

LVDT Signal Conditioner

FEATURES

- 2 individual measurement channels
- Transducer excitation: 2.5–3.2 kHz
- Primary feed-back or sum feed-back
- Voltage output: 0–10 or ± 10 V
- Current output: 4–20 mA
- Power supply: 24 VDC
- Quick installation on DIN-rail
- CE-marking, meets EMC

DESCRIPTION

Signal conditioner LVD 3 is developed for accurate and rapid position measurements by means of LVDT transducers.

The module consists of two identical channels, electrically isolated from each other and from the power supply.

Each channel has an oscillator that supplies the transducer with AC excitation, inputs for the two position sensitive signals from the transducer and an adjustable signal amplifier with current and voltage output.

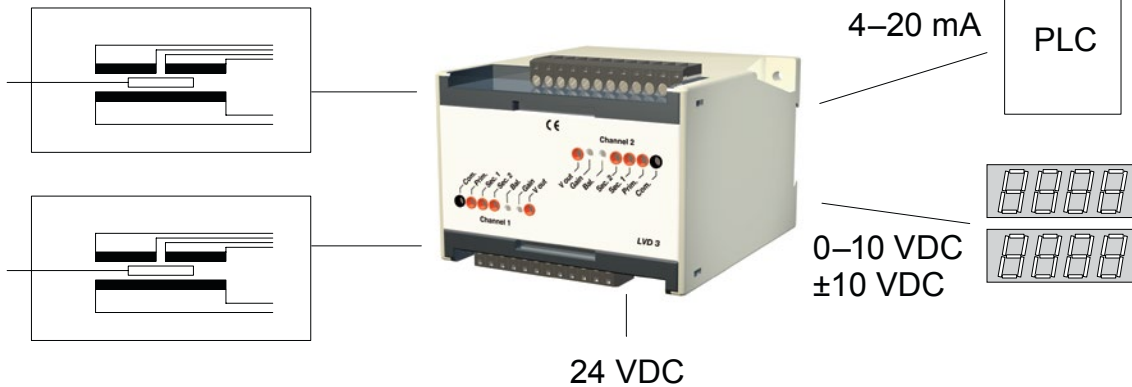


Calibration of LVD 3 and the connected LVDT transducers is easily performed by switches, potentiometers and test sockets on the module.

LVD 3 is mounted on a DIN rail or any flat surface. All electric connections to the module are made through one plug-in terminal block for each channel.

CONFIGURATION

Position transducer type LVDT



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SPECIFICATIONS		PARAMETER	VALUE
OSCILLATOR FOR PRIMARY COIL			
Frequency			2.5–3.2 kHz
Frequency Stability			±1%
Distortion			max. 4%
Voltage			max. 6 VAC, 150 mA
Amplitude Stability			±0.1%
INPUTS FOR SECONDARY COILS			
Voltage			max. 6.8 VAC
Impedance			min. 150 kΩ
SIGNAL CONVERSION			
Linearity			±0.05%
Offset Adjustment			±2 to ±7% of output range
Offset Drift			max. 2 mV
Gain Range (AC differential input to bipolar DC output)			low: 2.1–5.8 mid: 5.2–15 high: 14–39
Gain Drift			max. 0.1%
Filter Bandwidth (–3 dB)			125 Hz
OUTPUTS			
Current			Load <500 Ω: 4–20 mA
Voltage: Bipolar Monopolar			Load >6 kΩ: ±10 V 0–10 V
		PARAMETER	VALUE
		POWER SUPPLY (PER CHANNEL)	
		Supply Voltage	24 VDC, ±20%
		Fuse	200 mA, slow
		Continuous Current	<120 mA
		Surge Current	250 mA
		ENVIRONMENT	
		Temperature Range: Operation Storage	0 to +50°C –25 to +85°C
		MECHANICAL DATA	
		Width × Height × Depth	75 × 100 × 110 mm
		Test Sockets	Ø 2 mm
		Mounting Rail (35 mm)	DIN 46 277/3 DIN EN 50022
		Protection	IP20
		Article Number	110 171

BLH Nobel is continually seeking to improve product quality and performance. Specifications may change accordingly.