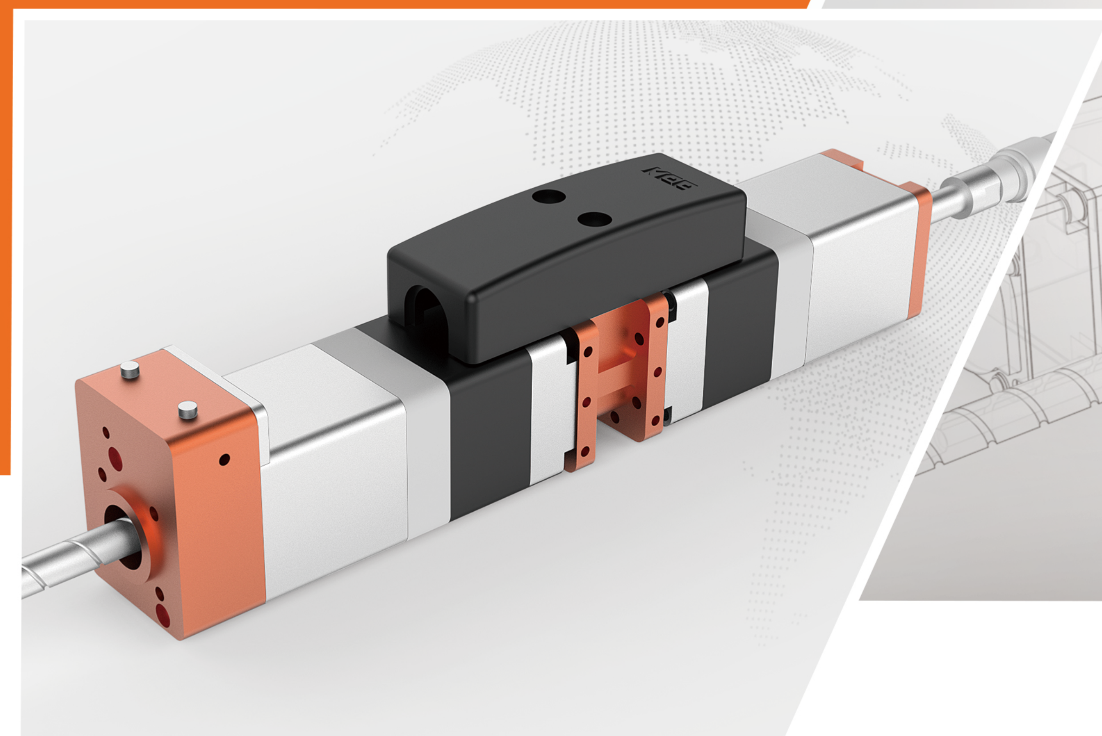
www.kggfa.com
www.kgg-robot.com

KGG

KGG

传动领域的“智”“惠”“加”
控制系统的指挥家

Expert but with Excellent cost performance in Smart transmission and Precise control system.



ZR SERIES
ZR系列

ZR ACTUATOR

ZR轴执行器

上海狄兹精密机械有限公司
Shanghai Dizi Precision Machinery Co,Ltd.

上海凯吉集机器人有限公司
Shanghai KGG Robots Co.,Ltd.

电话: 021-51872555
邮箱: amanda@kgg-robot.com
网址: www.kggfa.com/www.kgg-robot.com
地址: 上海市松江区港德路188号

Tel: 021-51872555
Mail: amanda@kgg-robot.com
Website: www.kggfa.com/www.kgg-robot.com
Address: No.188, Gangde Road, Songjiang District, Shanghai

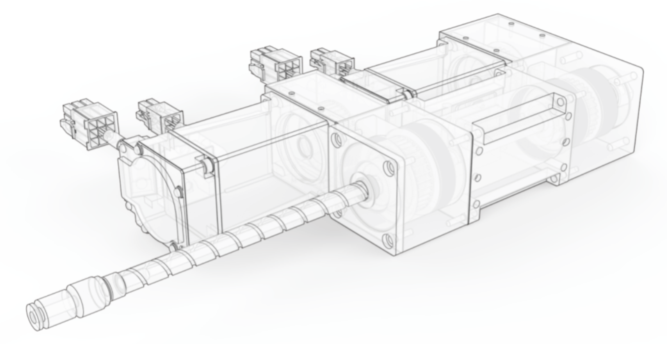
3D选型软件
3D Selection Software

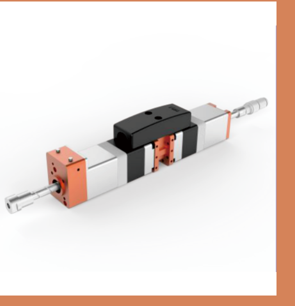
ZR Series

ZR执行器

螺杆驱动型

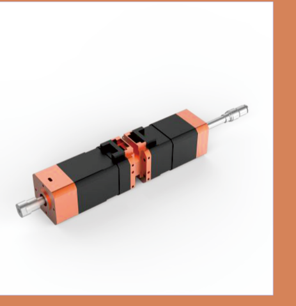
Screw Driven Type





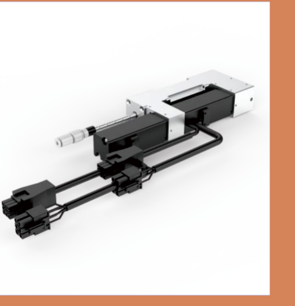
ZRIN28型/Type

本体宽度/Body Width	28mm
最大行程/Max Travel	50mm
最大推力/Max Thrust Force	5N
丝杆直径/Ball Screwφ	φ6



