

# Briterencoder Absolute Rotary Encoder

## Analog 0-5V&10V Briterencoder Linear Displacement Sensor

### 1. Wiring Definition and connection

#### Output 0-5V

Grey wire (optional)	0-5 negative	1.In a three-wire system, since the signal negative and the power negative are directly connected, this line is left unconnected. 2.In a four-wire system, this line must be connected to the negative of the 0-5V voltage loop (i.e., the signal negative).
Brown wire	0-5V positive	-
Black wire	0V (GND)	-
Red wire	Power Supply	DC 12-24V
Orange wire	Function line	SETH/ Direction
Yellow wire	Function line	SETL/ Reset

#### Output 0-10V

Grey wire (optional)	0-10V negative	1.In a three-wire system, since the signal negative and the power negative are directly connected, this line is left unconnected. 2.In a four-wire system, this line must be connected to the negative of the 0-10V voltage loop (i.e., the signal negative).
Brown wire	0-10V positive	-
Black wire	0V (GND)	-
Red wire	Power Supply	DC 12-24V
Orange wire	Function line	SETH/ Direction
Yellow wire	Function line	SETL/ Reset

### 2. Function Line Setting Method

#### Set the minimum value:

When power on, use the yellow wire to touch the black wire (0V) for a short time (more than 100ms) to set the current position to the minimum analog value;

#### Set the maximum value:

When power on, use the orange wire to touch the black wire (0V) for a short time (more than 100ms) to set the current position to the maximum analog value;

#### Set the midpoint value:

When power on, use the yellow wire and the orange wire for to touch the black wire (0V) a short time (more than 100ms) to set the current position to the midpoint analog value;

### Restore the encoder to factory settings:

When the encoder is in power-off state, connect the yellow wire to the black wire (0V). Then power on and keep it on for 2 minutes (110~130 seconds) to reset the encoder.

### Set the encoder's value direction

When the encoder is in a powered-off state, the orange wire contacts the black wire (0V). Then power on and keep it on for 2 minutes (110~130 seconds), the encoder can switch its direction of value.

## 3. How to calculate the displacement length

### • Output 0-5V:

The displacement length=measuring range \* voltage/5 (unit: mm)

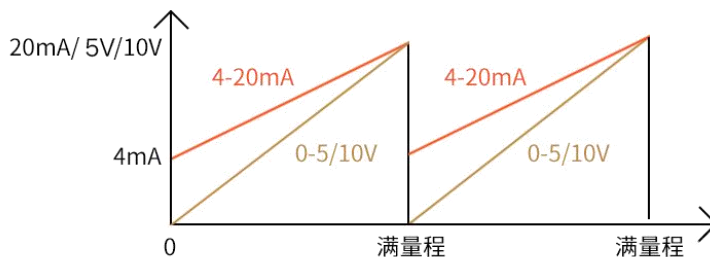
E.g. If a single turn 0-5V sensor with the measuring range of 500mm is used and the voltage is 2.5V, then the displacement length=500\* 2.5/5=250mm

### • Output 0-10V:

The displacement length=measuring range \* voltage/10 (unit: mm)

E.g. If a single turn 0-10V sensor with the measuring range of 500mm is used and the voltage is 2.5V, then the displacement length=500\* 2.5/10=125mm

## 4. Schematic diagram of output signal



## 5. Precautions and warranty

- The displacement sensor of the pull rope is installed in a fixed position, and when the pull head is pulled out, it is strictly prohibited to let go and allow the pull rope to retract instantly.
- Movement needs to be kept unobstructed, and the cable should be pulled out vertically during installation.
- Non technical personnel are strictly prohibited from disassembling. If necessary, please disassemble and reassemble under the guidance of technical personnel;
- When installing the stainless steel ropes, attention should be paid to angle control. If necessary, pulleys can be added appropriately to change direction to ensure measurement accuracy and the service life of the steel rope, and to avoid friction between the wire and the outlet.
- Please confirm the power is turned off when wiring, and be aware that incorrect wiring may cause the encoder main board to burn out.
- The product is guaranteed for one year free of charge when used correctly.
- When exceed the warranty period, or the product is damaged due to improper use, the product can be sent back to the original factory for repair (only raw material cost is required when repair).

## 6. Contact us and technology support

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### Technical documentation

Detailed version of the instruction manual;

PC software;

2D drawings and 3D model files;

Additional Video Tutorials;

For more details, please visit our website: [www.briterencoder.com](http://www.briterencoder.com).