

# Size 6S Rotary Solenoid



## General Specifications:

•**Dielectric Strength:** 23-31 awg. 1200 VRMS / 32-33 awg. 1500 VRMS

•**Recommended Heat Sink:** Maximum watts dissipated by the solenoid are based on an unrestricted flow of air at 20° C mounted on the equivalent of an aluminium plate 314.3 x 314.3 x 3.2mm min.

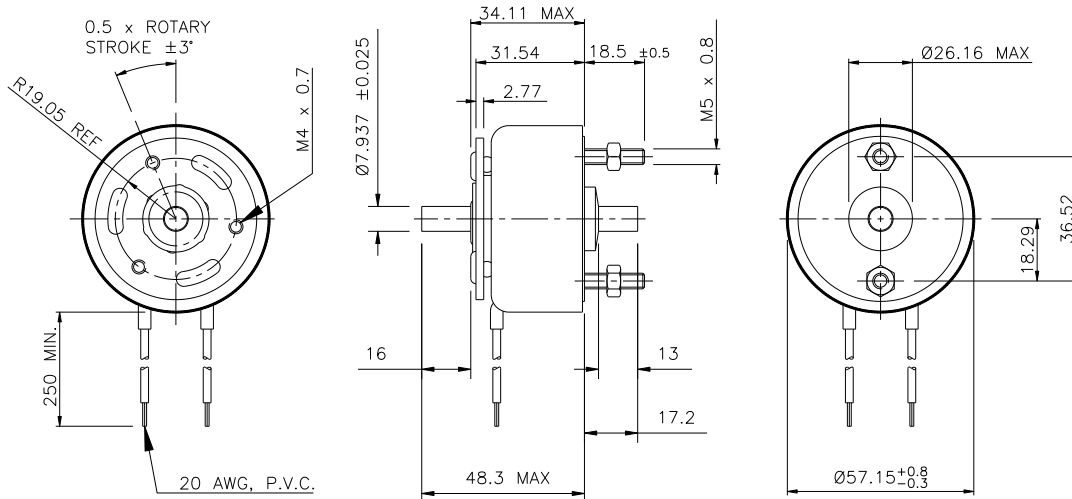
•**Coil Resistance:** +/- 5% tolerance

•**Starting Torque:** Gross torque values are shown For net starting torque, subtract return spring torque

•**Return Spring Torque:** 56.5 mNm +/- 20%

•**Weight:** 510.3 g

Solenoid shown in the de-energised position



## Notes

1. Continuously pulsed at stated watts and duty cycle
2. Single pulsed at stated watts (with coil at ambient room temperature 20° C)
3. Other coil gauges available, consult factory
4. Reference number of turns
5. Gross starting torques are shown For net starting torque, subtract return spring torque of 56.5mNm +/- 20%
6. Holding torque is shown at the stabilised temperature of 105°C,

## Performance Specification

Starting Torque (mNm) @ 20° C (5)						
Maximum Duty Cycle	100%	50%	25%	10%	5%	
Stroke	Holding Torque (6)					
25°	1017	519.8	1005.7	1830.6	3141.4	3457.8
35°	384.2	734.5	1356.0	2101.8	2316.5	
45°	678.0	192.0	395.5	734.5	1234.0	1367.3
67.5°	180.8	350.3	632.8	994.4	1096.1	
95°	339.0	101.7	192.1	372.9	587.6	644.1

## How to Order - Please Specify

- Direction and angle of rotation
- Coil awg, or voltage and duty cycle
- Supplementary 'X' features i.e. method of load take off
- Operating temperature range
- Any special features, if complex please submit a drawing of your requirements

Please Note: In line with continued development we reserve the right to amend specification without prior notice (Rev 03/19)

## Coil Specifications

Maximum Duty Cycle	100%	50%	25%	10%	5%		
Maximum ON Time (sec)							
When pulsed		87	36	13	4.6		
continuously (1)							
Maximum ON Time (sec)		140	44	16	5.7		
for single pulse (2)							
Watts (@20° C)	32	64	128	320	640		
Ampere Turns (@ 20° C)	1240	1760	2490	3920	5555		
Coil Data							
awg. (3)	Resistance (@ 20°C)	# Turns (4)	Nominal DC Voltage				
23	3.59	432	10.3	14.6	21.0	33.0	46.0
24	5.24	500	13.0	18.4	26.0	41.0	58.0
25	9.51	708	16.7	24.0	33.0	53.0	75.0
26	14.44	858	21.0	30.0	42.0	66.0	94.0
27	23.69	1110	27.0	38.0	53.0	84.0	119.0
28	38.27	1411	34.0	48.0	68.0	106.0	151.0
29	54.62	1638	41.0	59.0	83.0	131.0	185.0
30	93.67	2184	53.0	76.0	107.0	168.0	238.0
31	143.0	2645	67.0	95.0	134.0	211.0	299.0
32	223.0	3328	83.0	118.0	167.0	262.0	372.0
33	338.0	4004	105.0	149.0	210.0	331.0	469.0

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## X Feature Configurations & Part Numbers

