

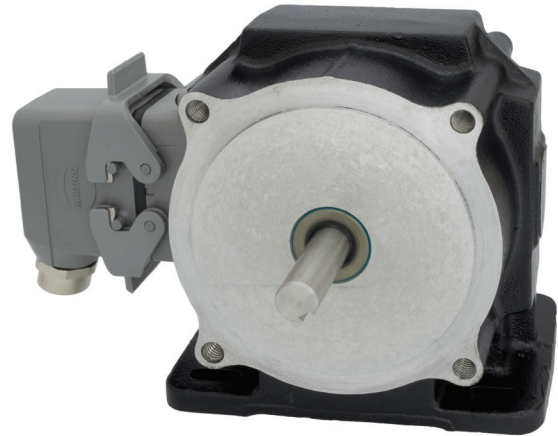
# SERIES R56

**NorthStar™ brand**

## Heavy Duty Resolver

### Key Features

- Harowe Resolver in NorthStar Housing
- Large Outer Bearings Isolate Shaft Loads
- Foot Mount or 56 C-Face Mount
- Excellent Zero-Speed Output
- Suitable Replacement for the Reliance Automax Resolvers 800123-R, 800123-S, 800123-1R and 800123-1S\*



## SPECIFICATIONS

### STANDARD OPERATING CHARACTERISTICS

ELECTRICAL	One Speed Winding	Two Speed Winding
Sensing Method	Sine/Cosine	Sine/Cosine
Electrical Cycles	1	2
Excitation	26 ±5% Vrms 2.4 kHz	26 ±5% Vrms 2.4 kHz
Input Current	22 Max mA Arms	45 Max mA Arms
Null Voltage	25 Max mVrms	25 Max mVrms
Position Error	±10 ArcMin	10 ArcMin Max
DC Resistance (R1-R2)	255 Ohms ±15%	190 Ohms ±15%
DC Resistance (S1-S3 and S2-S4)	176 Ohms ±15%	322 Ohms ±15%
Transformation Ratio	0.454 ±10%	0.454 ±10%
Phase Shift	6 degrees	18 degrees
Dielectric Strength to Case	500 VAC w/2 Max mA Arms	500 VAC w/2 Max mA Arms
Dielectric Strength to Phase to Phase	250 VAC w/2 Max mA Arms	250 VAC w/2 Max mA Arms

### ELECTRICAL CONNECTIONS

Signal	Pin
R1 – Rotor Hi	1
R2 – Rotor Lo	2
S1 – Cos Hi	3
S3 – Cos Lo	4
S2 – Sin Hi	5
S4 – Sin Lo	6

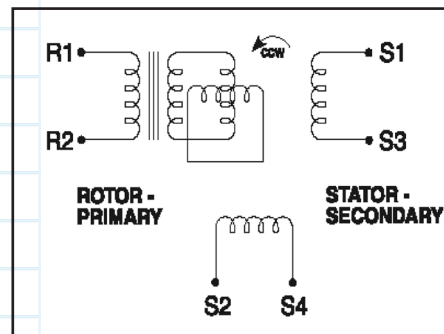
### MECHANICAL

**Shaft Size:** 5/8" stainless steel, 56 C-Face NEMA style; single or dual shaft  
**Shaft Loading:** 100 lbs. radial, 50 lbs. axial  
**Shaft Speed:** 3600 RPM max.  
**Mounting:** Foot mount; NEMA 56C face mount  
**Connector:** Industrial 10pin latching connector  
**Housing and Cover:** Aluminum  
**Shaft Material:** Stainless Steel  
**Weight:** 11 lbs. max.

