

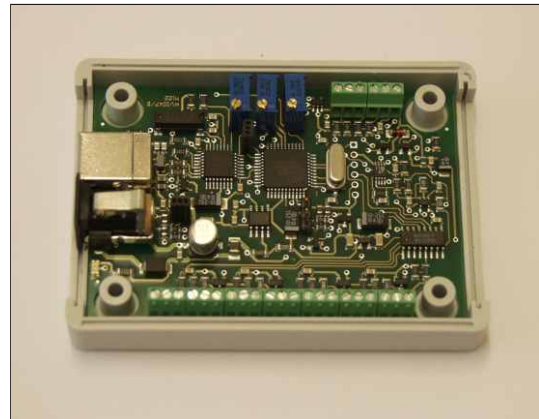
# USB measurement amplifier VMV-0047 (VX31040277)



## description

The assembly group VMV-0047 evaluate the signal of the connected force sensors. It is possible to connect four sensors with amplifier (sensors with current output 4...20 mA or 1...9 mA) and one sensor without amplifier (sensor with strap output 350  $\Omega$ ).

The assembly group have a USB - port and a voltage port for supplying the sensor with current output. The controller and the amplifier for the sensor with strap output are supplied by USB - interface.



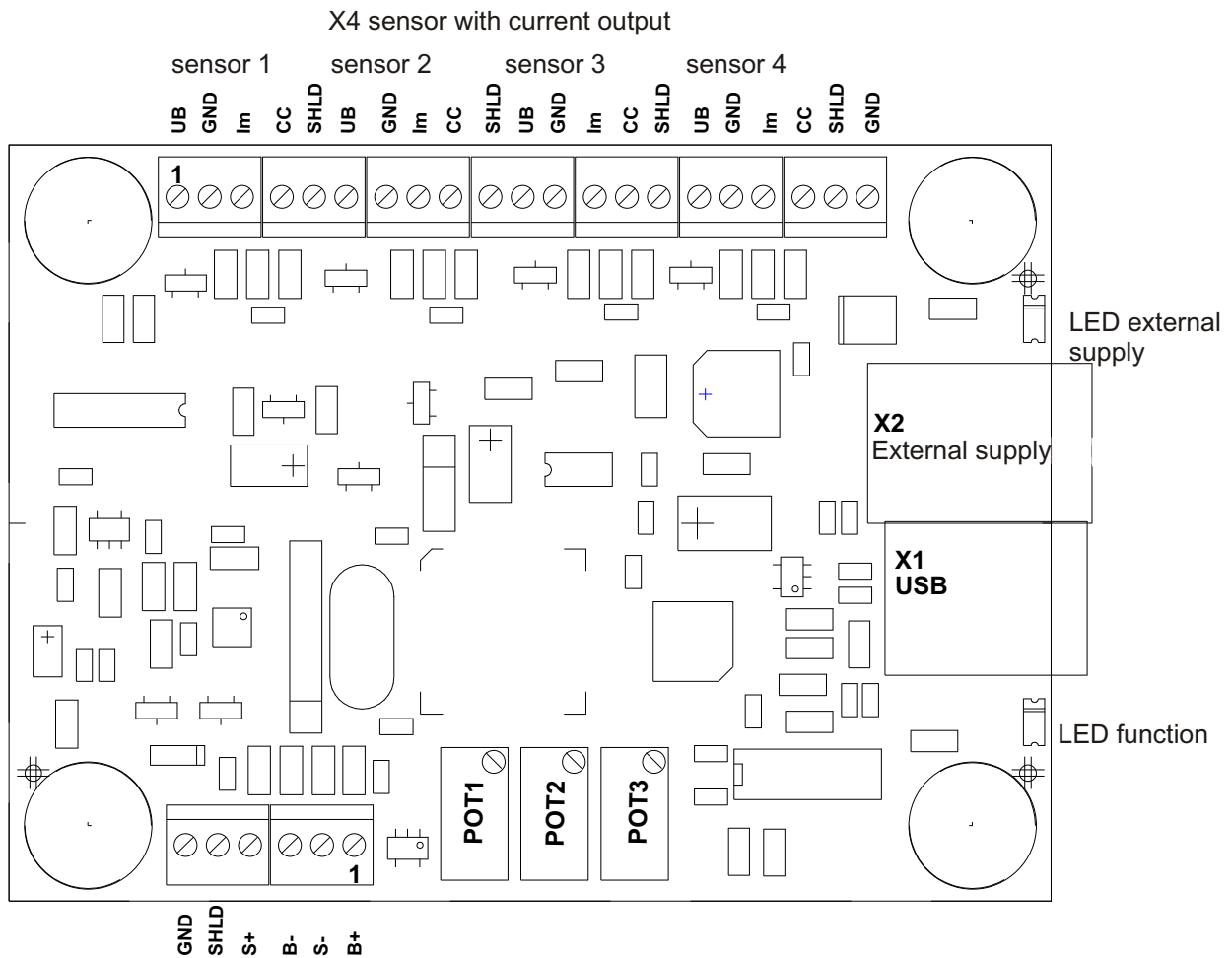
## characteristics:

