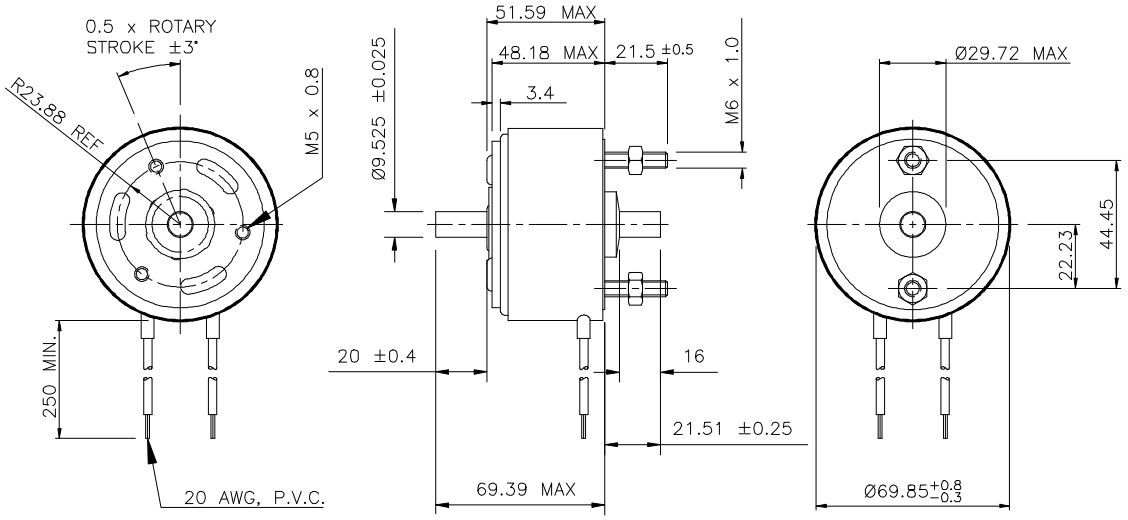
Size 7E Rotary Solenoid

General Specifications:

- **Dielectric Strength:** 19-29 awg. 1200 VRMS / 30-33 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 384.2 x 84.2 x 3.2mm min.
- **Coil Resistance:** 23-31 awg +/- 5% tolerance / 32-33 awg +/- 10% tolerance
- **Starting Torque:** Gross torque values are shown For net starting torque, subtract return spring torque
- **Return Spring Torque:** 84.8 mNm +/- 20%
- **Weight:** 1.25 Kg

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 84.8mNm +/-20%
6. Holding torque is shown at the stabilised temperature of 105°C, 100% duty cycle

Performance Specification

Starting Torque (mNm) @ 20° C (5)						
Maximum Duty Cycle		100%	50%	25%	10%	5%
Stroke	**Holding Torque (6)**					
25°	2260	1537	2723	3605	4475	4972
35°		814	1548	2633	4023	4633
45°	1469	633	1141	2000	3153	3729
67.5°		339	667	1187	1853	2147
95°	678	249	429	667	927	1006

Coil Specifications

Maximum Duty Cycle	100%	50%	25%	10%	5%
Maximum ON Time (sec) When pulsed continuously (1)		80	38	16	5.7
Maximum ON Time (sec) for single pulse (2)		138	50	18	6.4
Watts (@20° C)	35	70	140	350	700
Ampere Turns (@ 20° C)	1805	2555	3610	5710	8280

Coil Data

awg. (3)	Resistance (@ 20°C)	# Turns (4)	Nominal DC Voltage				
19	1.56	385	7.4	10.4	14.8	23.4	33.0
20	2.53	496	9.4	13.3	18.8	29.8	42.1
21	3.99	621	11.8	16.7	23.6	37.4	52.8
22	6.33	780	14.9	21.0	29.8	47.1	66.6
23	10.8	1044	19.4	27.5	38.9	61.5	86.9
24	16.5	1274	24.0	34.0	48.1	76.0	108.0
25	27.0	1635	30.7	43.5	61.5	97.2	138.0
26	43.8	2091	39.2	55.4	78.3	124.0	175.0
27	68.4	2603	48.9	69.2	97.9	155.0	219.0
28	108.0	3255	61.5	86.9	123.0	194.0	275.0
29	162.0	3933	75.3	107.0	151.0	238.0	337.0
30	265.0	5044	96.3	136.0	193.0	305.0	431.0
31	385.0	5800	116.0	164.0	232.0	367.0	-
32	583.0	7230	143.0	202.0	286.0	452.0	-
33	882.0	8400	176.0	249.0	351.0	-	-

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 01/12)

NSF Controls Ltd | Ingrow Bridge Works | Keighley | West Yorkshire | BD21 5EF | UK | Registered in England No. 3378269

T: +44 (0) 1535 661 144 | F: +44 (0) 1535 661 474 | E: info@nsfcontrols.co.uk | www.nsfcontrols.co.uk