



### **ABSOLUTE ENCODERS**

### > RZ35 Series

#### APPLICATION FEATURES

Servo motor control

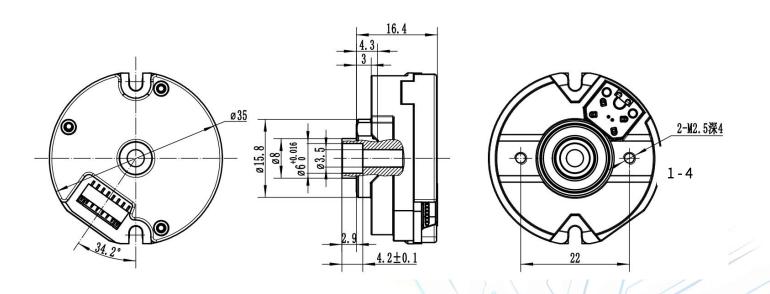
- Interface RS485.
- Provides resolution of up to 17 to 23 bits.
- 16-bit multi-turn counting capability.
- Absolute positioning accuracy within ±50 arc seconds.





Model: RZ35D06S

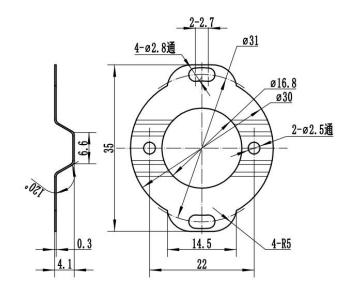
# Main Size Selection





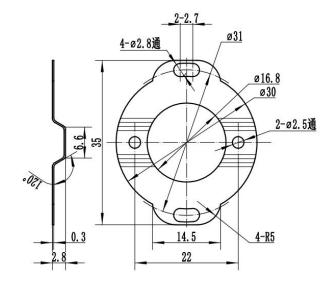


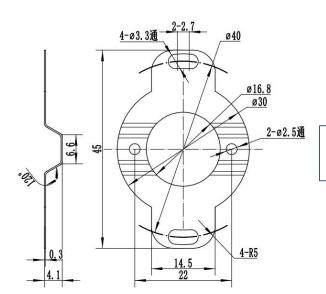
# Spring Tab Size Selection



MP4131-704R (BM-Medium type mounting hole d31)

MP2831-704R (BL-Low type mounting hole d31)



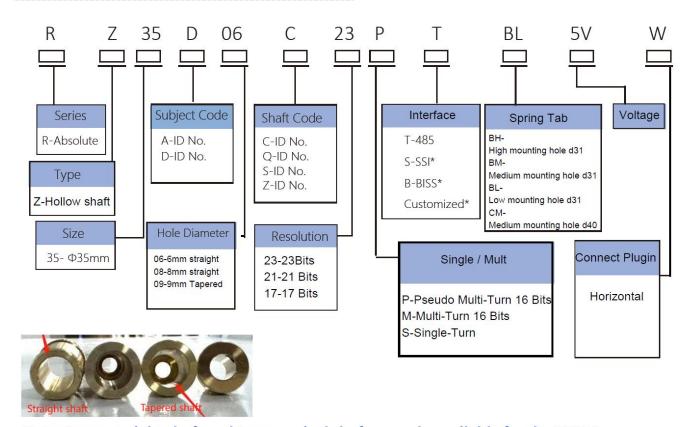


MP4140-704R (CM-Medium type mounting hole d40)

Note: The spring tab should be selected according to the motor end size.







Note: 8mm straight shaft and 9mm conical shaft are only available for the RZ35A.

#### **SIGNAL DEFINITIONS**

LEAD COLOR	RED	BLACK	BLUE	YELLOW	BROWN	WHITE		SHIELDED CABLE
SOCKET PINS	1	2	3	4	5	6	7	8
SIGNAL DEFINITION	5V	GND	485+	485-	Battery Positive	Battery GND	NC	SHIELDED CABLE

Select hole diameter, resolution, interface, and spring tab according to project requirements.

If you have any customization requirements, please contact: <a href="mailto:liya@epoch-electronic.com">liya@epoch-electronic.com</a>

Please refer to the next page for key electrical and mechanical parameters.



### **SPECIFICATIONS**

Working Temperature:	-20 °C -+105 °C		
Current Consumption:	< 100mA		
Battery Voltage:	3.6V DC		
Battery Fault Voltage:	2.5V		
Battery Warning Voltage:	3.1V		

Signal:	Differential output
Supply Voltage:	Single 5V Supply
Rise/Fall Time:	Around 100ns
Insulated Resistance:	50MΩ

# ELECTRICAL SPECIFICATIONS

The state of the s			
Resolution Ranges:	131072 (17Bit) - 8388608 (23Bit)		
Resolution Capabilities:	16 Bits Multi-Turn Resolution Counter		
Absolute Positioning Accuracy:	<±50 Angular Seconds		
Repetition Positioning Accuracy:	<±3 angular seconds		
Battery Voltage Fault Warning:	Yes		
Interface	RS485		
Communication Frequency:	≤16K		
Baud Rate:	2.5MHz		

MECHANICAL SPECIFICATIONS	
Enter Allowable Deviation Of Shaft:	Axial:±0.5mm Radial:±0.02mm Dip Angle:0.1° Axial Endplay:<0.1mm Radial Runout:<0.01mm
Operation Speeds:	Of Up To 6000rpm
Shaft Diameter:	Axis Of A Cone Taper 1:10
Moment Of Inertia:	0.68kg * mm2
Rotor Angular Acceleration:	During Power Supply ≤80000rad/S2 When Battery Powered ≤4000rad/S2
Mechanical Shock:	Impact Acceleration 980m/S2 11ms.Impact 3 Times In Each Direction, Totally 18 Times
Vibrate	10 To 55hz, Keeping The Amplitude Of 1.5mm Acceleration Between 55 And 2000hz is 98m/S2 XYZ 2 Hours Per Axial Direction, 6 Hours in Total
Working Temperature:	-20 °C -+105 °C
Relative Humidity:	≤90% (40°C/21d, Based On En 60068-2-78) Without Condensation.
Degree Of Protection:	IP40