

Alarm implementation with Velbus

preference to use 15V models from the SOLIVI Capacity Planner that only require 4 conductors and can be fed from the same redundant power supply, requiring only 4 conductors (can also be triggered with the Velbus direct connected PIR modules)



any PIR detector with potential-free output contact



any potential-free input contact



activated when alarm is triggered + 2"

activated when siren was triggered + remains on until manually switched off



keypad with proximity badge reader and autonomous access decoding and potential-free contact output



1 line per delayed input typically frontdoor, garage, backdoor

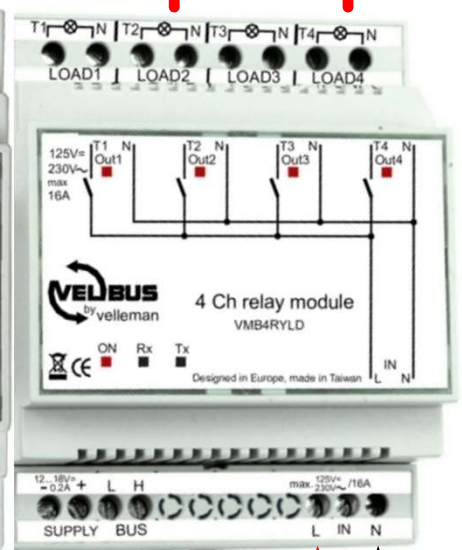
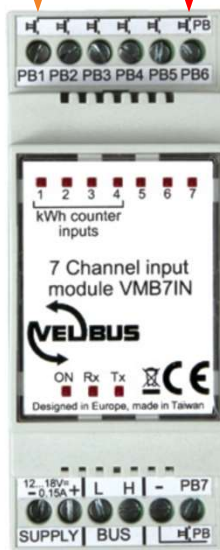
1 line per direct input typically windows, living PIR, poolhouse

delayed entry buzzer



can be used to arm / disarm the alarm enable / disable zones

1 line if keypad is used dis-arm when closed



12VDC

SOLIVI

Copyright © 2022 www.solivi.be

Velbus Alarm functions implemented :

- Delayed contacts
 - can be any potential-free contact (switch, magnetic contact, PIR ...)
 - standard 19 seconds entrance and exit delay before triggering
 - used to allow the owner to arm the alarm and to exit without triggering
 - used to allow the owner to disarm the alarm without triggering
 - typically used for the main entrance, garage, back door
- Direct contacts
 - can be any potential-free contact (switch, magnetic contact, PIR ...)
 - triggers the alarm immediately when activated
 - Siren during trigger + 2 minutes
 - Flash as from trigger until manual reset
- Activation / De-activation
 - any device used to activate / de-activate the alarm (activate only possible when no sensor activated)
 - exception process : enable / disable particular zones
 - if a keypad is used, then its potential-free contact is used
 - for security / tampering reasons it is best to invert this channel
 - if a glass panel button is used, then
 - it is recommended to use the OLED version
 - use the long-press feature
 - use a button on a page that needs scrolling
 - display a neutral message eg "Garden" (don't display anything that can be associated with "Alarm")
- Set all addresses of the Alarm modules together in a separate range
 - avoids being mixed up with the rest of the modules
 - once programmed and tested it should not be modified anymore
- Use the SDAUPSA redundant power supply with 2 PSUs and 2 VMBHBAT batteries, because when a BUS power-cut occurs, the alarm is de-activated, hence the need for the redundant PSU with battery

Velbus Modules guidance :

