



## Absolute rotary encoder CAS60---RC with CAN2.0B output



★Before using the encoder, please read the following instructions and use it correctly!

| Mechanical Spec.    |                                             | Electrical Spec.      |                          |
|---------------------|---------------------------------------------|-----------------------|--------------------------|
| Max Speed           | 6000 RPM                                    | Power supply          | 10-30Vdc (5Vdc optional) |
| Load                | Axial 40N, Radial 100N                      | Current consumption   | < 50mA (24Vdc)no load    |
| Shock               | 1000m/s <sup>2</sup> (6ms), 等于 100g         | output                | CAN 2.0B protocol        |
| Vibration           | 200m/s <sup>2</sup> (10-2000Hz), 等于 20g     | Linear resolution     | 1/4096FS max.            |
| Allow axial runout  | ±1.5mm                                      |                       |                          |
| Allow radial runout | ±0.2mm                                      | positioning accuracy  | 0.1°                     |
| Structure           | 60mmouter, solid shaft or Blind hole        | Operating temperature | -40℃~100℃                |
| Connection Type     | 8-core shielded cable or aviation connector | Storage temperature   | -40℃~85℃                 |
| IP                  | IP65                                        |                       |                          |

### connection:

| function | Vcc   | GND   | CAN H | CAN L  | reset | setting | shield    |
|----------|-------|-------|-------|--------|-------|---------|-----------|
| color    | Brown | White | Green | Yellow | Grey  | Blue    | Thick red |

Note: 1. Use of reset line (gray)

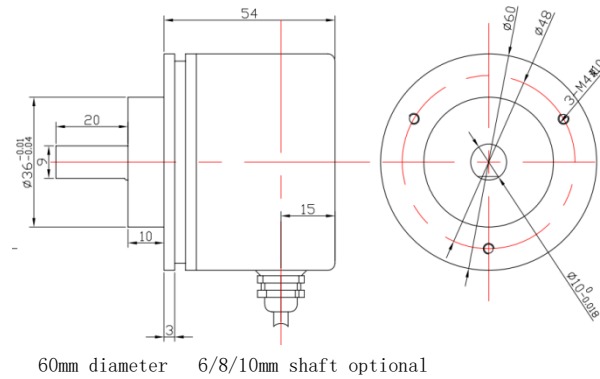
When the reset line (gray) touches Vcc for more than 1 second, the current data of the encoder becomes the reset value (zero point)

### Factory specifications:

| add | Baud rate | Operating mode    | Frame format   | direction | resolution | Reset value | Transmission cycle |
|-----|-----------|-------------------|----------------|-----------|------------|-------------|--------------------|
| 182 | 125K      | Asynchronous mode | Standard frame | CW        | 16384      | 1           | 16ms               |

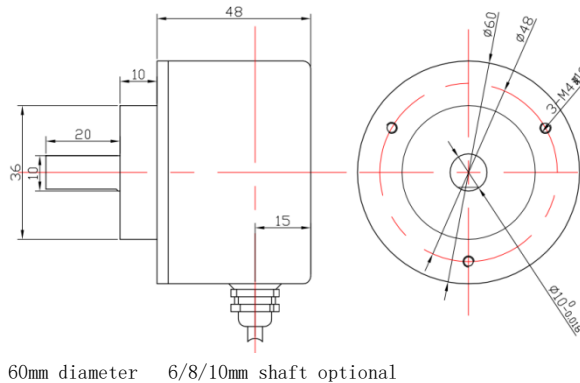
## Mechanical drawing:

Clamping synchronous flange (optional cable output or connector output)



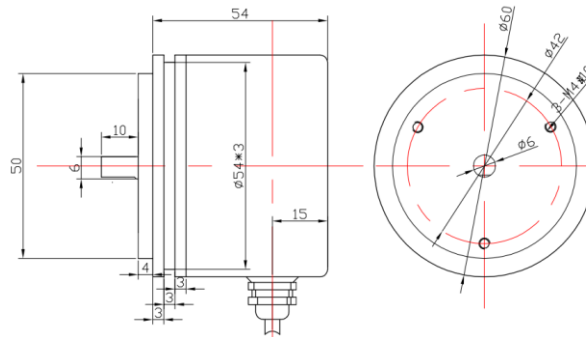
60mm diameter 6/8/10mm shaft optional

Clamping flange (optional cable output or connector output)