ZRIN42型/Type

本体宽度/Body Width	42mm
最大行程/Max Travel	50mm
最大推力/Max Thrust Force	19N
丝杆直径/Ball Screwφ	φ8



ZRFS30S型/Type

本体宽度/Body Width	30mm
最大行程/Max Travel	50mm
最大推力/Max Thrust Force	30N
丝杆直径/Ball Screwφ	φ6

ZRFS42S型/Type

本体宽度/Body Width	42mm
最大行程/Max Travel	100mm
最大推力/Max Thrust Force	50N
丝杆直径/Ball Screwφ	φ8

ZR轴执行器
ZR Actuator

可上下直线运动-旋转运动/中空吸附功能
Up And Down Linear Movement - Rotary Movement/Hollow

直接驱动型 / Direct Drive type

01.中空电机直接驱动滚珠丝杠，滚珠花键螺母，从而实现紧凑型外观形状。
02.驱动Z轴电机旋转滚珠丝杠螺母，实现直线运动。此时滚珠花键螺母起到丝杠轴的止转和导向结构的作用。

01. The hollow motor directly drives the ball screw and ball spline nut to achieve a compact appearance.
02. Drive the Z-axis motor to rotate the ball screw nut to realize linear motion. At this time, the ball spline nut acts as the stop and guide structure of the lead screw shaft.

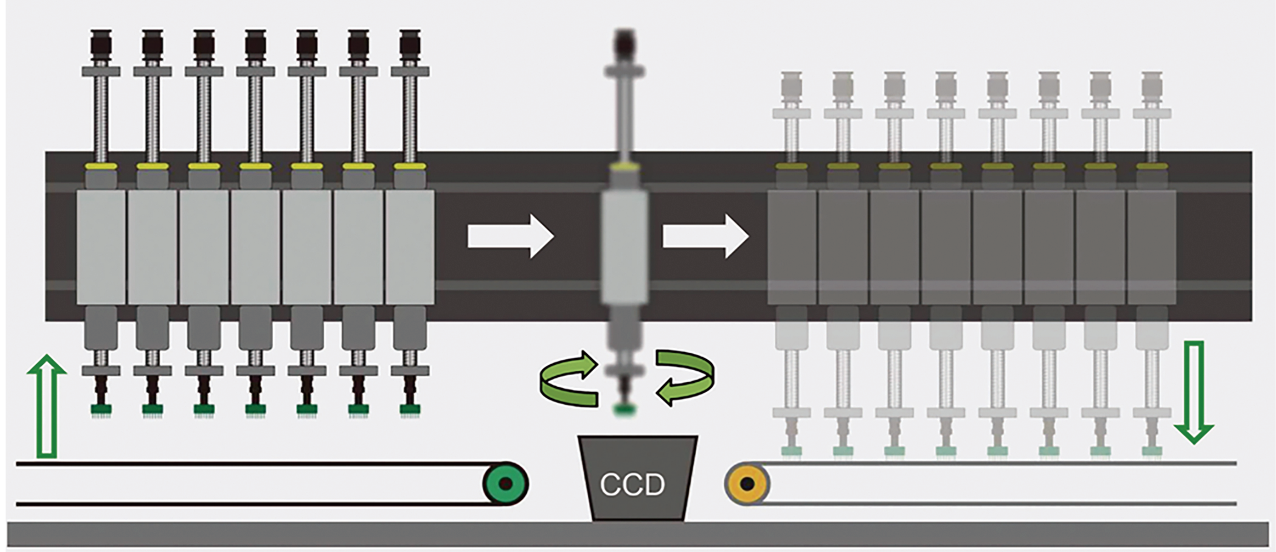
产品优势 / Product advantages

01.轴向间隙为0	01. Axial clearance is 0
02.噪音低且运动流畅	02. Low noise and smooth movement
03.混合紧凑轻量小型化结构	03. Hybrid compact lightweight miniaturized structure
04.编码器闭环结构	04. Encoder closed-loop structure
05.可压力控制	05. Pressure control copy

ZR轴执行器
ZR Actuator

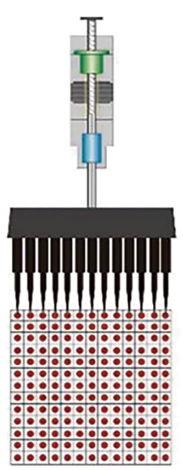
可上下直线运动-旋转运动/中空吸附功能
Up And Down Linear Movement - Rotary Movement/Hollow

