



# **LVDT**

Precision Position Feedback for Aerospace,

Defense and Industrial Applications

### **LVDTS**



#### PROGRESSIVE AND INNOVATIVE DESIGNS TO MEET YOUR MOST STRINGENT REQUIREMENTS.

#### **Aerospace (Commercial and Military)**

- Primary and Secondary Flight Control Systems
- Engine Controls
- Hydraulic Reservoirs
- Cockpit Controls
- Surface Indication
- Thrust Vector Controls

#### **Industrial**

- Machine Tools
- Copiers
- Micro Hardness Testers
- Paper Machine Controls
- Steer By Wire Controls
- Closed Loop Hydraulic Valve Positioning

#### **Technical Overview**

The linear variable differential transformer (LVDT) consists of housing containing a primary coil and two secondaries (wound in series opposition). The movement of a permeable core (shaped like a rod) through the transducer's hollow center provides an output which is linear with the movement of the core.

#### **Features**

- Reliability and Robust Construction
- Non-Contact Frictionless Operation
- Repeatability / Zero Hysteresis
- Ability to Operate in Severe Environments
- Hermetically Sealed Options
- Listed Devices
- Short Stroke to Long Stroke
- Single to Multiple Channels
- AC or DC Operation
- Pressurized and Unpressurized

PARAMETER	OPTION	REQUIREMENT
Program	End Item     Application: engine, flight surface, thrust reverser, servo valve, steering, etc.	
Commercial or Military	Specify	To suit application
Annual Quantities	Specify	
Target Price	Specify	
Number of Channels	1, 2, 3 or 4	
Electrical Stroke	Symmetrical about null or biased	± .015 inches - ± 14 inches
Mechanical Stroke	Symmetrical about null or biased	
Туре	AC or DC	To suit application
Excitation	Voltage and frequency	3.5 Vrms to 7.5 Vrms 1500 Hz to 10,000 Hz
Demodulation	Ratiometric or diffv	To suit application*
Sensitivity	Specify	To suit application
Accuracy	% of full scale output	±0.5% for ratiometric Over -55°F to 275°F
Input impedance	Minimum	To suit application
Output Impedance	Maximum per secondary	
Load Impedance	Resistive and capacitive load	
Dielectric Strength	Voltage and duration	1500 V, all wires to case
Temperature Range	Specify	-70°F to 350°F
Pressure	Operating, proof and burst	10,000 PSI proof pressure
Envelope	Body length & diameter	To suit application
Electrical Interface	Lead wires or connector	
Mounting	Flange, threads, etc.	

## CAPABILITIES



# From design to delivery: we do it all.

We strive for innovation and differentiation that allows you to have a competitive advantage so we've invested substantially in our equipment, facilities and training. This enables us to maintain complete control of the products we make for you. We have an extremely robust range of capabilities including:

**DESIGN & ANALYSIS** 3D CAD design capability. Element (including finite) analysis in vibration, shock, temperature, magnetic, flow, heat transfer, and stress.

**R&D LABORATORY** Electrical characteristics, operational performance including pneumatic and hydraulic pressure/ flow stands, response time, life cycling, evaluation of new processes, features, and new product development.

NDT TESTING & MATERIAL ANALYSIS Non-Destructive Testing services that includes x-ray, visual, and Dye Penetrant inspection.

**ENVIRONMENTAL TESTING** Including, but not limited to shock, vibration, salt spray, humidity, high (1000°F) and low (-150°F) temps, altitude to 100,000 feet, and other testing as required.

HYDRAULIC TESTING Up to 75HP, 60,000 PSI

PACKAGING Commercial, military, environmental storage, custom, VPCI, and returnable packaging and cleaning.

MANUFACTURING ENGINEERING In-house Tool/ Machine design and build capabilities.

**CNC WINDING MACHINES, COMPUTER AUTOMATED** 

**TEST STANDS** Reduces manual testing time and cost and eliminates operator error.

**CNC MACHINES** Multi-axis, vertical and horizontal turning and milling as well as automatic manufacturing cells.

**SCREW MACHINES** Six spindle, eight spindle chucking and bar.

WELDING/BRAZING Electron beam, gas tungsten arc welding, laser, induction, heliarc, spot welding, and brazing.

**PLATING** Cadmium, zinc, electroless nickel, zinc phosphate, chemical film on aluminum, anodize, passivate, Zinc Nickel and others.

**PRESSURE MOLDING** Transfer and injection coil overmolding.

**INTERNATIONAL STANDARDS** Meets or exceeds many international certification standards.

















