

R11X-F10B/7S3-52 Specification Sheet

SHEET # 940-2T961

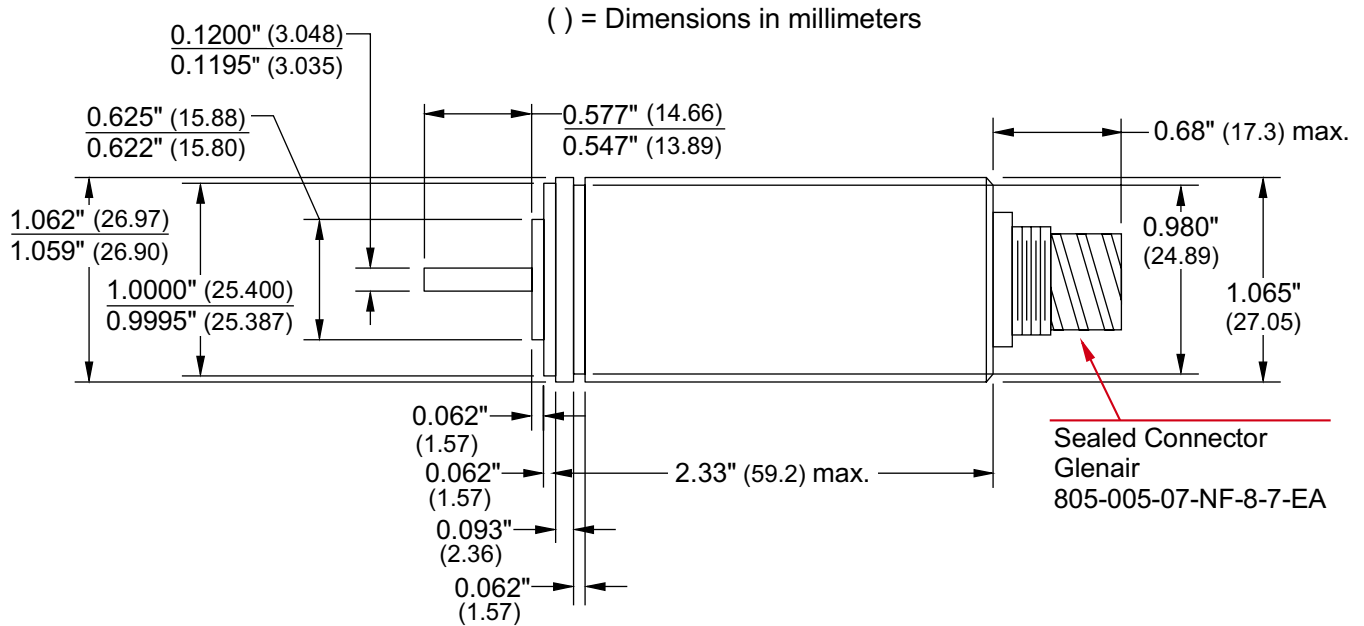
DESCRIPTION

Designed specifically for a customer in the aerospace industry, the R11X-F10B/7S3-52 is a sealed single speed resolver that can operate in extreme environments. The brushless resolver is unsurpassed by any other type of rotary position transducer in terms of reliability, but most size 11 resolvers are not environmentally sealed. With a shaft seal and integral connector, the R11X-F10B/7S3-52 is IP67 rated when the mating connector is properly installed.

The resolver provides absolute position of the input shaft and being ratiometric, 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 the resolver to your machinery.

The R11X-F10B/7S3-52 has an accuracy of ± 7 minutes. A higher accuracy unit with a specification of ± 3 minutes is available under the part number R11X-F10B/3S3-52.

DIMENSIONAL DRAWING



SPECIFICATIONS

Input Voltage: 7.0 V _{RMS} Nom.	Accuracy: ± 7 minute max.
Input Freq: 2500 Hz	Phase Shift: 6° Leading
Input Current: 18.0 mA Max.	Null Voltage: 15mV max.
Primary: Rotor	Rotor Moment: 0.51×10^{-4} oz-in-sec ²
Trans. Ratio: $0.50 \pm 7\%$	Starting Torque: 0.4 oz-in @ 25°C
Z _{ro} (ohm): 175 + j170	Shaft Seal: Nitrile, 7 psi diff. max.
Z _{rs} (ohm): 108 + j121	Radial Load: 2 lbs. max.
Z _{so} (ohm): 165 + j182	Axial Load: 1 lb. max.
Z _{ss} (ohm): 100 + j128	Op. Temp.: -65°C to 125°C -85°F to 257°F
DC Rotor Res.: 16 ohm	IP Rating: IP67 with mating connector installed
DC Stator Res.: 40 ohm	
<i>All impedance and resistance values are $\pm 15\%$</i>	

Bearing L10 life is 2×10^9 revolutions at the listed maximum radial and axial loads. (Statistically, 90% of the bearings will last this long.) Shaft loading has an exponential effect on bearing life. Minimize shaft loading to exponentially extend the life of the resolver. Use a flexible coupler between the resolver and your machine.