LVDT

Linear Variable Differential Transformer

Description

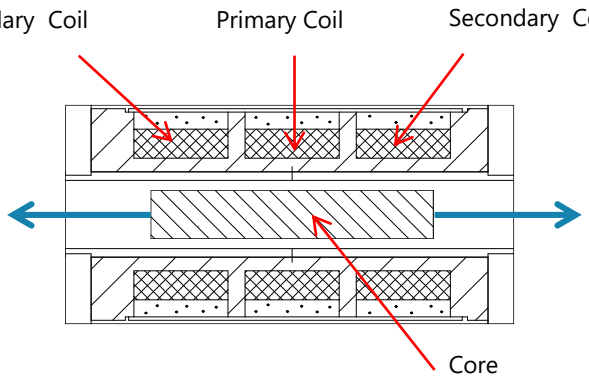
TAMAGAWA is the standard linear position sensor for Flight control, Cockpit/Pilot control, EHSV (Electrohydraulic Servo Valve), Engine Valve applications, Fuel control and others. Tamagawa offers both of Dry and Wet LVDT around stringent environmental conditions under high vibration, temperature and pressure. Flexible design LVDT for custom solution is available based on specific requirements and environmental conditions, specially multiple channels type, spherical bearing type, spring loaded type and explosion proof type can be offered.

Features

- Absolute measurement
- High Performance, High Repeatability & High Reliability
- Single, Dual & Triple channel designs
- Short stroke LVDT & Long stroke LVDT (displacement 12" mm MAX) available
- Adjustment of mounting misalignment for Rod end bearing type
- Ratiometric output signal available
- Operating under hydraulic pressure environment
- Environmental resistance (RTCA-DO160/MIL-STD-810)
- High EMC resistance
- Automatic winding
- Custom designs available

Typical Structure

・Short stroke LVDT



Cross section

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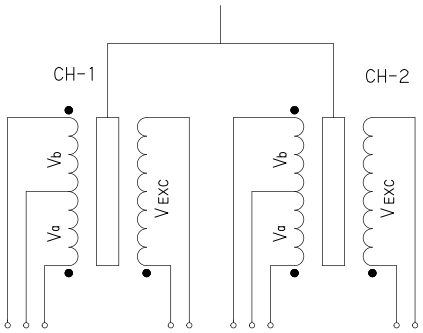
TAMAGAWA SEIKI CO., LTD.
1879 Ohyasumi, Iida, Nagano Prefecture, 395-8515 Japan
Phone +81 265 21 1814 | Fax +81 265 56 4108

Specifications

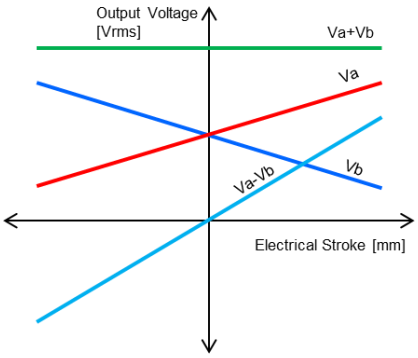
Input Voltage	5 Vrms to 10 Vrms
Input Frequency	1.8 kHz to 10 kHz
Electrical Stroke	±0.6 mm to ±150 mm
Ratiometric mode	(Va-Vb)/(Va+Vb)
Linearity (FS=Full Stroke)	±0.5 % FS to ±1.0 % FS
Operating Temperature Range	-55 ˚C to +180 ˚C
Fluid pressure (Wet type)	Operating pressure 0 psi to 3,500 psi
Redundancy	3 channel MAX

Schematic

Wiring Diagram (Dual channel LVDT)



Output Voltage Ratio



Typical Configurations

Rod end bearing LVDT

Long stroke LVDT

Dual channel LVDT

3 channel short stroke LVDT

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