

12 S1 Mot.detect. branch 211F01

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
 Order no.: 5WG1 258-2HB__

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

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

With the application program "12 S1 Mot.detect. branch 211F01", it is possible to operate the motion detectors UP 255 and UP 256 as an extension unit when combined with a central unit and an unlimited number of extension units. The application can run on bus coupling units with BCU 1.2 and BCU 2.0.

Operation as an extension unit

The extension unit reports movement in its detection area to the central unit. It does not send any switching telegrams. To enable synchronisation within the network, the extension units must be able to receive telegrams both from the switching object and the notification object.

Once movement is detected, "On" telegrams are sent cyclically via the notification object no. 2 on the bus (cyclic time 9 seconds). If no movement is recorded in the detection area for at least 7 seconds, the cyclical sending stops. No "Off" telegram is sent.

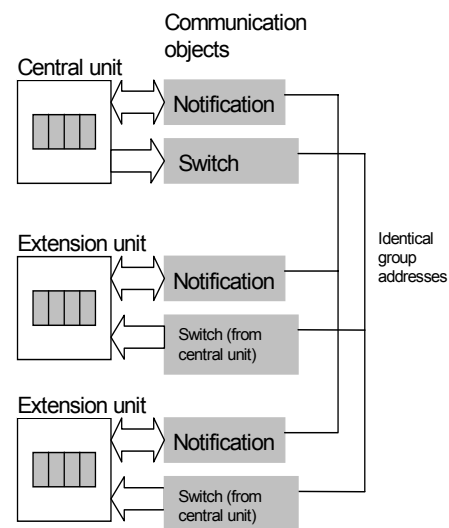
Once the cyclical sending has stopped, the extension unit can be disabled for movement detection for a set dead time (default value 3 seconds).

An adjustable brightness level ensures that the extension unit only detects the start of any movement in its area below this level of ambient brightness and sends notification telegrams cyclically.

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.

Wiring diagram



Multiple operation with a central and extension units

In multiple operation, the central unit and all the extension units communicate both via the notification object and the switching object.

During the configuration, the objects "Switch" and "Notification" for the central unit and all the extension units must be linked via identical group addresses.

The group addresses of the blocking objects of the central unit and extension units can differ.

Max. number of group addresses: 6
 Max. number of associations: 6

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Communication objects

Phys. Addr.		Program		
no.	Function	Object name	Type	
01.01.002		12 S1 Mot.detect. branch 211F01		
0	On / Off	Switch (from central unit)	1 Bit	
1	activated / deactivated	Blocking	1 Bit	
2	On	Notification	1 Bit	

Obj	Function	Object name	Type	Flags
0	On / Off	Switch (from central unit)	1 Bit	CW
The switching telegrams from the central unit are received via this object. The extension unit does not send any telegrams.				
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.				
2	On	Notification	1 Bit	CWT
The signals of the extension units are sent to the central unit via this object. The extension unit also receives signals from other extension units and the central unit via this object. Only the telegram value "On" is sent.				

Parameters

General	
Motion detection	up to brightness level 15 lux
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

Parameters	Settings
Motion Detection	up to brightness level 1000 lux Brightness independent
"disabled": No reporting of movement takes place by the extension unit in the form of cyclical notification telegrams. "up to brightness level ... lux": Movement in the detection range of the extension unit is only reported if the ambient brightness level lies below the value set here. "Brightness independent": Movement is reported regardless of the ambient brightness.	
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 cyclical reporting has stopped. 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 motion 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 times periods can be up to 25 % longer than set.