

Incremental 68-mm-Dia. Rotary Encoder

M68SA/M68SB

with mounting flange

General purpose encoder with external Diameter of 68mm



- Incremental model
- External diameter of 68mm
- Resolution up to 5400 ppr.
- Various output type
- Solid shaft with Dia at 15 mm
- With mounting flange

Ordering Information

M68SA/M68SB -

1 2 3 4 5 6 7

Section 1: Basic model name

M68SA: 68mm encoder
M68SB: 68mm encoder

Refer to drawings for the difference between M68SA/M68SB

Section 2: Shaft Size

15: Solid shaft with Dia at 15 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 5400

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)
T: Push-Pull (HTL with inverted signal)

Section 6: Power Supply

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

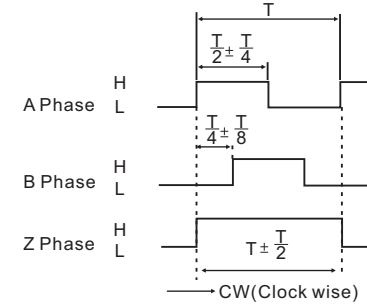
Section 7: Cable outgoing type

G: Side entry cable
E: Rear entry cable
X: Side entry plug
Y: Rear entry plug

Output circuits and wave forms

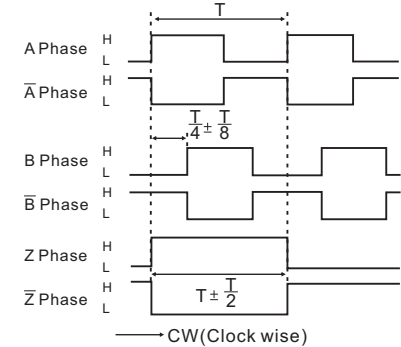
Wave forms

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

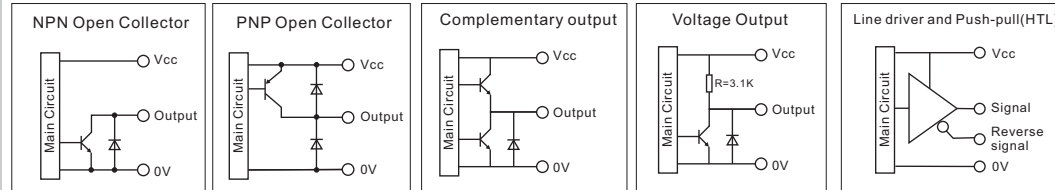


CW: As viewed from the shaft

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

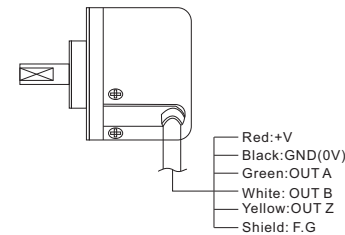


Output circuits

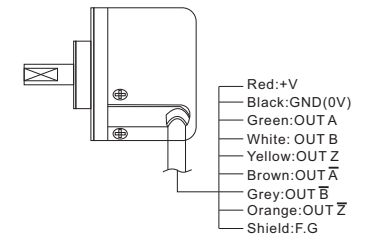


Wiring Details

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



Line Driver/HTL with reverse signal



Ratings and Specifications

- Power supply:** 5 VDC / 8-30 VDC
- Resolution:** 5-5400 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:** 6000 rpm
- Shaft loading radial:** 50N
- Shaft loading thrust:** 85N
- Weight:** Approx 0.6KG
- Protection level:** IP54 (IP64 available on request)
- Temperature:** operation (-10°C~+70°C), storage (-30°C~+85°C)
- Vibration resistance:** 50m/s, 10-200 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:** 5 x 10⁻² N.m Maximum

Cable with connector are available on request

Mounting and Dimensions

