



VMBRSUSB

**Serial and USB interface for
VELBUS system**



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FEATURES

- ◇ VELBUS system control through a computer
- ◇ VELBUS message processing on the computer
- ◇ Galvanic separation between the computer and the VELBUS system
- ◇ LED indication for the USB power supply
- ◇ Required mains voltage: 12 to 18 VDC
- ◇ Power consumption: 15 mA
- ◇ Power consumption USB port: 35 mA
- ◇ Standard DIN rail enclosure (2 modules)
- ◇ Dimensions (L x W x H): 90 x 36 x 58 mm

VELBUS:

- ◇ 2-wire communication for the VELBUS data and 2 wires for power.
- ◇ Data transfer: 16.6 kbit/s
- ◇ Serial data protocol: CAN (Controller Area Network)
- ◇ Short-circuit proof (towards negative or positive of power)
- ◇ Self-restoring after 25 seconds in case of a bus error
- ◇ Reception buffer for 5 commands
- ◇ Reporting when the reception buffer is full and free for reception
- ◇ Bus error and “active bus” indication

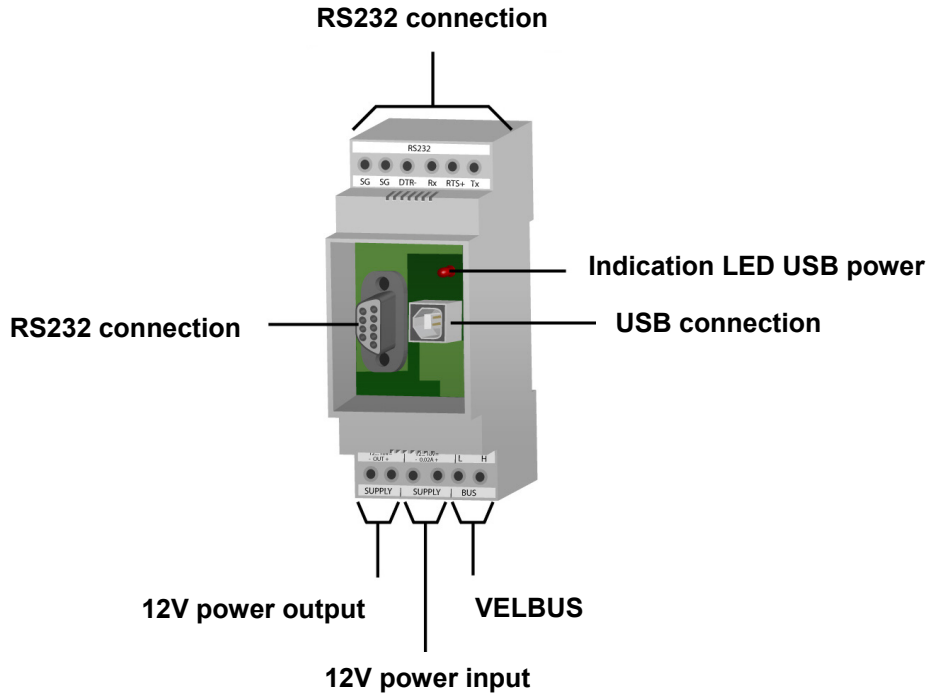
RS232C

- ◇ Baud rate: 38400
- ◇ Data bits: 8
- ◇ Parity: none
- ◇ Stop bits: 1
- ◇ RTS: high
- ◇ DTR: low