KGG

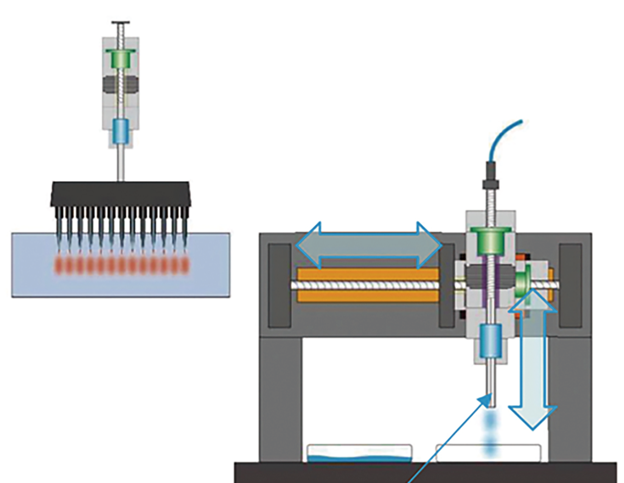


多轴组合·LED部件搬运
Multi-Axis Combination - LED Parts Handling

中空轴液体分注 Hollow Shaft Liquid Injection

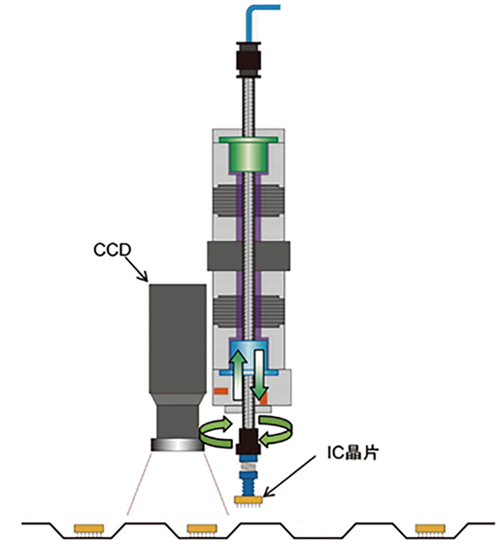


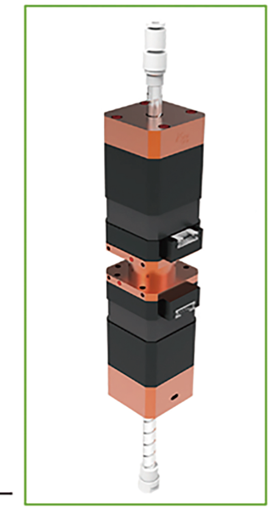
多头分注组件
Long Sub-bets Components



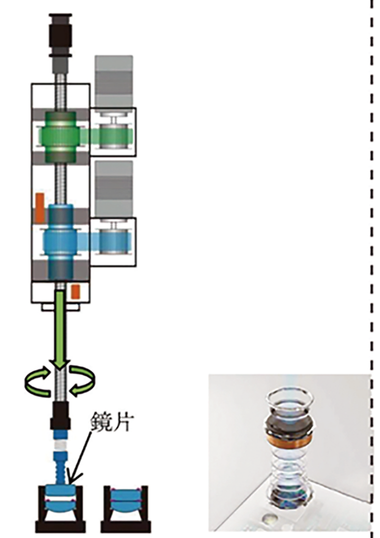
中空轴液体分注
Hollow Shaft Liquid Injection

IC晶片角度调整
IC Chip Angle Adjustment

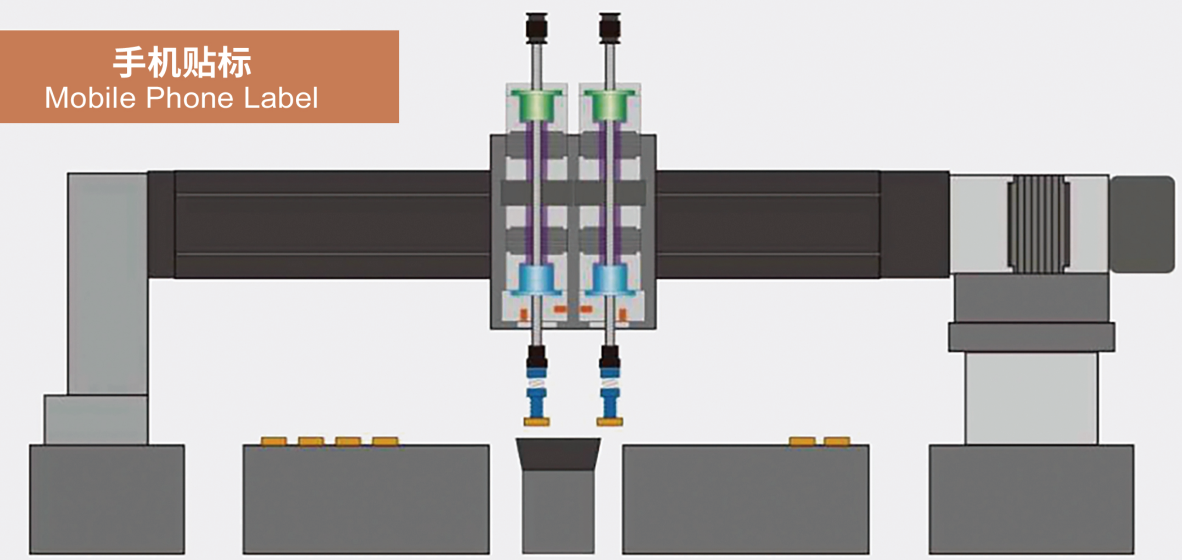




手机镜头组装
Mobile Phone Lens Assembly



手机贴标
Mobile Phone Label



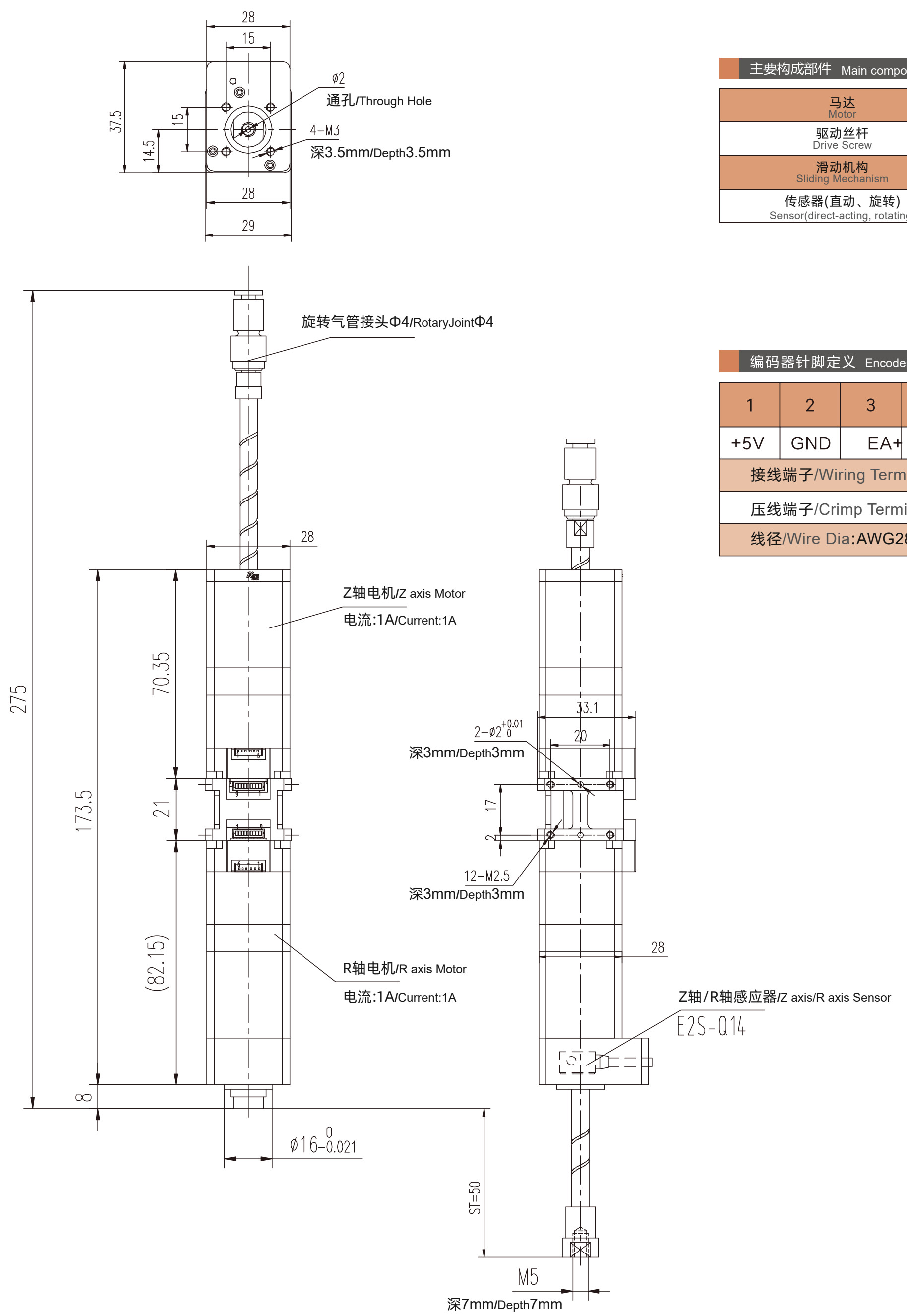
DEMO展示机 Show The DEMO Machine

试验管用执行器
Test Work Actuators

4轴ZR·PICK&PLACE
4 Axis ZR Pick&Place

可变距6头·PICK&PLACE
Variable Range 6 Pick&Place Head

