

## 8-channel pushbutton module

# VMB8PBU

Extended manual that explain how to use all possibilities of this 8-channel pushbutton module and how you can connect up to 8 pushbuttons from any brand to your Velbus installation.

### Velbus team



<b>CONTENTS .....</b>	<b>2</b>
<b>DESCRIPTION .....</b>	<b>3</b>
<b>CHARACTERISTICS .....</b>	<b>3</b>
<b>VELBUS CHARACTERISTICS .....</b>	<b>4</b>
<b>OVERVIEW .....</b>	<b>5</b>
<b>CONNECTION.....</b>	<b>6</b>
<b>Connecting bticino™ pushbuttons .....</b>	<b>6</b>
<b>Connecting a LED on a bticino™ pushbutton.....</b>	<b>7</b>
<b>Connecting Niko™ pushbuttons .....</b>	<b>8</b>
<b>Connecting a LED on a Niko™ pushbutton.....</b>	<b>9</b>
<b>TERMINATOR.....</b>	<b>10</b>
<b>USE .....</b>	<b>10</b>
<i>Address: .....</i>	<i>10</i>
<i>Name: .....</i>	<i>10</i>
<i>Response time:.....</i>	<i>10</i>
<i>Suppressing:.....</i>	<i>10</i>
<i>Inversion: .....</i>	<i>10</i>
<i>Backlighting: .....</i>	<i>10</i>
<i>Feedback:.....</i>	<i>10</i>
<b>VERIFY SOFTWARE VERSION .....</b>	<b>11</b>

## DESCRIPTION

With this pushbutton interface it is possible to connect up to 8 pushbuttons from any brand to your Velbus installation. Optional LEDs for feedback and backlighting can easily be connected

## CHARACTERISTICS

### **Use:**

- Up to 8 pushbuttons connectable
- Can be used to connect any type of pushbutton to the Velbus (connection wires may **not** be extended)

### **LED indications:**

- Possible to connect a LED over the pushbutton
  - VMBLDN: blue LEDs for NIKO™ pushbuttons
  - VMBLDAN: amber LEDs for NIKO™ pushbuttons
  - VMBLDB: blue LEDs for bticino™ pushbuttons from the Living®, Light® and Light-Tech® series
  - VMBLDAB: amber LEDs for bticino™ pushbuttons from the Living®, Light® and Light-Tech® series
- Backlighting of the buttons:
  - Switchable, on or off
  - Brightness adjustable
- Feedback on the buttons
  - Switchable, on or off
  - Flashing mode on or off
- Presence of input voltage
- Sending or receiving data over the Velbus

### **Configuration:**

- Only configurable via a Velbus pc interface (VMB1USB, VMB1RS or VMBRSUSB) and the Velbuslink software
- Software addressing (up to 250 addresses possible)
- Response time for each pushbutton adjustable between 0, 1, 2 or 3 seconds
- The behaviour of the pushbutton can be altered to a normally closed type
- Every pushbutton can be suppressed
- Configuration settings are preserved during power cuts

### **Power supply module:**

- Required operating voltage: 12...18Vdc
- Consumption when idle: 16mA
- Maximum consumption (all LEDs on): 35mA

### **Dimensions:**

- width x height x depth: 40x30x14mm

- 2-wire communication for Velbus data + 2 wires for power supply
- Data transmission rate: 16.6 Kbit/s
- Serial data protocol: CAN (Controller Area Network)
- Short circuit protected (both towards '+' and '-' of the power supply)
- Bus error indication: 2 short flashes of the indicator LEDs
- Self repairing after 25 seconds when a bus fault occurs

Each pushbutton can be given a name of up to 16 characters (max.).