USB

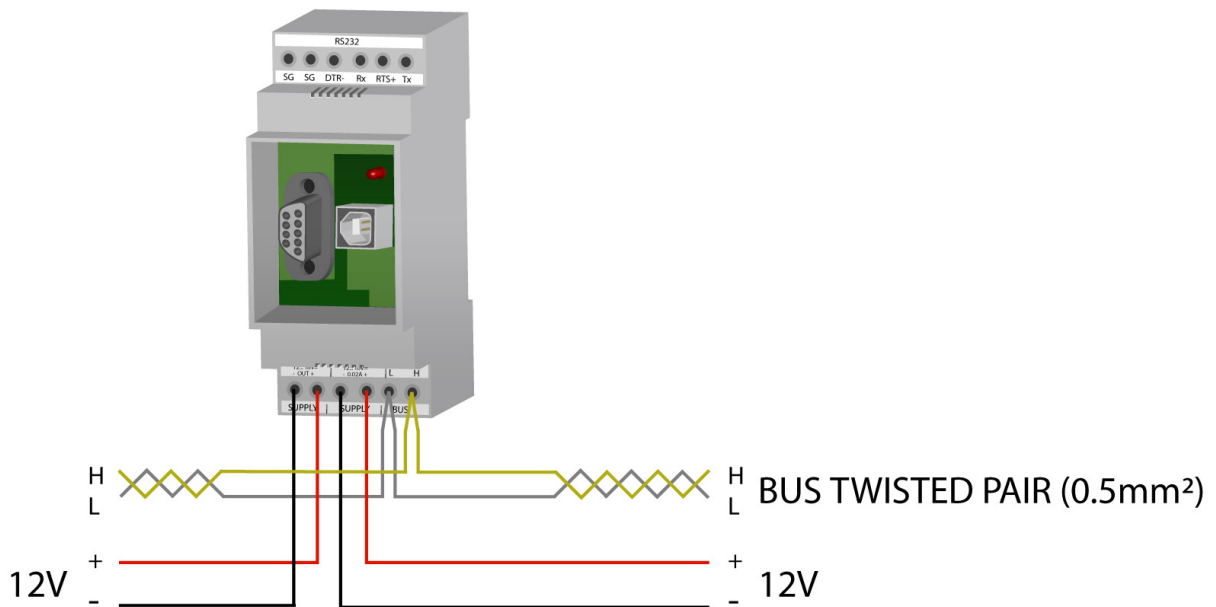
- ◇ USB V2.0 compatible
- ◇ Data transfer: 12 Mb/s (full speed)
- ◇ RS232 emulation over the USB bus
- ◇ Reception buffer for 5 commands
- ◇ Uses standard Microsoft® Windows® “usbser.sys” driver.
- ◇ Driver (.inf) file available for Microsoft® Vista, Microsoft® Windows® XP and Windows® 2000.

