Sensor-Interface with USB

Type LCV–USB

- Supply via USB
- Up to 16bit resolution
- Input for mV, V and mA
- Fast measurement of 5000/sec.
- Calibration and control lock-on via software
- Integrable in many sensors by SMD- miniaturization

The sensor interface LCV–USB is inserted between sensor and PC.
Thus analog sensor signals with up to 16bit resolution are digitized.
With the high dynamics of 5000 measurements/sec. fastest measuring tasks are realizable.
Via the USB interface the measured values are transferred and visualized through the software.
If 100% calibration control is integrated in the sensor (see data sheet), an automatic calibration can be accomplished, which is auditable at any time (monitoring of the measuring chain).

3 different sensors are intended for the connection:

USB-DMS Supply 4V max: 20mA
Signal: 0,35 – 3,2mV/V

USB-U5 Supply 12V max: 80mA
Signal: 0-1V ... 0-±5V

USB-I_mA Supply 12V max: 80mA
Signal: 0 – 20mA / 4 - 20mA
(Option: 10 ±10mA 12 ±8mA…)

AT USB-I_mA 2 or 3-wire connection is possible, usual market sensors can be adapted.

The practical housing with a high level of protection allows a fast fixation by a screwing clamp.
In larger sensors the circuit board module can be integrated as well.

Type	**LCV-USB-DMS**	**LCV-USB-U5**	**LCV-USB-I_mA**
Art. no.	108368	108369	108370

TECHNICAL DATA:

Supply	from USB	4-6V DC max 350mA
Supply for sensor	SG U5 I_mA	4V max. 20mA 12V max. 80mA 12V max. 80mA
Measured values	SG U5 I_mA	0-±3mV/V = 32768 ±30000 bits 0-±5V = 32768 ±25000 bits 0- 20mA = 32768 +20000 bits
Resolution	SG U5 I_mA	1mV/V = 10000 bits 1V = 5000 bits 1mA = 1000 bits
Zero point	SG / U5 / I_mA	32768 bits
Input resistance	SG U5 I_mA load:	200 G Ohm 1,3 M Ohm 62 Ohm
Measuring rate		5000 meas/sec
Temperature drift		4bit / 10k
Linearity error		±5bit
Accuracy		±5bit

Further	
Max. cable length to sensor	3m
USB cable length max.	5m
Nominal temperature range	10…40 °C
Service temperature range	0...50 °C
Storage temperature range	-10...70 °C