

Incremental 40-mm-Dia. Rotary Encoder

THP40/THP40A

General purpose Encoder with
External Diameter of 40mm

- Incremental model
- External diameter of 40mm
- Resolution up to 3600 ppr.
- Various output type
- Solid shaft with Dia at 6 mm



Ordering Information

THP40/THP40A-

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Section 1: Basic model name

THP40 : 40mm Rotary Encoder
THP40A : 40mm Rotary Encoder(Mounting Type A)

Section 2: Shaft Size

6: Solid shaft with Dia at 6 mm

Section 3: Resolution

10: 10 ppr
20: 20 ppr

40	50	60	80	100	120	125	150	
200	225	240	250	256	300	360	400	450
480	500	512	600	625	720	750	800	900
1000	1024	1080	1200	...up to 3600				

Not indicated resolution is customizable

Section 4: Output phase

3: A B Z
6: A $\bar{A}$ B $\bar{B}$ Z $\bar{Z}$

Section 5: Output type

C: Complementary(also known as totem pole)
N: NPN Open collector
P: PNP Open collector
V: Voltage output
L: Line driver(**Power source 5VDC ONLY, Phase 6**)
T: Push-Pull(**With inverted signal, Phase 6**)

Section 6: Power Supply

8: 8-30 VDC(+/- 5%)
5: 5 VDC(+/- 5%)

Section 7: Cable outgoing type

G: Side entry cable
E: Rear entry cable

▲ Standard cable length is 2M

Ratings and Specifications

Power supply: 5 VDC / 8-30 VDC

Resolution: 5-3600 ppr

Current consumption: 30mA(Load disconnected)

Load current: 10.6mA maximum per channel. 8.5mA maximum per channel(Line driver output and push-pull with inverted signal output)

Output type: NPN/PNP open collector/Complementary/Voltage/Line Driver/Push-Pull(HTL with reverse signal)

Frequency: 100K HZ Frequency=RPM*Resolution/60

Maximum permissible speed: 6000 rpm

Shaft loading radial: 10N

Shaft loading thrust: 20N

Weight: Approx 0.2KG

Protection level: IP50

Temperature: operation(-10°C~+70°C), storage(-30°C~+85°C)

Vibration resistance: 50m/s, 10-65 HZ, 1 mm double amplitude for 2 hours each in X, Y, and Z directions

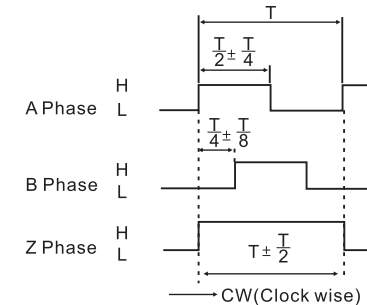
Shock resistance: 980m/s, 6m/s 2 times each in X, Y, and Z directions

Starting torque: 1.5×10^{-3} N.m Maximum

Output circuits and wave forms

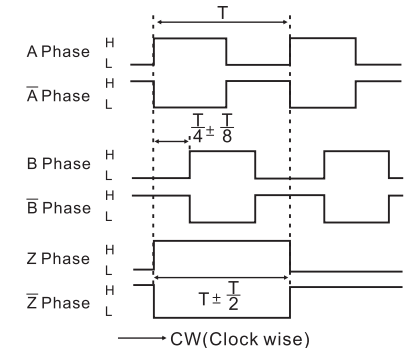
Wave forms

Complementary/Open collector(NPN&PNP)/Voltage output

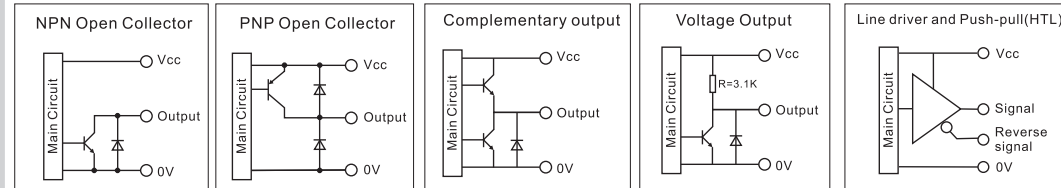


CW: As viewed from the shaft

Line Driver(RS422)/Push-pull(HTL with reverse signal)

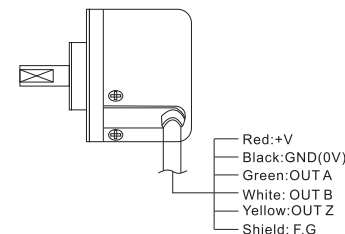


Output circuits

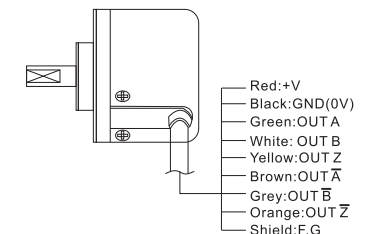


Wiring Details

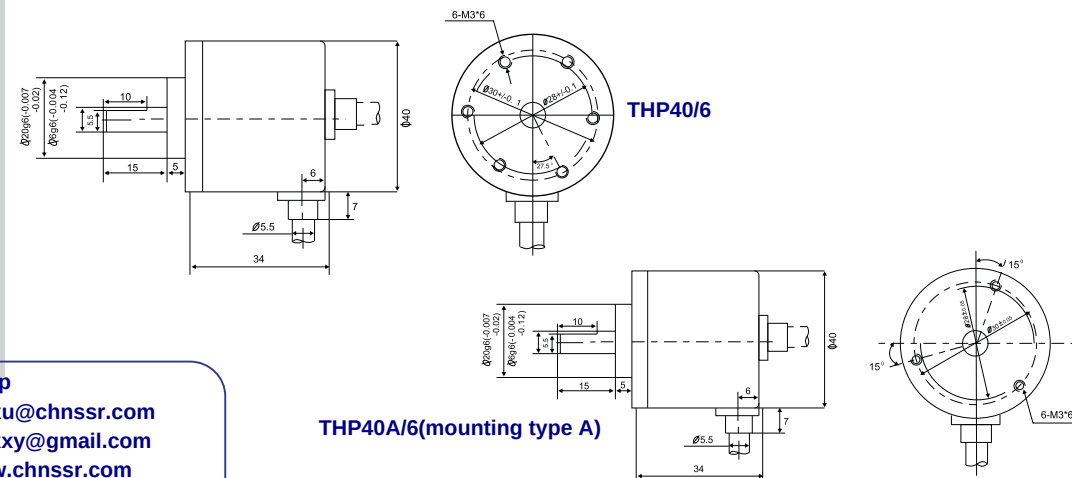
Complementary/Open collector(NPN/PNP)/Voltage output



Line Driver/Push-pull(HTL with reverse signal)



Mounting and Dimensions



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