

POSITION SENSORS

RVDT | PRODUCT DETAIL

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

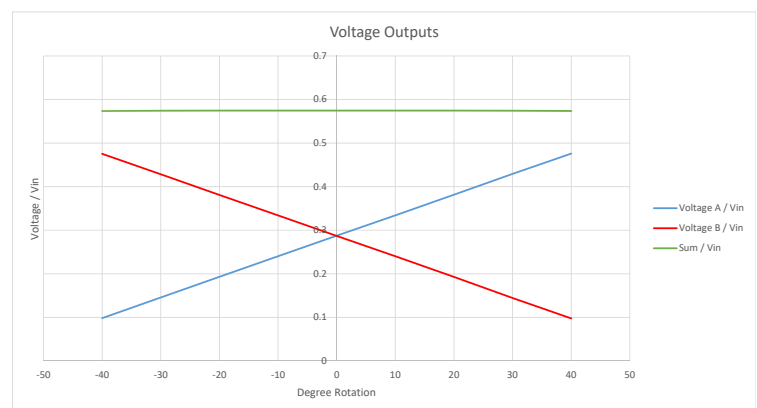
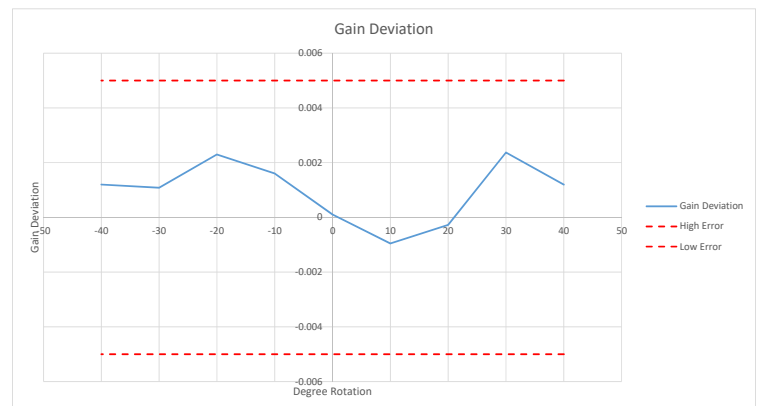
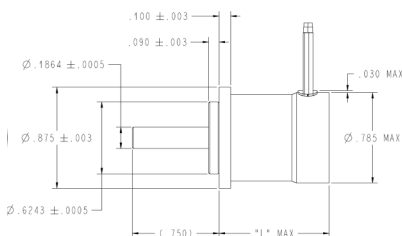
Oil & Gas - Electrical Pan Tilt Units, Link Tilts on Top Drives, Hydraulic Actuators, Subsea Manifold System and more.

Features

- Brushless, no wear construction
- High reliability and repeatability
- Available in frame size 8
- 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 $\pm 0.4^\circ$ 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

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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	±0.4	±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				

LSK engineered 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
- Solid or split spline input shaft available.



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We are a global leader in the design and manufacture of engineered solenoids, solenoid valves, sensors, flame arrestors and intelligent integrated sub-systems. We provide engineered solutions and capabilities to hundreds of customers in diverse markets throughout the world including aerospace, defense, on highway, off highway, and oil & gas. Celebrating 110 years of unparalleled quality and commitment to our customers.

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