

Autonics E50 Series 50mm Diameter Incremental Rotary Encoders Instruction Manual

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Autonics E50 Series 50mm Diameter Incremental Rotary Encoders

Product Information

The E50 Series is a 50 mm Diameter Incremental Rotary Encoder. It is designed for various applications and is suitable for use with machinery such as nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.

Safety Considerations

- **Warning:** Failure to follow instructions may result in serious injury or death.
- 01. Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.
- 02. Do not use the unit in places where flammable/explosive/corrosive gas, high humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.
- 03. Install on a device panel to use.
- 04. Do not connect, repair, or inspect the unit while connected to a power source.
- 05. Check 'Connections' before wiring.
- 06. Do not disassemble or modify the unit.
- **Caution:** Failure to follow instructions may result in injury or product damage.
- 01. Use the unit within the rated specifications.
- 02. Do not short the load.
- 03. Do not use the unit near places where there is equipment that generates strong magnetic force or high-frequency noise and strong alkaline/acidic substances exist.

Cautions during Use

Follow the safety considerations mentioned above during the use of the E50 Series.

Cautions during Installation

Follow the safety considerations mentioned above during the installation of the E50 Series.

Ordering Information

The provided information is only for reference. To select the specified model, please refer to the Autonics website.

Product Components

The product components are sold separately.

Connections

The connections for different output types are as follows:

Totem pole / NPN open collector / Voltage output

Pin	Color	Function	Pin	Color	Function
1	Black	OUT A	4	Brown	+V
2	White	OUT B	5	Blue	GND
3	Orange	OUT Z	6	Shield F.G.	—

Line driver output

Pin	Color	Function
1	Black	OUT A
2	Red	OUT A
3	Brown	+V
4	Blue	GND
—	Shield	F.G.

Inner Circuit

The inner circuit diagrams are provided for different output types: Totem pole output, NPN open collector output, Voltage output, and Line driver output.

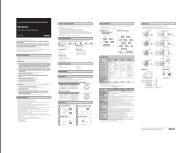
Output Waveform

The output waveform for rotating the encoder to the right (clockwise) is described for Totem pole/NPN open collector/Voltage output and Line driver output.

Specifications

Refer to the specifications section for detailed information on the E50 Series.

Documents / Resources

	<p>Autonics E50 Series 50mm Diameter Incremental Rotary Encoders [pdf] Instruction Manual E50S8-5000-6-L-5, E50 Series 50mm Diameter Incremental Rotary Encoders, E50 Series, 50mm Diameter Incremental Rotary Encoders, Diameter Incremental Rotary Encoders, Incremental Rotary Encoders, Rotary Encoders, Encoders, TCD210020AB</p>
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References

-  [autonics.com](https://www.autonics.com)