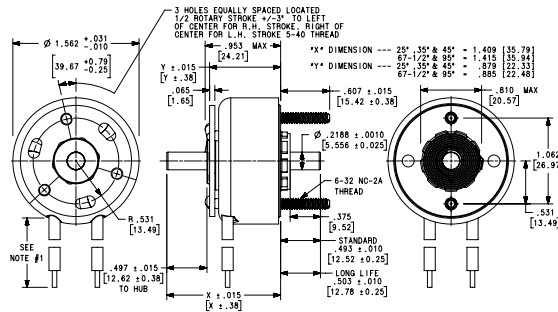


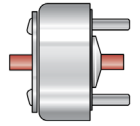
# Rotary Solenoid 3 Ball Race

## Precision Elongated Coil - 4E

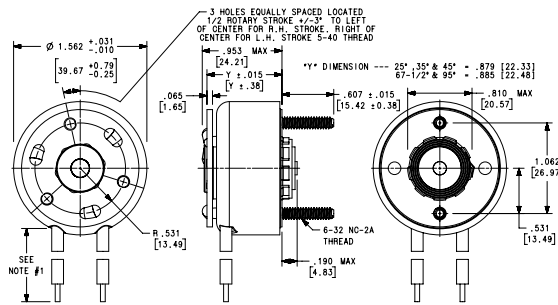
X3X4X6X9



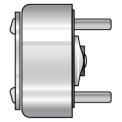
Double shaft  
3 tapped holes  
Return spring



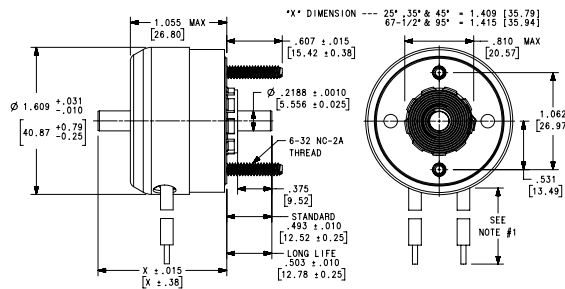
X6X9



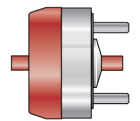
No shafts  
3 tapped holes  
Return spring



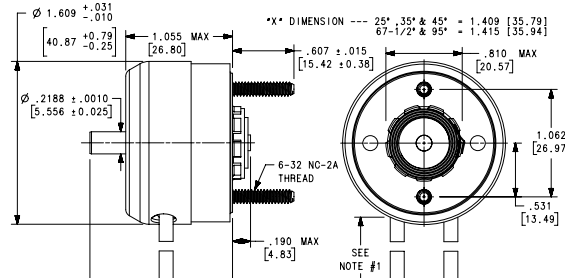
X3X4X8X9



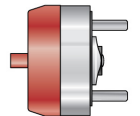
Armature cover  
Double shaft  
Return spring



X4X8X9



Armature cover  
Armature end shaft  
Return spring



### Specifications

- Minimum Heat Sink: Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C, with solenoid mounted on the equivalent of an aluminum plate measuring 6 1/4" square by 1/8" thick.
- Coil Resistance:  $\pm 5\%$  tolerance
- Weight: 7 oz (198.4 gms)

Part No.	Rotation	Design Type	Resistance (Ω)	Duty Cycle				
				100%	50%	25%	10%	5%
				VDC (NOM)	VDC (NOM)	VDC (NOM)	VDC (NOM)	VDC (NOM)
H-15021-027	67 1/2° CW	X3X4X6X9	8.76	10.4	14.6	21.0	33.0	47.0
H-15021-028	67 1/2° CW	X3X4X6X9	13.8	13.2	18.5	26.0	42.0	59.0
H-2650-028	25° CW	X6X9	13.8	13.2	18.5	26.0	42.0	59.0
H-2741-030	25° CCW	X6X9	34.8	21.0	29.0	42.0	66.0	94.0
H-3084-031	95° CW	X3X4X8X9	56.7	27.0	37.0	53.0	84.0	119.0
L-1247-031 <sup>1</sup>	45° CCW	4X8X9	56.7	27.0	37.0	53.0	84.0	119.0

<sup>1</sup>Long Life models provide approximately 90% of the charted torque.

Direction of rotation (cw – clockwise or ccw – counterclockwise) is viewed from the armature end of the solenoid, opposite the mounting studs.

Not recommended for use at 100% duty

\*Consult the factory.

Stroke	Holding Torque (lb-in)	Starting Torque (lb-in) @ 20°C Maximum Duty Cycle				
		100%	50%	25%	10%	5%
25°	2	0.9	1.7	3.1	4.5	5.2
45°	1	0.4	0.9	1.6	2.6	3.1
67 1/2°	*	0.2	0.4	0.8	1.6	1.9
95°	0.9	0.2	0.3	0.6	1	1.2
Maximum ON Time (sec) when pulsed continuously		∞	100	36	9	3.2
Maximum ON Time (sec) for a single pulse		∞	162	44	10	3.5
Watts (@20°C)		12.5	25	50	125	250
Ampere Turns (@20°C)		714	1000	1425	2250	3200

Gross torque shown. For net available starting torque subtract return spring torque of 0.18lb-in±20%.

Holding torque is shown at the stabilized temperature of 105°C and continuous duty power.

\*Consult the factory.



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### WHY JOHNSON ELECTRIC?

Johnson Electric invented the rotary solenoid and still knows it best, with an ongoing foundation of innovation spanning more than 80 years.

Today, Johnson Electric is the leader in motion subsystems. Technological leadership, application expertise, and a global footprint make Johnson Electric your ideal solution partner for differentiated product development projects and supply chain excellence.

