

Thank you for purchasing this Line Seiki product. Read this instruction manual carefully before using to ensure correct usage of this product. Keep this instruction manual for future reference.



WARNING

Misuse of this device may lead to injury to the user or damage to the device.

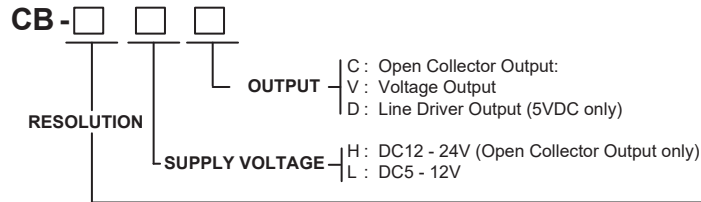
- Customer Service



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■ Models



100	100 PPR	1000	1000 PPR
200	200 PPR	1024	1024 PPR
250	250 PPR	1200	1200 PPR
300	300 PPR	1500	1500 PPR
360	360 PPR		
400	400 PPR	1800	1800 PPR
500	500 PPR	2000	2000 PPR
600	600 PPR	2048	2048 PPR
800	800 PPR	2500	2500 PPR

■ Specifications

ELECTRICAL	Model	CB - □HC	CB- □ LV	CB- □LD
	Power Supply (Ripple 3% max.)	DC12-24V±10%	DC5-12V±10%	DC5V±10%
	Current Consumption	50 mA max.		
	Output	Open Collector	Voltage	Line Driver
	Output Signal	90° Quadrature + Zero Marking		
	Output Phase	A,B,Z		A,B,Z, $\bar{A}, \bar{B}, \bar{Z}$
	Output Capacity	Sink Current : 35 mA max. Residual Voltage : 0.5V max.	Sink Current 20 mA max.	± 20 mA
	Max. Applied Voltage	30V max.		
	Output Voltage	—	H : Supply Voltage -1 V min. L : 0.5 V max.	H : 2.5 V min. L : 0.5 V max.
	Max. Freq. Response	100 kHz		
	Signal Rise/Fall Time (Pull-up resistor 2.2kΩ, 1m Cable)	1 μs max.		0.1 μs max.
	Insulation Resistance	20M Ω min. (DC100V Megger)		
	Output Impedance (Voltage Output only)	—	2.2k Ω	—
	Cable Length	500 ⁺¹⁰ mm		
Outside Diameter	φ 5.1 mm			

MECHANICAL	Max. Speed of Shaft		6000 rpm
	Moment of Inertia		$6 \times 10^{-7} \text{ kg} \cdot \text{m}^2 \text{ max.}$
	Starting Torque		$1.0 \times 10^{-3} \text{ N} \cdot \text{m max.}$
	Angular Acceleration		10^5 rad/s^2
	Max. Shaft Loading	Radial	25N max.
		Axial	15N max.
Weight		Approx. 120g (with 0.5m Cable)	

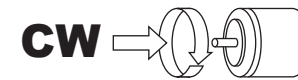
ENVIRONMENTAL	Operating Temperature	-10 - +70 °C (Non-Condensing, Non-Freezing)
	Storage Temperature	-25 - +80 °C (Non-Condensing, Non-Freezing)
	Operating Humidity	35 - 95% (Non-Condensing)
	Vibration Resistance	10~55 Hz, Width (P-P) 1.5mm (2 hours each in X,Y,Z Direction)
	Shock Resistance	6 ms, 980 m/s ² (3 times each in X,Y,Z Direction)
	Protection	Equivalent to IP50

■ Connection

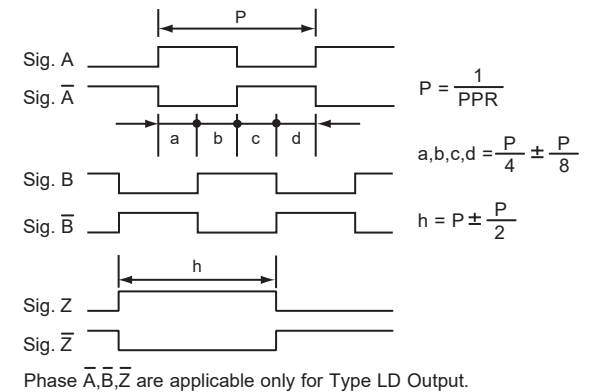
Signal	COLOR OF WIRE	
	HC/LV Type	LD Type
Vcc	Brown	Brown
0V	Blue	Blue
A	Black	Black
\overline{A}	—	Black/Red
B	White	White
\overline{B}	—	White/Red
Z	Orange	Orange
\overline{Z}	—	Orange/Red or Orange/White

* Braided shield in the cable is not connected with internal circuit and enclosure of the rotary encoder.

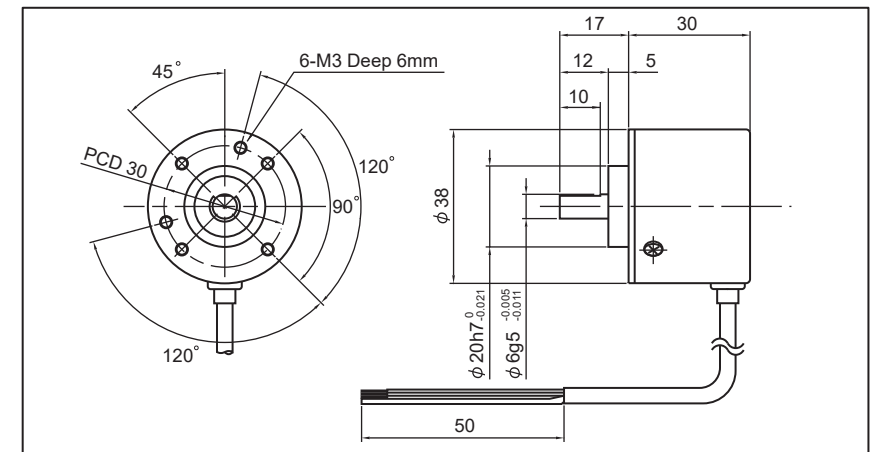
■ **Waveform**



These figures show the waveforms when the shaft is rotated Clockwise (CW) when viewing towards the encoder shaft.
A pulse at Signal A should be completed within the period that Signal Z is at H-Level.



■ Dimensions



This manual was last revised Jul. 15, 2021.
*Specifications Subject to Change Without Prior Notice.
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