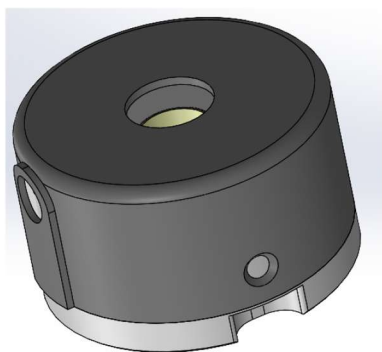
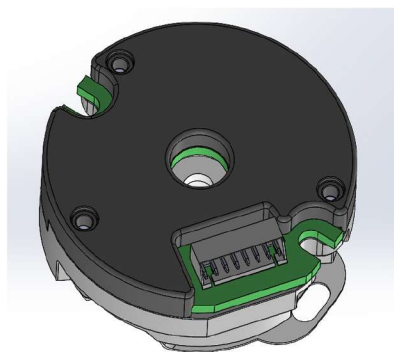


## **RZ35 Series Bearing Absolute Encoder**



**RZ35A09**



**RZ35D06**

### Uses

This product is mainly used for servo-driven control system. Provide feedback information and auxiliary signals required by accurate position and speed control units for the system.

### Features

- Working temperature -20 °C ~+105 °C
- Current consumption < 100mA
- Battery voltage 3.6V DC
- Battery fault voltage 2.5V
- Battery warning voltage 3.1V
- Differential output
- Single 5V Supply
- Rise/Fall time around 100ns
- Insulated resistance 50MΩ

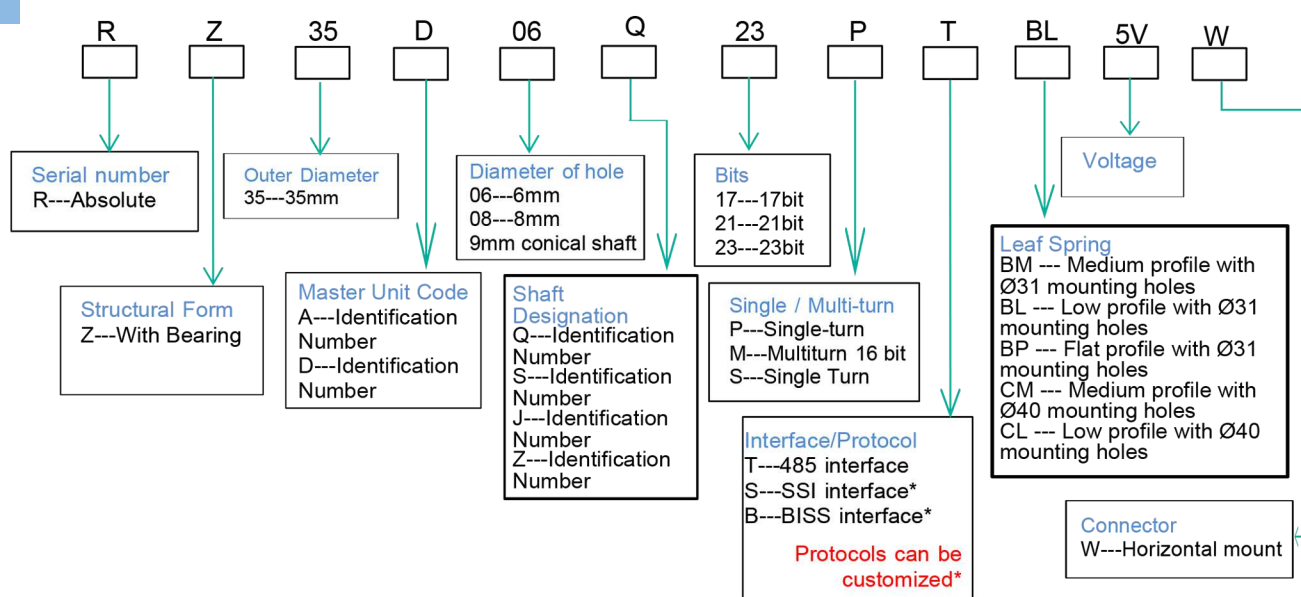
## Technical Parameters

- Resolution 131072 (17bit) 8388608 (23 bit)
- 16 bits multi-turn resolution counter
- Absolute positioning accuracy  $<\pm 50$  angular seconds  
  
**Note: The specific accuracy depends on the motor and mechanical assembly fit**
- Repetition positioning accuracy  $<\pm 3$  angular seconds  
  