### How to Order

Replace 'XX' with coil AWG required  
see coil specification table

Description	Stroke/ Direction	Nom. Axial Stroke	Armature Cover x 8 Armature End Shaft x 4 Return Spring x 9		Armature Cover x 8 Base End Shaft x 3 Return Spring x 9		Armature Cover x 8 Double Shaft x 3 x 4 Return Spring x 9	
			Standard	Endurance Engineered	Standard	Endurance Engineered	Standard	Endurance Engineered
6S Rotary	25°RH	1.4	M1202-0XX	E1202-0XX	M2484-0XX	E2484-0XX	M3376-0XX	E3376-0XX
6S Rotary	25°LH	1.4	M1005-0XX	E1005-0XX	M2485-0XX	E2485-0XX	M15036-0XX	E15036-0XX
6S Rotary	35°RH	1.5	M15023-0XX	E15023-0XX	M2916-0XX	E2916-0XX	M3365-0XX	E3365-0XX
6S Rotary	35°LH	1.5	M15024-0XX	E15024-0XX	M2942-0XX	E2942-0XX	M2964-0XX	E2964-0XX
6S Rotary	45R°H	1.5	M3136-0XX	E3136-0XX	M2817-0XX	E2817-0XX	M15066-0XX	E15066-0XX
6S Rotary	45°LH	1.5	M2510-0XX	E2510-0XX	M2698-0XX	E2698-0XX	M3308-0XX	E3308-0XX
6S Rotary	67.5°RH	1.5	M1182-0XX	E1182-0XX	M2181-0XX	E2181-0XX	M1483-0XX -	E1483-0XX
6S Rotary	67.5°LH	1.5	M2293-0XX	E2293-0XX	M2671-0XX	E2671-0XX	M1481-0XX -	E1481-0XX
6S Rotary	95°RH	1.5	M3230-0XX	E3230-0XX	M2643-0XX	E2643-0XX	M1078-0XX -	E1078-0XX
6S Rotary	95°LH	1.5	M1351-0XX	E1351-0XX	M2223-0XX	E2223-0XX	M15095-0XX	E15095-0XX

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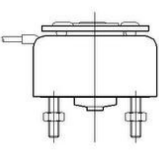
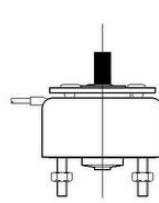
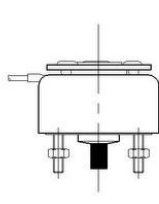
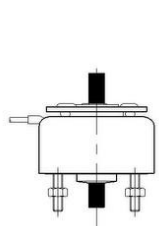
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## X Feature Configurations & Part Numbers

### How to Order

Replace 'XX' with coil AWG required  
see coil specification table

Description	Stroke/ Direction	Nom. Axial Stroke mm	No Shafts 		Armature End Shaft x 4 		Base End Shaft x 3 		Double Shaft x 3 x 4 	
			Standard	Endurance Engineered	Standard	Endurance Engineered	Standard	Endurance Engineered	Standard	Endurance Engineered
6S Rotary	25°RH	1.4	M2481-0XX	E2481-0XX	M3055-0XX	E3055-0XX	M2184-0XX	E2184-0XX	M15067-0XX	E15067-0XX
6S Rotary	25°LH	1.4	M1002-0XX	E1002-0XX	M1291-0XX	E1291-0XX	M1306-0XX	E1306-0XX	M15123-0XX	E15123-0XX
6S Rotary	35°RH	1.5	M2861-0XX	E2861-0XX	M1230-0XX	E1230-0XX	M15417-0XX	E15417-0XX	M2057-0XX	E2057-0XX
6S Rotary	35°LH	1.5	M2269-0XX	E2269-0XX	M15412-0XX	E15412-0XX	M15418-0XX	E15418-0XX	M15136-0XX	E15136-0XX
6S Rotary	45°RH	1.5	M1112-0XX	E1112-0XX	M15013-0XX	E15013-0XX	M1311-0XX	E1311-0XX	M15064-0XX	E15064-0XX
6S Rotary	45°LH	1.5	M2328-0XX	E2328-0XX	M3208-0XX	E3208-0XX	M1286-0XX	E1286-0XX	M1542-0XX	E15424-0XX
6S Rotary	67.5°RH	1.5	M2404-0XX -	E2404-0XX	M3264-0XX	E3264-0XX	M15420-0XX	E15420-0XX	M15426-0XX	E15426-0XX
6S Rotary	67.5°LH	1.5	M2661-0XX -	E2661-0XX	M15414-0XX	E15414-0XX	M15421-0XX	E15421-0XX	M15427-0XX	E15427-0XX
6S Rotary	95°RH	1.5	M2072-0XX -	E2072-0XX	M2826-0XX	E2826-0XX	M1313-0XX	E1313-0XX	M2001-0XX	E2001-0XX
6S Rotary	95°LH	1.5	M2071-0XX -	E2071-0XX	M3002-0XX	E3002-0XX	M2936-0XX	E2936-0XX	M15030-0XX	E15030-0XX

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