

Sensor-Interface

Type LCV

- Design-Independent
- Direct Connection to PLC
- Long Feed Line Between Sensor and Evaluation
- Applicable in Automobile Industries by Option Excitation Voltage 8...16 V
- Integrated in the Sensor (Except for Miniature Sensors)



DESCRIPTION:

The sensor interface LCV is designed for the interface adaption between sensor and evaluation. The interference-prone output signals of strain gauge-sensors are at a high level. Thus, the measurement safety and the measurement accuracy is crucially increased.

The supply voltage range of 16...32 V and the analog outputs of 0...±5 / ±10 V, resp. 0 or 4...20 mA allow the direct signal processing with a PLC-Control.

The sensor is being powered with stabilized DC voltage which is generated from unregulated supply (16...32 V). The precision measuring amplifier converts the output signals of the sensor into standardized signals.

The sensor interface LCV is being interconnected in the feed line between sensor and signal acquisition (e.g. PLC). Thus, the application is independent from the design of the sensor even though it has a high level of protection - degree.

The practical tube housing allows fast fixing with a simple screw clip. If enough space is available, there is a possibility to integrate the board inside of the sensor.

Scope of Delivery

The interface is delivered as an assembly kit (amplifier module, tube housing, cable bolt connections). If ordering in combination with a sensor from our product range, the interface will be mounted and calibrated factory-sided.

TECHNICAL DATA:

Type	LCV-U10	LCV-U5	LCV-I0	LCV-I4	LCV-I10	LCV-I12
Art. No.	100430	100626	101177	100432	100956	101018

Evaluation Side

Supply	Supply Voltage	16...32 V DC				
	Ripple	<10%				
Signal Output	Output Signal	0...±10 V	0...±5 V	0...20 mA	4...20 mA	10±10 mA
		≤5mA	≤5 mA			12±8 mA
		(three-wire technique)				
	Ripple	<20 mV				
	Gain Drift	<0.05%/10 K		<0.1%/10 K		
	Zero Point Drift	<0.15%/10 K		<0.2%/10 K		
	Load Resistance	>2 kΩ		<500 Ω		
	Output Resistance	<1 Ω		0.01 Ω		
General	Cable Length	2 m (max. 10 m)		2 m (max. 100 m)		
	Interface-Evaluation Max. Feed Line Resistance	10 Ω		30 Ω		

Sensor Side

Excitation	Excitation Voltage for Sensor	5 V				
	Excitation Current for Sensor	≤15 mA				
Signal Input	TC Excitation Voltage	0.1 mV/K				
	Input Voltage	2.5...15 mV				
General	Input Resistance	10 ⁹ Ω				
	Cable Length Sensor-Interface	1 m (max. 2.5 m)				

Miscellaneous

Cut-Off Frequency	<1.2 kHz	1 kHz
Nominal Temperature Range	+10...+40 °C	
Service Temperature Range	0...+60 °C	
Storage Temperature Range	-10...+70 °C	
Dimensions (Ø x L)	25 x 115 mm (incl. bolted connection)	
Level of Protection	IP 67	

Options	Art. No.	Function
V8	100586	Excitation voltage 8...16 V (not available for LCV-U10)
DGL	100777	Bypass detector (LCV-U...necessary)
KE	103760	Control trigger external 8...28 V DC