CONNECTION

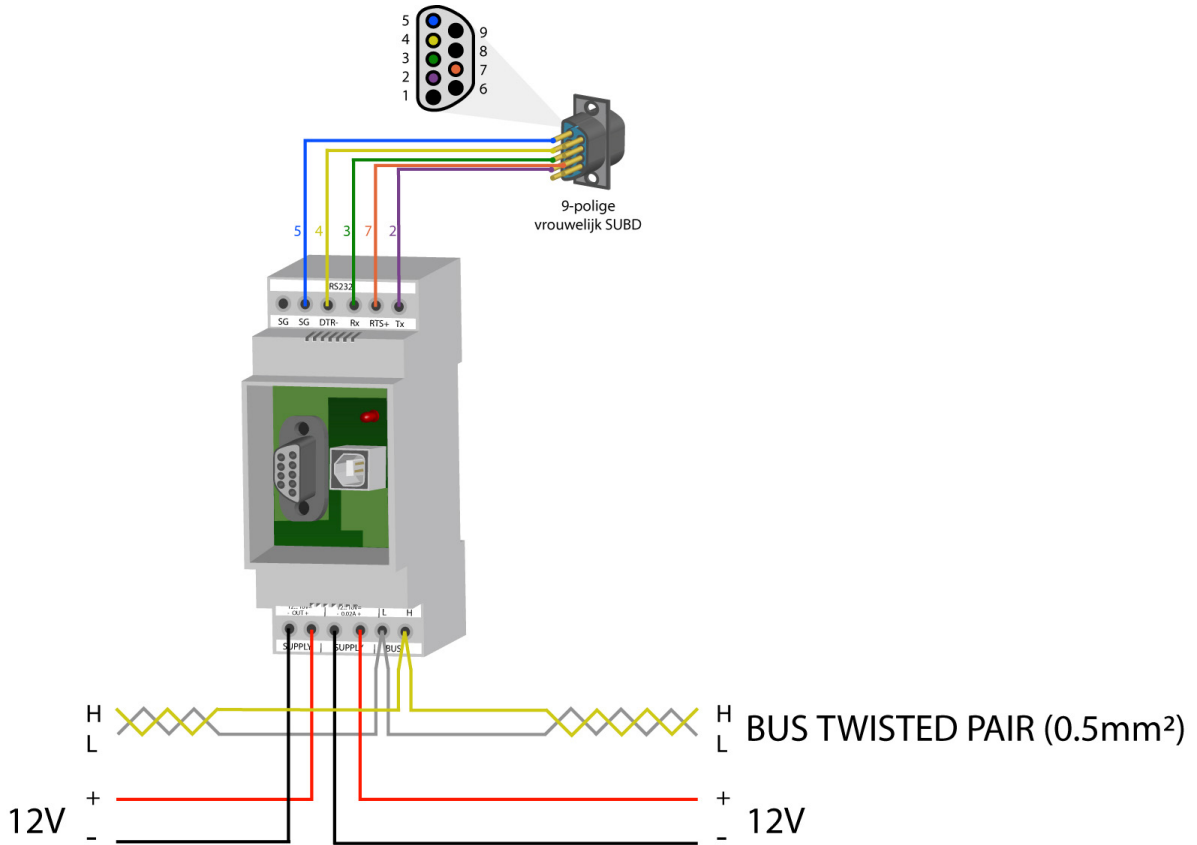


VELBUS connection

Connection of the modules is preferably done using twisted-pair cables (EIB 2x2x0.8mm², UTP 8x0.51mm - CAT5 or similar). Use a twisted pair cable with 0.5mm² gauge or more when connecting more than 10 modules or with long connections (more than 50m). Connect the 12 to 18VDC (mind the polarity) to the module. Connect the bus (mind the polarity) with the module.

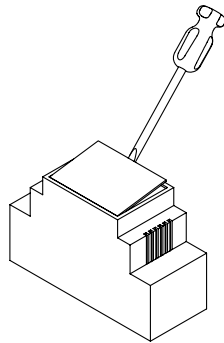


Remark: You can also install the serial connection elsewhere (e.g. on the side of the fuse box). Use a 9-pole female Sub-D connector (Velleman ref. CC005).



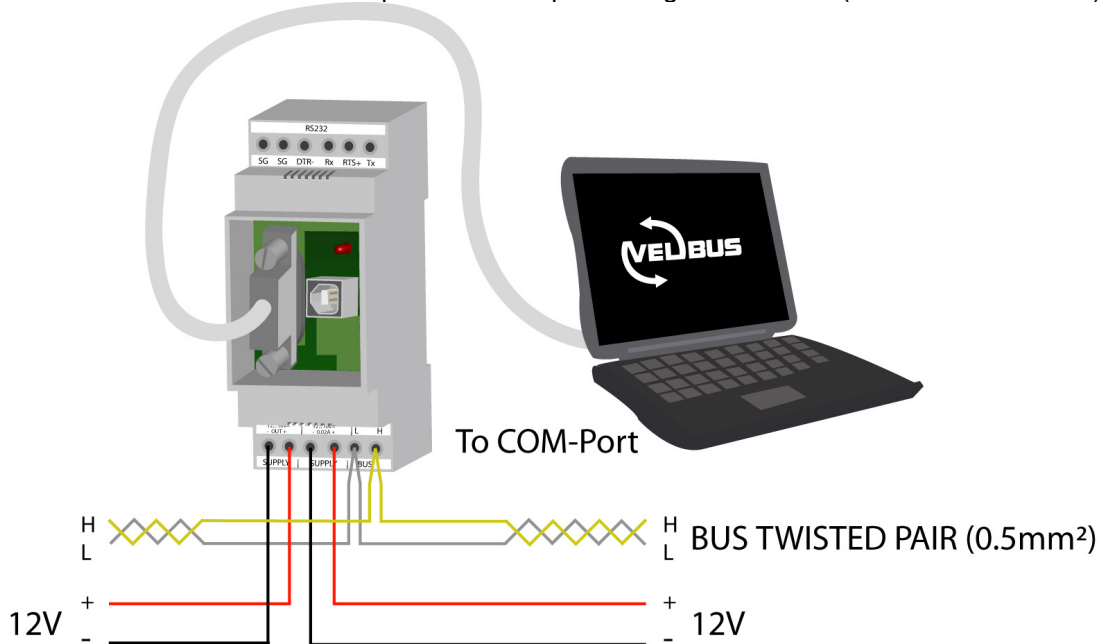
CONNECTION WITH THE COMPUTER

Remove the cover from the module.



