

12 S1 Mot.detect. standalone 211D01
Use of the application program

Product family: Physical sensors
 Product type: Motion detector
 Manufacturer: Siemens

Mounting height 1.10 m:

Name: Motion detector UP 255
 DELTA profil pearl grey
 Order no.: 5WG1 255-2AB01

Name: Motion detector UP 255
 DELTA profil titanium white
 Order no.: 5WG1 255-2AB11

Name: Motion detector UP 255
 DELTA profil anthracite
 Order no.: 5WG1 255-2AB21

Name: Motion detector UP 255
 DELTA profil silver
 Order no.: 5WG1 255-2AB71

Name: Motion detector UP 256
 DELTA ambiente arctic white
 Order no.: 5WG1 256-2AB01

Name: Motion detector UP 256
 DELTA ambiente cosmos grey
 Order no.: 5WG1 256-2AB11

Name: Motion detector UP 256
 DELTA ambiente royal blue
 Order no.: 5WG1 256-2AB21

Name: Motion detector UP 257
 DELTA style titanium white
 Order no.: 5WG1 255-2AB11

Name: Motion detector UP 257
 DELTA style basalt-black
 Order no.: 5WG1 257-2AB21

Name: Motion detector UP 258
 DELTA i-system titanium white
 Order no.: 5WG1 258-2HB11

Name: Motion detector UP 258
 DELTA i-system carbonmetallic
 Order no.: 5WG1 258-2HB21

Name: Motion detector UP 258
 DELTA i-system aluminiummetallic
 Order no.: 5WG1 258-2HB31

Mounting height 2.20 m:

Name: Motion detector UP 255
 DELTA profil pearl grey
 Order no.: 5WG1 255-2AB02

Name: Motion detector UP 255
 DELTA profil titanium white
 Order no.: 5WG1 255-2AB12

Name: Motion detector UP 255
 DELTA profil anthracite
 Order no.: 5WG1 255-2AB22

Name: Motion detector UP 255
 DELTA profil silver
 Order no.: 5WG1 255-2AB72

Name: Motion detector UP 256
 DELTA ambiente arctic white
 Order no.: 5WG1 256-2AB02

Name: Motion detector UP 256
 DELTA ambiente cosmos grey
 Order no.: 5WG1 256-2AB12

Name: Motion detector UP 256
 DELTA ambiente royal blue
 Order no.: 5WG1 256-2AB22

Name: Motion detector UP 257
 DELTA style titanium white
 Order no.: 5WG1 255-2AB12

Name: Motion detector UP 255
 DELTA basalt-black
 Order no.: 5WG1 257-2AB22

Name: Motion detector UP 258
 DELTA i-system titanium white
 Order no.: 5WG1 258-2HB12

Name: Motion detector UP 258
 DELTA i-system carbonmetallic
 Order no.: 5WG1 258-2HB22

Name: Motion detector UP 258
 DELTA i-system aluminiummetallic
 Order no.: 5WG1 258-2HB32

Application program description

May 2003

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Functional description

Using the application program “12 S1 Mot.detect. standalone 211D01”, it is possible to operate the motion detector UP 255 / UP 256 as a standalone device. The application can run on bus coupling units with BCU 1.2 and BCU 2.0.

Operation as a standalone device

In standalone operation, the motion detector UP 255 / UP 256 senses movement in the surrounding area which causes switching telegrams to be sent via the bus.

An “On” telegram is sent when movement is detected. If no movement is recorded in the detection range of the device for at least 10 seconds, an “Off” telegram is transmitted (corresponds quasi to a minimum overshoot time of 10 seconds).

The interval until the “Off” telegram is sent can be extended using the ETS parameter “Overshoot time” (default value 0 seconds). If a set overshoot time is running, it is retriggered when a new movement is detected which means that the set period restarts once the movement has ended. The “On” telegram is also sent again in this case.

If movements last for a longer period or occur within the minimum overshoot time, the “On” telegrams can be repeated with a configurable cyclic time (minimum value 10 seconds) using the parameter “Cyclical sending at motion detection”.

Once the “Off” telegram has been triggered at the end of the overshoot time, the detector can be disabled for an adjustable dead time (default value 3 seconds).

There is no more cyclical sending once the minimum overshoot time has elapsed (10 seconds).

