

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.

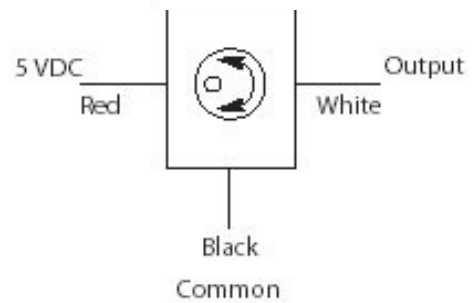
RVIT 15-60 and RVIT 15-120i rotary transducers are available in a variety of versions which provide a range of supply and output configurations. Calibrated outputs of ± 3 VDC and 4-20 mA offer ideal flexibility for specialized OEM designs where unique power supply and interfacing requirements exist. 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.

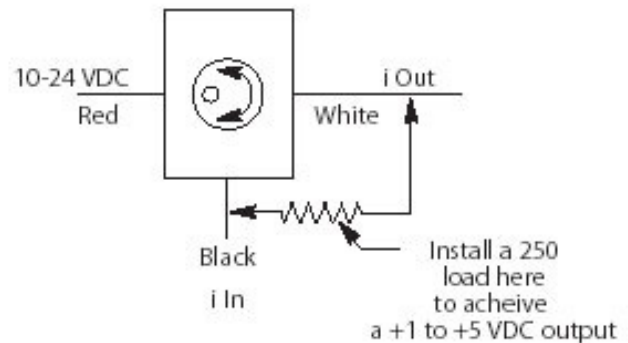


wiring

RVIT-15-60



RVIT-15-120i



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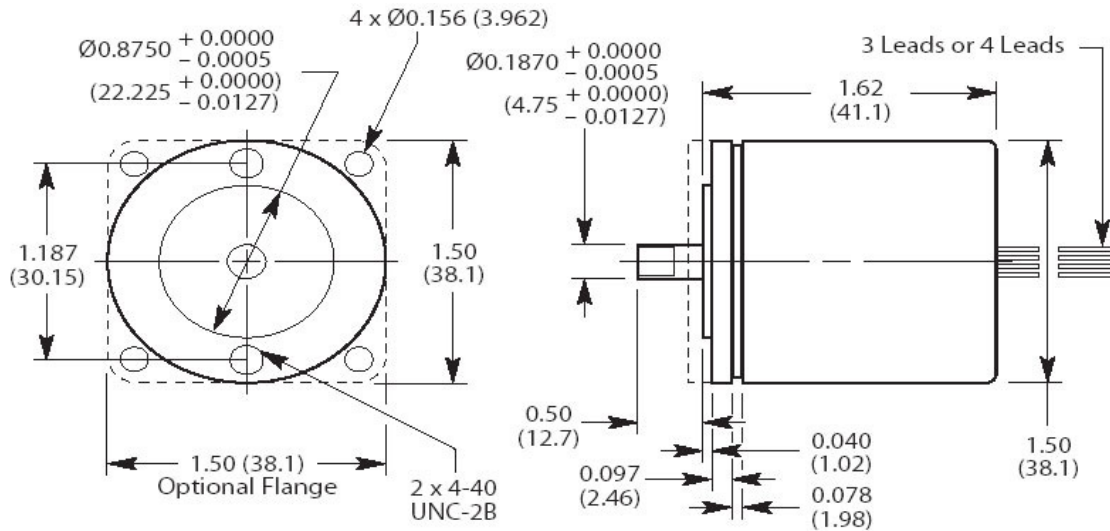
Specifications RVIT 15-60

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

RVIT 15-120i

Full Range	0 to 120°
Input Voltage (nom)	10-28 VDC (not to exceed 30)
Scale Factor	0.133 mA/°
Output Voltage (nom)	+1 to +5 VDC (with 250 Ohm load)
Input Current	41 mA
Output Current	4-20 mA
Output Impedance	<250 Ohms
Frequency Response	25 Hz @ -3 dB
Linearity Error	+/- 0.25% of full scale output
Non-repeatability & Hysteresis	0.1% of full scale output maximum
Storage Temperature Range	-67°F to 250°F (-55°C to 125°C)
Operating Temperature Range	-13°F to 185°F (-25°C to 85°C)
Temperature Coefficient of FS	+/-0.02%/F° (0.04%/°C)
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dimensions



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ordering information

Specify by Model Number

R-Flex coupler available separately

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