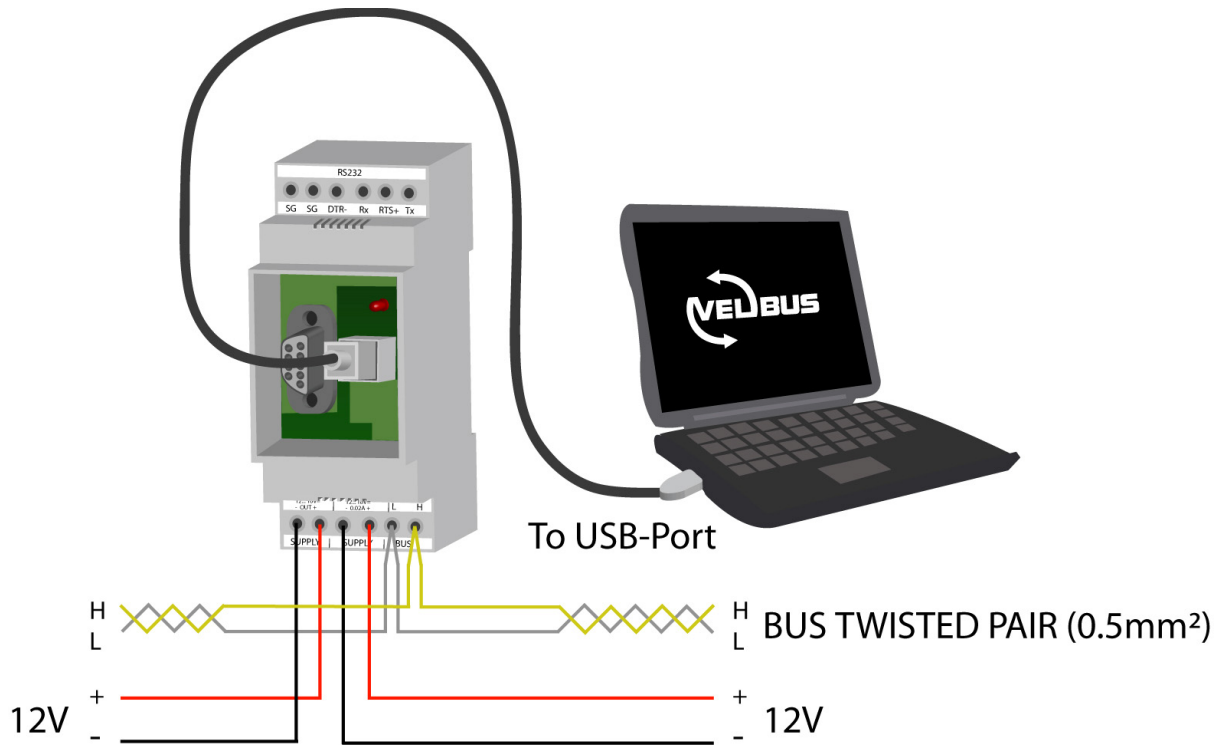
Connection through serial port

Connect the module to the COM port of the computer using a serial cable (Velleman ref. CW014).



Connection through USB port

Connect the module to a USB port of the computer. Use one of the following Velleman USB cables: CW076, CW077, CW078, CW090A, CW090B or CW090C.



Remark: The serial and USB connections are galvanically separated from the VELBUS and the 12V power cable through an optical link. Only use one of the possible connection methods: through the serial or through the USB port. Never use both connection methods simultaneously.

USE

Run a computer program allowing you to communicate with the VELBUS system. Download this program, the tutorial or all needed information to write a custom program through our <http://www.velbus.be/consumers/downloads/> Connect the module to the VELBUS system and the computer (see *Connection*).

First install the driver when first connecting the module to a computer through a USB port. The computer's operating system will detect the new hardware and will ask to localise and to install the driver (.inf file) (c:\Program Files\Velleman\VelbusLink\Driver). Once the driver correctly installed, you can use the Velbuslink program. When powering the module, a "Bus active" and "Reception ready" message will be sent to the computer.

All messages appearing on the VELBUS system will also be sent serially to the computer.

Valid commands generated by the computer will be sent to the module via the serial or USB port.

These commands are placed on the VELBUS system through the interface module.

When an excessive amount of commands has been sent in one time, the reception buffer will be filled. This will be reported to the computer. The computer program must interrupt the forwarding and wait for a "Reception ready" message to be able to offer new commands.

If the commands can not be placed correctly on the VELBUS, a bus error will occur and will be forwarded to the computer. The interface module will auto-restart after 25 seconds and erase the reception buffer.

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by **velleman**

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All appliances get intelligent, how about your home?

Choosing for Velbus means choosing for a future-proof system which provides comfort, safety and a better energy management at a price which is just slightly higher than classical wiring.

COMFORT



Imagine coming home from a long day at work. With a single button press you turn on the heating, the blinds close, several lights turn on and create a cosy, intimate atmosphere. The wall outlets, which were shut off for safety reasons during your absence, are switched on again...

SAFETY



A sudden noise wakes you up in the middle of the night. Press your bedside button and your home comes alive. All lighting is turned on, while all blinds open. The garden lighting starts to flash, to attract attention...

ENERGYSAVING



Bedtime. Again, you press a single button. All lighting is turned off and nightlights start to glow. The garden remains lit for an hour. Wall outlets are turned off again for safety and to reduce electromog. Finally, the heating is lowered with a couple of degrees.

▶ Velbusmodules on Velleman website
▶ Velleman Forum

Please visit www.velbus.be for more information

