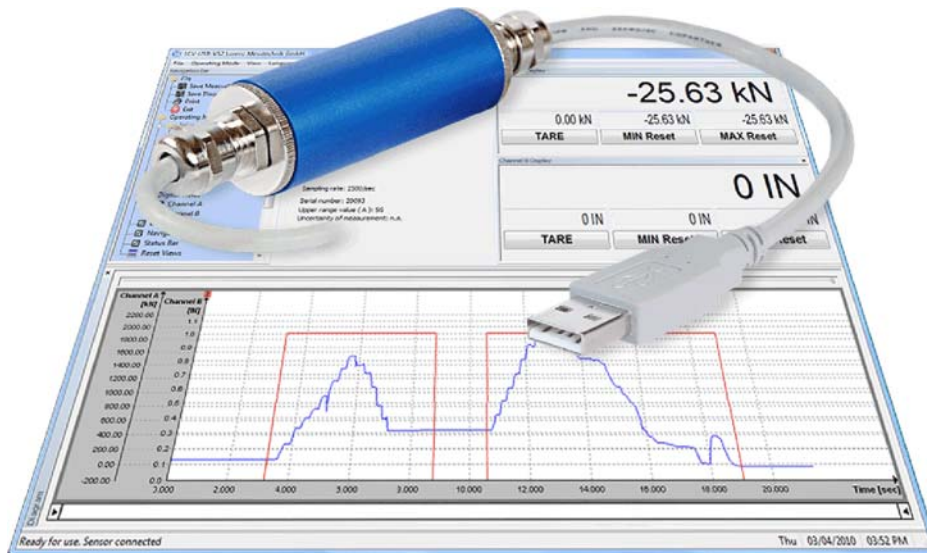


- Supply of the measuring system via PC USB port
- Up to 16 bit resolution
- Input ranges for mV, V and mA
- Fast measurement up to 5000/s
- Calibration and control trigger via software



DESCRIPTION

The sensor interface LCV-USB2 is connected between the sensor and the PC. By this, analog sensor signals are digitized with up to 16 bit resolution.

With the measuring rate of up to 5000 measurements/s, high dynamic measuring tasks are realizable.

The measured values are transferred via the USB interface and visualized by the software.

If 100% calibration control is integrated in the sensor, an automatic calibration can be accomplished, which is checkable at any time (monitoring of the measuring chain).

Following output signals can be digitally converted and comfortable be displayed and evaluated by the respective evaluation software.

USB2-SG Excitation 4 V max. 20 mA
Sensitivity: ± 3 mV/V

USB2-U5 Excitation 12 V max. 80 mA
Input Range: ± 5 V

USB2-I20 Excitation 12 V max. 80 mA
Input Range: 0/4...20 mA
(Option: 10 \pm 10 mA/12 \pm 8 mA)

Many commercially available sensors e.g. force, torque, displacement or pressure sensors can be used with the LCV-USB2. The sensor parameters can be stored in the LCV-USB2. So after a one-time parameterization, every sensor is recognized automatically by the software. Thus, the measurement can be immediately started after the connection of the sensor through the USB-connector.

The robust metal housing with high protection level allows fast fixing by means of screw-clamp or cable tie.

The board module can also be integrated in bigger sensors.

TECHNICAL DATA

| Type | LCV-USB2-SG | LCV-USB2-U5 | LCV-USB2-I20 |
|-------------|-------------|-------------|--------------|
| Art.-No. | 112311 | 112312 | 112313 |
| Input Range | ± 12 mV | ± 5 V | 0/4...20 mA |

| | | |
|-------------------|---------------|-----------------------------------|
| Supply | from USB | 4...6 V DC max. 350 mA |
| Excitation | SG | 4 V max. 20 mA |
| | U5 | 12 V max. 80 mA |
| | I20 | 12 V max. 80 mA |
| Measured values | SG | ± 3 mV/V = ± 30000 digits |
| | U5 | ± 5 V = ± 25000 digits |
| | I20 | 0...20 mA = 0...+20000 digits |
| Resolution | SG | 1 mV/V = 10000 digits |
| | U5 | 1 V = 5000 digits |
| | I20 | 1 mA = 1000 digits |
| Zero point | SG / U5 / I20 | 0 digits |
| Output format | | 16bit signed int. |
| Input resistance | SG | >1 M Ω |
| | U5 | >1 M Ω |
| | I20 burden | 62 Ω |
| Measuring rate | | max. 5000 meas./s |
| Temperature drift | | 4 Bit/10 K |
| Linearity error | | ± 32 digits |
| Accuracy | | ± 32 digits |

