11 A1 Dimmer 610106

Devices Employing the Program

Product family: Lighting
Product type: Dimmer
Manufacturer: Siemens

Name: S/D Actuator N 525
Order-no.:   5WG1 525-1AB01

Name: S/D Actuator GE 525
Order-no.:   5WG1 525-4AB02

Application Description

The application program provides parameters to the tasks below with the switching/dimming actuator N/GE 525:
On/off-switching:
The light intensity value to switch on can be specified in the parameter list and the switching status can be read via the status object (to use with e.g. visualization software).
Dimming:
The dimming period can be specified in the parameter list.
Set light intensity value:
The light intensity value can be specified directly (0-100%).
Light intensity status:
The actual light intensity can be read via the bus (to use with e.g. visualization software).

The response to bus voltage failure and recovery can be specified in the parameter list.

Communication Objects

Phys.Addr.	Program		
no.	**Function**	**Object name**	**Type**
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0	On / Off	Switch, Status	1 Bit
1	Brighter / Darker	Dimming	4 Bit
2	8-bit Value	Set x %	1 Byte
3	8-bit Value	Status	1 Byte

Note:

The order of the entries may vary from the above due to individual customization of the table.

Obj	Function	Object name	Type	Flags
0	On/off	Switch, Status	1-bit	CWU
Via this object the switching output of the switching/dimming actuator is controlled. Additionally, the actual switching status can be read via the bus including changes of the switching status caused by "Dimming" or "Set light intensity" operations. Note: On setting the transmission (sending) flag, this object sends each time a telegram is received at object [0], [1], or [2]				
1	Brighter/Darker	Dimming	4-bit	CWTU
Via this object dimming telegrams are received.				
2	8 – bit Value	Set x %	1-Byte	CWTU
Via this object light intensity values are received.				
3	8 – bit Value	Status	1-Byte	CRTU
Via this object the actual (light intensity) status of the switching/dimming actuator can be read and sent on the bus (to use with e.g. visualization software).				

Maximum number of group addresses: 10
Maximum number of assignments: 10

Parameters

Note:

The sequence of the parameters in the de-scription is the same as in the ETS screen shots. To have a more precise description, the terms used are partly different to the ETS screen shots.

General:

General	On / Off	Dimming	Value
On bus voltage recovery			not switching
On bus voltage failure			not switching
Type (device-dependent offset bottom/top)			6- (1/0) Siemens EVG
Control voltage in Off-state			Background brightness

Parameters	Settings
On bus voltage recovery	**no switching** switch off switch on
This parameter defines the output's response on bus voltage recovery.	
On bus voltage failure	**no switching** switch off switch on
This parameter defines the output's response on bus voltage recovery.	

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Parameters	Settings
Type **(device-dependent offset** **bottom/top)**	-A- (0/0) -B- (0/1) -C- (0/2) -D- (0/3) -E- (0/4) -F- (0/5) **-G- (1/0) Siemens EVG** • -U- (4/1) -V- (4/2) -W- (5/0) Helvar EVG -X- (5/1)
This parameter allows you to adjust the voltage at the output of the switching/dimming actuator to the control range of the EVG (offset). I.e., the Siemens EVG has a control range of 1-10 V (-G- (1/0)). This 9 V range is divided into 256 light intensity levels. Within this range the lighting can be dimmed from 0% to 100%: Sending a "1": 1 V voltage at the output = 0 % light intensity Sending a "255": 10 V voltage at the output = 100 % light intensity The Helvar EVG (-W- (5/0)) has a control range of 5-10 V: Sending a "1": 5 V voltage at the output = 0% light intensity Sending a "255": 10 V voltage at the output = 100 % light intensity	
Control voltage in Off status	10V **Background brightness**
This parameter defines the control voltage to the off status: "Control voltage" in Off status 10V. "Background brightness": Switching on at minimum light intensity (according to the offset specified to the EVG).	

On/Off:

Parameters	Settings
Starting value	last value background brightness 10% 20% 30% 40% 50% 60% 70% 80% 90% **100%**
This parameter defines the light intensity to switch on: "last value": On switching off, the light intensity value is preserved and re-established the next time switching on. "Background brightness": The EVG's default base light intensity is established according to the selected offset.	

Dimming:

Parameters	Settings
Switch on possible via dimming	**Yes** No
To allow switching on by dimming telegrams while the lighting is switched off this parameter must be set to "enabled". The (On/Off) object [0] is updated on switching on automatically.	
Switch off possible via dimming	**Yes** No
To allow dimming to below the base light intensity, i.e. switching off by dimming telegrams, this parameter must be set to "enabled". The (On/Off) object [0] is updated on switching off automatically.	
Factor for dimming time (5-255) **(for 1/256 of the maximum brightness)**	**30**
Base for dimming time **(for 1/256 of maximum brightness)**	**Time base 0,5 ms** Time base 8,0 ms Time base 130 ms Time base 2,1 sec. Time base 33 sec.
The dimming period is generated by multiplying the parameters to base and factor. It is the period of time required to change the light intensity by 1/256 of the maximum light intensity.	

Value:

Parameters	Settings
Dimming value	**accept immediately** only accept on On
This parameter rules whether the switching/dimming actuator responds to dimming telegrams received via the bus while the lighting is switched off ("establish immediately"), or whether these telegrams are preserved to execution on the next "on" telegram.	
Dimming value	**jump** dimming
This parameter rules whether the switching/dimming actuator is to use the specified dimming period to establish received light intensity values or whether these are to be established immediately.	

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