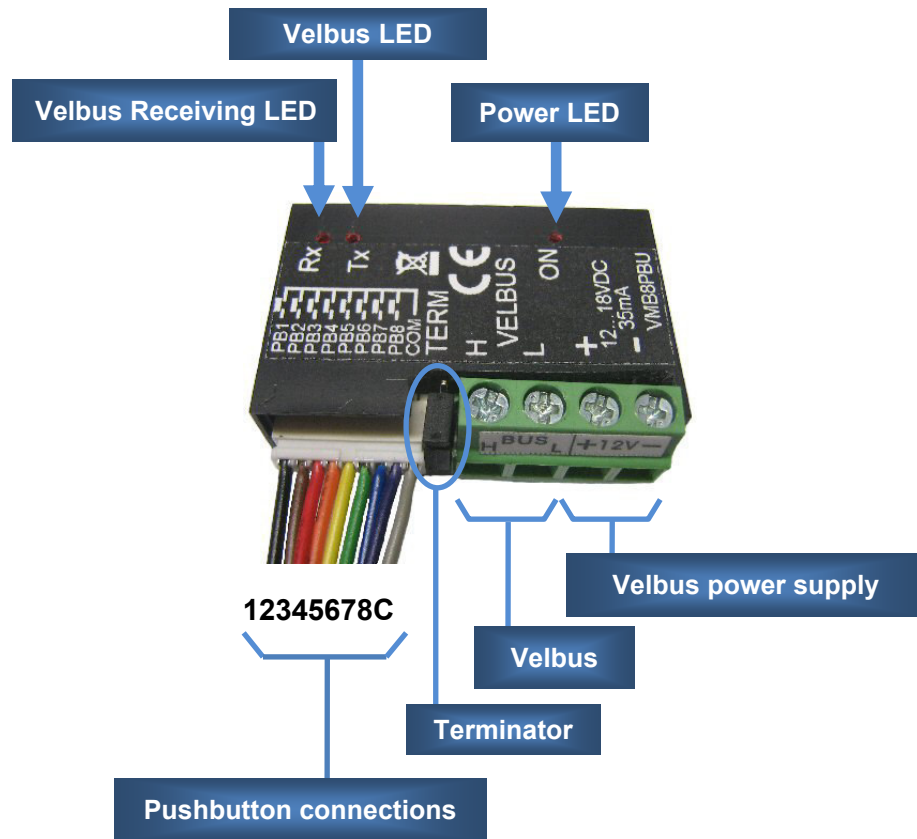
**The module can send following messages:**

- Pushbutton pushed, pushed long or released
- Module status
- Module type: 8-channel pushbutton module (including software version)
- Pushbutton names
- Communication fault counter
- Memory content

**The module can receive following commands:**

- Switch off indicator LEDs
- Switch on indicator LEDs
- Slowly flashing of the indicator LEDs
- Fast flashing of the indicator LEDs
- Very fast flashing of the indicator LEDs
- Request status
- Request module type and software version
- Request pushbutton names
- Request memory content
- Overwrite memory content
- Request communication fault counter

## OVERVIEW



## CONNECTION

To connect the Velbus modules with each other, a twisted pair cable is recommended (EIB 2x2x0.8mm<sup>2</sup>, UTP 4x2x0.51mm<sup>2</sup> - CAT5 or equivalent).

When a lot of modules (more than 10) are connected on the Velbus cable or the Velbus cable is very long (over 50m) it is important to foresee a cable with sufficient wire diameter (0.5mm<sup>2</sup> or more).

Connect the bus and power supply to the module (mind the polarity).

