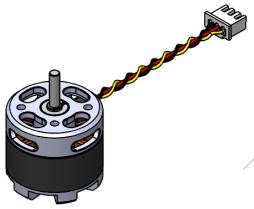
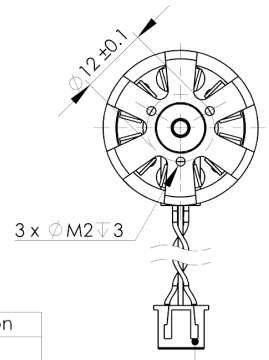
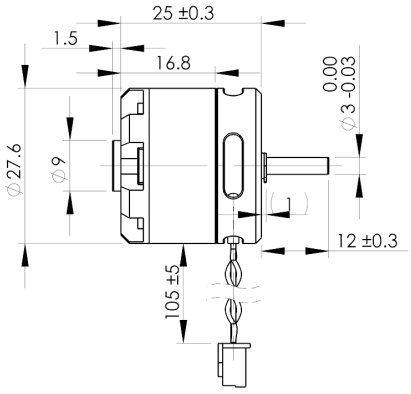
728-300 Brushless motor Slotted (outrunner)

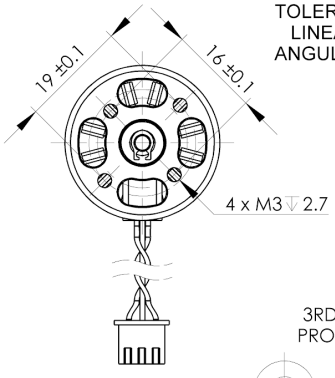
Ø28 x 25mm / no shafts / sensorless

PRECISION MICRODRIVES ™





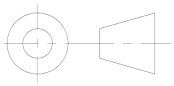




DIMENSIONS ARE IN mm
SURFACE FINISH: N7
TOLERANCES:
LINEAR: ±0.2
ANGULAR: ±1°

PIN	Description
1	Phase 1
2	Phase 2
3	Phase 3

3RD ANGLE PROJECTION



			Samples available	Manufacturable on request	Custom design
Design and accessories		**Units**	**728-300**		**728-XXX**
A	Availability		Stocked design		8 weeks
B	Motor Type		Brushless		Brushless
C	Commutation		Sensorless		Sensored / sensorless
D	Shafts		Single		Dual / single
E	Encoder		Not fitted		Magnetic / optical
F	Gearbox		Not fitted		Range 1:4 ~ 1:5033
G	Connections		JST XHP-3		To requirement
H	Cable		105mm x AWG28		To requirement
I	Housing Material		Aluminium alloy		Aluminium alloy
J	Body diameter	mm	28		
K	Body length	mm	25		
L	Weight	g	38.0		
Performance characteristics					
1	Nominal voltage	v	12		This motor can be wound for nominal voltages in a 12 ~ 48V range. 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	2 120		
3	No load current	A	0.05		
4	Nominal speed	rpm	570		
5	Nominal torque	mNm	38.7		
6	Nominal current	A	0.80		
7	Stall torque	mNm	55.3		
8	Stall current	A	1.07		
9	Maximum efficiency	%	61.50		
Winding specific characteristics					
10	Terminal resistance	Ω	11.20		Winding dependent
11	Terminal inductance	mH	2.89		
12	Torque constant (Kt)	mNm/A	51.62		
13	Speed constant (Kv)	rpm/V	185		
14	Speed / torque gradient	rpm/mNm	40		
15	Mechanical time constant	ms	1.9		
16	Rotor inertia	g·cm²	4.7		

Motor body characteristics				
17	Thermal resistance housing-ambient		°C/W	6.6
18	Thermal resistance winding-housing		°C/W	4.3
19	Thermal time constant winding		s	11
20	Thermal time constant motor		s	299
21	Ambient temperature	min	°C	-30
		max	°C	100
22	Max. permissable winding temperature		°C	125
23	Max. permissable rotor speed		rpm	11 000
25	Radial play			Preloaded
26	Max. axial load (dynamic)		N	57
29	Number of pole pairs			7
30	Number of winding phases			3

Operating range (based on ambient 25°C)

728-300