ZRIN28E-G10-50P



主要构成部件 Main component parts

马达 Motor	28中空步进马达0.67A/相 28 Hollow stepper motor 0.67A/phase
驱动丝杆 Drive Screw	滚珠丝杆Φ6(导程6mm) Ball Screw Φ6mm(Lead 6mm)
滑动机构 Sliding Mechanism	滚珠花键Φ6mm Rolling Spline Φ6mm
传感器(直动、旋转) Sensor(direct-acting, rotating)	近距离传感器E2S-W14-1M(欧姆龙) Proximity Sensors E2S-W14-1M(Omron)

编码器针脚定义 Encoder pin definition

1	2	3	4	5	6	7	8	9
+5V	GND	EA+	EA-	Z+	Z-	PE	EB+	EB-

接线端子/Wiring Terminal:JST SHR-09V-S

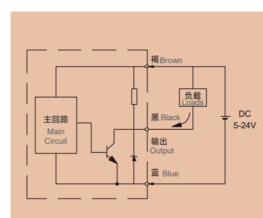
压线端子/Crimp Terminal:JST SSH-003T-P0.2-H

线径/Wire Dia:AWG28

马达（Z、R轴）Motor (Z, R axis)

针脚号 Pin No	功能 Function	颜色 Color
1	A+	红 Red
3	A-	红白 Red White
4	B+	绿 Green
6	B-	绿白 Green White

感应器（Z、R轴）Sensor(Z, R axis)



技术参数 Technical Parameter

项目 Item	Z轴 Z-axis	R轴 R-axis
运作范围 Operating Range	50mm	±360°
重复定位精度 Repeatability	±0.01mm	±0.03°
编码分辨率 Encoding Resolution	4000CPR	4000CPR
最高速度 Max Speed	400mm/sec	720°/sec
参考推力 Reference Thrust	5N	
重量 Weight	460g	
使用温度范围 Operating Temperature	0-40℃（无结霜）0-40℃(No Frosting)	0-40℃（无结霜）0-40℃(No Frosting)

θ轴最大允许负载力矩请参照(负载力矩参照表)

For the maximum allowable load torque of 0 axis , please refer to (Load Torque Reference Table)

容许力矩 Allowable Torque

负载力矩参照表 Load Torque Reference Table		
直径 Diameter	高度 Height	
	铝 Aluminum	钢 Steel
φ20	340mm(300g)	120mm(300g)
φ30	65mm(130g)	25mm(130g)
φ40	20mm(75g)	7.5mm(75g)

