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

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

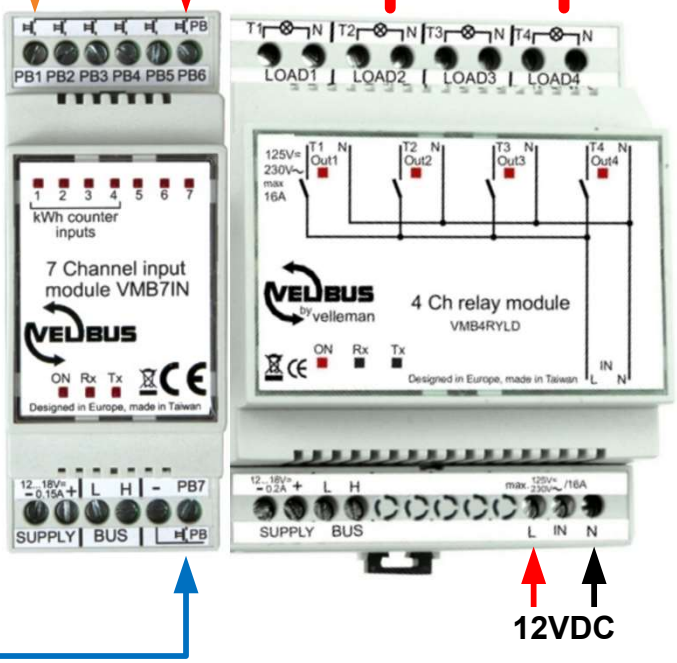
1 line per delayed input
typically frontdoor, garage, backdoor

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

activated when alarm is triggered + 2"

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

delayed entry buzzer



1 line if keypad is used
dis-arm when closed

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

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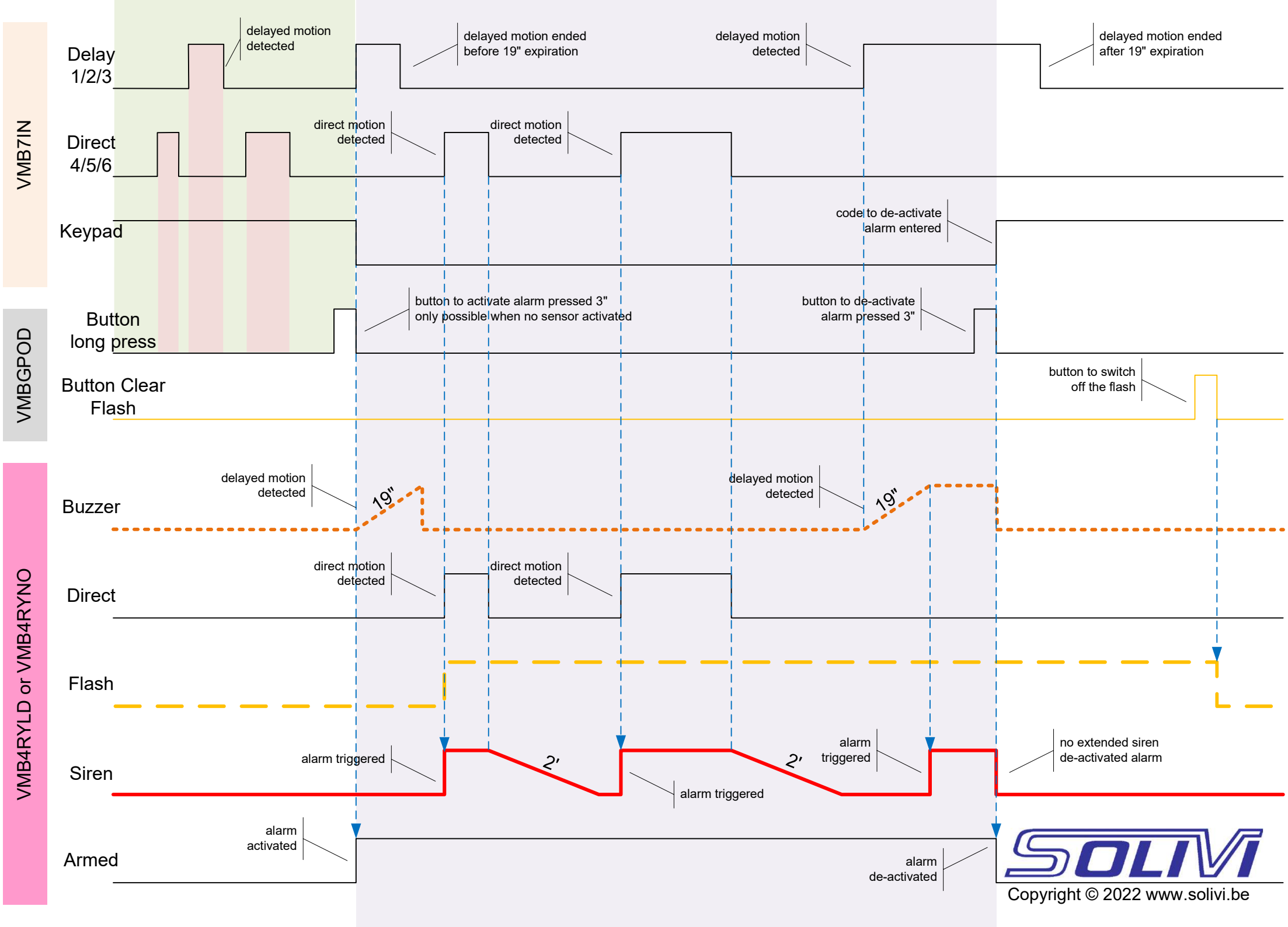
Velbus Alarm functions implemented :

- 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
Delay 1/2/3
delayed motion detected
delayed motion ended before 19" expiration
delayed motion detected
delayed motion ended after 19" expiration
Direct 4/5/6
direct motion detected
direct motion detected
Keypad
code to de-activate alarm entered
Button long press
button to activate alarm pressed 3" only possible when no sensor activated
button to de-activate alarm pressed 3"
Button Clear Flash
button to switch off the flash
Buzzer
delayed motion detected
19"
delayed motion detected
19"
Direct
direct motion detected
direct motion detected
Flash
Siren
alarm triggered
2'
alarm triggered
2'
alarm triggered
no extended siren de-activated alarm
Armed
alarm activated
alarm de-activated
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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