R11X-N10/7 Specification Sheet

DESCRIPTION

Designed for reliable operation, the R11X-N10/7 can be used in a wide range of space critical applications where environmental sealing is not required. The resolver provides the absolute position of the input shaft within a single turn. Resolvers are analog, ratiometric devices, so any changes in the resolver’s characteristics, such as those caused by aging, frequency, voltage, or a change in temperature, are ignored. Due to the small shaft size, a flexible coupler must be used when connecting this resolver to your machinery. Note that, due to the transformation ratio of the R11X-N10/7, this resolver will not work directly with AMCI standard controllers or interface modules.

DIMENSIONAL DRAWING

( ) = Dimensions in millimeters
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SPECIFICATIONS

**Electrical:**
- Input Voltage: 8.5 V
- Input Freq: 1000 Hz
- Primary: Stator
- Input Current: 18.0 mA max.
- Input Power: 97 mW max.
- Output Voltage: 8.5 V nom.
- Trans. Ratio: 1.00 ± 5%
- Zro (Ω): 220 + j350
- Zrs (Ω): 190 + j192
- Zso (Ω): 230 + j890
- Zss (Ω): 231 + j896
- DC Rotor Res.: 40 Ω
- DC Stator Res.: 130 Ω
- Phase Shift: 6° leading max.
- Null Voltage: 15 mV total max.
- Accuracy: ±7 min. max.

**Mechanical:**
- Shaft Load: 2 lbs. radial
  1 lbs. axial
- Starting Torque: 0.08 oz-in @ 25°C
- Rotor Moment: 0.51X10^4 oz-in-sec
- Weight: 115g (4.04 oz)
- Enviro. Rating: IP40 / NEMA 1

† At the recommended maximum loads, average bearing life is 2X10^7 revolutions. (L10 rating)

**Environmental:**
- Operating
  - Temperature: –40°C to +125°C
  - –40°F to +257°F
  - Shock: 50 g's for 11 ms
  - Vibration: 15 g's to 2000 Hz

SAMPLE INSTALLATION

The picture below shows how to connect a R11X-N10/7 to an AMCI standard cable.

Shields of the cable must not be connected to chassis ground except at the resolver decoder. Strip the shields back to inside the cable.

Belden 9873 or 9730 Cable To Resolver Decoder

Wires from R11X-N10/7 Resolver

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