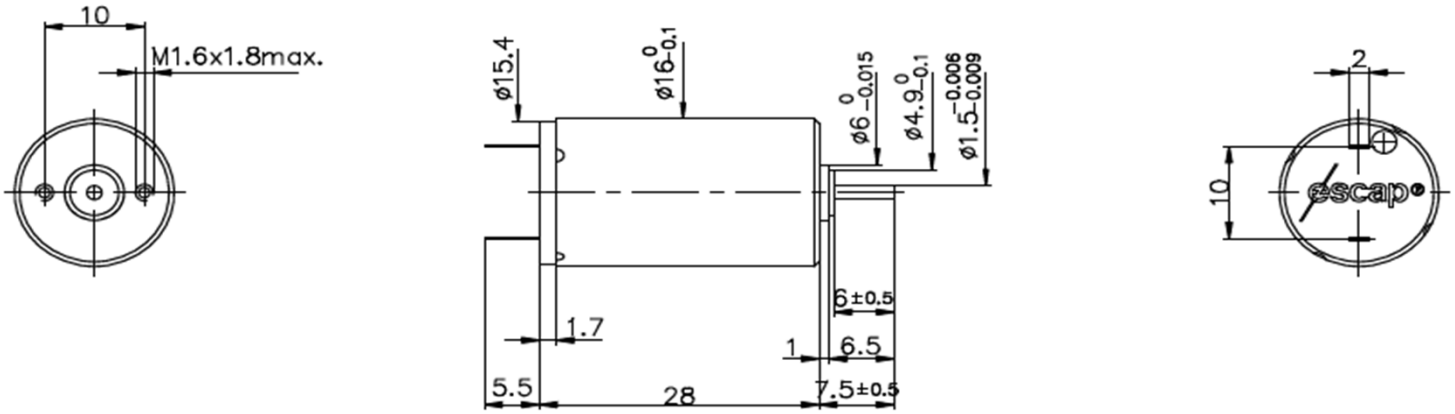
16N28 Precious metal commutation Ø16mm 2.9 mNm



16N28 **** .201

Electrical Data	****	111P	207P	210E	208E	209E	207E	106	205E	
1 Nominal Voltage	V	3	4.8	7.5	9	9	12	16	18	Volt
2 No-Load Speed	n_0	9,460	7,980	9,690	8,810	9,690	10,800	10,180	9,640	rpm
3 No-Load Current	I_0	28.0	11.9	13.3	8.4	8.4	7.7	6.3	4.9	mA
4 Terminal Resistance	R	2.4	10.0	14.6	28.0	20.6	40.5	68.5	109.0	Ω
5 Output Power	$P_{2max.}$	1.5	1.4	1.5	1.4	1.5	1.3	1.4	1.3	W
6 Stall Torque	mNm	3.7 (0.53)	2.7 (0.39)	3.7 (0.53)	3.1 (0.44)	3.8 (0.54)	3.1 (0.44)	3.4 (0.49)	2.9 (0.42)	mNm (oz-in)
7 Efficiency	$\eta_{max.}$	72	71	70	70	74	70	70	69	%
8 Max continuous speed	$n_{e\ max.}$	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	rpm
9 Max continuous torque	$M_{e\ max.}$	2.9 (0.39)	2.7 (0.39)	2.9 (0.42)	2.7 (0.39)	2.9 (0.42)	2.4 (0.34)	2.7 (0.39)	2.5 (0.36)	mNm (oz-in)
10 Max continuous current	$I_{e\ max.}$	1.01	0.49	0.41	0.29	0.34	0.24	0.19	0.15	A
11 Back-EMF Constant	k_E	0.31	0.59	0.75	0.99	0.91	1.08	1.53	1.81	mV/rpm
12 Torque Constant	k_M	2.96	5.60	7.20	9.50	8.70	10.30	14.60	17.30	mNm/A
13 Motor Regulation	R/k^2	270.0	320.0	280.0	310.00	270.00	380.00	320.00	360.00	10^3/Nms
14 Friction Torque	T_F	0.08 (0.02)	0.07 (0.01)	0.1 (0.02)	0.08 (0.02)	0.07 (0.01)	0.08 (0.02)	0.09 (0.02)	0.08 (0.02)	mNm (oz-in)
15 Rotor Inductance	L	0.08	0.28	0.50	0.80	0.70	0.90	2.00	3.10	mH
16 Mechanical Time Constant	τ_m	19.4	16.3	21.6	19.5	14.9	19.4	17.0	19.8	ms
17 Rotor Inertia	J	0.72	0.51	0.77	0.63	0.55	0.51	0.53	0.55	$g.cm^2$
18 Thermal Resistance (rotor/body)	R_{th1} / R_{th2}	7/35	7/35	7/35	7/35	7/35	7/35	7/35	7/35	°C/W
19 Thermal Time Constant (rotor/stator)	τ_{w1}/t_{w2}	6/380	5/380	6/380	5/380	5/380	5/380	5/380	5/380	°C/W
20 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)								°C (°F)
	rotor	100°C (212°F)								°C (°F)
21 Shaft Load max.:		With sleeve bearings								
at 3,000 rpm (5mm from bearing)	-radial	1.5 (5.4)								N (oz)
at 3,000 rpm	-axial	100 (359.6)								N (oz)
22 Shaft play:	-radial	<0.03 (0.0012)								mm (inch)
	-axial	0.15 (0.0059)								mm (inch)
23 Weight	g	24 (0.85)								g (oz)

Execution			
Gearbox	**Single Shaft**	**F16**	**MR2**
B16	235	235	278
BA16	235	235	278
R16	201	201	Contact Us