

# RVIT 15-60/RVIT 15-120i RVITs

**RVIT's** are DC operated noncontact rotary transducers. The RVIT proprietary design incorporates a set of four printed circuit coils and a light-weight aluminum spoiler to achieve superior response while maintaining a low moment of inertia. During operation, the light weight spoiler rotates with the transducer shaft, differentially altering the inductance of the printed circuit planar coils. The resulting unbalance is precisely measured using a patented autoplex circuit. This signal is then converted to a linear DC output voltage or current proportional to the angle of the rotor shaft. The digital circuit is extremely resistant to environmental disturbances and provides outputs compatible for use with most analog position feedback systems.

For original equipment manufacturers, purchasing large quantities, a pulse width modulated digital output can be supplied as a special configuration. Other specialized options for volume applications include, regulated single or bipolar excitation, extended operating ranges, and custom uni-polar and bi-polar calibration scaling.

RVIT 15's are available with a choice of standard size 15 servo/syncro mounting or optional four hole flange mount. A shaft seal is supplied with flange mount for applications where protection from hostile environmental conditions are required. RVITs offer wide operating temperature range, infinite resolution, and a virtually infinite cycle life.

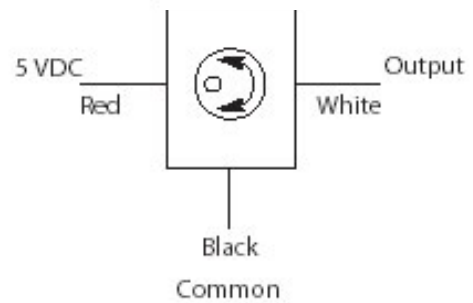
**RVIT 15-60 and RVIT 15-120i** rotary transducers are available in a variety of versions which provide a range of supply and output configurations. Calibrated outputs of  $\pm 3$  VDC and 4-20 mA offer ideal flexibility for specialized OEM designs where unique power supply and interfacing requirements exist. Other specialized ranges, internal regulation and custom calibrated outputs are available for special order.

The standard RVIT 15-60 transducer emulates a potentiometer in that the output voltage is ratiometric to the input voltage, within the limits of the supply specification. In addition, the noncontact design of the RVIT provides virtually infinite rotational life and extremely high accuracy of  $\pm 0.25\%$  FS.

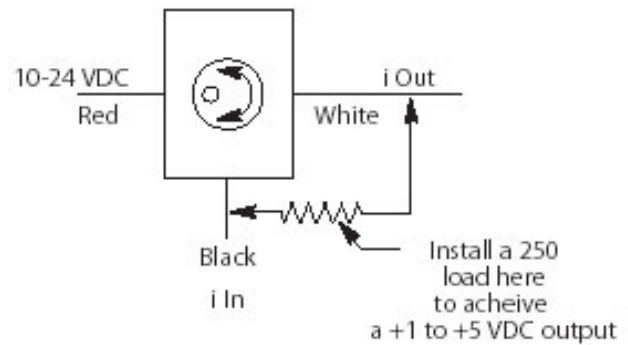


## wiring

RVIT-15-60



RVIT-15-120i



# RVIT 15-60/RVIT 15-120i RVITs

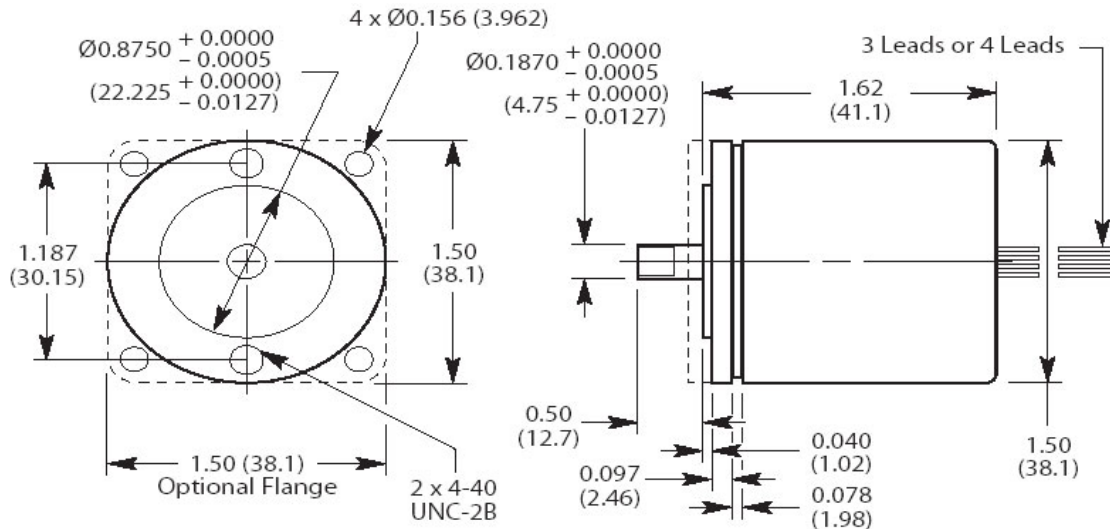
## Specifications RVIT 15-60

<b>Full Range</b>	+/- 60°
<b>Input Voltage (nom)</b>	+5 VDC (4.0 to 5.5)
<b>Scale Factor</b>	0.050 V/° (@ 5.0 Volts input)
<b>Output Voltage (nom)</b>	+/- 3VDC (@ ±60°)
<b>Input Current</b>	14 mA
<b>Output Current</b>	5 mA
<b>Output Impedance</b>	<1 Ohms
<b>Frequency Response</b>	25 Hz @ -3dB
<b>Linearity Error</b>	+/- 0.25% of full scale output
<b>Non-repeatability &amp; Hysteresis</b>	0.1% of full scale output maximum
<b>Storage Temperature Range</b>	-67°F to 250°F (-55°C to 125°C)
<b>Operating Temperature Range</b>	-13°F to 185°F (-25°C to 85°C)
<b>Temperature Coefficient of FS</b>	+/-0.02%/F° (0.04%/°C)
<b>Lead Wires</b>	26 AWG, PVC jacket, 3-4 wire, minimum 12" long
<b>Torque</b>	0.12 in-oz
<b>Weight</b>	2.47 oz
<b>Mounting</b>	Size 15 servo or flange mount BU-ORD
<b>Bearings</b>	Matched and Preloaded ABEC 3
<b>Shaft Diameter</b>	3/16 in (4.76 mm)
<b>Axial Shaft Bearing Load Capacity</b>	10 lbs (4.54 kg)
<b>Radial Shaft Bearing Load Capability</b>	10 lbs (4.54 kg)
<b>Housing Material</b>	Aluminum

## RVIT 15-120i

0 to 120°
10-28 VDC (not to exceed 30)
0.133 mA/°
+1 to +5 VDC (with 250 Ohm load)
41 mA
4-20 mA
<250 Ohms
25 Hz @ -3 dB
+/- 0.25% of full scale output
0.1% of full scale output maximum
-67°F to 250°F (-55°C to 125°C)
-13°F to 185°F (-25°C to 85°C)
+/-0.02%/F° (0.04%/°C)
26 AWG, PVC jacket, 3-4 wire, minimum 12" long
0.12 in-oz
2.47 oz
Size 15 servo or flange mount BU-ORD
Matched and Preloaded ABEC 3
3/16 in (4.76 mm)
10 lbs (4.54 kg)
10 lbs (4.54 kg)
Aluminum

## dimensions



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## ordering information

Specify by Model Number

Model Number	Size	Range
RVIT 15-60	15	± 60°
RVIT 15-120i	15	0 to 120°

R-Flex coupler available separately

