

POSITION SENSORS

RVDT | PRODUCT DETAIL

Description

Lisk's adaptive field proven RVDT products are designed to meet the demands of new and legacy fly by wire systems ensuring ease of integration and outstanding performance.

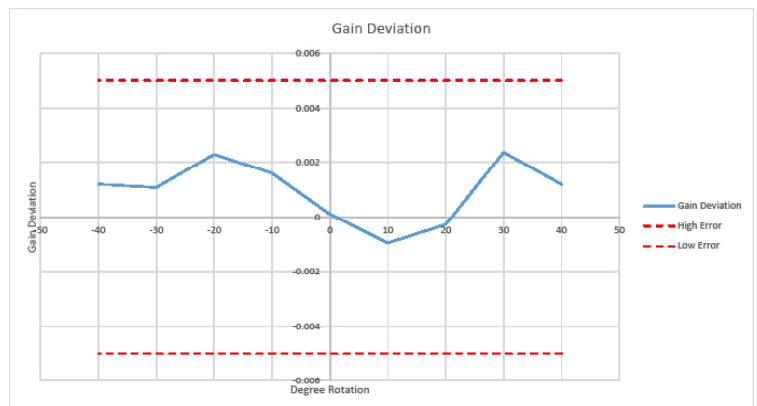
Features

- Brushless, no wear construction
- High reliability and repeatability
- Available in frame size 8
- Three frequency dependent unit lengths
- Compatible with -55° C to 200° C continuous exposure
- Hermetic, Externally housed configurations are available for all redundancy and geared configurations for RVDT.
- Single RVDT modules able to be combined into multichannel assemblies for redundancy.
- 5 Wire Ratiometric Demodulation allows for the elimination of temperature coefficient errors
- Ratiometric or phase sensitive operation
- Fully qualified to RTCA/DO-160
- The RVDT input shaft can be configured to any custom option needed or one can be selected from our design catalog
- Custom windings available to meet any combination of electrical requirements

Specifications

- 80° operating range with $\pm 0.4^\circ$ accuracy
- Input Voltage Limits: 1 - 30 VRMS, 400-10,000 Hz
- Current consumption as low as 9mA

Excitation Frequency	Frame Length (in. max)
2400 - 5000 Hz	0.755
1200 - 2400 Hz	0.955
400 - 1200 Hz	1.355



Phase Sensitive Performance				
(V1-V2)				
Input	Unit	400-1200 Hz	1200-2400 Hz	2400-5000 Hz
Excitation Voltage	Vrms	28.0	7.0	7.0
Input Current	mA	35.0	25.0	25.0
Output				
Scale Factor	mV/deg	250.0	70.0	70.0
Standard Accuracy	Degrees	±0.4	±0.4	±0.4
Operating Range	Degrees	80	80	80
V (Full Scale)	Vrms	10.000	2.800	2.800
Sum - Constant	Volts	13.000	4.330	4.600
Null Total Volts	Max	0.035	0.015	0.015
Phase Angle	Degrees	±5	±5	±5
Output Impedance	Z ohms	270	180	150
Thermal Coefficient	%/°C	0.025	0.015	0.010

Ratiometric Performance				
(V1-V2)/(V1 +V2)				
Input	Unit	400-1200 Hz	1200-2400 Hz	2400-5000 Hz
Excitation Voltage	Vrms	28.0	7.0	7.0
Input Current	mA	35.0	25.0	9.0 - 25.0
Output				
Scale Factor	Gain/deg	0.0191	0.0160	0.0124 - 0.0152
Standard Accuracy	Degrees	±0.4	±0.4	±0.4
Operating Range	Degrees	80	80	80
Gain (max)	Gain	0.7650	0.6400	0.6080
V (max)	Vrms	11.50	3.55	3.70
V (null)	Vrms	6.500	2.150	2.300
V (min)	Vrms	1.520	0.780	0.900
Output Impedance	Z ohms	160	90	77
*half - coil at electrical zero				

Typical Applications

Cockpit Controls, Control Surface Feedback, Flap, Slat, Spoiler and Horizontal Stabilizer Position, Nose Wheel Feedback, Thrust Reverser, Engine Vane and Bleed Valve and more.



ABOUT US

We are a global leader in the design and manufacture of engineered solutions including solenoids, solenoid valves, linear and rotary position sensors, motors, electric actuators and flame arrestors. We serve hundreds of customers in diverse markets throughout the world with market-leading solutions enabled by our extensive design, test and manufacturing capabilities.

