

Thank you for purchasing this Series **TRD-SR/SHR** Incremental Encoder.

Plase read this Safety Manual carefully before applying this product.

KEEP THIS MANUAL IN A SAFE PLACE.

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Specifications and dimensions are subject to change without notice due to product improvement.

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WARNINGS for Use

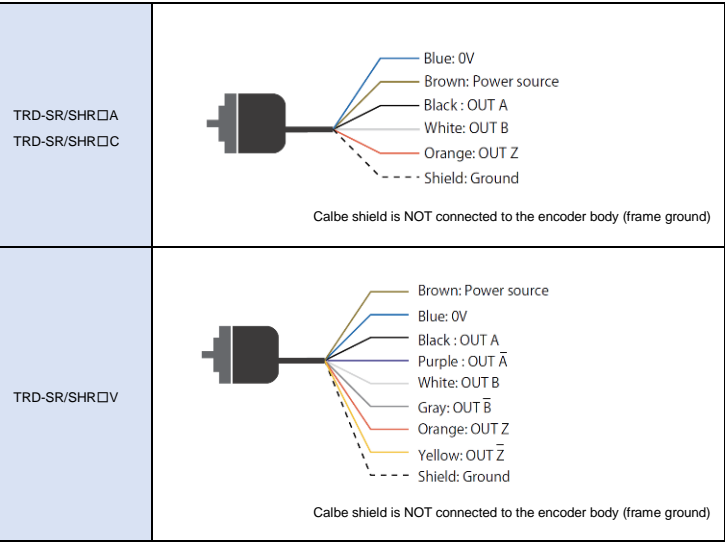
- It must be mounted within an enclosure that is suitably designed for mechanical and environmental specifications.
- If this product gets dirty, wring out a cloth dampened with water well and wipe it to remove dirt.
- Do not wire the cable in parallel with other power lines, and do not share a wiring duct with other cables.
- Use capacitors or surge absorption elements to remove the sparks caused by relays and switches in the control panel.
- Connect all wires properly. Incorrect wiring can damage the internal circuitry.
- Erroneous pulses may be caused at the time of power ON and power OFF. After power ON, wait at least a 0.5 second before use.
- Use care when handling and mounting the rotary encoder. It is made of precision components that can be damaged by physical shocks.

Model Numbering System

TRD	-	A	B	C	D	E	F	G	-	H
		SHR	xxxx	C	W	E	0	D		xxM

A	Series Name	SR	Solid Shaft
		SHR	Hollow Shaft
B	A / B Pulse Number	xxxx	xxxx Pulse par Revolution
		A	Open collector
		C	Totem-pole
		V	Line driver
D	Protective Structure / Cable Outlet position	None	IP50 / side
		W	IP65 / side
		B	IP50 / back
E	Shaft Length * TRD-SR series only	None	16.4 mm
		E	20.0 mm
F	Pitch of Spindle Spring *TRD-SHR series only	0	PCD 40
		5	PCD 45
G	Destination	None	Japan
		D	Other Countries
H	Cable Length	None	1 meter
		xx M	xx meter

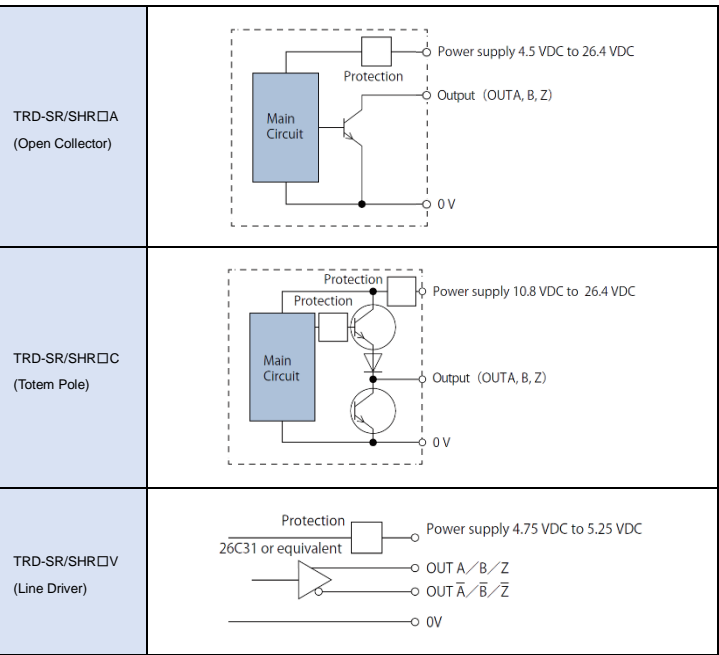
Connections



Environmental Specifications

Ambience	Indoor use (avoid direct sunlight)
Pollution Degree	2
Altitude	2000m or less above sea level
Ambient Temperature	-10°C to +80°C (Operation)
	-25°C to +85°C (Store)
Ambient Humidity	35% to 85% RH (non-condensing)
Withstand Voltage	Grounded through capacitor
Insulation Resistance	50M Ω min
Vibration Resistance	Half amplitude 0.75 mm 10-55Hz 1hour along 3axes.
Shock Resistance	490m/s 11ms 3 times 3 axes.
Protective Construction	IP50 / IP65 (Not scope of UL/cUL certification)

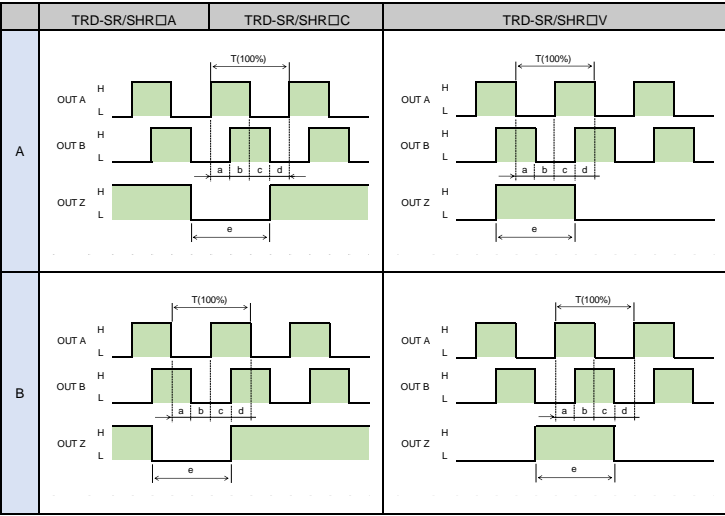
Output Circuits



Mounting Screw Information

TRD-SR (include)	Socket-head screw M3 x 0.5 x 6 mm [Tightening Torque 0.5 N m]
TRD-SHR	n/a

Output Waveform



A: 10 to 60 Pulse Number B: 100 to 3600 Pulse Number

T = a + b + c + d a, b, c, d = 1 / 4 T ± 1 / 8 T e = 1 ± 1 / 2 T

This Output waveform is Normal revolution (CW). "Normal" means clockwise revolution viewed from the shaft end.

Dimensions