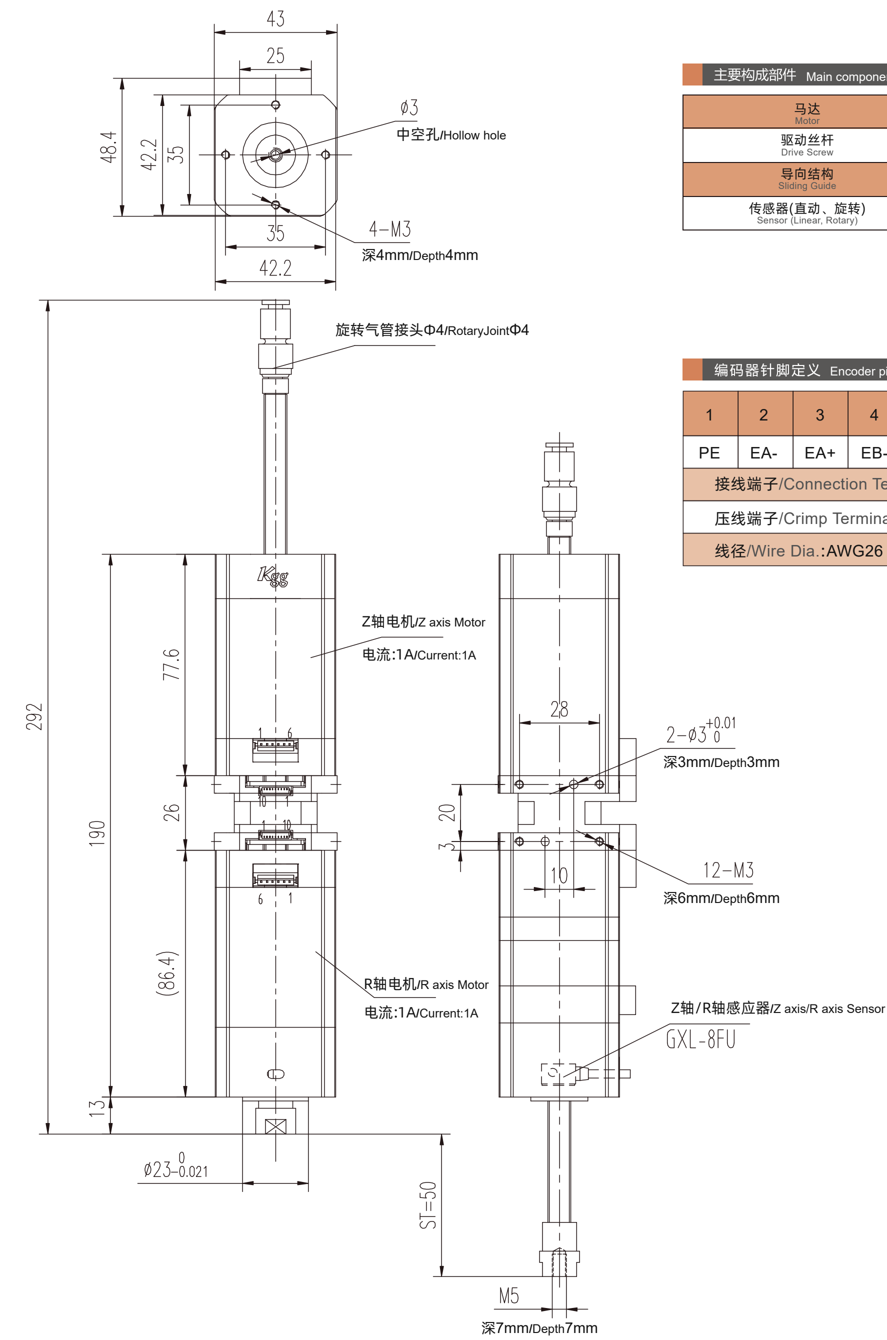
注意事项

1.Z轴无制动装置，关闭电源Z轴有可能会落下。请注意。
2.负载力矩参照表为理论值。建议使用之前在实际负载力矩上确认运作状况。

Notes

1.Z axis has no braking device, and Z axis may fall when power is turned off. Please take care.
2.The load torque reference table is a theoretical value. It is recommended to check the operating condition on the actual load torque before use.

ZRIN42E-G10-50P



主要构成部件 Main component parts

马达 Motor	42中空步进马达1.2A/相 42 Hollow stepper motor 1.2A/phase
驱动丝杆 Drive Screw	滚珠丝杆Φ8(导程5mm) Ball Screw Φ8mm(Lead 5mm)
导向结构 Sliding Guide	滚珠花键Φ8mm Rolling Spline Φ8mm
传感器(直动、旋转) Sensor (Linear, Rotary)	近距离传感器E2S-W14-1M(欧姆龙) Proximity Sensors E2S-W14-1M(OMRON)

编码器针脚定义 Encoder pin definition

1	2	3	4	5	6	7	8	9	10
PE	EA-	EA+	EB-	EB+	Z-	Z+	GND	VCC	PE

接线端子/Connection Terminal:JST GHR-10V-S

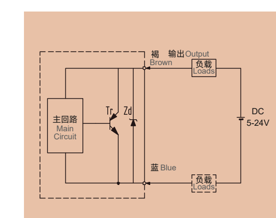
压线端子/Crimp Terminal:JST SSHL-002T-P0.2

线径/Wire Dia.:AWG26

马达（Z、R轴）Motor (Z, R axis)

针脚号 Pin No	功能 Function	颜色 Color
1	A+	绿 Green
3	A-	黑 Black
4	B+	红 Red
6	B-	兰 Orchid

感应器（Z、R轴）Sensor(Z, R axis)



技术参数 Technical Parameter

项目 Item	Z轴 Z axis	R轴 R axis
运作范围 Operating Range	50mm	±360°
重复定位精度 Repeatability	±0.01mm	±0.03°
编码分辨率 Encoding Resolution	5000CPR	5000CPR
最高速度 Max Speed	400mm/sec	900°/sec
参考推力 Reference Thrust Force	19N	
重量 Mass	0.99kg	
使用温度范围 Operating Temperature	0-40℃（无结霜）0-40℃(No Frosting)	0-40℃（无结霜）0-40℃(No Frosting)

θ轴最大允许负载力矩请参照(负载力矩参照表)

For the maximum allowable load torque of 0 axis , please refer to (Load Torque Reference Table)

容许力矩 Allowable Torque

负载力矩参照表 Load Torque Reference Table		
直径 Diameter	高度 Height	
	铝 Aluminum	钢 Steel
φ30	600mm(1140g)	205mm(1140g)
φ50	80mm(450g)	29mm(450g)
φ100	5mm(110g)	1. 5mm(90g)

