

R60D

Non-contact Rotary Transducer

- Measurement range $\pm 60^\circ$
- RVIT
- Linearity 0.5 %
- Output signal ± 7.5 V
- Supply voltage ± 15 VDC

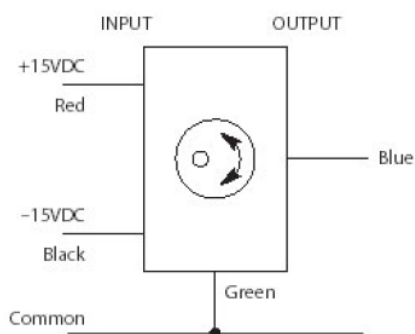


RVITs are DC operated non-contact rotary transducers. The RVIT proprietary design incorporates a set of four printed circuit coils and a light-weight aluminum spoiler to achieve superior response while maintaining a low moment of inertia. During operation, the light weight spoiler rotates with the transducer 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 proportional to the angle of the rotor shaft. The digital circuit is extremely resistant to environmental disturbances and is compatible for use with most analog position feedback systems.

RVITs offer wide operating temperature range, infinite resolution, and a virtually infinite rotational cycle life.

Calibrated over a $\pm 60^\circ$ range, the R60D provides a form and functional replacement for the R30D, while supplying enhanced, extended range linearity, at a more cost effective price. Due to the digital front end, the R60D provides improved resistance to external EMI and RFI disturbances. Built in voltage regulation provides a stable, non-ratiometric output over varying input voltage conditions. Typical applications include ball valve position feedback, throttle and position level.

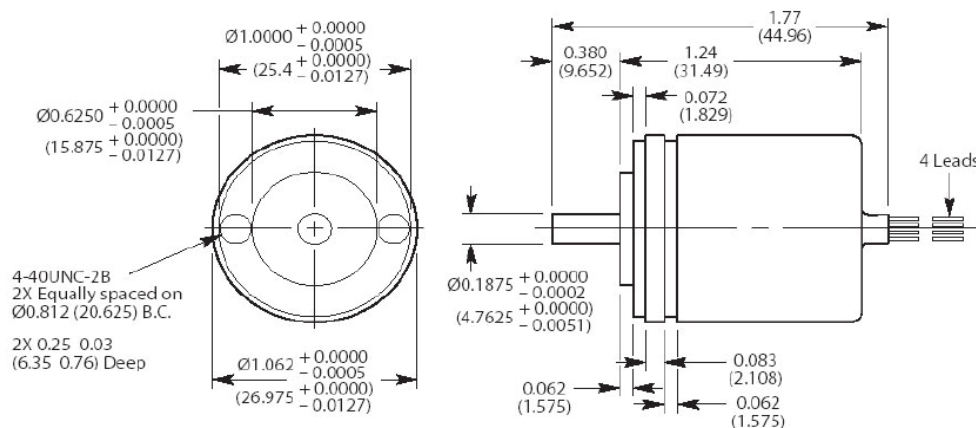
■ Wiring



Specifications

Parameter	
Full range:	±60°
Input voltage, nominal:	±15 VDC (±10 %)
Scale factor:	0.125 V/°
Output voltage, nominal:	±7.5 V (at 60°)
Input current:	21 mA
Output current:	5 mA
Output impedance:	<1 Ohm
Frequency response:	200 Hz @ -3 dB
Linearity:	±0.50 % of full scale output (@ ±60°)
Non-repeatability & hysteresis:	0.1 % of full scale output maximum
Storage temperature range:	-55 ... +125 °C
Operating temperature range:	-25 ... +85 °C
Temperature coefficient of FS:	±0.04 %/K
Lead wires:	24 AWG, PVC insulation, 4 wire, min 30 cm long
Torque:	0.12 in-oz (0.8 mNm)
Weight:	1.2 oz (34 gram)
Mounting:	Size 11 Servo Mount BU-ORD
Bearings:	Shielded ABEC 3 Precision
Shaft diameter:	3/16 in (4.76 mm)
Axial shaft bearing load capacity:	10 lbs (4.54 kg)
Radial shaft bearing load capacity:	10 lbs (4.54 kg)
Housing material:	Aluminum

Dimensions



All dimensions in inches, values in brackets in mm, approx. values.
 These drawings are for information only and not intended for construction purpose. Please ask for detailed drawings.

Due to continual product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.