

**PART NUMBER:** REH30R**DESCRIPTION:** incremental encoder**ELECTRICAL SPECIFICATIONS**

current consumption	60 mA max. (under no load)
sink current	20 mA max. (residual voltage: < 0.5 V at 10 mA)
frequency response	100 KHz
output phase difference	A, B phase difference $90^\circ \pm 45^\circ$ (T/4 $\pm$ T/8) Z phase T $\pm$ T/2 (see output waveform)
supply voltage	5 ~ 12 V dc $\pm 10\%$ , 24 V dc $\pm 10\%$ (open collector output only)
output resolution (ppr)	200, 400, 500, 1000, 2000
waveform rise/fall time	2 $\mu$ S max. (output cable 1m or less)

**MECHANICAL SPECIFICATIONS**

max shaft load, radial:	19.6N (2kgf)
axial:	9.8N (1kgf)
starting torque	5 x 10 <sup>-3</sup> N·m (200 gf·cm) or less
max rotational speed	6000 RPM
shock resistance	500 m/s <sup>2</sup> (50G), 3 times each on XYZ
vibration proof	55 Hz, double amplitude 1.5mm, 2 hours each on XYZ
weight	400g (with 1m cable)
cable	ø4.2mm outside diameter, 5 core vinyl wire insulated shield cable (1m)

**ENVIRONMENTAL SPECIFICATIONS**

operating temp	0° to +60° C
storage temp	-20° to +80° C
humidity	RH 35%~90% non collecting

**ORDERING INSTRUCTIONS****REH30 - XXXXR-XX**

Resolution (PPR):  
 200 = 200 PPR  
 400 = 400 PPR  
 500 = 500 PPR  
 1000 = 1000 PPR  
 2000 = 2000 PPR

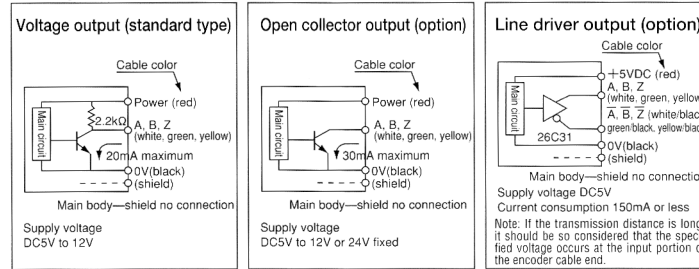
Output Circuit:  
 "no entry" = TTL voltage output  
 C = Open collector output  
 E = Line driver output

Input Voltage:  
 1 = 5 V dc  $\pm 10\%$   
 (line driver output only)  
 3 = 5 ~ 12V dc  $\pm 10\%$   
 4 = 24V dc  $\pm 10\%$   
 (open collector output only)

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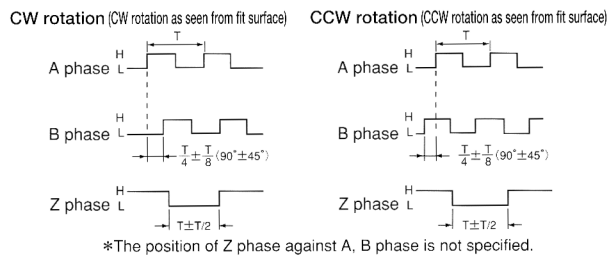
**DESCRIPTION:** incremental encoder

### CIRCUIT CONNECTIONS

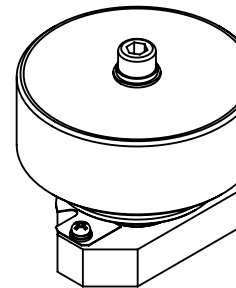
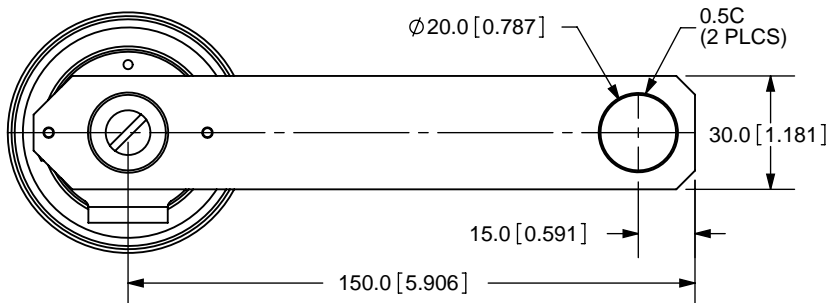
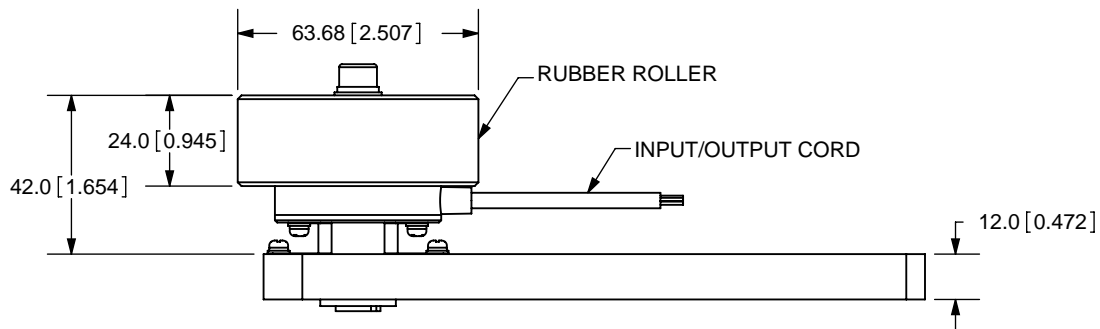


A capacitor (0.1 μF) is connected between 0V and FG (frame ground).

### OUTPUT WAVEFORM



REV.	DESCRIPTION
A	NEW DRAWING



TOLERANCE:  
±0.3mm UNLESS OTHERWISE  
SPECIFIED



TITLE: ENCODER

PART NO. REH30R

DRAWN BY: ZRJ