#### 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 and 2.20m:

Name: Motion detector UP 258H

DELTA i-system 5WG1 258-2HB

Name: Motion detector UP 255

DELTA profil

Order no.: 5WG1 255-2AB\_\_

Order no.:

Name: Motion detector UP 257

DELTA style

Order no.: 5WG1 257-2AB\_\_

Name: Motion detector UP 256

DELTA ambiente

Order no.: 5WG1 256-2AB\_\_

## **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	<u>.</u>	Program	
<u>no.</u>	Function	Object name	Туре
01.01.011	12 S1 Mot.detect. standalone 211D01		
<b>■</b> ← 0	On / Off	Switch	1 Bit
<b>■</b> ← 1	activated / deactiv	ated 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

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.

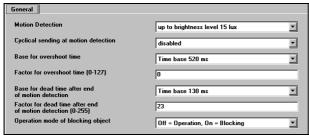
**Note**: If the setting "On = Operation, Off = Blocking" is selected, the blocking function is activated once the bus voltage has been applied as the object value after a reset of the bus coupling unit is identical to "Off".

## Application program description

März 2008

#### 12 S1 Mot.detect. standalone 211D01

### **Parameters**



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 10 lux up to brightness level 20 lux up to brightness level 50 lux up to brightness level 100 lux up to brightness level 100 lux up to brightness level 500 lux up to brightness level 500 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.	

more cyclical sending.

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

Parameters	Settings
Base for overshoot time	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".

## Note:

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