



Features:

- 50mm diameter incremental rotary encoder
- Resolution up to 5000PPR
- 5-30VDC source or 5VDC source(for line driver)
- Push-pull(totem pull),NPN,PNP,Voltage,Line driver, push-pull with inverted signal
- Standard version with 8mm solid shaft
- 3 phase A/B/Z, or 6 phase A/B/Z/A'/B'/Z'
- Cable side entry or rear entry selectable
- Standard IP50 rating, IP65/IP66 available on request
- IP66 encoder can be subjected to direct water spray
 - 18 months warranty
 - connector radial or axle entry available
 - CE comply

Ordering Information

M50SA-1-2-3-4-5-6-7

1: Shaft size

8 8mm solid shaft

2: Resolution/PPR

100	1, 2, 5, 10, 12, 15, 20, 23, 25, 30, 35, 40, 45, 50, 60, 75, 100,
500	120, 125, 150, 192, 200, 240, 250, 256, 300, 360, 400, 500,
1024	512, 600, 800, 1000, 1024, 1200, 1500, 1800, 2000, 2048,
2000	2500, 3000, 3600, 5000

3: Output phase

3	A, B, Z
6	A, B, Z, A', B', Z'

4: Output type

T	Push-pull HTL(also known as totem-pull)
N	NPN open collector
P	PNP open collector
V	Voltage
L	Line driver
K	Push-pull with inverted signal(HTL and TTL compatible)

5: Power supply

5	5V DC +/- 5%
30	5-30V DC +/- 5%

6: Connection

G	cable side entry, standard cable length 2 meters
E	cable rear entry, standard cable length 2 meters
X	connector side entry
M	connector rear entry

7: Special code

Blank	means no special requirements
IP65	IP65 protection ratings
IP66	IP66 protection ratings
60	special cable length like 60cm
100	special cable length like 100cm

M50SA-8-1000-3-T-30-G>50mm,8mm shaft, 1000 ppr, push-pull output, 5-30Vdc source, cable side entry, with 2 meters wire

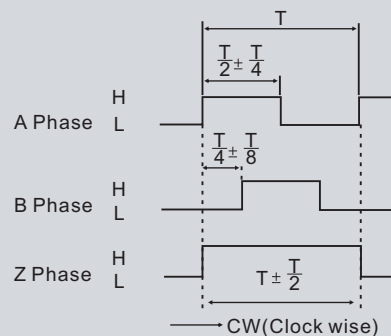
Technical Specifications

Rating and specifications

Power supply: 5 VDC / 5-30 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/Push-pull/Voltage/Line Driver
 Push-Pull with inverted signal
 Frequency: 100K HZ Frequency=RPM*Resolution/60
 Maximum permissible speed: 6000 rpm
 Shaft loading radial: 10N
 Shaft loading thrust: 20N
 Weight: Approx 0.25KG
 Protection level: IP50/IP65/IP66
 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