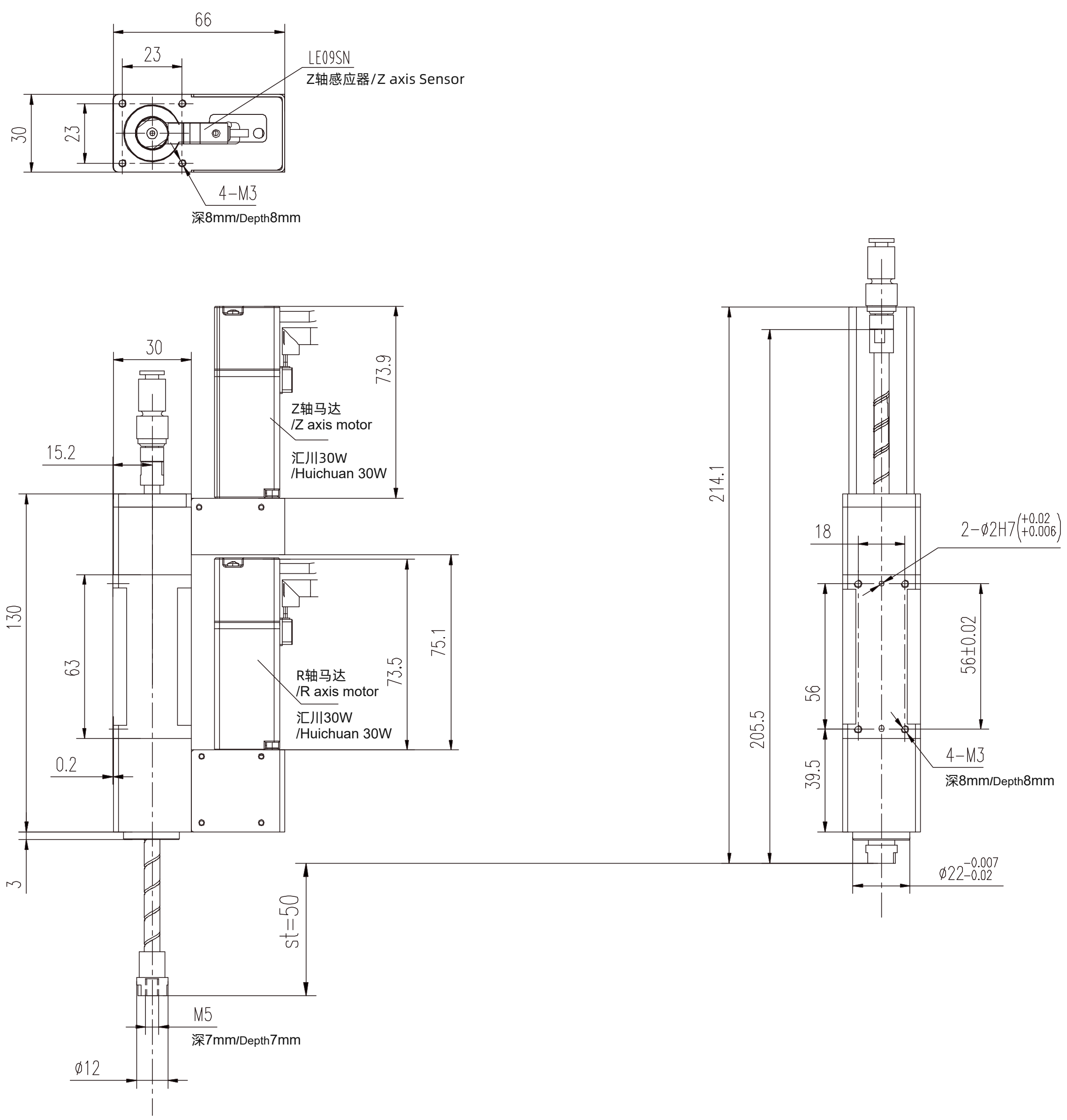
注意事项

1.Z轴无制动装置，关闭电源Z轴有可能会落下。请注意。
2.负载力矩参照表为理论值。建议使用之前在实际负载力矩上确认运作状况。

Notes

1.Z axis has no braking device, and Z axis may fall when power is turned off. Please take care.
2.The load torque reference table is a theoretical value. It is recommended to check the operating condition on the actual load torque before use.

