

Absolute rotary encoder CAX60---PB with parallel output

*Built-in multi-turn mechanical gear wheel encoder module, No battery or capacitor required for number of revolution counting during power failure

* 12 bits resolution (4096), 12 bits consecutive laps (4096 laps)

* Wide operating voltage range, 10 ~ 30Vdc or 5Vdc, polarity protection

* Wide operating temperature range, -40 ~ 85 °C; Storage temperature: -40 ~ 85 °C

* Parallel push-pull output, the absolute value of the Gray code, can be directly connected to a variety of devices

* For absolute encoder under harsh environmental conditions (humidity, dust, shock and vibration) Before using the encoder, please read the following instructions, proper use!

Characteristic parameters

Operating voltage	10 ... 30Vdc or 5Vdc polarity protection
Current consumption	<30mA (24Vdc) no-load
Output signal	parallel push-pull output active-high (parallel output voltage can be set)
Output pattern	Gray code
Resolution	≤12 bit, up to 4096 lines (order selection)
Lap	Max 4096
Duplicate precision	Repeatability ± 2BIT (the actual precision and installation precision shaft concentricity related)
Operating temperature	-40 to 85 °C
Storage temperature	-40 to 85 °C
Protection degree	housing IP67, shaft IP65
Shock and vibration	20g, 10 ~ 2000Hz; 100g, 6ms
Allowed speed	2400 rev / min
Connection cable	1 m shielded cable radial side (the other forms can be ordered)
Shape features	metal sealed housing, sealed double-bearing structure

Output interface (Product specifications shall prevail)

Core cable colors	Signal output	Core cable colors	Signal output
Black	2 ⁰	White/Grey	2 ¹⁵
Green	2 ¹	Grey/Pink	2 ¹⁶
Yellow	2 ²	Red/Blue	2 ¹⁷
Pink	2 ³	Yellow/Blue	2 ¹⁸
Purple	2 ⁴	Green/Blue	2 ¹⁹
Red	2 ⁵	Yellow/Pink	2 ²⁰
Brown/Green	2 ⁶	Pink/Green	2 ²¹
White/Green	2 ⁷	Yellow/Grey	2 ²²
Brown/Red	2 ⁸	Grey/Green	2 ²³
White/Red	2 ⁹	Brown/Black	2 ²⁴
Brown/Blue	2 ¹⁰	White/Black	KVCC ^{note1}
White/Blue	2 ¹¹	Grey	RESET ^{note2}
White/Yellow	2 ¹²	Brown	10~30Vdc
Yellow/Brown	2 ¹³	White	GND 0V
Grey/Brown	2 ¹⁴	Blue	Dir ^{note3}

Note:

note1 Parallel output reference voltage, each $<2V$, when normal using, please connect with power positive (brown wire) together.

note2 When the Grey wire short connected to high level more than 1 second, the current value is set to zero.

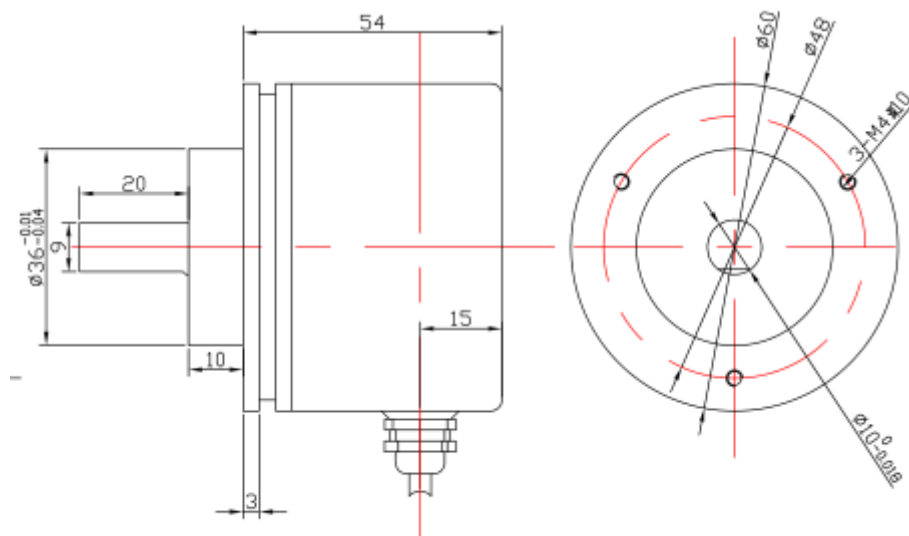
note3 By default, the data increases clockwise; when connect the wire with high level, the data increases counterclockwise.

note4 Black 2 means that every 2 points distributed on the black core are marks, which are distinguished from the pure black wire. Black 3 means that every 3 points distributed on the black core are marks. Other color marking methods are the same as above.

