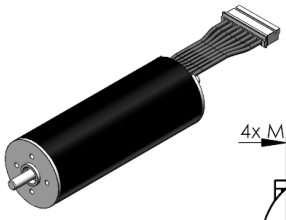
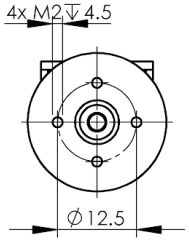
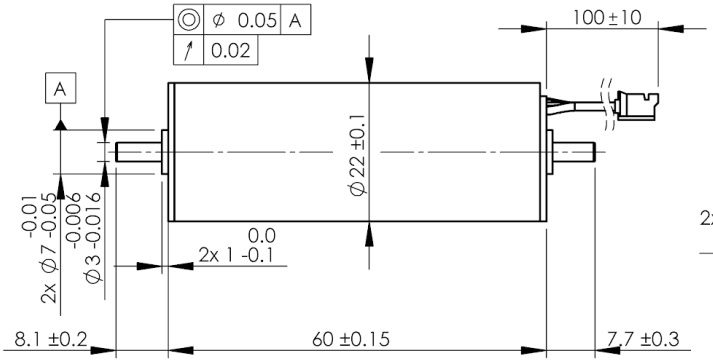
722-401 Brushless motor Slotless (inrunner)

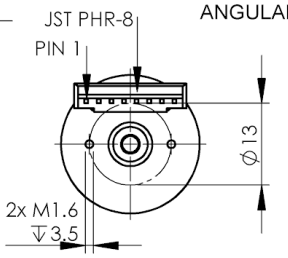
Ø22 x 60mm / with dual shafts / with sensors / fit for gearbox and encoder

PRECISION MICRODRIVES ™



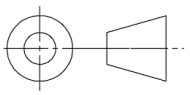






DIMENSIONS ARE IN mm
SURFACE FINISH: N7
TOLERANCES:
LINEAR: ±0.2
ANGULAR: ±1°

3RD ANGLE PROJECTION



PIN	Description
1	U
2	V
3	W
4	GND
5	Hu
6	Hv
7	Hw
8	Vcc

			Samples available	Manufacturable on request		Custom design
Design and accessories		**Units**	**722-401**	**722-802**	**722-C01**	**722-XXX**
A	Availability		Stocked design	8 weeks	8 weeks	8 weeks
B	Motor Type		Brushless	Brushless	Brushless	Brushless
C	Commutation		Digital Hall	Digital Hall	Digital Hall	Sensored / sensorless
D	Shafts		Dual	Dual	Dual	Dual / single
E	Encoder		Not fitted	Not fitted	Not fitted	Magnetic / optical
F	Gearbox		Not fitted	Not fitted	Not fitted	Range 1:4 ~ 1:5033
G	Connections		8-pinned JST PHR-8	8-pinned JST PHR-8	8-pinned JST PHR-8	To requirement
H	Cable		100mm x AWG26	100mm x AWG26	100mm x AWG26	To requirement
I	Housing Material		Aluminium alloy	Aluminium alloy	Aluminium alloy	Aluminium alloy
J	Body diameter	mm	22	22	22	
K	Body length	mm	60	60	60	
L	Weight	g	122.0	122.0	122.0	
Performance characteristics						
1	Nominal voltage	v	12	24	36	This motor can be wound for nominal voltages in a 12 ~ 36V 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	16 130	16 190	16 070	
3	No load current	A	0.38	0.14	0.11	
4	Nominal speed	rpm	13 340	13 720	13 840	
5	Nominal torque	mNm	28.50	34.30	37.45	
6	Nominal current	A	4.45	2.58	1.87	
7	Stall torque	mNm	167.90	227.73	273.81	
8	Stall current	A	24.00	16.22	12.90	
9	Maximum efficiency	%	76.40	82.40	82.40	
Winding specific characteristics						
10	Terminal resistance	Ω	0.50	1.48	2.79	Winding dependent
11	Terminal inductance	mH	0.03	0.13	0.30	
12	Torque constant (Kt)	mNm/A	7.00	14.04	21.22	
13	Speed constant (Kv)	rpm/V	1 365	680	450	
14	Speed / torque gradient	rpm/mNm	98	72	59	
15	Mechanical time constant	ms	4.5	3.3	2.7	
16	Rotor inertia	g·cm²	4.5	4.5	4.5	

Motor body characteristics				
17	Thermal resistance housing-ambient		°C/W	7.6
18	Thermal resistance winding-housing		°C/W	4.6
19	Thermal time constant winding		s	29
20	Thermal time constant motor		s	533
21	Ambient temperature	min	°C	-30
		max	°C	100
22	Max. permissable winding temperature		°C	150
23	Max. permissable rotor speed		rpm	25 000
24	Axial play at axial load		mm	0.3 max
25	Radial play			Preloaded
26	Max. axial load (dynamic)		N	3.5
27	Max. force for press fits (static)		N	44.0
	with shaft supported		kN	1.2
28	Max. radial loading (5mm from flange)		N	15.0
29	Number of pole pairs			1
30	Number of winding phases			3

Operating range (based on ambient 25°C)

722-401