Miscellaneous

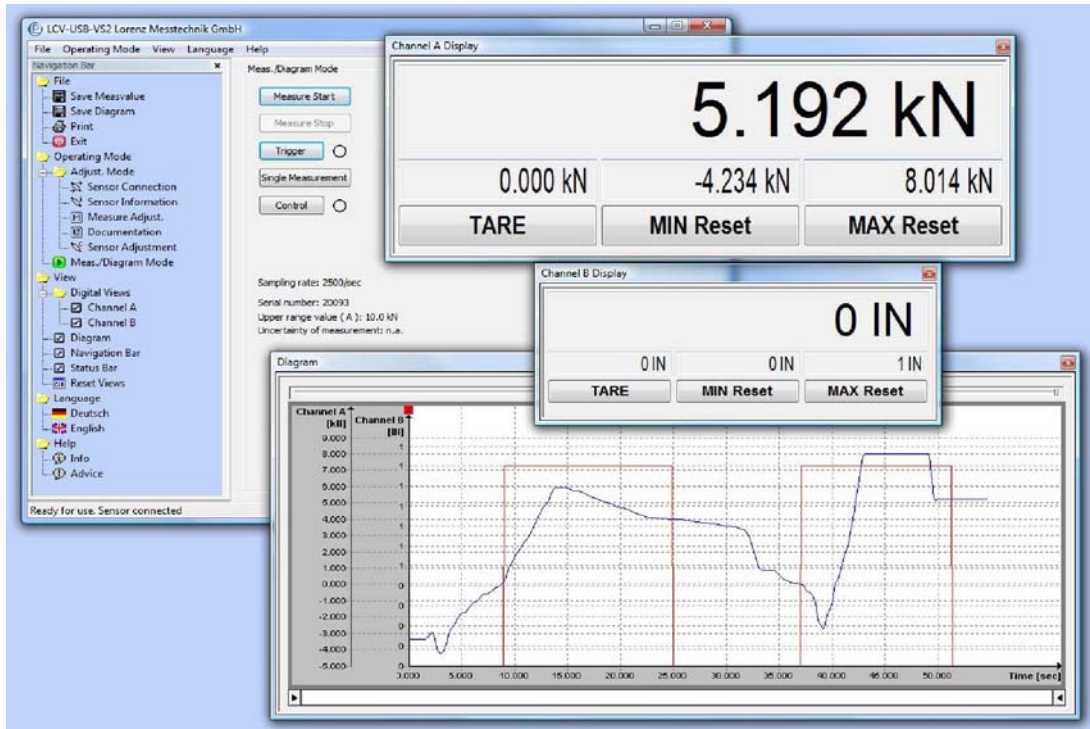
| | |
|---------------------------------|---------------------------------|
| Dimensions (\varnothing x L) | 25 x 115 mm (incl. screw joint) |
| Protection class | IP 67 |
| Max. cable length to sensor | 3 m |
| USB cable length | 2 m |
| Nominal temperature range | +10...+40 $^{\circ}$ C |
| Service temperature range | 0...+50 $^{\circ}$ C |
| Storage temperature range | -10...+70 $^{\circ}$ C |

| Option | Art.-No. | Function |
|-----------------|----------|----------------------------|
| LCV-USB2/TR-EXT | 110120 | Digital input at channel B |

Configuration and Evaluation Software

LCV-USB-VS2

- Comfortable configuration and evaluation software
- Graphical presentation of up to two input values¹
- Automatic scaling of y-axis
- Simultaneous storage of up to two input values¹
- Automatic storage function of the measured values as CSV- and BMP-File



DESCRIPTION

Configuration and evaluation software for easy analysis and graphical presentation on a PC.

The software for the LCV-USB2 allows direct read-in of measured data into a text file in CSV-Format through the USB-Port of a PC. This enables further analyses with a commercially available spreadsheet program at any time.

SPECIFICATIONS

| Type | LCV-USB-VS2 ²³⁴ |
|---------------------|---|
| Interface | USB (for operation with LCV-USB2) |
| Protocol | Lorenz standard protocol |
| System requirements | ex Win2000 ⁵⁶ Single-Core ex 2.0 GHz (without diagram) Dual-Core ex 1.8 GHz (with diagram) |

| | |
|---|--|
| Conversion in physical variables | ✓ |
| Simultaneous measuring | 1 Sensor (Optional add. 1 digital input) |
| Graphical presentation of the measured variables | ✓ |
| Automatic or manual storage in a CSV- and BMP-file | ✓ |
| Print-out of the diagram with date and definable headline | ✓ |
| Scaling function of the input variable to any display value with unit | ✓ |
| Resettable minimum value memory for any measured variable | ✓ |
| Resettable maximum value memory for any measured variable | ✓ |
| Variable average determination | ✓ |
| Tare for each measured value | ✓ |

¹ LCV-USB2 with option "LCV-USB2/TR-EXT" has two input channels.

² The corresponding software and driver are downloadable from www.lorenz-sensors.com in column "Software".

³ Support LCV-USB2.

⁴ Support not torque sensor type DR-3000.

⁵ Windows[®] is either a registered brand or brand of the Microsoft Corporation in the USA and/or other countries.

All trademarks or brands used in this document refer only to the respective product or the holder of the trademark or brand. Lorenz Messtechnik GmbH does not raise claims to other than their own trademarks or brands.