

Rotary Solenoid

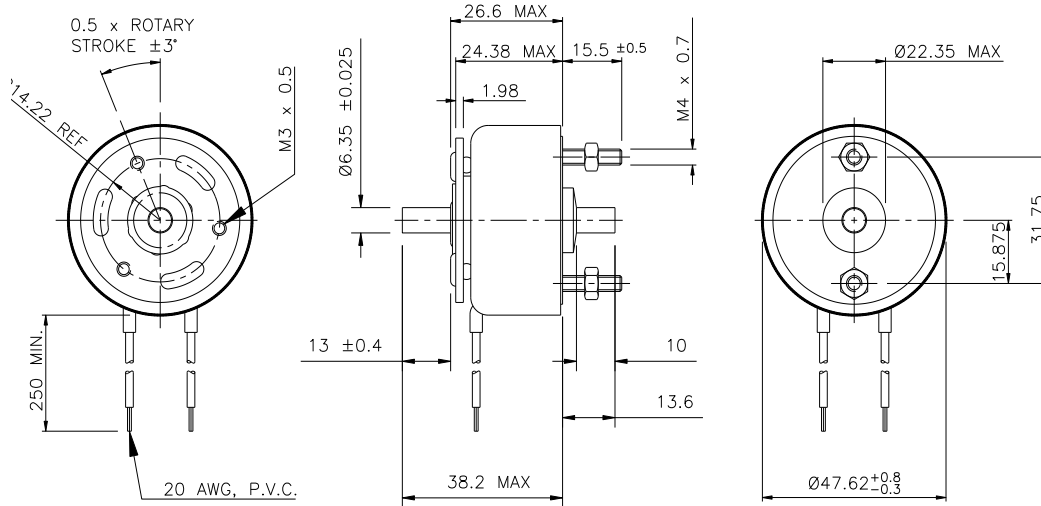
Size 5S



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Dimensions



Solenoid shown in the de-energised position

Performance Specifications

Starting Torque (mNm) @ 20° C						
Maximum Duty Cycle	100%	50%	25%	10%	5%	
Stroke						
Holding						
25°	565	214.7	463.3	824.9	1367	1492
35°	-	135.6	293.8	508.5	881.4	1040
45°	339	79.1	192.1	384.2	711.9	779.7
67.5°	-	56.5	135.6	248.6	440.7	553.7
95°	226	22.6	56.5	113.0	214.7	293.8

General Specifications

Dielectric Strength:
23 awg. 1000 VRMS
24-33 awg. 1200 VRMS

Coil Resistance:
+/- 5% tolerance

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

Return Spring Torque:
28.2 mNm +/- 20%

Weight: 255 g

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 190.5 x 190.5 x 3.2mm min.

Coil Specifications

Maximum Duty Cycle	100%	50%	25%	10%	5%
Maximum ON Time (sec) when pulsed continuously		100	36	10	3.5
Maximum ON Time (sec) for single pulse		160	44	13	4.6
Watts (@ 20° C)	21	42	84	210	420
Ampere Turns (@ 20° C)	860	1220	1720	2730	3853

Coil Data

avg.	Resistance	# Turns	Nominal DC Voltage				
23	2.03	288	6.1	8.6	12.1	19.2	27.0
24	3.2	360	7.6	10.8	15.3	24.0	34.0
25	4.91	440	9.6	13.6	19.2	31.0	43.0
26	7.72	550	12.1	17.1	24.0	38.0	54.0
27	11.12	636	15.0	21.0	30.0	48.0	67.0
28	18.79	840	19.2	27.0	39.0	61.0	86.0
29	30.48	1088	24.0	34.0	48.0	77.0	108.0
30	44.86	1275	30.0	43.0	61.0	96.0	136.0
31	70.90	1596	38.0	54.0	76.0	121.0	171.0
32	109.00	1974	47.0	67.0	95.0	150.0	212.0
33	175.00	2496	60.0	86.0	121.0	192.0	271.0

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X Feature Configurations & Part Numbers



