Topydic Series Shaft Incremental Encoder EV58A

Descriptions

Topydic series encoders EV58A are widely used in industrial environments. It delivers outstanding performance in mechanical shock resistance and is capable of withstanding higher axial and radial loads. Its flexible and variant mechanical structure & electrical circuit designs ensure perfect matches with multiply types of flanges or servo motors. They are compatible with all control computers.

Features

• Max resolution is up to 5000pulse/r, output frequency is up to 300 kHz

• Stainless steel shaft Φ6/Φ8/Φ10, flexible coupling connection ensures encoder safety during operation

• Various types of flanges, including imperial sizes

• Metal housing for greater shock resistance; compact structure is suited for confined space mounting

• Protection class IP65

• Direct cable output or connector is more flexible and easy for maintenance The waterproof rubber ends ensure safety during operation

• Reverse connection protection Short circuit protection

Mechanical Characteristics

Shaft diameter (mm)	Φ6g6/Φ8g6/Φ10g6
Protection grade	IP65
Speed	6000
Max. load capacity of the shaft	60N axial
	120N radial
Shock resistance	50G/11ms
Vibration resistance	10G 10～2000HZ
Bearing life	10^9 revolution
Moment of inertia	$1.9 \times 10^{-6} \, kg \, m^2$
Starting torque	<0.01Nm IP65
Body material	Al-alloy
Housing material	Al-alloy
Operating temperature	-20～+90°C
Storage temperature	-40～+100°C
Weight	300g

Regular resolution: 360，400，500，512，600，800，1000，
1024，2000 , 2500，4000，2048，4096，5000

Note: other resolutions on request

Electrical Characteristics

Output circuit	RS422	Push-pull
Resolution	Max.5000ppr	Max.5000ppr
Supply voltage(VDC)	5±0.25 or 10-30	10-30
Power consumption(no load)	≤80mA	≤125mA
Permissible load(channel)	±50mA	±80mA
Pulse frequency	Max.300kHz	Max.300kHz
Signal level high	Min.3.4V	Min. Ub-1.8
Signal level low	Max.0.4V	Max.2.0V
Rise time Tr	Max 200ns	Max 1µS
Fall time Tf	Max 200ns	Max 1µS

Encoder

Terminal Configuration

Signal	0V	$+U_b$	A	$\overline{A}$	B	$\overline{B}$	Z	$\overline{Z}$	Shield
Color	WH	BN	GN	YE	GY	PK	BU	RD	$\div$
Pin	10	12	5	6	8	1	3	4	PH

Dimensions

EV58A
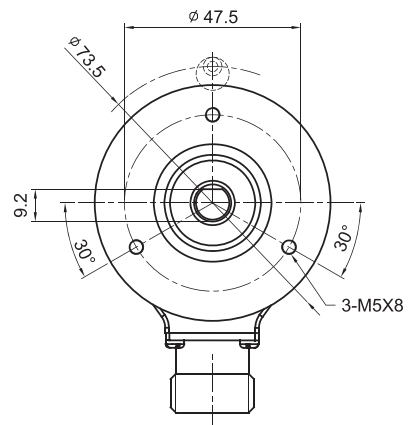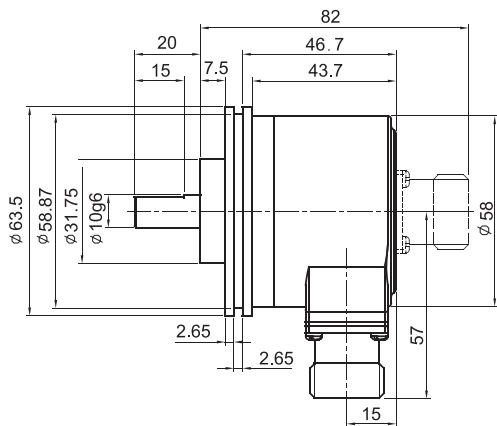
EV58B
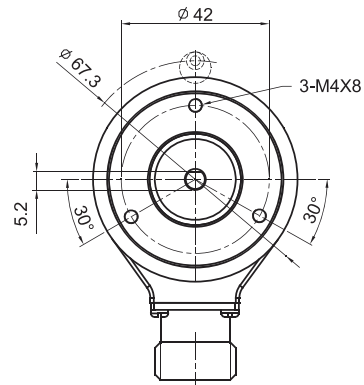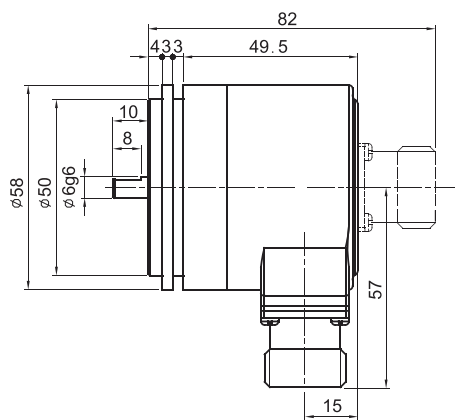
Dimensions