An adjustable brightness level ensures that the detector only senses the start of any movement below this ambient brightness level and triggers “On” telegrams. It is possible to disable the operation of the detector via a special object. Once the blocking function has been deactivated, the detector is able to start detection immediately, without a dead time being started.

After bus voltage recovery, the detector is further immunised for a period of 80 seconds as the magnification level of the motion detector must be set to a defined output state during this period.

Max. number of group addresses: 5
 Max. number of associations: 5

Communication objects

Phys. Addr.		Program	
no.	Function	Object name	Type
01.01.011		12 S1 Mot.detect. standalone 211D01	
0	On / Off	Switch	1 Bit
1	activated / deactivated	Blocking	1 Bit

Obj	Function	Object name	Type	Flags
0	On / Off	Switch	1 Bit	CWT

The switching telegrams are sent via this object

1	activated / deactivated	Blocking	1 Bit	CW
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The operation of the detector can be blocked via this object. Depending on the parameter settings, the detection of movement and the sending of telegrams via the switching object can be disabled or enabled via an external bus telegram.

Note: If the setting “On = Operation, Off = Blocking” is selected, the blocking function is activated once the bus voltage has been applied as the object value after a reset of the bus coupling unit is identical to “Off”.

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Parameters

General	
Motion Detection	up to brightness level 15 lux
Cyclical sending at motion detection	disabled
Base for overshoot time	Time base 520 ms
Factor for overshoot time (0-127)	0
Base for dead time after end of motion detection	Time base 130 ms
Factor for dead time after end of motion detection (0-255)	23
Operation mode of blocking object	Off = Operation, On = Blocking

Parameters	Settings
Motion Detection	disabled up to brightness level 1 lux up to brightness level 2 lux up to brightness level 5 lux up to brightness level 10 lux up to brightness level 15 lux up to brightness level 20 lux up to brightness level 50 lux up to brightness level 100 lux up to brightness level 200 lux up to brightness level 500 lux up to brightness level 1000 lux Brightness independent
With this parameter, the reporting of movement can be controlled dependent on the level of ambient brightness. "disabled": No reporting of movement takes place. "up to brightness level ... lux": Movement is only reported if the ambient brightness lies below the value set here. "Brightness independent": Movement is reported regardless of the level of ambient brightness.	
Cyclical sending at motion detection	disabled enabled
With this parameter, the cyclical sending of the switching object no. 0 is controlled during the phase of motion detection. "disabled": No cyclical sending takes place. "enabled": The value of the switching object is sent cyclically on the bus with the set cyclic period. Note: Once the set overshoot time has elapsed, there is no more cyclical sending.	

Parameters	Settings
Base for overshoot time	Time base 130 ms Time base 260 ms Time base 520 ms Time base 1.0 sec Time base 2.1 sec Time base 4.2 sec Time base 8.4 sec Time base 17 sec Time base 34 sec Time base 1.1 min Time base 2.2 min Time base 4.5 min Time base 9 min Time base 18 min Time base 36 min Time base 1.2 hrs
Factor for overshoot time (0-127)	0
With these parameters, the time can be set when an "Off" telegram is sent on the bus via the switching object once the minimum overshoot time has elapsed. The resulting overshoot time is produced from the minimum overshoot time of 10 seconds plus the period set here (calculated from the time base multiplied by the factor entered here).	
Base for dead time after end of motion detection	Time base 0.5 ms Time base 8 ms Time base 130 ms Time base 2.1 sec Time base 33 sec
Factor for dead time after end of motion detection (0-255)	23
These parameters define the dead time after the "Off" telegram has been sent. Motion detection only takes place again once this period has elapsed. This can be necessary to prevent error signals e.g. due to powerful light sources which would cause a significant thermal change for movement detection when they cool down. The dead time is produced from the time base multiplied by the factor entered here.	
Operation mode of blocking object	Off = Operation, On = Blocking On = Operation, Off = Blocking
The function of the telegram values of the blocking object no. 1 is defined with this parameter: "Off = Operation, On = Blocking": The sending value "Off" enables the operation of the detector while the sending value "On" activates the blocking function. "On = Operation, Off = Blocking": The sending value "On" enables the operation of the detector while the sending value "Off" activates the blocking function. Note: When this setting is selected, the blocking function is activated when the bus voltage is applied, as the object value after a reset of the bus coupling unit is identical to "Off".	

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Note:

For technical reasons, the selected periods can be up to 25 % longer than set.

Space for notes

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