**Note: The specific accuracy depends on the motor and mechanical assembly fit**
- Battery voltage fault warning
- Interface RS485
- Communication frequency  $\leq 16K$
- Baud rate 2.5MHz
- Enter allowable deviation of shaft Dip angle:  $0.1^\circ$  Axial endplay:  $<0.1mm$  Radial runout:  $<0.01mm$
- Operation speeds of up to 6000rpm
- Moment of inertia  $0.21kg \cdot mm^2$
- Rotor angular acceleration  
During power supply  $\leq 80000rad/s^2$   
When battery powered  $\leq 4000rad/s^2$
- Mechanical shock  
Impact acceleration  $980m/s^2$   
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  $98ms^2$  XYZ 2 hours per axial direction, 6 hours intotal
- Working temperature  $-20^\circ C \sim +105^\circ C$
- Relative humidity  $\leq 90\%$  ( $40^\circ C/21d$ , based on EN 60068-2 -78) without condensation.
- Degree of protection IP40

## Cable Definitions

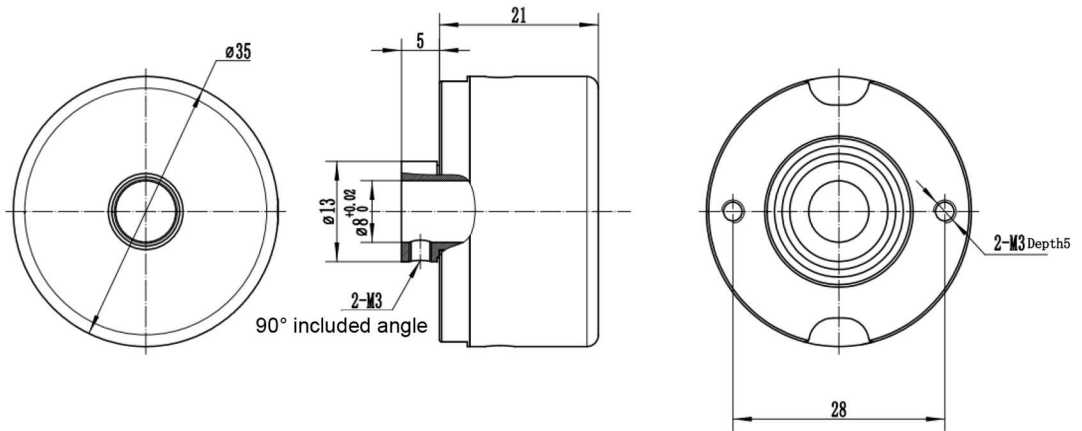
Pin Number	1	2	3	4	5	6	7	8
Signal Definition	5V	GND	485+	485-	Battery +	Battery GND	NC	PE
Cable Color	Red	Black	Blue	Yellow	Brown	White		Shielded Mesh

## Technical Parameters

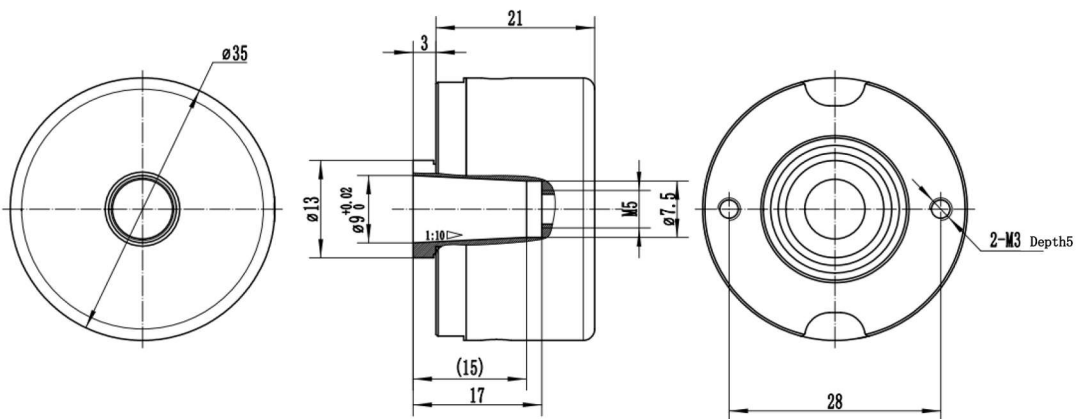


Note: 8mm straight shaft and 9mm conical shaft are only available at RZ35A.

