

Sensor-Interface with USB

Type LCV-USB

- Supply via USB
- Up to 16 Bit Resolution
- Input for mV, V and mA
- Fast Measurement up to 5000/s
- Calibration and Control Trigger via Software
- Integrable in many Sensors by SMD-Miniaturization



DESCRIPTION:

The sensor interface LCV-USB is inserted between sensor and PC.

Thus, analog sensor signals with up to 16 Bit resolution are digitized.

With the high dynamics of up to 5000 measurements/s, fastest measuring tasks are realizable.*

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

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 types are scheduled for the connection:

USB-SG Excitation 4 V max. 20 mA
Signal: 0.35...3.2 mV/V

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

USB-I_{mA} Excitation 12 V max. 80 mA
Signal: 0...20 mA/4...20 mA
(Option: 10±10 mA/12±8 mA)

At USB-I_{mA}, 2 or 3-wire connection is possible, commercially available sensors can be adapted. The practical housing with a high level of protection allows fast fixation by a screwing clamp. In larger sensors, the circuit board module can be integrated as well.

TECHNICAL DATA:

Type	LCV-USB-SG	LCV-USB-U5	LCV-USB-I20 _{mA}
Art. No.	108368	108369	108370
Supply	from USB		4...6 V DC max. 350 mA
Excitation	SG		4 V max. 20 mA
	U5		12 V max. 80 mA
	I _{mA}		12 V max. 80 mA
Measured Values	SG		0...±3 mV/V = 32768 ±30000 Bits
	U5		0...±5 V = 32768 ±25000 Bits
	I _{mA}		0...20 mA = 32768 ±20000 Bits
Resolution	SG		1 mV/V = 10000 Bits
	U5		1 V = 5000 Bits
	I _{mA}		1 mA = 1000 Bits
Zero Point	SG / U5 / I _{mA}		32768 Bits
Input Resistance	SG		200 GΩ
	U5		1.3 MΩ
	I _{mA} Burden		62 Ω
Measuring Rate	max. 5000 meas./s*		
Temperature Drift	4 Bit/10 K		
Linearity Error	±5 Bit		
Accuracy	±5 Bit		

Miscellaneous

Max. Cable Length to Sensor	3 m
USB Cable Length Max.	5 m
Nominal Temperature Range	+10...+40 °C
Service Temperature Range	0...+50 °C
Storage Temperature Range	-10...+70 °C

Option	Art. no.	Function
LCV-USB-VS	108436	Measuring and evaluation software

*Limited to 200 meas./s at the operation of the LCV-USB-VS Software with Windows®.

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