### ENVIRONMENTAL

**Operating Temperature:** -40 to +120°C  
**Storage Temperature:** -40 to +130°C  
**Shock:** 50 G's for 11 milliseconds duration  
**Vibration:** 5 to 2000 Hz at 10 G's  
**Humidity:** Up to 98% (non-condensing)  
**Enclosure Rating:** IP65 (dust proof, washdown)

### SCHEMATIC



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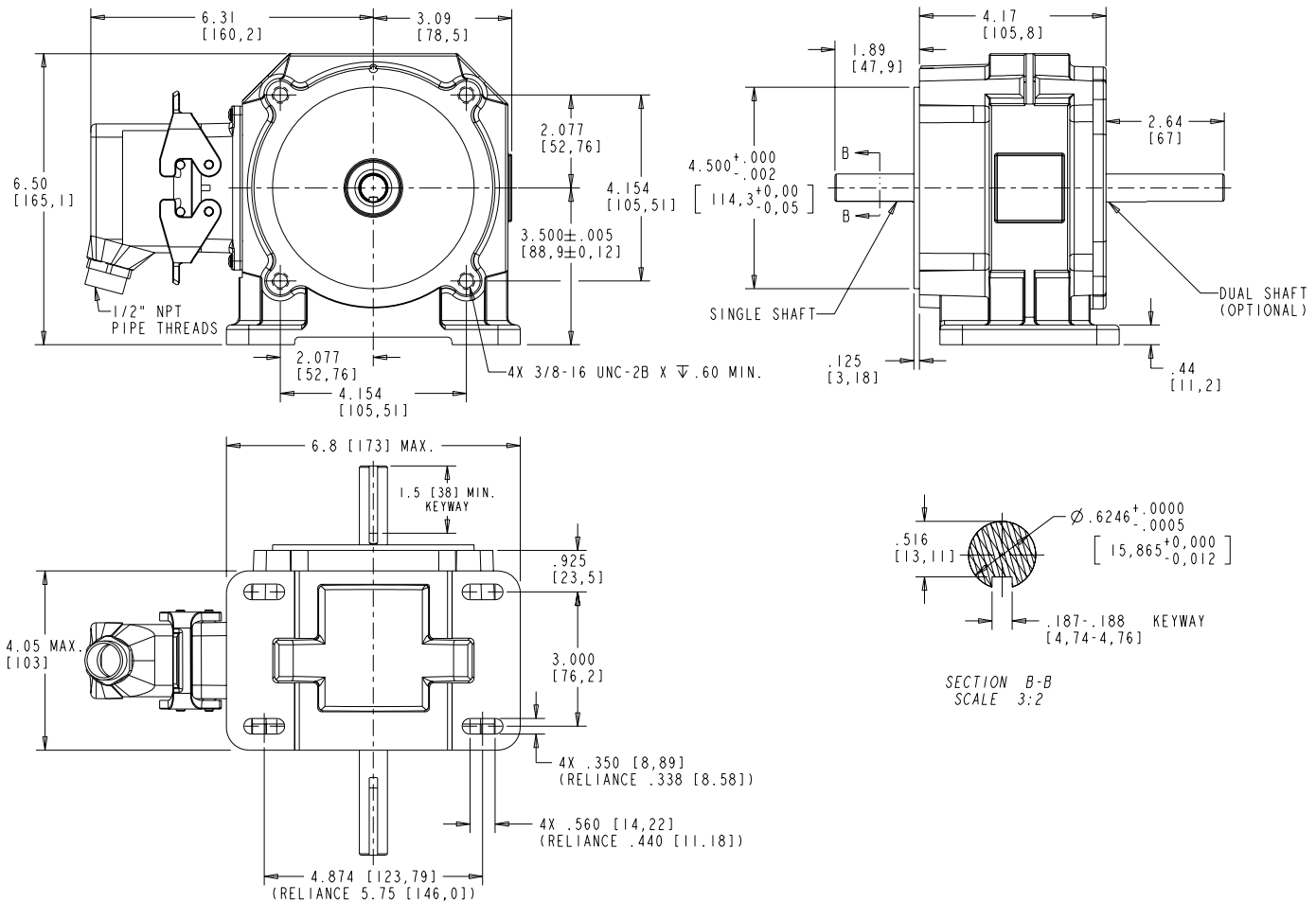
## Ordering Information

To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: Resolver Speed	Code 3: Shaft	Code 4: Termination
<b>R56</b>	—	□	□
Ordering Information			
R56 Foot Mount or NEMA 56C Face Mount Resolver	1	S Single, 5/8"	L Latching Industrial Connector
	2	D Dual Shaft, 5/8"	

## DIMENSIONS inches [mm]

Tolerances: XXX ±0.010; XX ±0.02



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