

Incremental 40 mm Dia. Rotary Encoder

M40H

Hollow shaft type

General purpose Encoder with External Diameter of 40mm

- Incremental model
- External diameter of 40mm
- Resolution up to 3600 ppr.
- Various output type
- Hollow type



Ordering Information

M40H-

1 2 3 4 5 6 7

Section 1: Basic model name

M40H: 40mm Rotary Encoder(Hollow Shaft)

Section 2: Inner shaft size

5: 5mm
6: 6mm
6.35: 6.35mm Standard size is 12mm
8: 8mm
10: 10mm
12: 12mm

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
▲Standard cable length is 2M

Ratings and Specifications

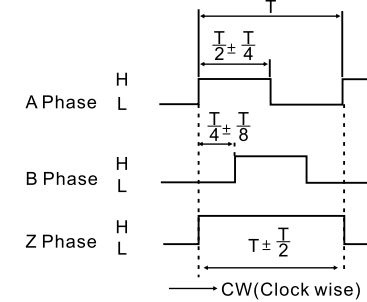
- Power supply:** 5 VDC / 8-30 VDC
Resolution: 1-3600 ppr
Current consumption: 100mA(Load disconnected)
Load current: 50mA maximum per channel 20mA maximum per channel (Line driver output)
Output type: NPN/PNP open collector/Complementary/Voltage/Line Driver/Push-Pull(HTL with reverse signal)
Frequency: 100K HZ Frequency=RPM*Resolution/60
Maximum permissible speed: 4000 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 x 10⁻³ N.m Maximum

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Output circuits and wave forms

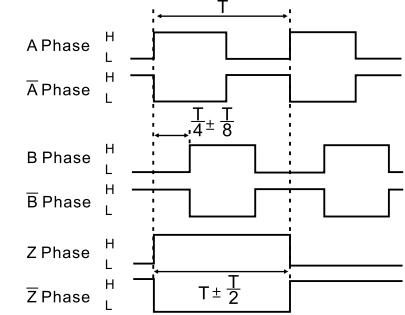
Wave forms

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

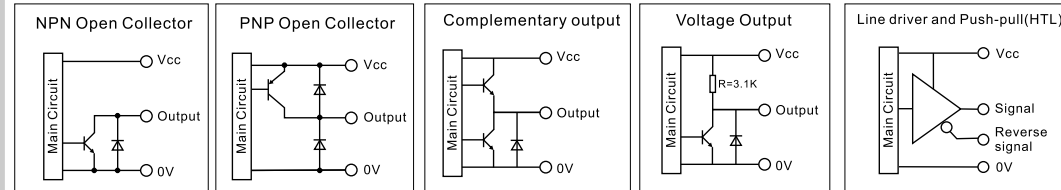


CW: As viewed from the shaft

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

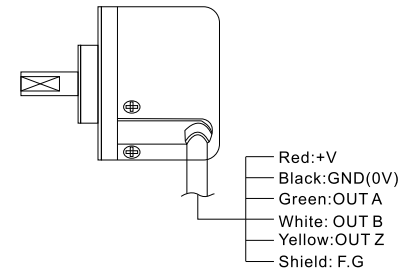


Output circuits

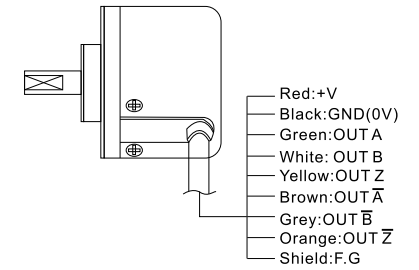


Wiring Details

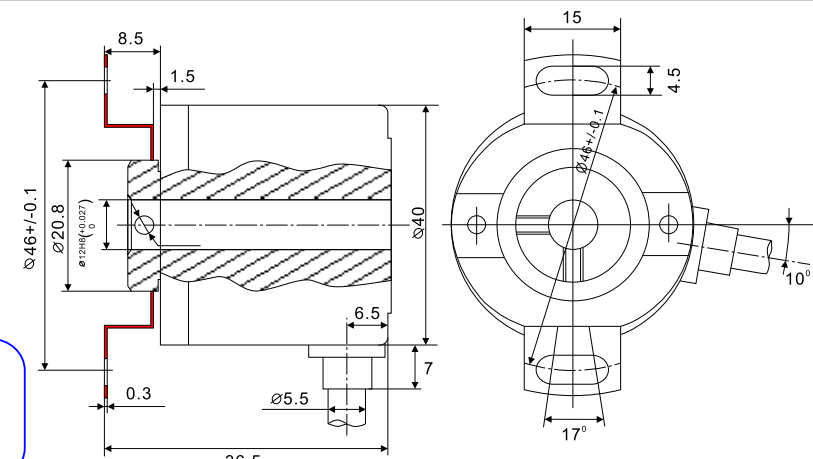
Complementary/Open collector(NPN/PNP)/Voltage output



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



Mounting and Dimensions



M40H(Hollow Shaft Type)