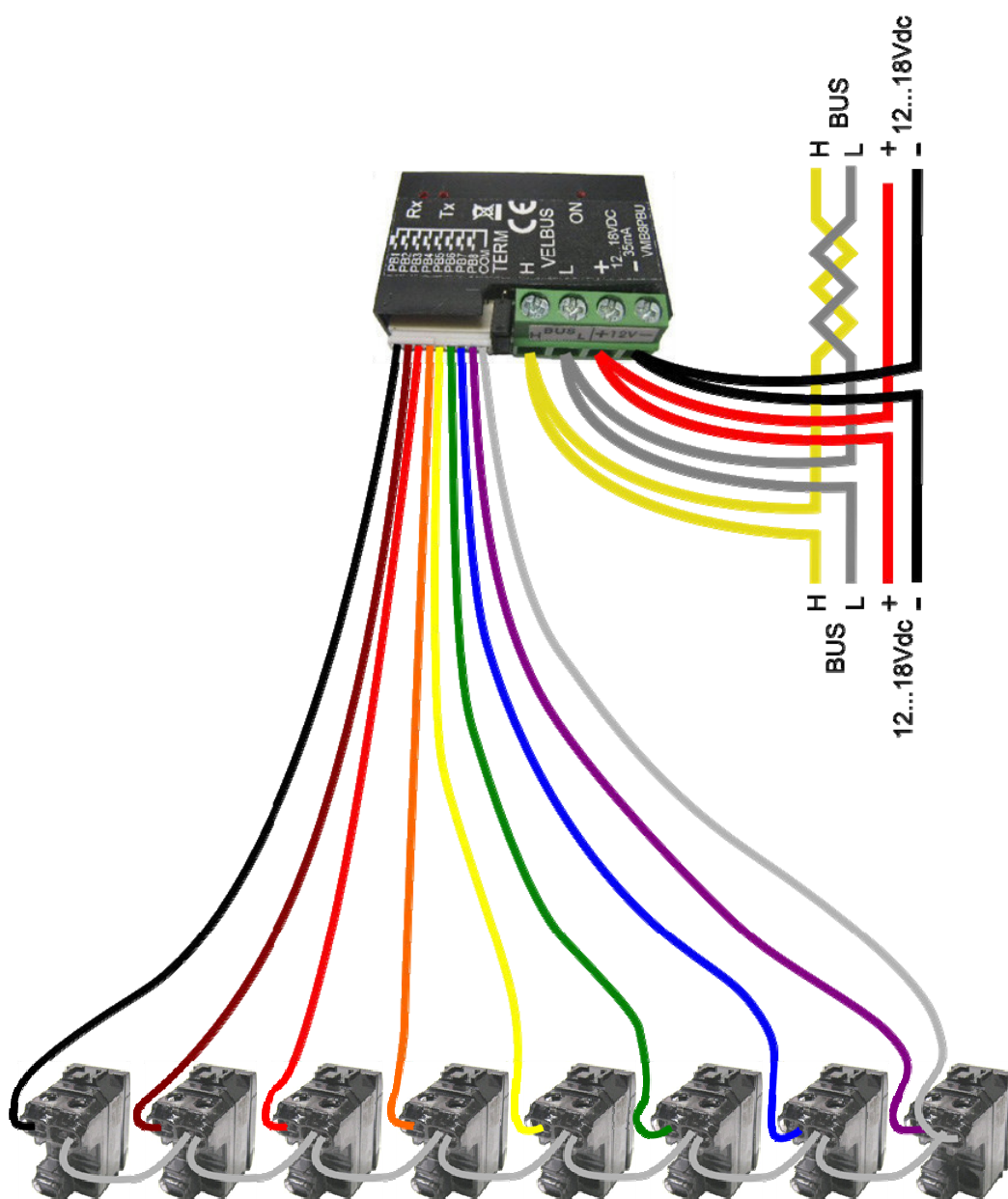
Connect the pushbuttons. Unused wires should be isolated.



