

# MINI USB INTERFACE BOARD – VM167



*"Use your PC to connect to the outside World"*

**Test software and examples downloadable via [www.velleman.eu](http://www.velleman.eu) !**

## Features

- very Small, universal USB powered & controlled I/O board !
- add USB interface to existing equipment
- 15 inputs / outputs, including analogue inputs / digital inputs/outputs and PWM outputs
- the number of inputs/outputs can be further expanded by connecting two cards to the PC's USB connectors
- all communication routines are contained in a Dynamic Link Library (DLL)

## Specifications

- 5 x analogue 10 bit resolution inputs: 0...5V / (30K)
- 8 x digital 5V inputs/outputs with on-board LED indication: Input/output mode is selectable in groups of 4 terminals
- 1 x 32 bit pulse counter up to 1MHz input frequency
- 2 x 8 bit 5V PWM outputs: 0 to 100%
- on-board LED indication for I/O and PWM outputs
- output current, PWM: 10mA / Digital outputs: 6mA
- up to 2 cards can be connected to one PC
- USB port: USB 1.1 & 2.0 compatible
- DLL supports Windows XP, Windows Vista and Windows 7\*
- PWM frequency selection: 2930Hz, 11.7kHz or 46.9kHz
- command execution time, read:
  - read: 4ms
  - write: 1ms
- power consumption through USB port: approx. 50mA
- dimensions: 68 x 40 mm / 2.7 x 1.6"

## Extras

- **you may write custom Windows\* Applications in Microsoft Visual Basic, Microsoft VC, Borland Delphi, Borland C++ Builder or most other 32-bit Windows application development tool that supports calls to a DLL**
- **\*Microsoft Windows XP, Windows Vista and Windows 7 are registered trademarks of Microsoft Corporation**