

Incremental 58-mm-Dia. Rotary Encoder

M58SA/M58SB/M58SC/M58SD

General purpose encoder with external Diameter of 58mm

- Incremental model
- External diameter of 58mm
- Resolution up to 5400 ppr.
- Various output type
- Solid shaft with Dia at 5/6/10 mm



Ordering Information

M58SA/M58SB/M58SC/M58SD -

1 2 3 4 5 6 7

Section 1: Basic model name

- M50SA:** 58mm encoder
- M50SB:** 58mm encoder
- M50SC:** 58mm encoder
- M50SD:** 58mm encoder

Refer to drawings for the difference between M58SA/M58SB/M58SC/M58SD

Section 2: Shaft Size

- 5:** Solid shaft with Dia at 5 mm
- 6:** Solid shaft with Dia at 6 mm
- 10:** Solid shaft with Dia at 10 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

- 2:** A B
- 3:** A B Z
- 4:** A \bar{A} B \bar{B}
- 6:** A \bar{A} B \bar{B} Z Z

Section 5: Output type

- C:** Pull-Push
- N:** NPN Open collector
- V:** Voltage output
- L:** Line drive output

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

Ratings and Specifications

Cable with connector are available on request

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 open collector/Line Driver/Push-pull/Voltage

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

Maximum permissible speed: 6000 rpm

Shaft loading radial: 30N

Shaft loading thrust: 40N

Weight: Approx 0.25KG

Protection level: IP50

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

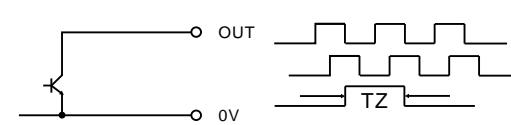
Vibration resistance: 50m/s, 10-65 HZ, 1 mm double amplitude for 2 hours each in X, Y, and Z directions

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

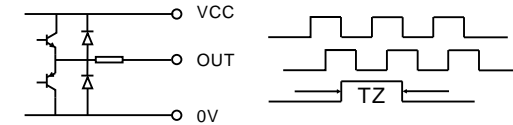
Starting torque: 6 x 10⁻³ N.m Maximum

Output circuits and wave forms

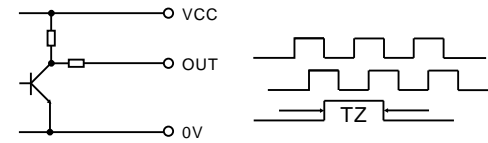
1)NPN Open collector(output circuit and wave forms)



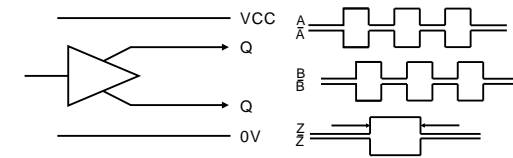
3)Push-pull output



2) Voltage output



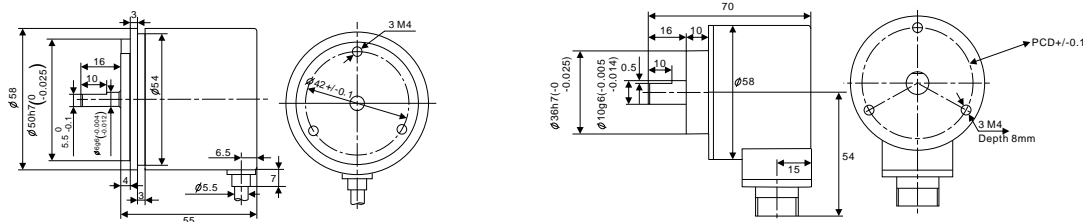
4)Line driver output



Wiring Details

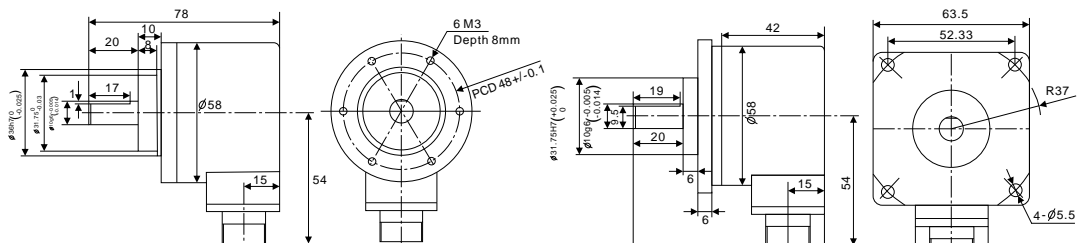
XS-16(7 PINS)	1	4	3	5	2	-	-	-	7
XS-16(9 PINS)	1	4	5	3	2	7	6	8	9
Color of cable	Red	Black	Green	White	Yellow	Brown	Grey	Orange	Shield
Line Driver	VCC	0V	A	B	Z	A\	B\	Z\	G
Push-pull Voltage Open Collector	VCC	0V	A	B	Z	-	-	-	G

Mounting and Dimensions



M58SA

M58SB



M58SC

M58SD