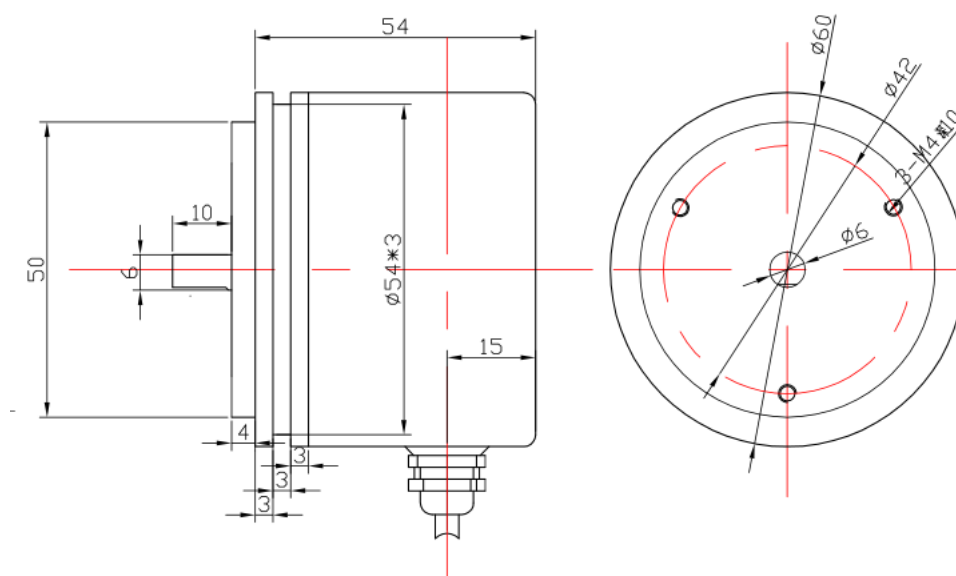
note5 Maximum 50mA each parallel output

Installation dimensions (Unit: mm)

a. Clamping & synchro

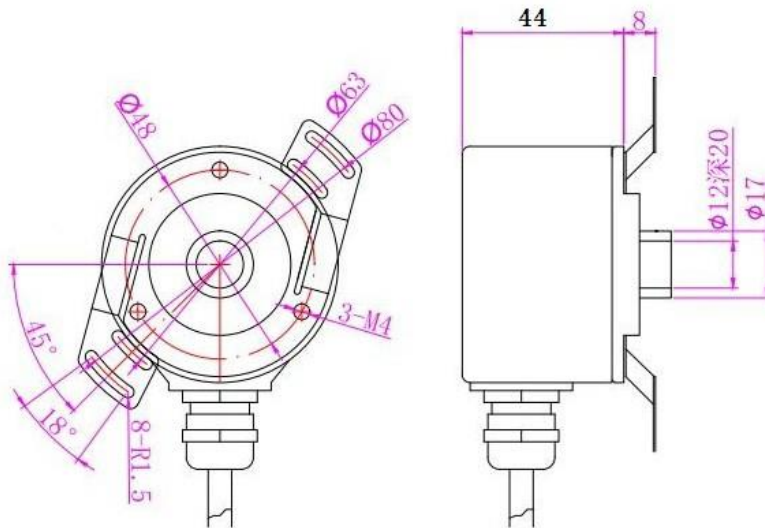


Synchronization flange



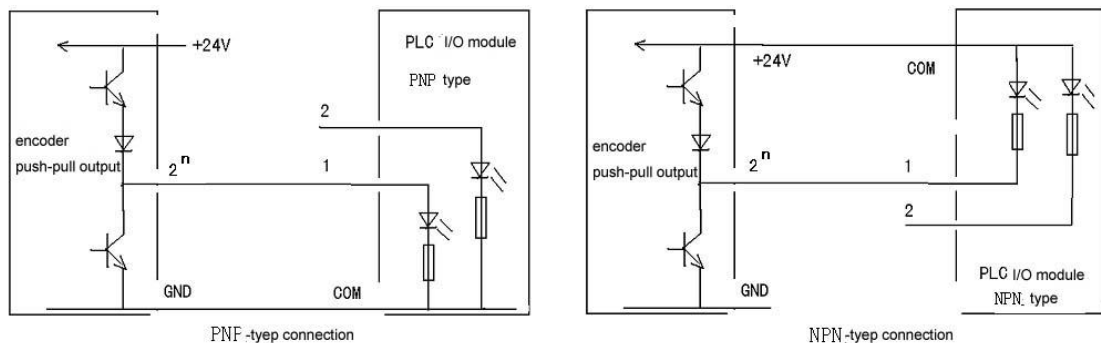
b. Hollow shaft flange

安装尺寸图：



Signal output

CAX60R1212E10PB parallel push-pull output of the output signal, and the PLC input module (I / O) connections as shown below:



Extensions [Blue/Brown]: When connected to a high level of data increases counterclockwise; when clockwise, please connect the wire to the power ground (GND 0V)

Note:

- * The encoder is a precision instrument, do not knock or bump encoders, gently, carefully use;
- * Guaranteed encoder supply in the range 10-30Vdc and do isolation to prevent large-scale electric power grid to start the encoder produces shock;
- * In the environment of strong electromagnetic interference, the signal line is best to use a dedicated line, such as double-shielded twisted pair cable can be ordered from the Company;
- * Encoder signal line should be well grounded: close, both ends of the cable shielding should be grounded within two meters; greater distance encoder grounded metal enclosure, the encoder comes with cable shielding vacant, signal extension cable shielding in signal receiving end single-grounded; If the signal cable longer or outdoor use, signal cables should put metal iron pipe and metal pipe at both ends of the ground to use;
- * Encoder protection class IP65, waterproof to use, but do not flooding the encoder shaft.