Lux meter. The difference between the setpoint values for switching on and off should be greater than the measured brightness difference. Else the switching on of the lighting could lead to the immediate automatic switching off of it.	
Switch Off if brightness value >=	**900** (250 – 1500)
This parameter is used to set which brightness reading has to be reached or exceeded so that the lighting is switched off by the controller. Note: Care should be taken that the brightness values for the switching-on and switching-off are clearly different to avoid minor changes in brightness leading to the permanent switching on and off of the lighting. It is recommended to measure the difference in brightness before and after switching on the lighting with a calibrated Lux meter. The difference between the setpoint values for switching on and off should be greater than the measured brightness difference. Else the switching on of the lighting could lead to the immediate automatic switching off of it.	

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Parameter window "Automatic switching-on"

This parameter window can only be selected if in the "Functions, objects" parameter window the "Operating mode" parameter is set to "only automatic switching-on".

Parameter	Setting
Setpoint value as	**parameter** communication object
This parameter is used to set whether the switching-on setpoint value as a parameter has to be set to a fixed value that can respectively only be changed with the help of the ETS (Engineering Tool Software) or whether the corresponding parameter set by the manufacturer should be changeable via a communication object at any time via the bus. The value received via a communication object immediately overwrites the parameter value set by the manufacturer and is stored permanently.	
Switch On if brightness value <=	**500** (250 – 1500)
This parameter is used to set which brightness reading has to be reached or dropped below so that the lighting is automatically switched on by the controller.	

Parameter window "Automatic switching-off"

This parameter window can only be selected if in the "Functions, objects" parameter window the "mode" parameter is set to "automatic switching-off only".

Parameter	Setting
Setpoint value as	**parameter** communication object
This parameter is used to set whether the switching-off setpoint value as a parameter has to be set to a fixed value that can respectively only be changed with the help of the ETS (Engineering Tool Software) or whether the corresponding parameter set by the manufacturer should be changeable via a communication object at any time via the bus. The value received via a communication object immediately overwrites the parameter value set by the manufacturer and is stored permanently.	
Switch Off if brightness value >=	**900** (250 – 1500)
This parameter is used to set which brightness reading has to be reached or exceeded so that the lighting is automatically switched off by the controller.	

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