### Remark:

DO NOT extend the connection wires for the pushbuttons

### Connecting bticino™ pushbuttons

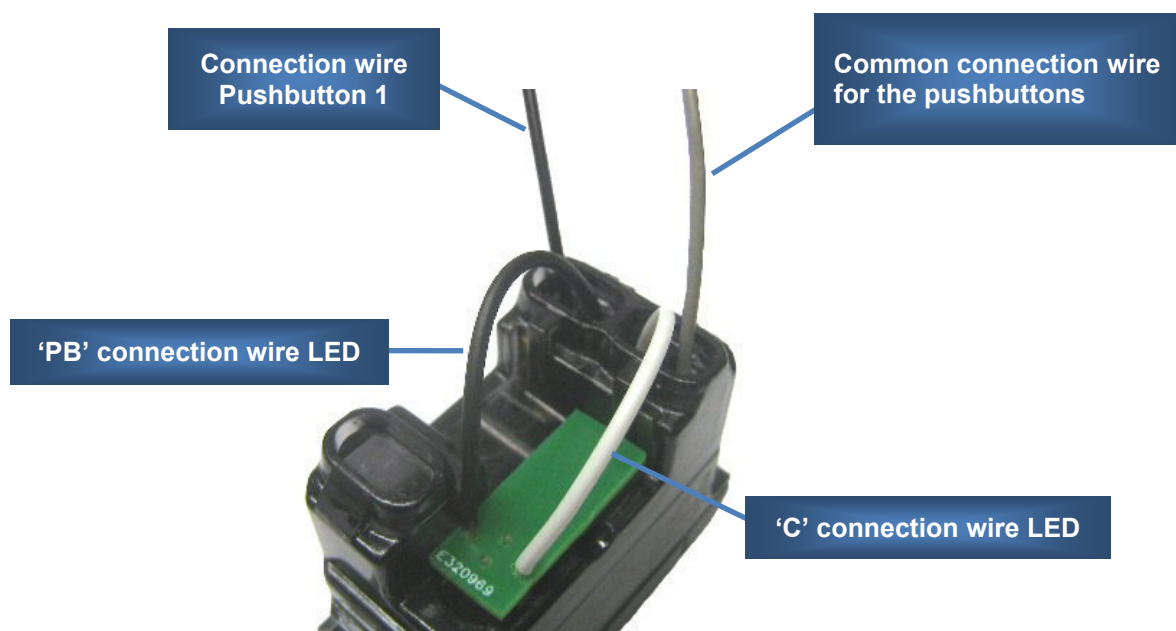


## **Connecting a LED on a bticino™ pushbutton**

Glue the blue (type VMBLDB) or amber (type VMBLDAB) LED on the pushbutton.