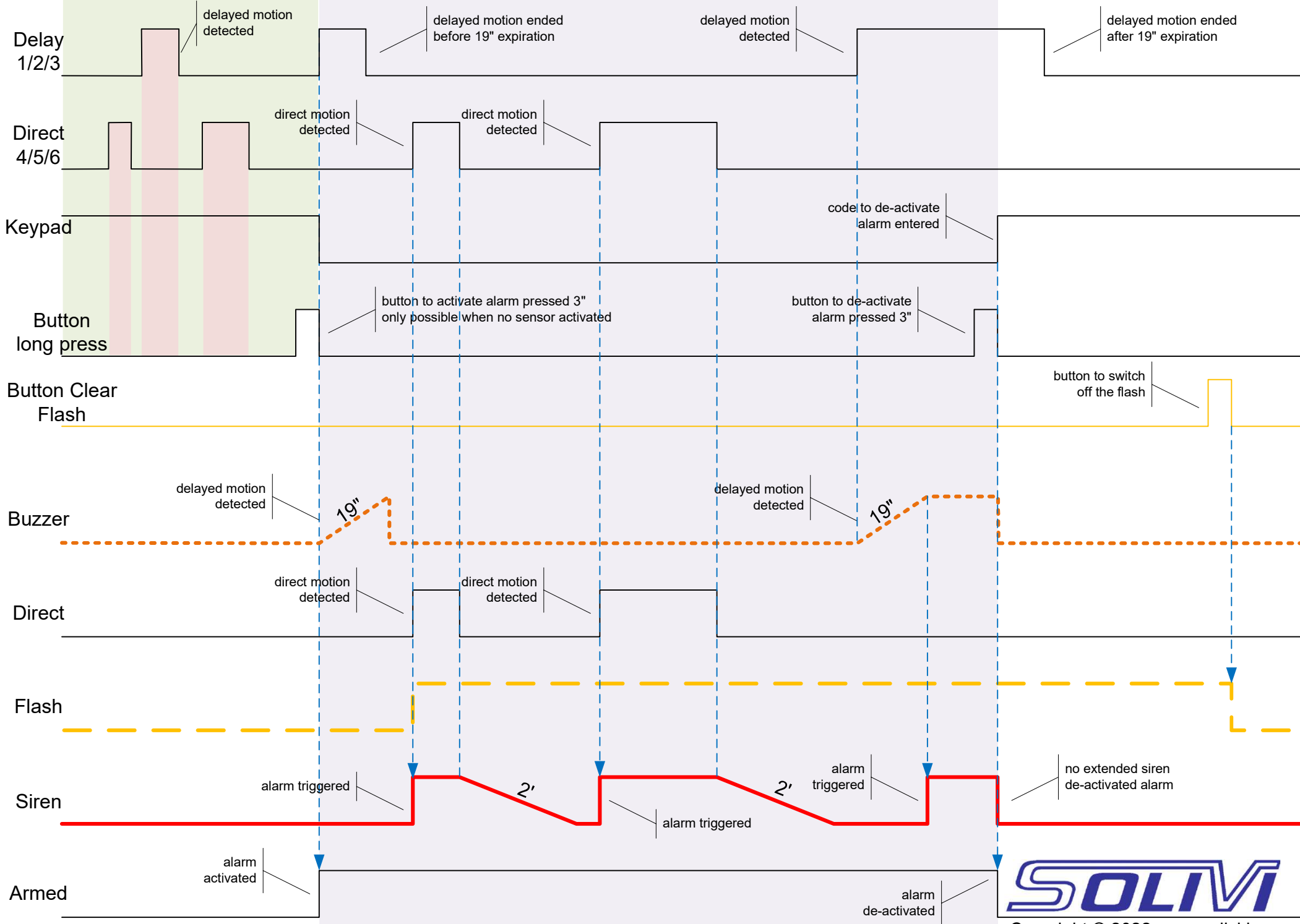
- Name your modules in an easy-to-recognize manner (see examples)
 - VMB7IN = Alarm trigger / PIR
 - Delay 1 = CH1 (can be disabled if needed)
 - Delay 2 = CH2 (can be disabled if needed)
 - Delay 3 = CH3 (can be disabled if needed)
 - Direct 1 = CH4 (can be disabled if needed)
 - Direct 2 = CH5 (can be disabled if needed)
 - Direct 3 = CH6 (can be disabled if needed)
 - Keypad = CH7 (can be disabled if needed)
 - VMB4RYLD or VMB4RYNO = Alarm action (recommended VMB4RYLD with 12VDC feed from Alarm battery connected to SDAUPSA)
 - Buzzer = CH1 - connect a "delayed entry / exit" buzzer
 - Siren = CH2 - connect an alarm in-house siren
 - Direct = CH3 - used for logic
 - Flash = CH4 - connect an alarm flashlight
 - Armed = CH5 - used for logic



