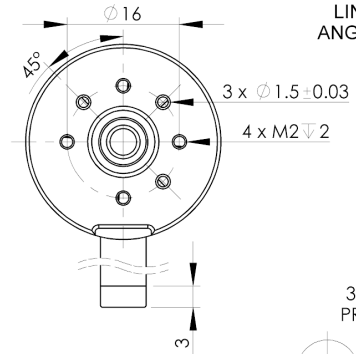
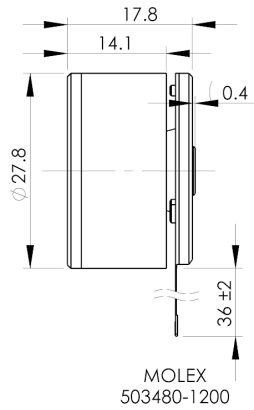
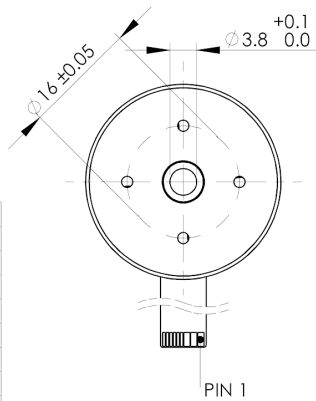
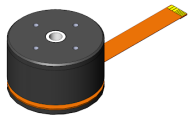


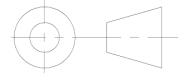
# 728-802 Brushless motor Slotted (outrunner)

Ø28 x 18mm / no shafts / with sensors



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

3RD ANGLE PROJECTION



PIN	Description
1-2	Phase 1
3-4	Phase 2
5-6	Phase 3
7	GND
8	Hall a
9	Hall b
10	Hall c
11	3.3VDC
12	T1

Design and accessories	Units	Samples available 728-802	Manufacturable on request	Custom design 728-XXX
A Availability		Stocked design		8 weeks
B Motor Type		Brushless		Brushless
C Commutation		Digital Hall		Sensored / sensorless
D Shafts		Not fitted		Dual / single
E Encoder		Not fitted		Magnetic / optical
F Gearbox		Not fitted		Range 1:4 ~ 1:5033
G Connections		0.5mm pitch 12-pin		To requirement
H Cable		FPC		To requirement
I Housing Material		Aluminium alloy		Aluminium alloy
J Body diameter	mm	28		
K Body length	mm	18		
L Weight	g	36.6		

Performance characteristics				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
1	Nominal voltage	v	24	
2	No load speed	rpm	2 760	
3	No load current	A	0.06	
4	Nominal speed	rpm	1 710	
5	Nominal torque	mNm	48.55	
6	Nominal current	A	0.67	
7	Stall torque	mNm	133.74	
8	Stall current	A	1.67	
9	Maximum efficiency	%	65.70	

Winding specific characteristics				Winding dependent
10	Terminal resistance	Ω	14.40	
11	Terminal inductance	mH	2.82	
12	Torque constant (Kt)	mNm/A	80.25	
13	Speed constant (Kv)	rpm/V	119	
14	Speed / torque gradient	rpm/mNm	21	
15	Mechanical time constant	ms	1.1	
16	Rotor inertia	g·cm <sup>2</sup>	4.9	

Motor body characteristics				Operating range (based on ambient 25°C)	
17	Thermal resistance housing-ambient	°C/W	11.8	<b>728-802</b>	
18	Thermal resistance winding-housing	°C/W	4.8		
19	Thermal time constant winding	s	9		
20	Thermal time constant motor	s	288		
21	Ambient temperature	min °C	-30		
		max °C	100		
22	Max. permissible winding temperature	°C	150		
23	Max. permissible rotor speed	rpm	6 500		
25	Radial play		Preloaded		
26	Max. axial load (dynamic)	N	65.0		

29	Number of pole pairs	7
30	Number of winding phases	3