

Providing Custom Sensor Solutions

The NewTek RV series is a family of RVDT rotary position sensors for industrial applications. RVDT technology is known for reliability and ruggedness in harsh environments. The non-contact design allows for extremely long operational life and reliability and eliminates internal components that might wear or degrade over time. With a non-contact measurement, RVDTs offer good noise performance with excellent repeatability. The NewTek RV series is available in two sizes - The RV 8-30 is a size 8 (0.75 inch diameter) and the RV 11-30 is a size 11 (1.06 inch diameter).



### **Electrical Specifications**

Input Voltage: 7.5 Vrms (Nominal)
Input Frequency: 1kHz to 5KHz

Linearity: < ± 0.5% Full Range Typical

Null Voltage: 0.4% Full Range

Hysteresis: <0.01% of Full Range Typical Repeatability: <0.01% of Full Range Typical

### **Environmental Specifications**

Operating Temperature: -65°F to 221° F (-55°C to 105°C)

Thermal Coefficient: < -0.01%/ $\circ$ F (< -0.02%/ $\circ$ C) of Full Range

Humidity: 90% R.H., 240 Hours

Shock Survival: 30 g, 11 ms Vibration: 20 g to 2 KHz

# **Materials Specifications**

Housing: Stainless Steel (RV 8), Aluminum (RV 11)

Core: Hi-permeability nickel-iron alloy

Magnet Wire: Film insulated copper

**Connector:** Lead Wires

### **Applications**

- Actuator Feedback
- Quarter-Turn Valve Position Sensing
- Throttle Position
- Dancer Arm Tensioner Position
- Harsh Environments

#### **Features**

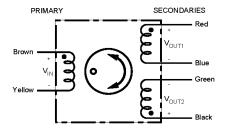
- Available in ± 30° Range
- Full 360° mechanical travel with no stops
- Excellent Linearity ±0.5% of Full Range
- Shock and vibration tolerant
- Wide operating temperature range (-65°F to 221°F)
- Contactless RVDT Technology

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## **Specifications**

Model	RV 8-30	RV 11-30
Parameter		
Nominal Range	± 30°	± 30°
Sensitivity (mV/V/°)	13.30	11.0
Phase Shift	+ 4°	+ 8°
Primary Impedance ( $\Omega$ )	430	235
Secondary Impedance ( $\Omega$ )	340	185
Mounting	Size 8 Servo Mount	Size 11 Servo Mount
Mechanical Range	Full 360°	Full 360°
Body Weight ( ounces)	1.58	2.30
Body Weight ( grams)	36	65

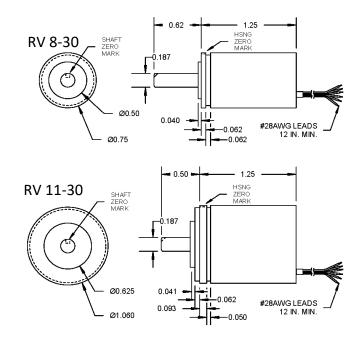
## **Dimensions and Wiring**



Note: Connect Green and Blue for differential operation.

## **Ordering Info**





#### **Notes**

- Electrical specifications measured at 3KHz excitation frequency.
- Additional options available. Please consult factory for custom designs.
- Specifications subject to change without notice.

#### Warranty

NewTek products are warrantied against defective materials and workmanship for a period of one year from the date of delivery to the original purchaser. NewTek accepts no liability for damages in the misuse of our products.