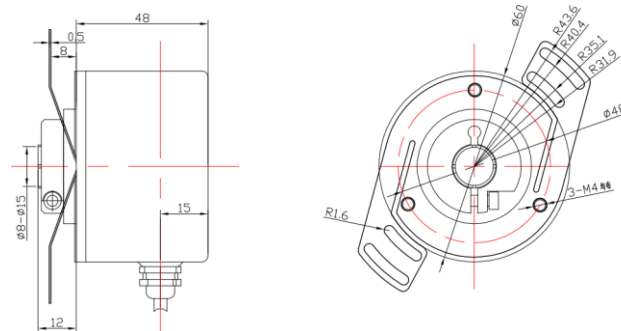
60mm diameter 6/8/10mm shaft optional

Synchronous flange / servo flange (optional cable output or connector output )



60mm diameter 6mm shaft

Blind-hole flange (optional cable output or connector output)



60mm outer diameter 8-15mm aperture optional

Encoder parameter setting: the setting line must be connected to the high level when modifying parameters. The baud rate is fixed at 250K.

The message for modifying the node number is as follows: The default node number of the encoder is 16 # 182, and the sending ID is 182

ID DATA

182 22 00 30 00 83 01 00 00

Encoder feedback:

ID DATA

182 23 00 30 00 83 01 00 00

Set the value to 16#183, then the node number of the encoder after modification is 16#183, and the new node number will take effect immediately after modification.

Modify the baud rate message as follows: the default baud rate of the encoder is 250K,

ID DATA

182 22 01 30 00 03 00 00 00

Encoder feedback:

ID DATA

182 23 01 30 00 03 00 00 00

|    |       |
|----|-------|
| 08 | 10K   |
| 07 | 20K   |
| 06 | 50K   |
| 05 | 100K  |
| 04 | 125K  |
| 03 | 250K  |
| 02 | 500K  |
| 01 | 800K  |
| 00 | 1000K |

Modify the working mode message as follows: The encoder defaults to asynchronous mode 08

ID DATA

182 22 02 30 00 08 00 00 00

|    |                   |
|----|-------------------|
| 08 | Asynchronous mode |
| 09 | Synchronous mode  |

Encoder feedback:

ID DATA

182 23 02 30 00 08 00 00 00

Modify the output frame mode message as follows: the encoder default standard frame

ID DATA

182 22 03 30 00 00 00 00 00

|    |                |
|----|----------------|
| 00 | Standard frame |
| 04 | Extended frame |

Encoder feedback:

ID DATA

182 23 03 30 00 00 00 00 00

The modification direction message is as follows: the encoder defaults clockwise data increase

ID DATA

182 22 00 60 00 04 00 00 00

|    |     |
|----|-----|
| 04 | CW  |
| 05 | CCW |

Encoder feedback:

ID DATA

182 23 00 60 00 04 00 00 00

Modify the encoder single-turn resolution message as follows: encoder default resolution 4096

ID DATA

182 22 01 60 00 0 01 00 00

Encoder feedback:

ID DATA

182 23 01 60 00 01 00 00 00

The message to modify the encoder reset value is as follows: the encoder default encoder setting value 1

ID DATA

182 22 03 60 00 01 00 00 00

Encoder feedback:

ID DATA

182 23 03 60 00 01 00 00 00

Modify the encoder transmission cycle message as follows: the encoder default encoder transmission cycle 16ms

ID DATA

182 22 17 10 00 10 00 00 00

Encoder feedback:

ID DATA

182 23 17 10 00 10 00 00 00

The encoder reads the parameter message as follows: ID is fixed at 601

ID DATA

601 22 18 20 00 00 00 00 00

Encoder feedback:

ID DATA

182 00 10 00 00 00 10 00 00

address + resolution 4 bytes + reset value 4 bytes

182 04 05 08 00 32 00 00 00

address + baud rate + direction + Active/passive mode + Frame format + Output time

|                 |     |      |          |   |                         |    |
|-----------------|-----|------|----------|---|-------------------------|----|
| Send successful | 601 | DATA | STANDARD | 8 | 22 18 20 00 00 00 00 00 | 16 |
| Receive         | 182 | DATA | STANDARD | 8 | 00 10 00 00 00 10 00 00 | 16 |
| Receive         | 182 | DATA | STANDARD | 8 | 03 04 08 00 10 00 00 00 | 16 |

The encoder read data message is as follows:

ID DATA

182 22 00 00 00 00 00 00 00

Encoder feedback:

ID DATA

182 01 00 00 00 00 00 00 00

Encoder reset message is as follows:

ID DATA

182 22 06 00 00 22 06 00 00

Encoder feedback:

ID DATA

182 23 06 00 00 23 06 00 00