- burden resistor for sensors with current output can be adjusted by the software
- digital filtering of results with micro-controller
- controller with internal EEPROM (configuration storable)
- software at controller (update via USB)
- the assembly group can be operated without a voltage access if you use a sensor with strap output

## technical data

supply :	controller, strap sensor with USB-Interface external supply of sensors with current output 12...24 V DC
sensors:	1...9 mA oder 4...20 mA; strap 350 $\Omega$
interface:	USB
resolution:	12 bit
housing:	polystyrene small case (L x W x H ) 91,5 mm x 67 mm x 25 mm

## terminal pin assignment



**X1 USB:** USB-port type B

**X2 supply:** supply input for sensors with current output according to used sensor type 12...24 V DC maximum current consumption with 4 sensors < 250 mA.

**X3 measurement strap port:**

<i>ports</i>	<i>description</i>	<i>meaning</i>	<i>VELOMAT standard colour*</i>
1	B+	positive strap supply	brown
2	S-	negatives strap signal	white
3	B-	negative strap supply	green
4	S+	positive strap signal	yellow
5	GND	ground	blue
6	GND	ground	

\* Please follow the datasheet of the force transducer!

## terminal pin assignment

X4 sensor port for 1...9 er 4...20 mA sensors (require external supply to X2):

<i>port</i>	<i>description</i>	<i>meaning</i>	<i>VELOMAT standard colour *</i>
1	+Ub sensor 1	current supply	brown
2	GND sensor 1	ground	green
3	Im sensor 1	current output 1-9/4-20mA	yellow
4	CC sensor 1	calibration check signal	white
5	SHLD sensor 1	shield	blue
6	+Ub sensor 2	current supply	brown
7	GND sensor 2	ground	green
8	Im sensor 2	current output 1-9/4-20mA	yellow
9	CC sensor 2	calibration check signal	white
10	SHLD sensor 2	shield	blue
11	+Ub sensor 3	current signal	brown
12	GND sensor 3	ground	green
13	Im sensor 3	current output 1-9/4-20mA	yellow
14	CC sensor 3	calibration check signal	white
15	SHLD sensor31	shield	blue
16	+Ub sensor 4	current supply	brown
17	GND sensor 4	ground	green
18	Im sensor 4	current output 1-9/4-20mA	yellow
19	CC sensor 4	calibration check signal	white
20	SHLD sensor 4	ground	blue
21	GND		

\* Please follow the datasheet of the force transducer.

### POT1:

amplification of measuring strap amplifier in X3

### POT2:

zero offset of measuring strap amplifier in X3

### POT3:

calibration check of measuring strap amplifier in X3

**Attention: After changing settings at POT1 to POT3 it is necessary to calibrate the connected sensor new.**