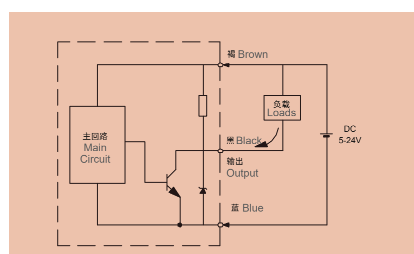
ZRFS30S-G10-50P-C1



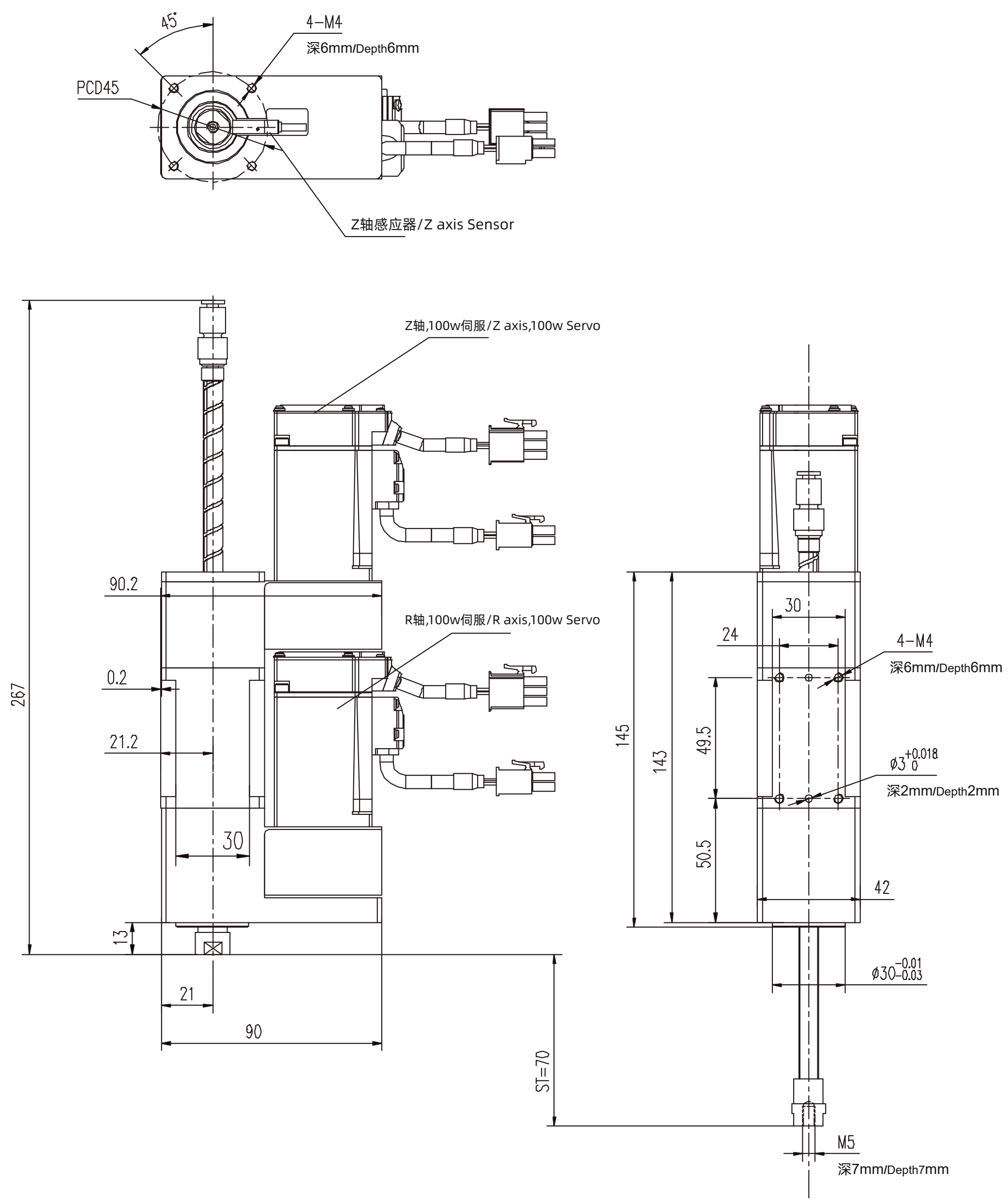
技术参数 Technical Parameter

项目 Item	Z轴 Z axis	R轴 R axis
运作范围 Operating Range	50mm	±360°
重复定位精度 Repeatability	±0.005mm	±0.005°
最高速度/转速 Max Speed	500mm/sec	1000RPM
最大推力 Max Thrust Force	30N	-
持续推力 Continuous Thrust Force	15N	-
额定扭矩 Rated Torque	-	0.095N.M
最大负载 Max Load	0.5kg	-
使用温度范围 Operating Temperature	0-40°(不结雾) 0-40℃(No Frosting)	
电机类型 Motor Type	30W伺服 30W Servo	
本体重量 Body Mass	0.75KG(含电机) 0.75KG(Contains The Motor)	

感应器(Z、R轴) Sensors (Z、Raxis)



ZRFS42S-G10-70L-C1



技术参数 Technical Parameter

项目 Item	Z轴 Z axis	R轴 R axis
运作范围 Operating Range	100mm	±360°
重复定位精度 Repeatability	±0.005mm	±0.005°
最高速度/转速 Max Speed	500mm/sec	3000RPM
最大推力 Max Thrust Force	50N	-
持续推力 Continuous Thrust Force	15N	-
额定扭矩 Rated Torque	-	0.026N.M
最大负载 Max Load	1.5kg	-
使用温度范围 Operating Temperature	0-40°(不结雾) 0-40℃(No Frosting)	
电机类型 Motor Type	100W伺服 100W Servo	
本体重量 Body Mass	1.6KG(含电机) 1.6KG(Contains The Motor)	

感应器(Z、R轴) Sensors (Z、Raxis)