VMB7IN

VMBGPOD

VMB4RYLD or VMB4RYNO

**SOLIVI**

Copyright © 2022 www.solivi.be

VMBGPOD example

	Name	Response time
Button 1	Arm	3s
Button 2	Dis-Arm	3s
Button 3	Flash	Immediately
Button 4	version	Disabled

	Name	Response time
Button 5	Disable Z1	Immediately
Button 6	Disable Z2	Immediately
Button 7	Disable Z3	Immediately
Button 8	Disable KP	Immediately

	Name	Response time
Button 9	Disable Z4	Immediately
Button 10	Disable Z5	Immediately
Button 11	Disable Z6	Immediately
Button 12	Push button 12	Disabled



VMB4PD example

LCD Page 1

1	Immedia	Arm	Arm	Disarm	Dis-Arm	Immedia	2
3	Immedia	not used	ver.2021	Flash	Flash	Immedia	4

LCD Page 2

5	Immedia	Disable Z4	Z4	disable	Z5	Disable Z5	Immedia	6
7	Immedia	Disable Z3	Z3		Z6	Disable Z6	Immedia	8

Name	A...	Type
Alarm.vlp		
ALARM-actions	FA	VMB4RYLD
Buzzer	CH1	
Siren	CH2	
PIR direct	CH3	
Flash	CH4	
Armed	CH5	
ALARM-command	FB	VMB4PD
Arm	CH1	
Dis-Arm	CH2	
not used	CH3	
Flash	CH4	
Disable Z4	CH5	
Disable Z5	CH6	
Disable Z3	CH7	
Disable Z6	CH8	
ALARM-OLED	FC,FD	VMBGPOD-2
Arm	CH1	
Dis-Arm	CH2	
Flash	CH3	
Disable Z1	CH5	
Disable Z2	CH6	
Disable Z3	CH7	
Disable KP	CH8	
Disable Z4	CH9	
Disable Z5	CH10	
Disable Z6	CH11	
ALARM-triggers	FE	VMB7IN
PIR Z1 delayed	CH1	
PIR Z2 delayed	CH2	
PIR Z3 delayed	CH3	
PIR Z4 direct	CH4	
PIR Z5 direct	CH5	
PIR Z6 direct	CH6	
Keypad NO	CH7	

