Sensors | Product Detail

RVDT

Description

The RVDT sensor provides continuous position feedback for use in a wide range of environmental conditions. RVDT position sensors have unsurpassed reliability for rotary position sensing applications.

Applications

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

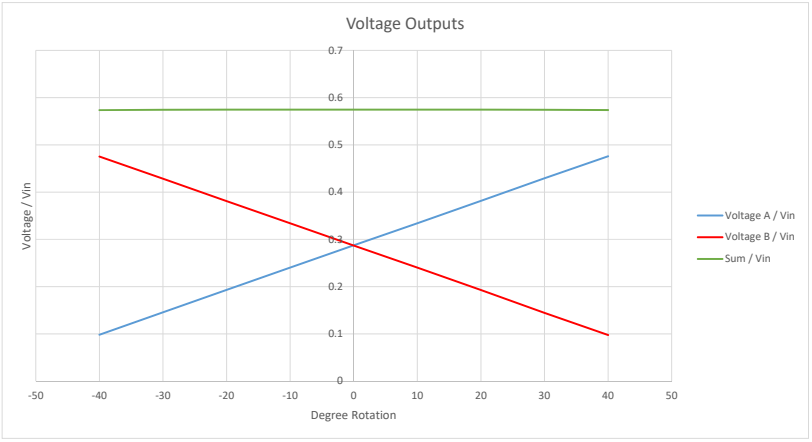
Oil & Gas - Electrical Pan Tilt Units, Link Tilts on Top Drives, Hydraulic Actuators, Subsea Manifold System and more.

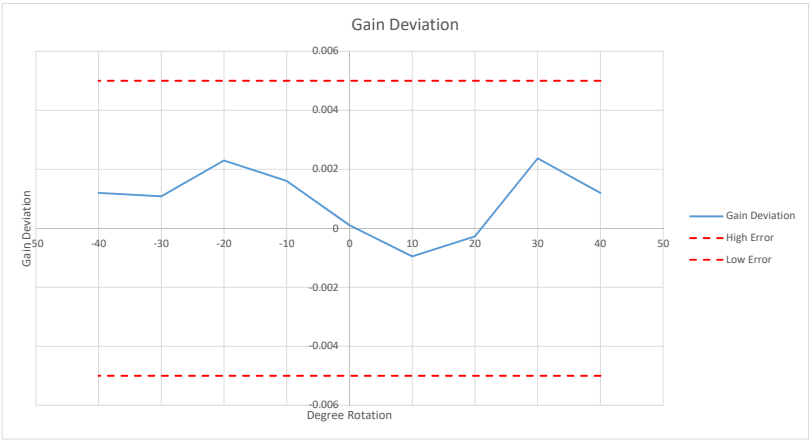
Features

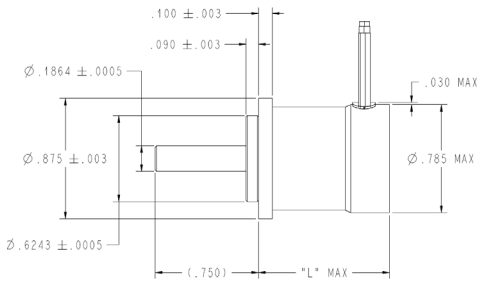
- Brushless, no wear construction
- High reliability and repeatability
- Available in frame size 8 or 11
- Three frequency dependent unit lengths
- Compatible with -55° C to 200° C continuous exposure
- Compatible with 250° C for 1000 cumulative hours before electrical performance degradation

Specifications

- 80° operating range with ±12 arc minute 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

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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	0.2	0.2	0.2
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	0.2	0.2	0.2
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				

LISK custom RVDTs (Rotary Variable Differential Transformer) are applicable in aerospace and oil and gas industries. Features include phase sensitive or ratiometric signal demodulation, configuration with connectors, configuration with hermetically sealed housing, configuration to in-line multichannel, compatible with high sinusoidal or random vibration environments, and solid or split spline input shaft available.

LISK prides itself on customer service, vertical integration, and the ability to provide custom solutions. For over 50 years LISK has been a leading supplier of custom engineered sensors.

About G.W. Lisk Company

LISK is a global leader in the design and manufacture of custom solenoids, solenoid valves, sensors, and flame arrestors, providing custom-engineered solutions to customers in diverse markets including military, aerospace, automotive, commercial, and medical. We provide custom-engineered products and solutions to help customers meet demanding operational and strict environmental requirements in the following areas:

- Application Solutions
- Hardware Engineering
- Mechanical Design & Development
- Rapid Prototyping
- Qualification Testing
- Industry Certifications
- Vertical Integration (Manufacturing)
- Serial Production

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Rev. 2

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