

LVDT Signal Conditioner



FEATURES

- 2 individual measurement channels
- Transducer excitation: 2.5 - 3.2kHz
- Primary feed-back or sum feed-back
- Voltage output: 0 - 10 or $\pm 10V$
- Current output: 4 - 20mA
- Power supply: 24VDC
- 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.

APPLICATIONS



SPECIFICATIONS**OSCILLATOR FOR PRIMARY COIL**

Frequency	2.5 - 3.2kHz
Frequency Stability	± 1%
Distortion	max. 4%
Voltage	max. 6V AC, 150mA
Amplitude Stability	± 0.1%

INPUTS FOR SECONDARY COILS

Voltage	max. 6.8V AC
Impedance	min. 150 kohm

SIGNAL CONVERSION

Linearity	± 0.05%
Offset Adjustment	± 2 - ± 7% of output range
Offset Drift	max. 2mV
Gain Ranges	low: 2.1 - 5.8
(AC differential input to bipolar DC output)	mid: 5.2 - 15 high: 14 - 39
Gain Drift	max. 0.1%
Filter Bandwidth (-3dB)	125Hz

OUTPUTS

Current	Load < 500ohm 4-20mA
Voltage	Load > 6kohm
Bipolar	± 10V
Monopolar	0 - 10V

POWER SUPPLY (Per Channel)

Supply Voltage	24V DC, ± 20%
Fuse	200mA, slow
Continuous Current	<120mA
Surge Current	250mA

ENVIRONMENT

Temperature Range	
Operation	0 - + 50°C
Storage	- 25 - + 85°C

MECHANICAL DATA

Width x Height x Depth	75 x 100 x 110mm
Test Sockets	Ø2mm
Mounting Rail (35mm)	DIN 46 277/3 DIN EN 50022
Protection	IP20
Article Number	110 171