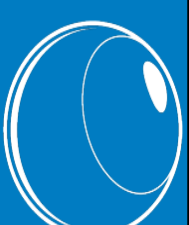
How to Order

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

Description	Stroke/ Direction	Norm. Axial Stroke mm	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
5S Rotary	25°RH	1.1	M2480-0XX	E2480-0XX	M2073-0XX	E2073-0XX	M15165-0XX	E15165-0XX
5S Rotary	25°LH	1.1	M2657-0XX	E2657-0XX	M2593-0XX	E2593-0XX	M3421-0XX	E3421-0XX
5S Rotary	35°RH	1.1	M2658-0XX	E2658-0XX	M2681-0XX	E2681-0XX	M2874-0XX	E2874-0XX
5S Rotary	35°LH	1.1	M3384-0XX	E3384-0XX	M2479-0XX	E2479-0XX	M1423-0XX	E1423-0XX
5S Rotary	45°RH	1.1	M2527-0XX	E2527-0XX	M2383-0XX	E2383-0XX	M1345-0XX	E1345-0XX
5S Rotary	45°LH	1.1	M1125-0XX	E1125-0XX	M2300-0XX	E2300-0XX	M15072-0XX	E15072-0XX
5S Rotary	67.5°RH	1.3	M1390-0XX	E1390-0XX	M2349-0XX	E2349-0XX	M3375-0XX	E3375-0XX
5S Rotary	67.5°LH	1.3	M3385-0XX	E3385-0XX	M2262-0XX	E2262-0XX	M3377-0XX	E3377-0XX
5S Rotary	95°RH	1.4	M2010-0XX	E2010-0XX	M2382-0XX	E2382-0XX	M15150-0XX	E15150-0XX
5S Rotary	95°LH	1.4	M1248-0XX	E1248-0XX	M2747-0XX	E2747-0XX	M15131-0XX	E15131-0XX

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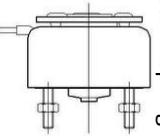
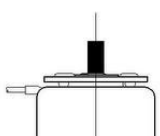
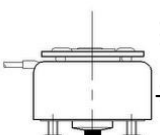
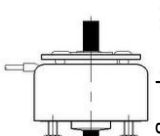
X Feature Configurations & Part Numbers



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How to Order

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

Description	Stroke/ Direction	Nom. Axial Stroke mm	No Shafts 3 Tapped Holes x 6 Return Spring x 9 		Armature End Shaft x 4 3 Tapped Holes x 6 Return Spring x 9 		Base End Shaft x 3 3 Tapped Holes x 6 Return Spring x 9 		Double Shaft x 3 x 4 3 Tapped Holes x 6 Return Spring x 9 	
			Standard	Endurance Engineered	Standard	Endurance Engineered	Standard	Endurance Engineered	Standard	Endurance Engineered
5S Rotary	25°RH	1.1	M1082-0XX	E1082-0XX	M2668-0XX	E2668-0XX	M2050-0XX	E2050-0XX	M2414-0XX	E2414-0XX
5S Rotary	25°LH	1.1	M2434-0XX	E2434-0XX	M2669-0XX	E2669-0XX	M3189-0XX	E3189-0XX	M2708-0XX	E2708-0XX
5S Rotary	35°RH	1.1	M2560-0XX	E2560-0XX	M3151-0XX	E3151-0XX	M2186-0XX	E2186-0XX	M2875-0XX	E2875-0XX
5S Rotary	35°LH	1.1	M1087-0XX	E1087-0XX	M1431-0XX	E1431-0XX	M3276-0XX	E3276-0XX	M2016-0XX	E2016-0XX
5S Rotary	45°RH	1.1	M2397-0XX	E2397-0XX	M2555-0XX	E2555-0XX	M2136-0XX	E2136-0XX	M3397-0XX	E3397-0XX
5S Rotary	45°LH	1.1	M2185-0XX	E2185-0XX	M3238-0XX	E3238-0XX	M1308-0XX	E1308-0XX	M2845-0XX	E2845-0XX
5S Rotary	67.5°RH	1.3	M2522-0XX	E2522-0XX	M2075-0XX	E2075-0XX	M1020-0XX	E1020-0XX	M3399-0XX	E3399-0XX
5S Rotary	67.5°LH	1.3	M2902-0XX	E2902-0XX	M3249-0XX	E3249-0XX	M15055-0XX	E15055-0XX	M3400-0XX	E3400-0XX
5S Rotary	95°RH	1.4	M2714-0XX	E2714-0XX	M2074-0XX	E2074-0XX	M2957-0XX	E2957-0XX	M1155-0XX	E1155-0XX
5S Rotary	95°LH	1.4	M2296-0XX	E2296-0XX	M2150-0XX	E2150-0XX	M1307-0XX	E1307-0XX	M1154-0XX	E1154-0XX

NSF Controls reserves the right to amend specification without prior notice. (Rev 08/21) www.nsfcontrols.co.uk
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