## Mechanical Dimension

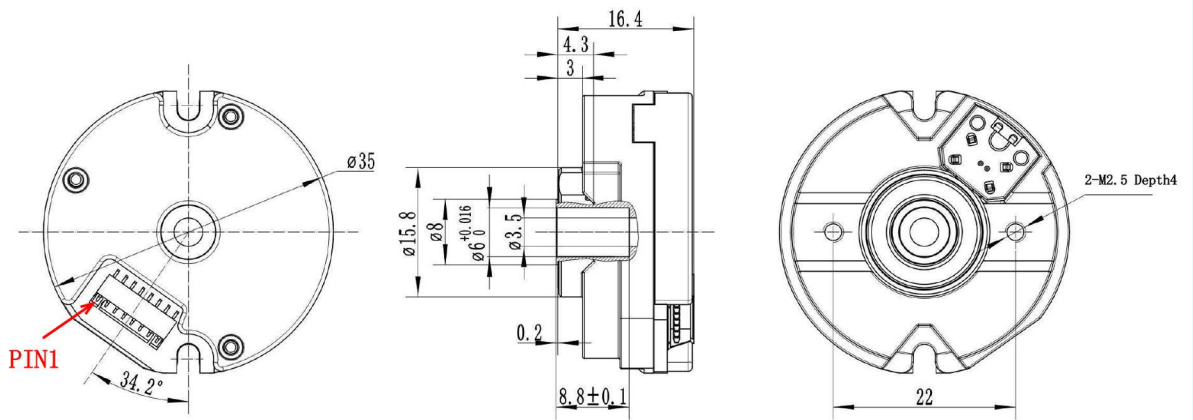


**RZ35A08 Mechanical Dimension Drawing**

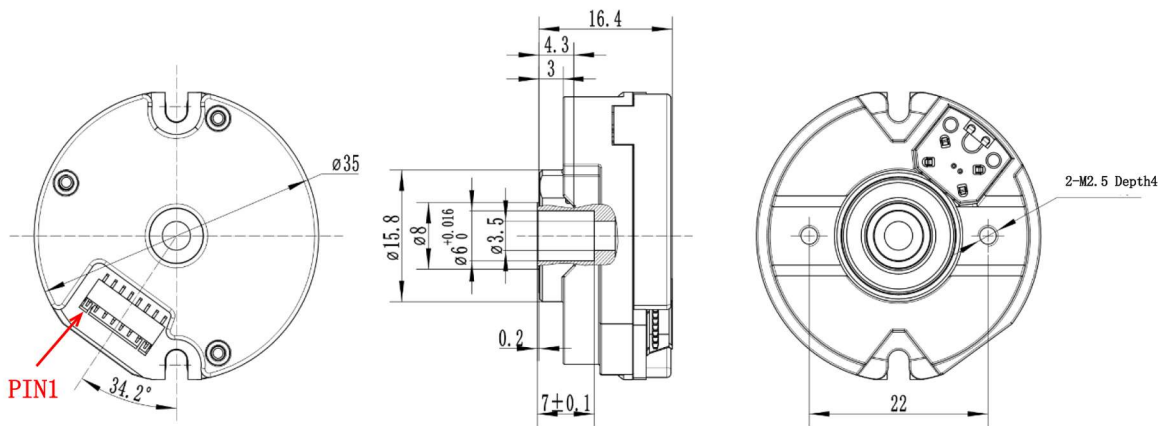


**RZ35A09 Mechanical Dimension Drawing**

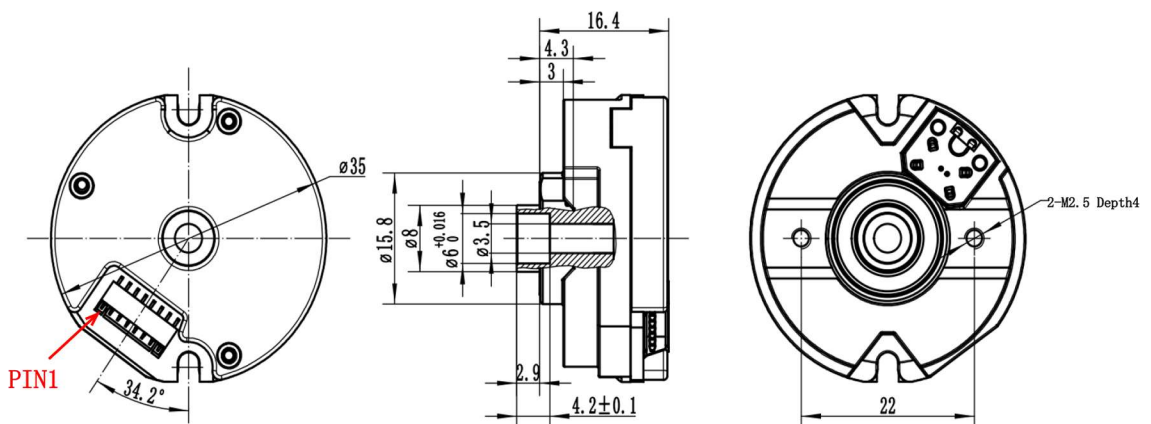
## Mechanical Dimension



**RZ35D06Q Mechanical Dimension Drawing**



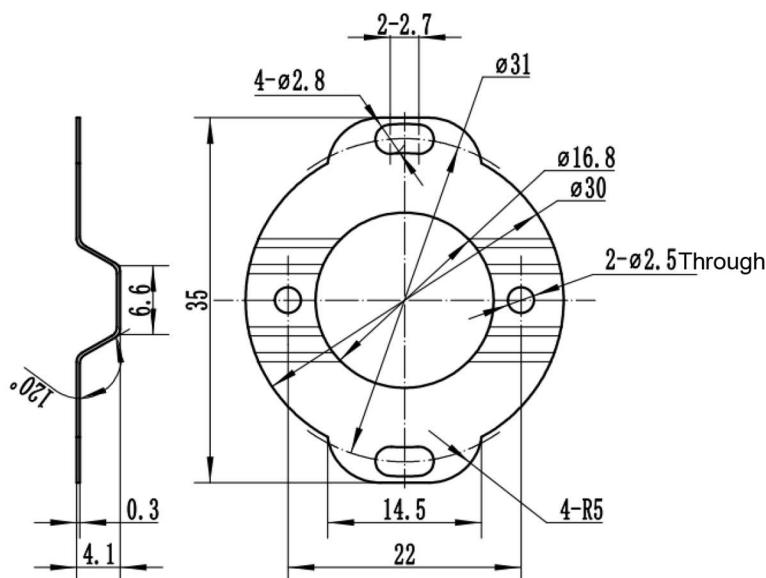
