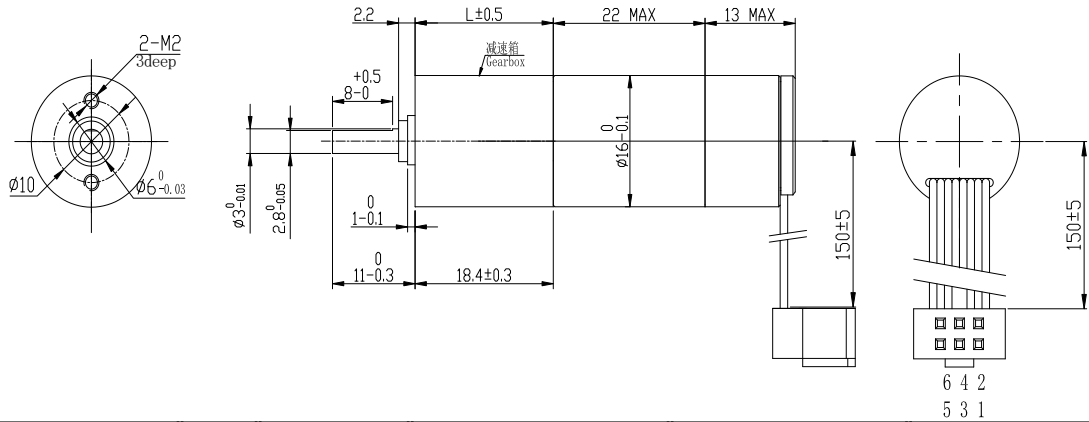


# EM1625RG $\Phi 16\text{mm}$ coreless servo motor 空心杯伺服电机

## 外形尺寸/outline size

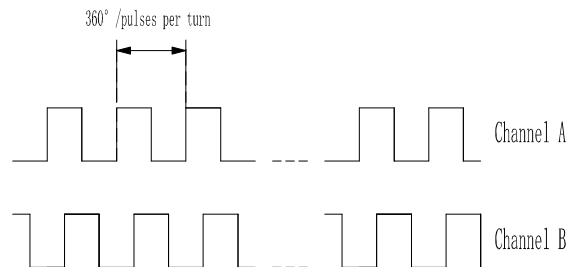


级数Stage	1		2		3		4		5			
减速比 Reduction ratio	3.79	14.36	21.89	54.42	94.42		206.21	407.18		1012.03	1491.58	2433.66
	4.31	16.34		70.48	111.16		267.06	479.36		1151.72	1596.2	
	5.08	18.06		80.2	130.86		303.92	664.36		1310.68	2067.23	
连续输出扭矩 Nm	0.2		0.2		0.3		0.3		0.35			
堵转扭矩 Nm	0.3		0.3		0.45		0.45		0.5			
最大效率 %	90		81		73		65		59			
长度 L mm Length	14.8		18.4		22		25.6		29.2			
空载回差 °	1		1.5		1.5		2		2			

电机参数 (Motor data)		29A	60A
1 额定电压 Nominal voltage	V	6	12
2 空载转速 No load speed	rpm	12000	12000
3 空载电流 No load current	A	0.045	0.025
4 额定转速 Nominal speed	rpm	10800	10320
5 额定转矩(最大连续转矩) Nominal torque	mNm	1.5	1.5
6 额定电流(最大连续电流) Nominal current	A	0.36	0.18
7 堵转转矩 Stall torque	mNm	15	10.9
8 堵转电流 Stall current	A	3.16	1.15
9 相间电阻 Terminal resistance	$\Omega$	1.9	10.44
10 转矩常数 Torque constant	mNm/A	4.68	9.36
11 速度常数 Speed constant	rpm/V	2000	1000
12 机械时间常数 Mechanical time constant	ms		
13 转子惯量 Rotor inertia	g·cm <sup>2</sup>		
14 相间电感 Phase inductance	mH		

编码器参数 (Encoder)	
基本参数 Type:	
电源电压 Supply voltage: DC3.3~5V;	
电流 Typical current: 15mA;	
最大机械速度 Max. Mech. Speed: 5000RPM;	
积分非线性 Integral Non-Linearity: $\pm 1.5^\circ$ ;	
微分非线性 Differential (ABZ) Non-Linearity: $\pm 0.02^\circ$ ;	
每转脉冲数 Number of pulses per revolution: 1~1024PPR;	
单圈绝对编码 Single-turn absolute coding: 14-bit (I <sup>2</sup> C);	
上电时间 Power-Up Time: 1~3ms;	
输出延迟 (Propagation Delay): 1~5 $\mu$ s;	
上升时间 R <sub>ring</sub> Time: 1 $\mu$ s;	
下降时间 Falling Time: 1 $\mu$ s;	
储存温度 Storage Temperature: -55~150 $^\circ$ C;	
使用温度 Operating Temperature: -40~125 $^\circ$ C;	

端子定义 Terminal Definition A:	
连接器: EN 60603-13/DIN-41651 2.54mm6pin;	
扁平电缆 flat band cable: 6pin UL2651 26AWG;	
PIN1	MOTO+;
PIN2	VCC (DC3.3V~5V);
PIN3	Incremental output A or I <sup>2</sup> C SDA;
PIN4	Incremental output B or I <sup>2</sup> C SCL;
PIN5	编码器GND;
PIN6	MOTO-;



旋转方向 Direction of rotation CW