

INSTRUCTION FOR USERS OF DELTA ROTARY ENCODER

PRECAUTIONS FOR HANDLING

1. Hold the body of the encoder. Never hang it by lead wires nor pick up it by shaft.



2. This encoder is manufactured using precision parts and is very sensitive to rough handling. Isolate the encoder from shock and vibration.



3. Keep the encoder away from dust, liquid, low or high temperature and corrosive materials. These situations may cause the damage of the encoder.
4. Do not disassemble the encoder.

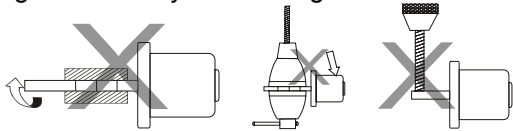


5. If any flaw is found before the encoder is used, please contact the distributor.

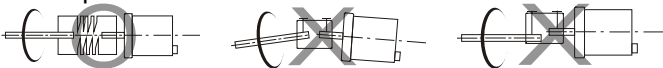
PRECAUTIONS FOR INSTALLATION

Encoders provide quality measurements and long life when care and correct installations are provided during using. The following precautions will help to ensure a trouble-free installation.

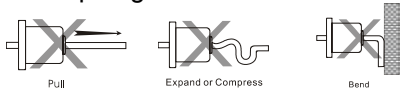
1. The encoder should be solidly mounted on a rigid support with screws and the shaft of the encoder should be aligned coaxially with driving shaft.



2. The encoder shaft should be connected with the driving shaft with a flexible coupling. Both shafts should be aligned in parallel and the maximum center offset within the specification.



3. The supply voltage should be kept within the required range as shown in the specification.
4. The wirings of the encoder should be connected according to the color codes of wires.
5. The lead wire of the encoder should not be pulled out or bent into a sharp angle.



6. Never connect or disconnect the encoder wirings while power is ON. Doing so may damage the encoder.
7. Never connect A, B, or Z to the + or - side of DC power.
8. The encoder should be located free of dust, liquid, low or high temperature, high humidity and corrosive or flammable materials.
9. The encoder should be located away from shock and vibration.

CIRCUIT OF OUTPUT SIGNALS

Before connecting the encoder wirings to the receiver, please identify the type of the output signal with the specification.

1. Connection Table*

Wire Color	Brown	Blue	Black	Black /Red	White	White /Red	Orange	Orange /Red
Function	Vcc**	0V	A	\bar{A}	B	\bar{B}	Z	\bar{Z}
Voltage Output***	○	○	○	-	○	-	○	-
Open Collector	○	○	○	-	○	-	○	-
Line Driver ****	○	○	○	○	○	○	○	○
Push Pull	○	○	○	-	○	-	○	-

Notes:

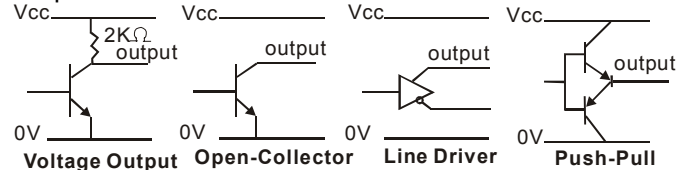
* Connect the shield wire (bare wire) with the grounding end of equipment for better performance.

** It depends on model type (EXX-XXXXX5XX: 5V or EXX-XXXXX8XX: 5~12V or EXX-XXXXX9XX: 7~24V).

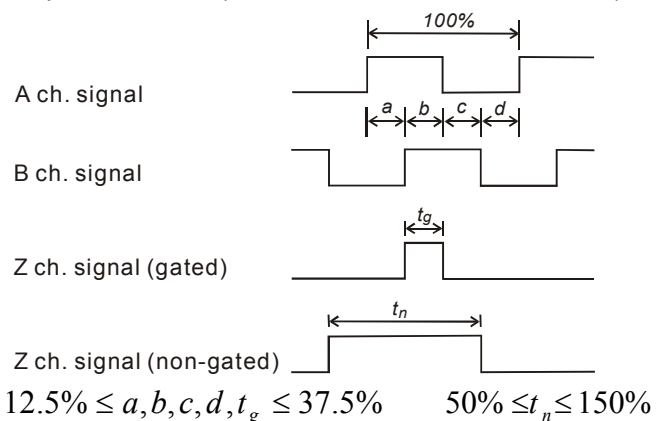
*** Internal 2K Ω pull up resistor is included.

**** It's compatible with 26LS32 differential line receiver.

2. Output Circuit



3. Output Waveform (CW rotation, view from shaft end)



[HTTP://www.deltaww.com/acdrives](http://www.deltaww.com/acdrives)

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