**RZ35D06J Mechanical Dimension Drawing**



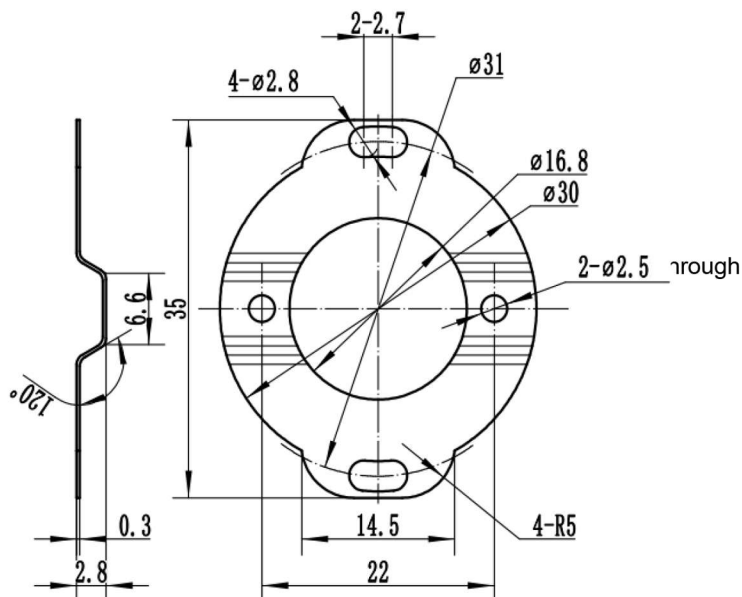
**RZ35D06S Mechanical Dimension Drawing**

## Mechanical Dimension

**Note: Select leaf spring according to motor face dimensions.**

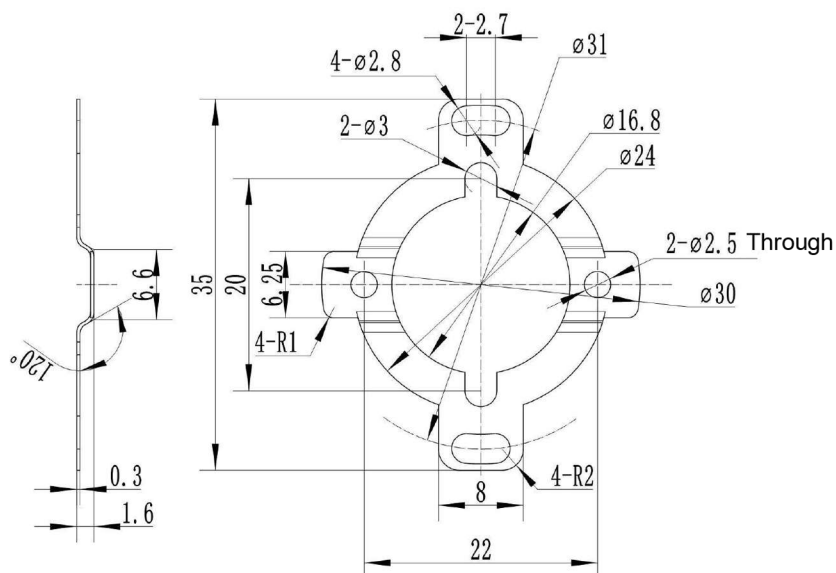


MP4131-704R (BM Type - Medium Profile with Ø31 Mounting Holes) Leaf Spring  
Mechanical Drawing