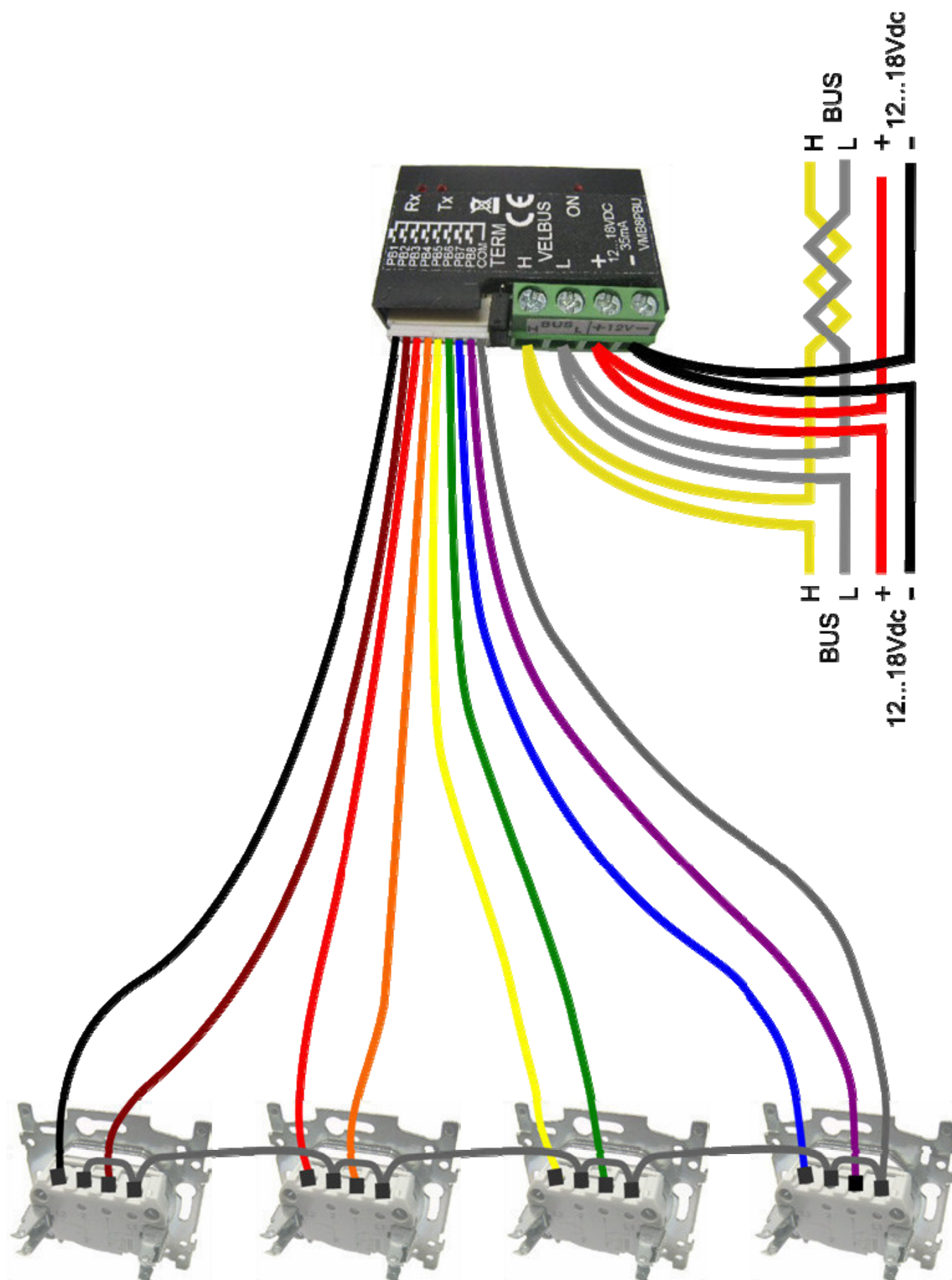


The black connection wire 'PB' of the LED is combined with one of the eight pushbutton connection wires.  
The white connection wire 'C' of the LED is combined with the common connection wire 'COM' for the pushbuttons.



## Connecting Niko™ pushbuttons

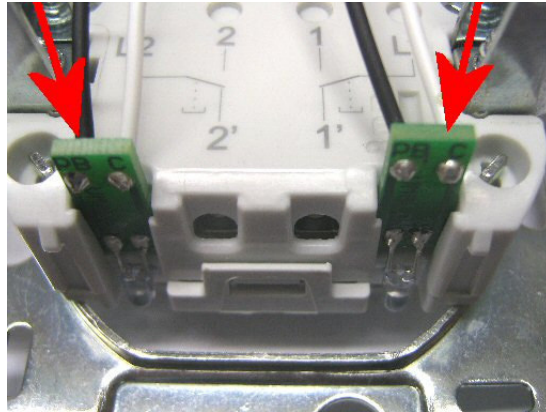
**Tip:** Use ferrules on the wires for the pushbutton connections.





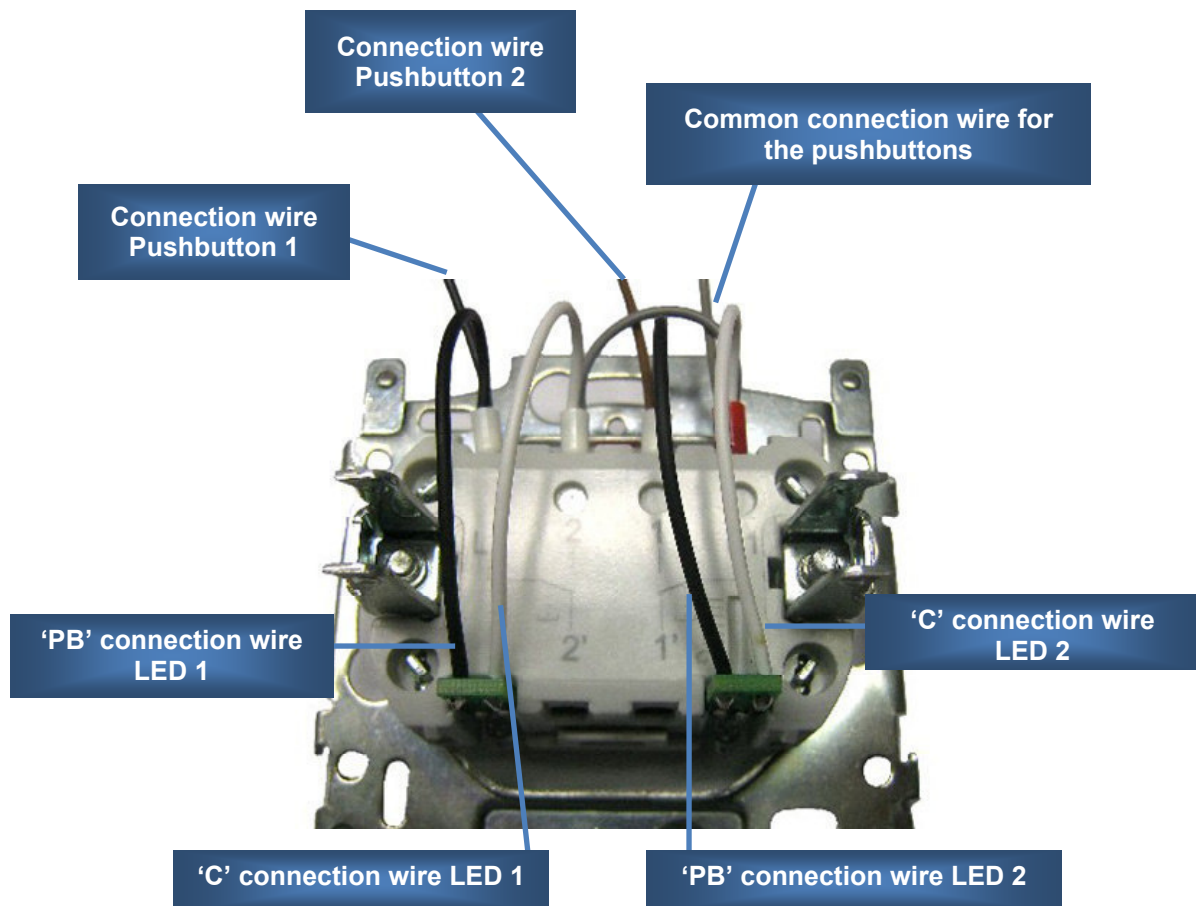
## **Connecting a LED on a Niko™ pushbutton**

