

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-

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Section 1: Basic model name

- M68SA:** 68mm Rotary Encoder(Shape A)
- M68SB:** 68mm Rotary Encoder(Shape B)

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

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

Section 6: Power Supply

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

Section 7: Cable outgoing type

- G:** Side entry cable
- X:** Side entry plug

▲Standard cable length is 2M

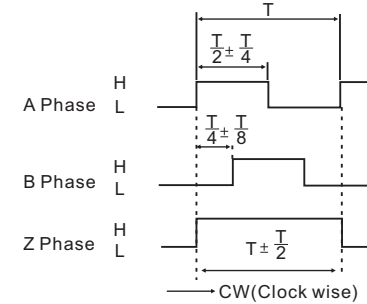
Ratings and Specifications

- 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

Output circuits and wave forms

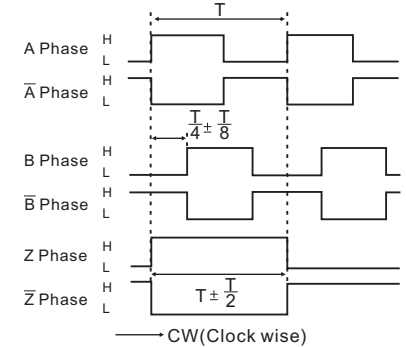
Wave forms

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



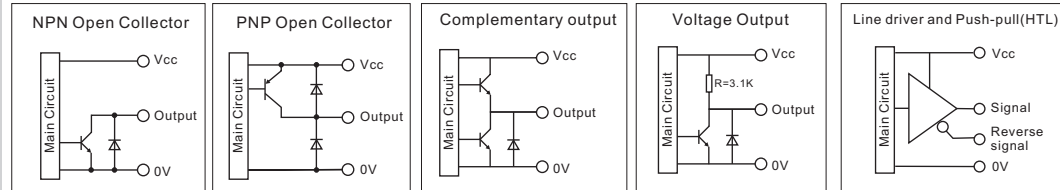
CW: As viewed from the shaft

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



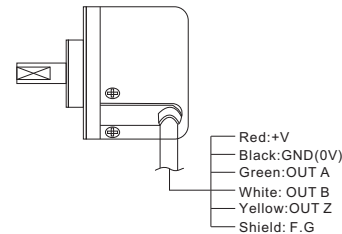
→ CW(Clock wise)

Output circuits

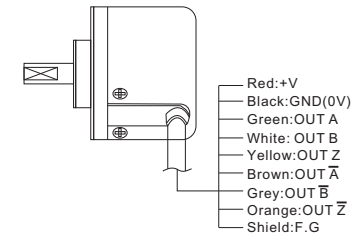


Wiring Details

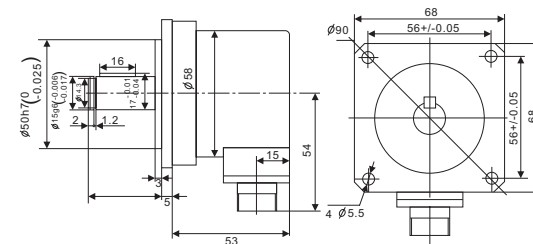
Complementary/Open collector(NPN/PNP)/Voltage output



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



Mounting and Dimensions



M68SA(Shape A, Shorter encoder Body, popular)

M68SB(Shape B, Longer encoder body)

