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.

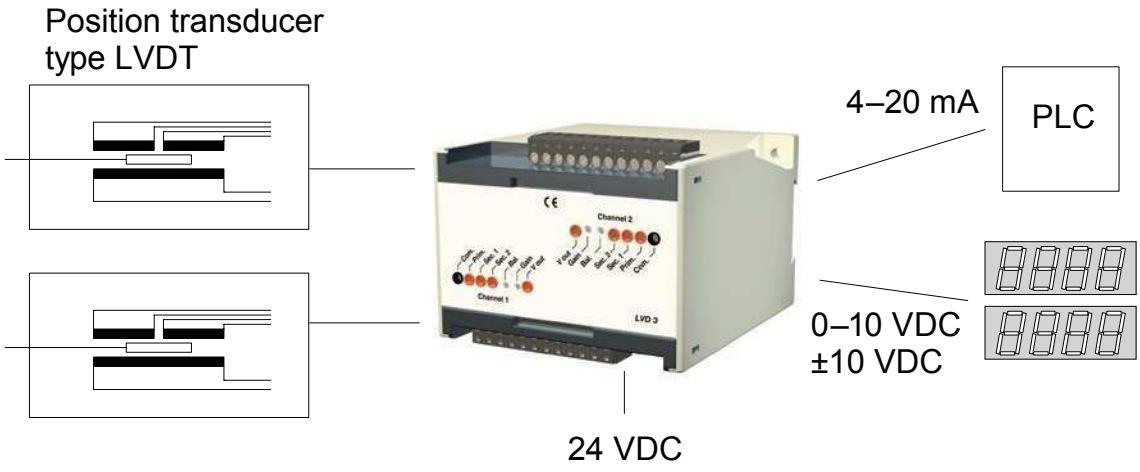
The module consists of two identical channels, electrically isolated from each other and from the power supply.

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



BLH NOBEL
A VPG Brand

LVDT Signal Conditioner

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.

Technical contact: blhnobel.usa@vpgsensors.com,
Europe: blhnobel.eur@vpgsensors.com, Asia: blhnobel.asia@vpgsensors.com
Document No.: 12332
Revision: 04-July-2016

Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “VPG”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG’s terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG’s knowledge of typical requirements that are often placed on VPG products. It is the customer’s responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at vpgsensors.com.

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.