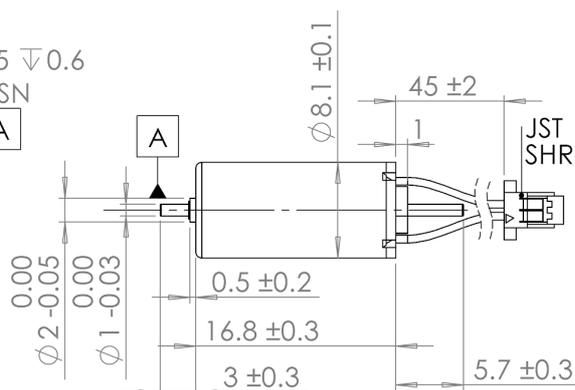
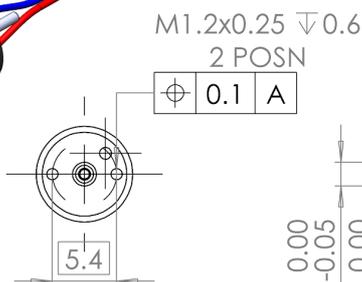
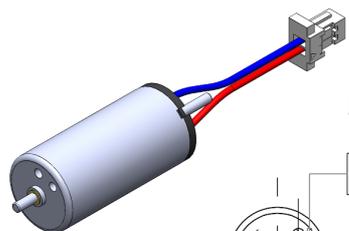
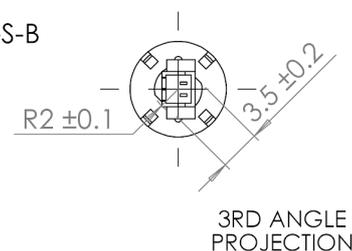


108-400 Brushed motor Coreless (precious metal brushes)

Ø8 x 17mm / fit for gearbox and encoder



DIMENSIONS ARE IN mm
SURFACE FINISH: N7
TOLERANCES:
LINEAR: ± 0.2
ANGULAR: ±1°



3RD ANGLE PROJECTION



Design and accessories	Units	Samples available	Manufacturable on request		Custom design
		108-400	108-10F	108-201	108-XXX
A Availability		Stocked design	8 weeks	8 weeks	8 weeks
B Motor Type		Brushed	Brushed	Brushed	Brushed
C Commutation		Precious metal brush	Precious metal brush	Precious metal brush	Precious metal brush
D Shafts		Dual	Dual	Dual	Single / Dual
E Gearbox		Not fitted	Not fitted	Not fitted	Range 1:4 ~ 1:1024
F Encoder		Not fitted	Not fitted	Not fitted	Magnetic / optical
G Connections		JST SHR-02V-S-B	JST SHR-02V-S-B	JST SHR-02V-S-B	Terminals / leads / connectors
H Cable		45mm x AWG32	45mm x AWG32	45mm x AWG32	
I Housing Material		Nickel plated steel	Nickel plated steel	Nickel plated steel	Nickel plated steel
J Body diameter	mm	8.1	8.1	8.1	
K Body length	mm	16.8	16.8	16.8	
L Weight	g	3.9	3.9	3.9	

Performance characteristics		108-400	108-10F	108-201	
1 Nominal voltage	V	6.0	3.0	4.5	Nominal load, no load, and stall points, and efficiency will depend on the winding design. Please contact support@pmdri.com
2 No load speed	rpm	15 560	18 050	18 100	
3 No load current	A	0.018	0.027	0.017	
4 Nominal speed	rpm	8 855	8 710	8 630	
5 Nominal torque	mNm	0.60	0.50	0.50	
6 Nominal current	A	0.190	0.370	0.245	
7 Stall torque	mNm	1.39	0.97	0.96	
8 Stall current	A	0.420	0.685	0.450	
9 Maximum efficiency	%	65.1	62.1	62.7	

Winding specific characteristics		108-400	108-10F	108-201	
10 Terminal resistance	Ω	14.30	4.40	10.00	Winding dependent
11 Terminal inductance	uH	164	50	115	
12 Torque constant (Kt)	mNm/A	3.57	1.52	2.28	
13 Speed constant (Kv)	rpm/V	2 676	6 265	4 180	
14 Speed / torque gradient	rpm/mNm	11 176	18 675	18 932	
15 Mechanical time constant	ms	5.3	4.3	3.8	
16 Rotor inertia	g·cm ²	0.055	0.055	0.055	

Motor body characteristics		
17 Thermal resistance housing-ambient	°C/W	65.0
18 Thermal resistance winding-housing	°C/W	20.5
19 Thermal time constant winding	s	4
20 Thermal time constant motor	s	114
21 Ambient temperature	min °C	-20
	max °C	+60
22 Max. permissible winding temperature	°C	+85
23 Max. permissible rotor speed	rpm	25 000
24 Axial play at axial load	mm	0.3 max
25 Max. axial load (dynamic)	N	0.1
26 Max. force for press fits (static)	N	10.0
with shaft supported		Dual-shaft version only
27 Max. radial loading (3mm from flange)	N	0.3
28 Number of magnet pole pairs		1

Performance curve (based on ambient 25°C)

