

INCREMENTAL HOLLOW SHAFT TYPE KH100 Series

- Features : Elevator, Parking system, Industrial motor
Easy to be attached, Customized design,
Prompt delivery

Model

INCREMENTAL
HOLLOW SHAFT TYPE
Outer Diameter Ø100

Shaft Size
40: Ø40

40 -

Resolution(P/R)
0512 1024

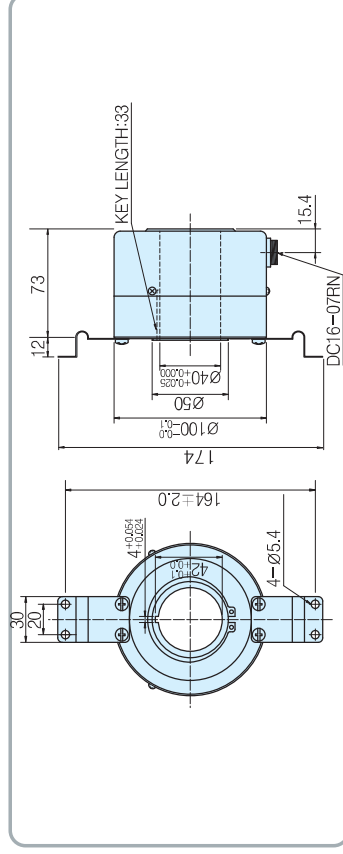


Output Signal
B : A, B
U : A, A, B, B

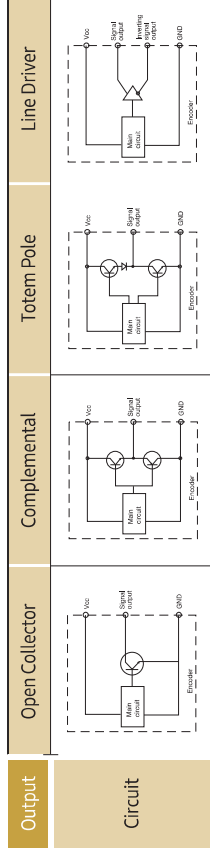
Output Form
O : Open Collector
C : Complementary
T : Totem Pole
L : Line Driver

External Dimension

Note) The spec of power may be different depending on the type of output and be sure to check the electric spec.



Output Circuit



ROTARY ENCODER

Electrical Spec.

Output type	Open Collector	Complemental	Totem Pole	Line Driver
Power Supply	DC +15[V] ~ +15[V] Ripple-p: less than 5%	DC +15[V] Ripple-p: less than 5%	DC +5[V] ~ +15[V] Ripple-p: less than 5%	DC +5[V] Ripple-p: less than 5%
Consuming Current (in case of no load)	70mA Max	150mA Max	150mA Max	150mA Max
Maximum Response Frequency	150 KHz			
Output voltage	Less than V _{0.5V} / More than V _{0.25V} (in case of inputting +5[V]), More than V _{10V} (in case of inputting +15[V])			
Output current	Less than 20mA	Less than 10mA	Less than 10mA	Less than 20mA
Rising, decline time	Less than 3µs	Less than 1µs	Less than 1µs	Less than 0.1µs
Common conditions	In case that the cable length of output side is 1[M] and load resistance is less than 1[kΩ]			

Mechanical Spec.

Starting Torque	800gf · cm Max
Maximum number of revolution	3000 rpm
Bearing lifetime	50,000hr (in case of rotating by 3000rpm)
Allowable Shaft Load	Radial : 5.0kg Max Axial : 2.5kg Max
Position deflection of allowable shaft	Radial : Less than 0.05 mm Axial : Less than 0.2mm
Connection Table	DC16-Ø7RN
weight	1.2kg

Rigid Spec.

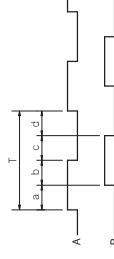
Operating Temp. Range	-10°C ~ +70°C (No freezing)
Preserving temp	-20°C ~ +85°C
Using humidity	35% ~ +85% RH
Preserving Humidity	30% ~ +90% RH
Internal Vibration	5G
Internal Shock	100G
Degree of Protection	IP 50

Output Phase Shift

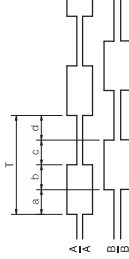
CW → Counterclockwise viewed from shaft end
 $a + b, c + d = T/2 \pm T/10$
 $a, b, c, d = T/4 \pm T/10$



Open Collector, Complementary Totem Pole



Line Driver



Connection Table

PIN NO	Cable's Color	Output Signal
Output Form		Open Collector Complemental Totem Pole
1	Red	Vcc
2	Black	GND
3	Green	A Sig
4	Orange	A Sig GND
5	Yellow	B Sig
6	White	B Sig GND
7	Shield	CASE SHIELD