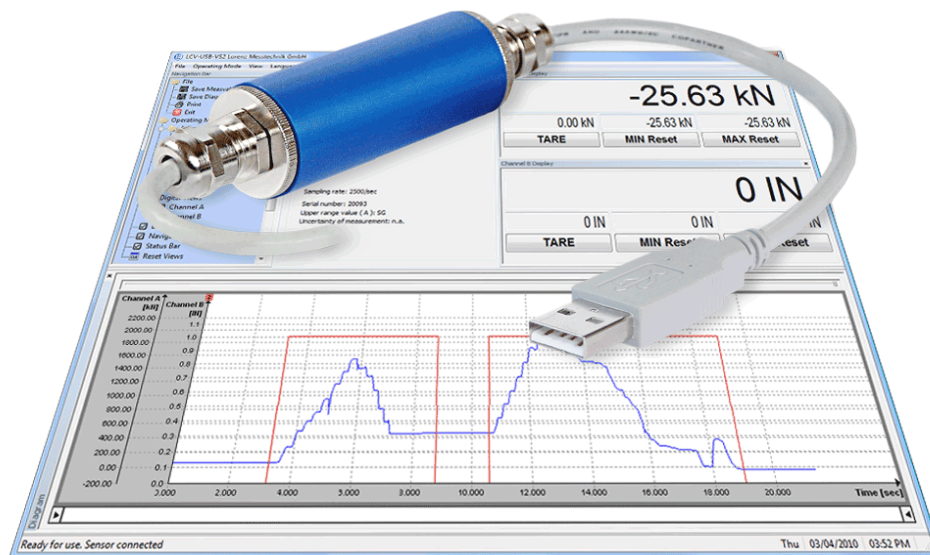


**USB - Sensor Interface with Configuration and Evaluation Software****LCV-USB2**

- 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.

E-Mail: info@lorenz-sensors.com
Internet: www.lorenz-sensors.com

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 U5 I20	4 V max. 20 mA 12 V max. 80 mA 12 V max. 80 mA
Measured values	SG U5 I20	± 3 mV/V = ± 30000 digits ± 5 V = ± 25000 digits 0...20 mA = 0...+20000 digits
Resolution	SG U5 I20	1 mV/V = 10000 digits 1 V = 5000 digits 1 mA = 1000 digits
Zero point	SG / U5 / I20	0 digits
Output format		16bit signed int.
Input resistance	SG U5 I20 burden	>1 M Ω >1 M Ω 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

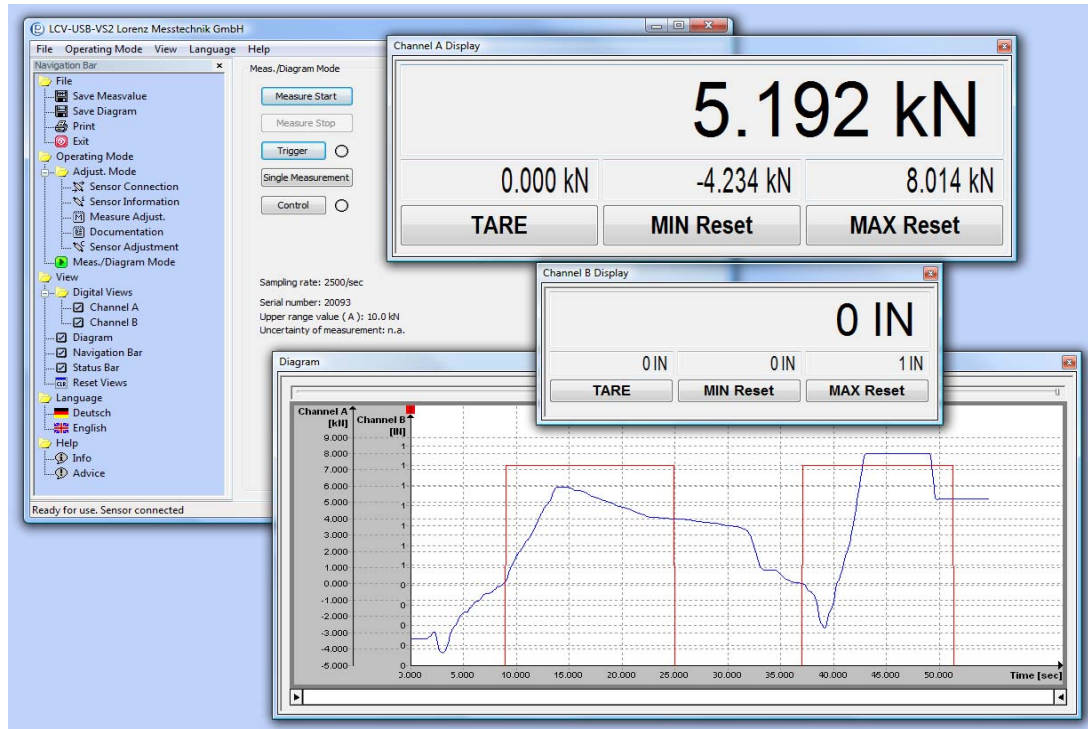
Option	Art.-No.	Function
LCV-USB2/TR-EXT	110120	Digital input at channel B



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 ⁶⁵ 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.

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