

SERIES RF25

NorthStar™ brand

Heavy Duty Resolver

Key Features

- Flange Mount Rugged Housing Immune to Oil, Salt, Water & Dust
- Spaced Bearings for up to 10x the Life of Traditional Duplex Bearings
- Withstands 200g Shock and 40g Vibration
- Shaft Seal Standard
- Suitable Replacement for the Reliance Automax Resolvers 800123-2R and 800123-2S*



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

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

MECHANICAL

Shaft Size: 3/8"
Mounting Type: Square Flange
Max Radial Shaft Load: 60 lbs.
Max Axial Shaft Load: 40 lbs.
Max Continuous Speed: 6,000 RPM
Moment of Inertia: .004 oz-in-sec²
Bearing Life: 2x10⁸ Revs at rated shaft load
Housing and Cover: Aluminum
Shaft Material: 416 Stainless Steel
Weight: 1.6 lbs.

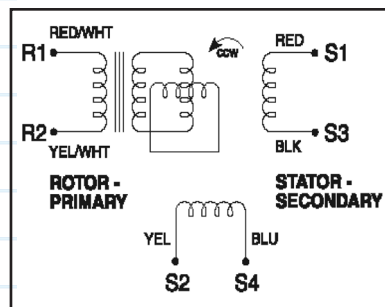
ENVIRONMENTAL

Operating Temperature: -55 to +125°C
Storage Temperature: -55 to +125°C
Shock: 200G at 11 milliseconds time duration. Half sine waveform per Mil-S-81963
Vibration: 40G at .06 inch double amplitude at 10-2000 Hz per Mil-S-81963
Humidity: to 98% without condensation
Enclosure: IP65

ELECTRICAL CONNECTIONS

Connector:	7 pin MS	10 pin MS	6 pin MS Clicklock	19 pin MS Clicklock	Cable Color
Signal	Pin	Pin	Pin	Pin	
R1 (Rotor Hi)	A	A	E	A & B	Red w/ White
R2 (Rotor Lo)	B	H	F	C & D	Yellow w/White
S1 (Cos Hi)	C	B	C	E & F	Red
S3 (Cos Lo)	D	I	D	G & H	Black
S4 (Sin Lo)	F	C	B	L & M	Blue
S2 (Sin Hi)	E	J	A	J & K	Yellow w/Blue
N/C	G	G	-	-	-

SCHEMATIC



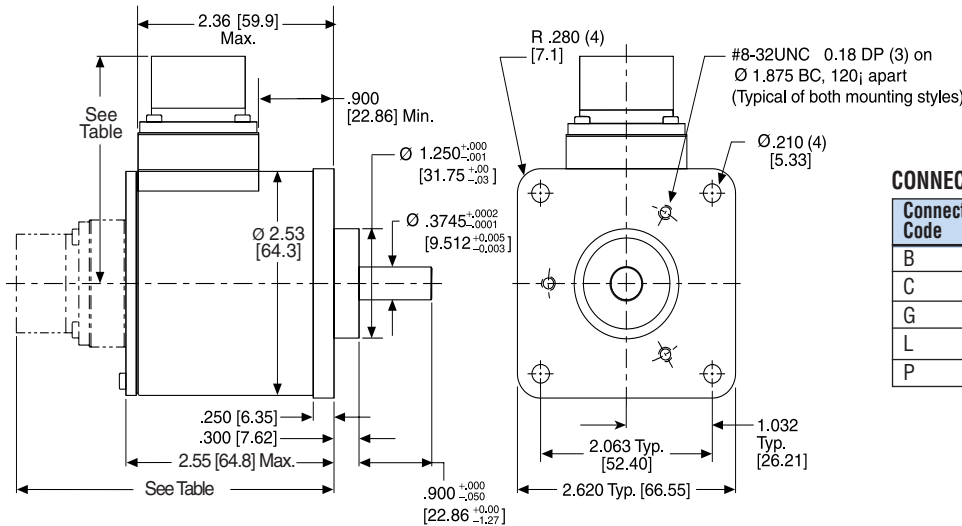
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Ordering Information

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	Code 5: Connector Exit	Code 6: Special Options	
RF25	—	1J	W	L	S	A
Ordering Information						
RF25 Heavy Duty Flange Mount Resolver	1J 2J	R Round F Round with Flat W Round with Two Flats @ 90 Degrees	B MS3102E-16S-1P C MS3102E-18-1P F Flying Leads G MS3112E-10-6P P PT02E-14-19P	R Rear Exit S Side Exit	A None	

DIMENSIONS inches [mm]

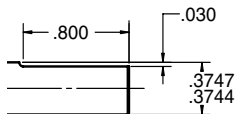


CONNECTOR LOCATION

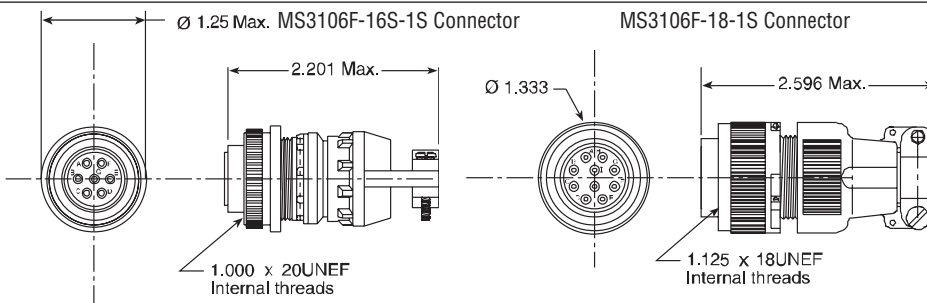
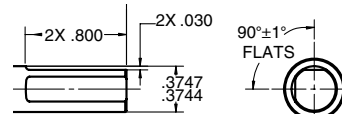
Connector Code	Connector Type	Side Location	Rear Location
B	7 Pin Screw Type	2.51 inch	3.74 inch
C	10 Pin Screw Type	2.90 inch	4.12 inch
G	6 Pin Twist & Lock	2.32 inch	3.54 inch
L	11 Pin Twist & Lock	2.29 inch	3.55 inch
P	19 Pin Twist & Lock	2.40 inch	3.62 inch

Note: Dimensions are dependent on Connector type - Shown with MS3112E-18-11P

SHAFT WITH FLAT



SHAFT WITH 2 FLATS



Accessories:

CA-18-R-0010: 10 ft.cable with MS3106F-18-1S Connector
CA-16-R-0010: 10 ft.cable with MS3106F-16S-1S Connector
Note: Part numbers listed with -0010 are for 10 Foot Cable; use -0050 for 50 Foot Cable, etc



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