Slide the blue (type VMBLDN) or amber (type VMBLDAN) LED into the slot of the pushbutton.



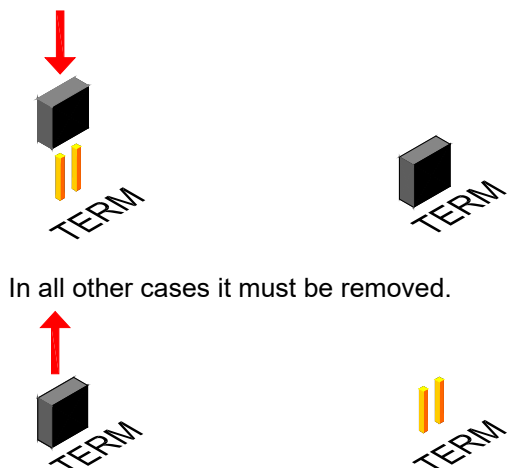
The black connection wire 'PB' of the LED is combined with one of the eight pushbutton connection wires.  
The white connection wire 'C' of the LED is combined with the common connection wire 'COM' for the pushbuttons.

Use ferrules to combine the connection wires  
Connect the wires to the pushbuttons.



## TERMINATOR

In normal circumstances only 2 'TERM' terminators must be foreseen in a complete Velbus installation. Usually this will be on one module inside the distribution box and on the module the furthest from the distribution box.



### Remark:

In a wiring scheme with a lot of branches a terminator is placed on a module inside the distribution box and on the control panel furthest from the distribution box. Should communication problems occur, an additional terminator can be placed on another branch. However, the number of terminators should be kept to a minimum as additional terminators place a heavy load on the bus.

## USE

The pushbutton interface module is added to the Velbus system.

To all eight pushbuttons actions can be attributed to control relay channels e.g. switch them on or off, dim lights, open or close window shutters and so on ...

Configuration can only be done through the Velbuslink software.

### **Address:**

Every module in the Velbus system must have a unique address.

Address setting is done by software.

### **Name:**

Each button can be assigned a name (max. 16 characters) via the Velbuslink software. This can be very handy during configuration of actions (controlling a relay, dimmer, window shutter...)

### **Response time:**

Determines how long the pushbutton must be pushed for the action to take place. This can be immediately or after 1, 2 or 3 seconds.

*Tip: For a pushbutton with action 'All off' it is better to configure a response time of 3 seconds.*

### **Suppressing:**

Unused pushbuttons may be suppressed.

*Tip: To avoid accidental operation of the awning during wintertime, suppress those pushbuttons in winter and only make them available during summertime.*

### **Inversion:**

It is possible to make a pushbutton act as being normally closed.