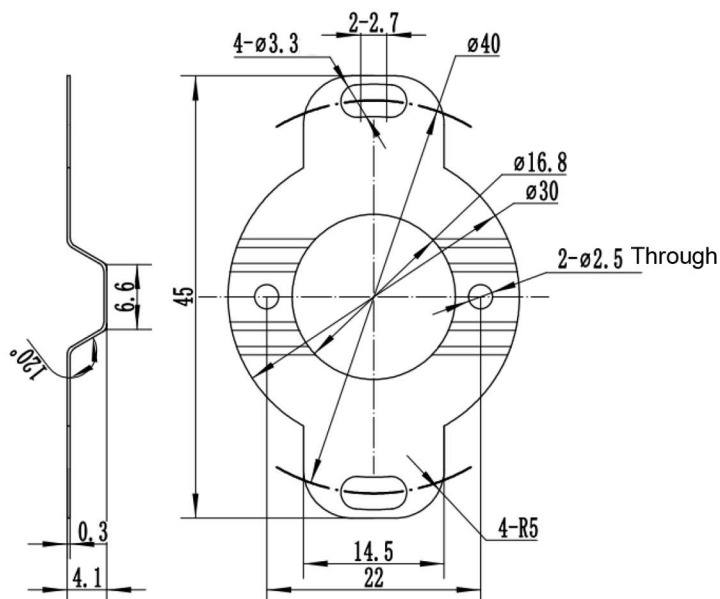


MP2831-704R (BL Type - Low Profile with Ø31 Mounting Holes) Leaf Spring  
Mechanical Drawing

## Mechanical Dimension

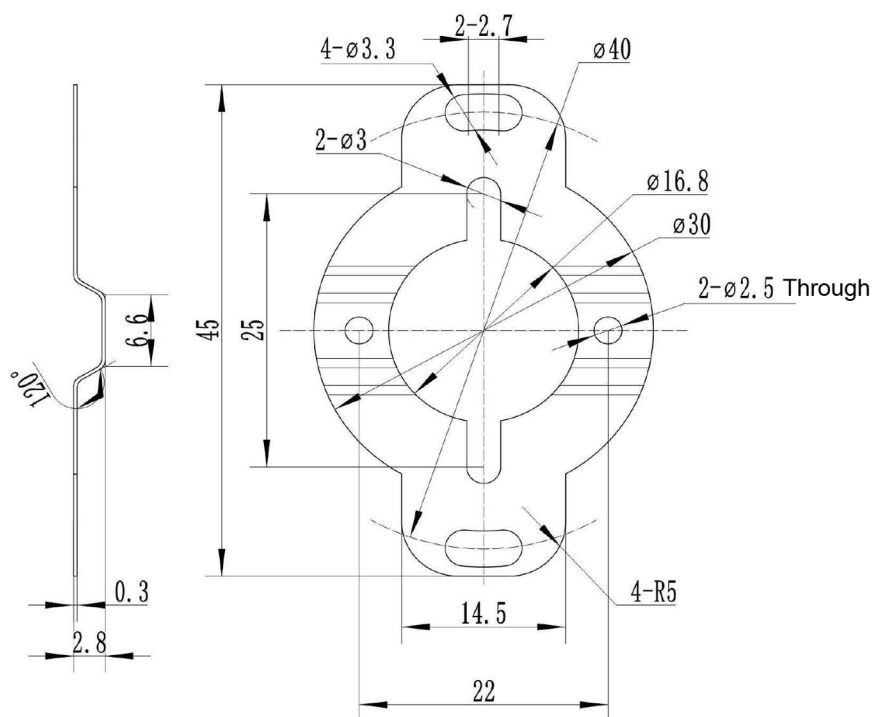


MP1631-704R (BP Type - Flat Profile with Ø31 Mounting Holes) Leaf Spring Mechanical Drawing



MP4140-704R (CM Type - Standard Profile with Ø40 Mounting Holes) Leaf Spring Mechanical Drawing

## Mechanical Dimension



MP2840-704R (CL Type - Low Profile with Ø40 Mounting Holes) Leaf Spring  
Mechanical Drawing