FA. ALARM-actions. Buzzer (CH1)			
FE. ALARM-triggers. PIR Z1 delayed (CH1)	407. Non-restartable timer	19s	FA. ALARM-actions. Buzzer (CH1)
FE. ALARM-triggers. PIR Z2 delayed (CH2)	407. Non-restartable timer	19s	FA. ALARM-actions. Buzzer (CH1)
FE. ALARM-triggers. PIR Z3 delayed (CH3)	407. Non-restartable timer	19s	FA. ALARM-actions. Buzzer (CH1)
FB. ALARM-command. Arm (CH1)	503. Non-restartable delayed on	1s & 18s	FA. ALARM-actions. Buzzer (CH1)
FC,FD. ALARM-OLED. Arm (CH1) ! has 3s long-press before action → 4s delay	503. Non-restartable delayed on	4s & 18s	FA. ALARM-actions. Buzzer (CH1)
FE. ALARM-triggers. Keypad NO (CH7)	806. Forced off	continuous	FA. ALARM-actions. Buzzer (CH1)
FB. ALARM-command. Dis-Arm (CH2)	806. Forced off	continuous	FA. ALARM-actions. Buzzer (CH1)
FC,FD. ALARM-OLED. Dis-Arm (CH2)	806. Forced off	continuous	FA. ALARM-actions. Buzzer (CH1)
FB. ALARM-command. Arm (CH1)	809. Cancel forced off		FA. ALARM-actions. Buzzer (CH1)
FC,FD. ALARM-OLED. Arm (CH1)	809. Cancel forced off		FA. ALARM-actions. Buzzer (CH1)
FA. ALARM-actions. Siren (CH2)			
FA. ALARM-actions. PIR direct (CH3)	504. On when initiator closes, delayed off when initiator opens		FA. ALARM-actions. Siren (CH2)
FA. ALARM-actions. Armed (CH5)	808. Forced off while initiator is open	1min30s	FA. ALARM-actions. Siren (CH2)
FA. ALARM-actions. PIR direct (CH3)			
FE. ALARM-triggers. PIR Z1 delayed (CH1)	503. Non-restartable delayed on	19s & duration 1s	FA. ALARM-actions. PIR direct (CH3)
FE. ALARM-triggers. PIR Z2 delayed (CH2)	503. Non-restartable delayed on	19s & duration 1s	FA. ALARM-actions. PIR direct (CH3)
FE. ALARM-triggers. PIR Z3 delayed (CH3)	503. Non-restartable delayed on	19s & duration 1s	FA. ALARM-actions. PIR direct (CH3)
FE. ALARM-triggers. PIR Z4 direct (CH4)	104. Momentary (follow)		FA. ALARM-actions. PIR direct (CH3)
FE. ALARM-triggers. PIR Z5 direct (CH5)	104. Momentary (follow)		FA. ALARM-actions. PIR direct (CH3)
FE. ALARM-triggers. PIR Z6 direct (CH6)	104. Momentary (follow)		FA. ALARM-actions. PIR direct (CH3)
FA. ALARM-actions. Armed (CH5)	808. Forced off while initiator is open		FA. ALARM-actions. PIR direct (CH3)
FA. ALARM-actions. Flash (CH4)			
FA. ALARM-actions. Siren (CH2)	101. On		FA. ALARM-actions. Flash (CH4)
FB. ALARM-command. Flash (CH4)	102. Off		FA. ALARM-actions. Flash (CH4)
FC,FD. ALARM-OLED. Flash (CH3)	102. Off		FA. ALARM-actions. Flash (CH4)
FA. ALARM-actions. Armed (CH5)			
FE. ALARM-triggers. Keypad NO (CH7)	102. Off		FA. ALARM-actions. Armed (CH5)
FB. ALARM-command. Dis-Arm (CH2)	102. Off		FA. ALARM-actions. Armed (CH5)
FC,FD. ALARM-OLED. Dis-Arm (CH2)	102. Off		FA. ALARM-actions. Armed (CH5)
FB. ALARM-command. Arm (CH1)	503. Non-restartable delayed on	22s & continuous	FA. ALARM-actions. Armed (CH5)
FC,FD. ALARM-OLED. Arm (CH1)	503. Non-restartable delayed on	25s & continuous	FA. ALARM-actions. Armed (CH5)
FC,FD. ALARM-OLED. Arm (CH1)			
FE. ALARM-triggers. PIR Z1 delayed (CH1)	602. Lock channel while initiator is closed		FC,FD. ALARM-OLED. Arm (CH1)
FE. ALARM-triggers. PIR Z2 delayed (CH2)	602. Lock channel while initiator is closed		FC,FD. ALARM-OLED. Arm (CH1)
FE. ALARM-triggers. PIR Z3 delayed (CH3)	602. Lock channel while initiator is closed		FC,FD. ALARM-OLED. Arm (CH1)
FE. ALARM-triggers. PIR Z4 direct (CH4)	602. Lock channel while initiator is closed		FC,FD. ALARM-OLED. Arm (CH1)
FE. ALARM-triggers. PIR Z5 direct (CH5)	602. Lock channel while initiator is closed		FC,FD. ALARM-OLED. Arm (CH1)
FE. ALARM-triggers. PIR Z6 direct (CH6)	602. Lock channel while initiator is closed		FC,FD. ALARM-OLED. Arm (CH1)
FE. ALARM-triggers. PIR Z3 delayed (CH3)			
FB. ALARM-command. Disable Z3 (CH7)	605. Lock/unlock channel		FE. ALARM-triggers. PIR Z3
FC,FD. ALARM-OLED. Disable Z3 (CH7)	605. Lock/unlock channel		FE. ALARM-triggers. PIR Z3

Avoids arming the alarm while triggers are activated (eg. open windows, moving objects ...)

Repeat for each trigger

Buttons to activate / de-activate a particular zone

Button to de-activate the alarm (if keypad driven, then it should be replaced by the corresponding channel(s) of a VMB7IN)

Button to switch off the flash light (remains on to testify siren activity after alarm)

Button to activate the alarm, should be replaced by corresponding channel(s) of a button from any input module (VMBGPxxx/VMBELxxx / VMB7IN or VMB8PBU) where it is recommended to request a long press before action initiation, but then one should also increase the "on delay" for both 503-actions with the same amount