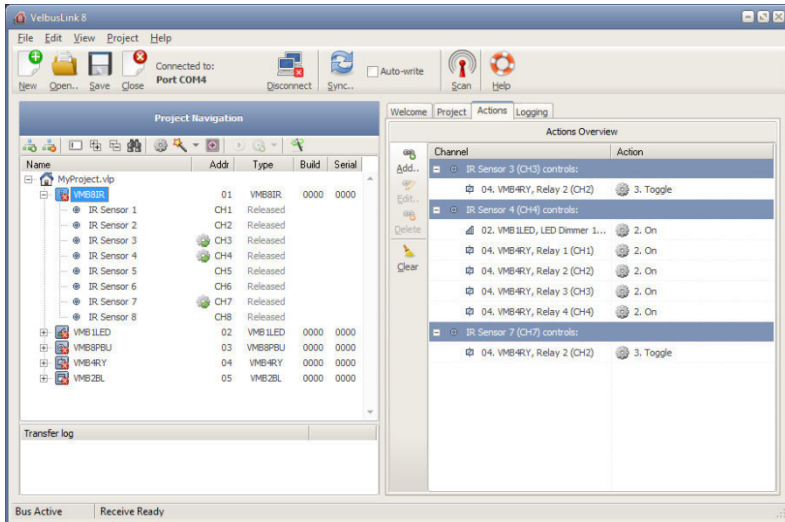
### **Backlighting:**

The indication LED on the pushbutton may glow softly to locate the pushbutton in the dark. The brightness of the backlighting can be adjusted. When desired, backlighting can be switched off completely.

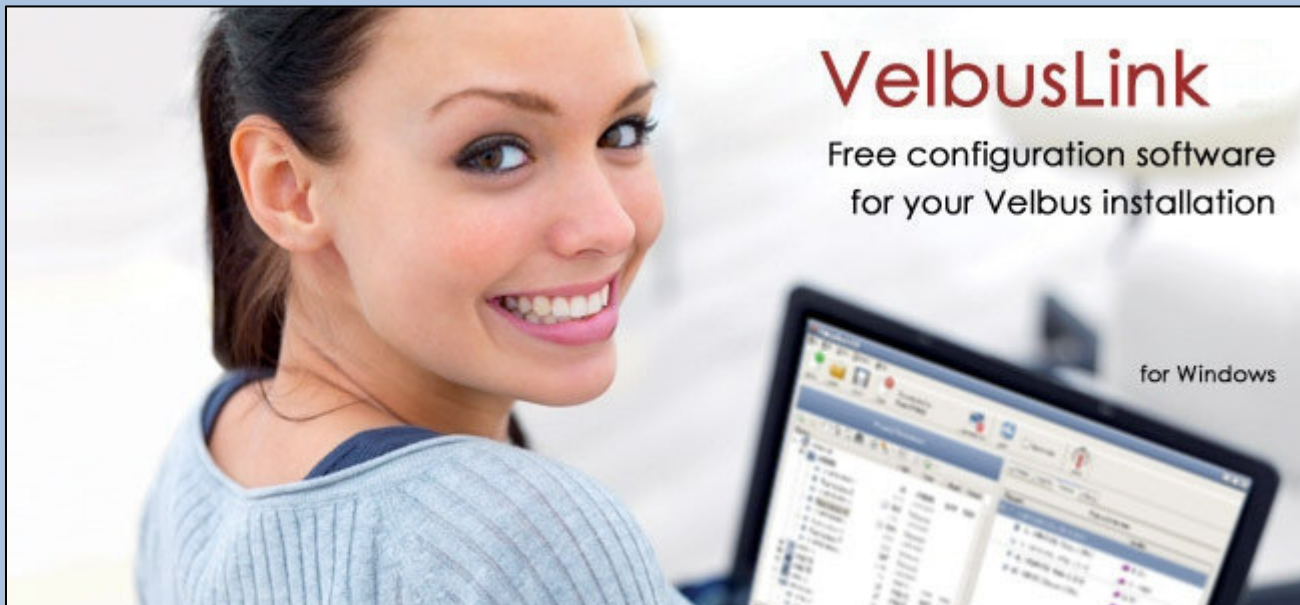
### **Feedback:**

The indication LED on the pushbutton can indicate the status of the action it controls. It can be on or off or when a timer is running flash slowly or fast. If the flashing is disturbing, it can be changed to continuously on. It is also possible to disable feedback.

The software version can be retrieved via the Velbuslink software.



Überprüfen Sie die Version über <http://www.velbus.eu>. Gibt es eine neuere Version, laden Sie diese dann herunter.



# VelbusLink

Free configuration software  
for your Velbus installation

for Windows



## Home Center for Velbus

now available on iTunes!

Available on the iPhone  
**App Store**