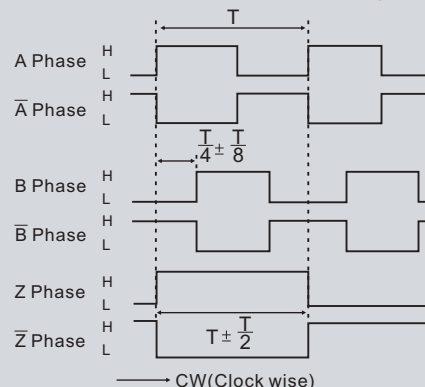
Output circuits and wave forms

Push-pull/Open collector(NPN&PNP)/Voltage output



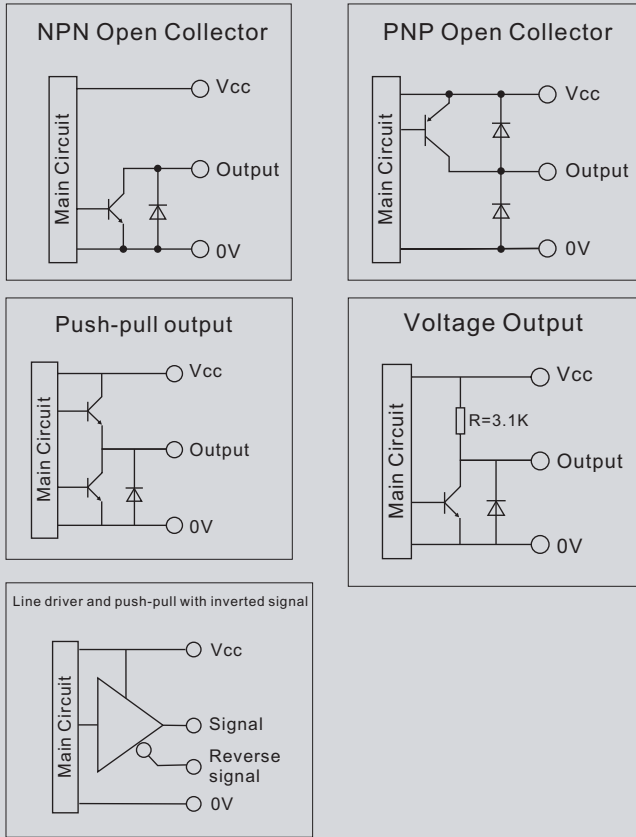
CW: As viewed from the shaft

Line Driver/ Push-pull with inverted signal



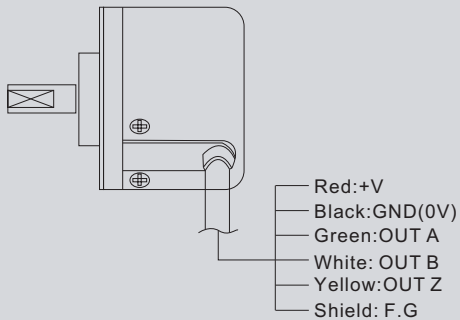
CW(Clock wise)

Output circuits

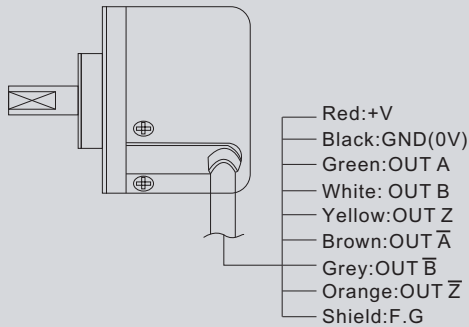


Wiring diagram

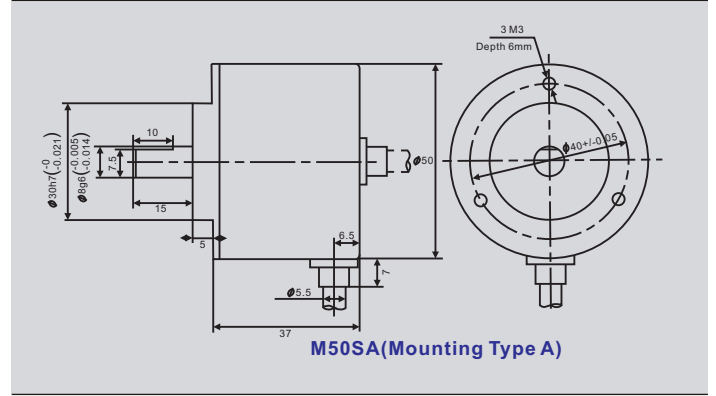
Push-pull/Open collector(NPN/PNP)/Voltage output



Line Driver/ Push-pull with inverted signal

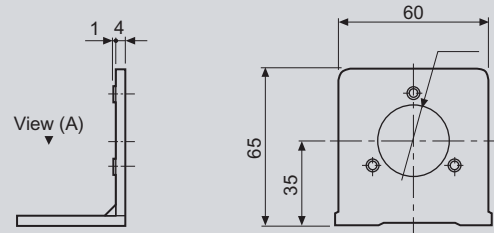
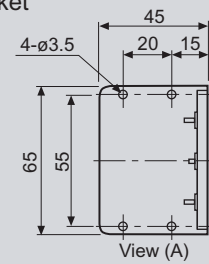


Drawings and dimensions



Accessories

• Bracket



• Couplings

