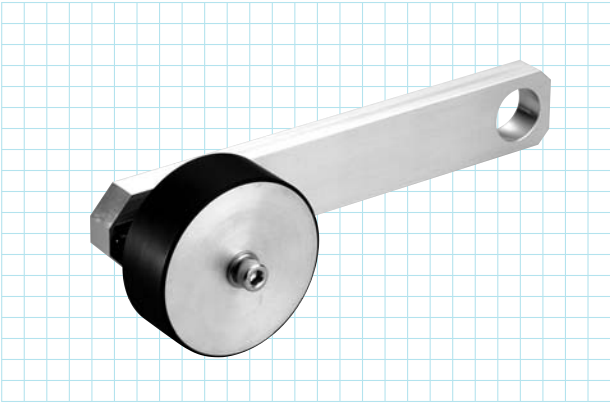
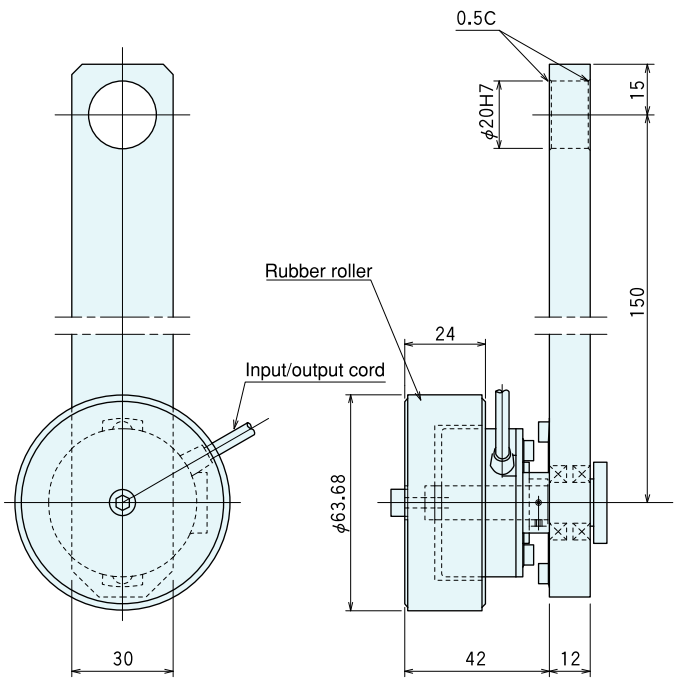
REH-30R series

[Roller Encoder]



Outside dimensions



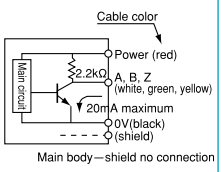
∗ Optional resolution is available by combining output pulse numbers.

Specifications

Item						
Type name		REH-30-□R□ (Pulse number; Output circuit: ●No entry=voltage output ●C=open collector output ●C4=open collector output DC24V ●E=line driver output)				
Supply voltage		DC5～12V ±10% DC24V±10%(open collector output only)				
Current consumption		60mA or less (under no load)				
Detection system		Incremental				
Output	Output pulse number	200	400	500	1000	2000
	Output pulse/1mm	1	2	2.5	5	10
	Minimum resolution mm	1	0.5	0.4	0.2	0.1
	Output phase	A, B, Z phase				
	Output form	Square wave				
	Output capacity	Sink current: 20mA Residual voltage: 0.5V or less (at 10mA)				
	Maximum response frequency (response pulse number)	100kHz				
	Output phase difference	A, B phase difference 90°±45° (T/4±T/8) Z phase T±T/2 (see Output Waveform)				
	Waveform rise/fall time	2μs or less (output cable 1m or less)				
Starting torque		5×10⁻³N·m(200gf·cm) or less				
Allowable load of shaft (electrical)	Radial	19.6N (2kgf)			14.7N (1.5kgf)	
	Thrust	9.8N (1kgf)			4.9N (0.5kgf)	
Maximum allowable revolutions (mechanical)		6000r/min				
Roller		Outside diameter:φ63.68±0.01 Material: aluminum roll hard urethane rubber baked				
Working ambient temperature/humidity		0°C～60°C RH35%～90% no dewing				
Storing ambient temperature		-20°C～80°C				
Vibration resistance		Durability 55Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions				
Impact resistance		Durability 500m/s² (about 50G) 3 times each in X, Y, and Z directions				
Cable		Outside diameter φ4.2 5-core vinyl wire Insulated shield cable (length 1m)				
Mass		400g				

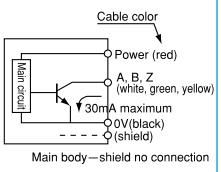
Output circuit diagram

Voltage output (standard type)



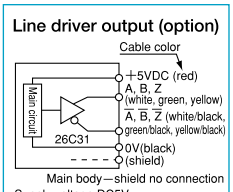
Supply voltage
DC5V to 12V

Open collector output (option)



Supply voltage
DC5V to 12V or 24V fixed

Line driver output (option)

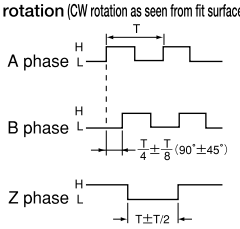


Supply voltage DC5V
Current consumption 150mA or less
Note: If the transmission distance is long, it should be so considered that the specified voltage occurs at the input portion of the encoder cable end.

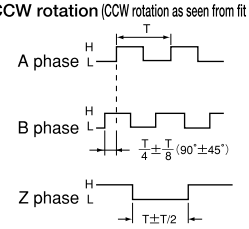
A capacitor (0.1μF) is connected between 0V and FG (frame ground).

Output waveform

CW rotation (CW rotation as seen from fit surface)



CCW rotation (CCW rotation as seen from fit surface)



∗The position of Z phase against A, B phase is not specified.