EV58C

EV58D

Cable output
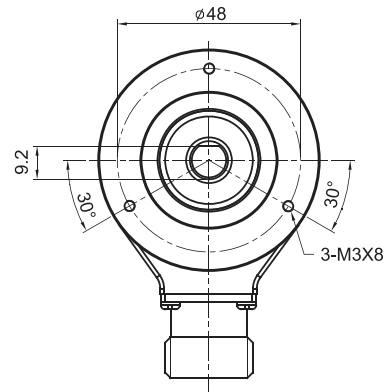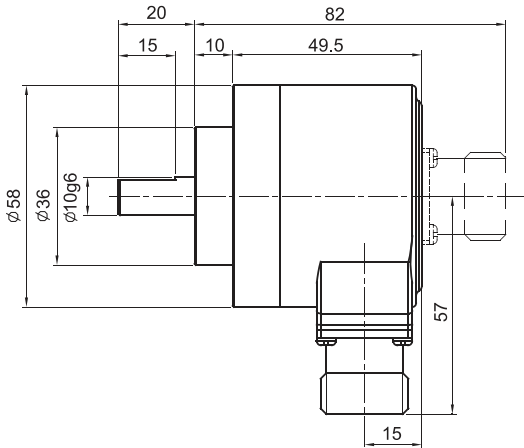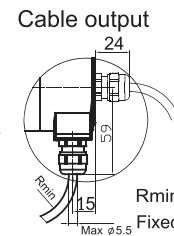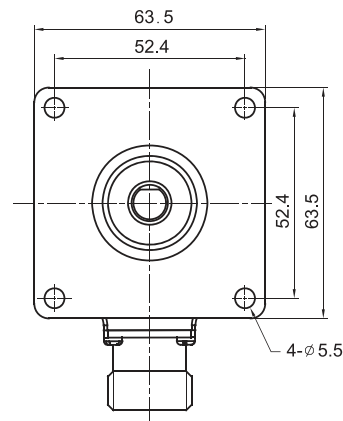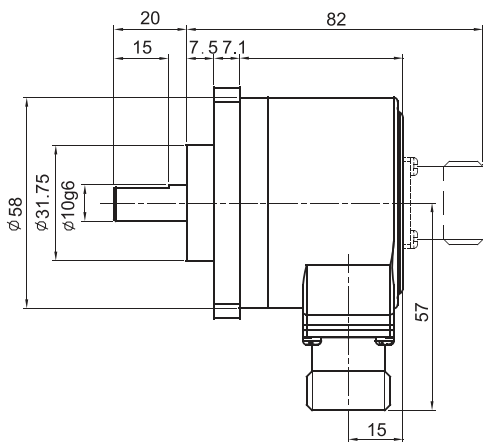
Rmin
Fixed installation: 55mm
Drag installation: 70mm

Encoder

Encoder

Order Code:

| EV | 58 | B | 6 | – | L5 | T | R | – | 1024 | . XXXX |

Outlets direction

R=radial
A=axial

XXXX=Special code
Customized cable length
CN00XX=cable length
e.g. CN0010=1m
　　　CN0020=2m

Standard cable length

P=1.5m
T=M23, 12-pin plug without
　　connector

Resolution

Pulse/r: ≤5000
Note: for other available pulse options
please contact us for further information

Output & Supply voltage[1]

L5=RS422 (with reverse signal)	5Vdc
L6=RS422 (with reverse signal)	10~30Vdc
H6=Push-pull HTL (with reverse signal)	10~30Vdc
P6=Push-pull HTL (without reverse signal)	10~30Vdc

Shaft diameter

6=Φ6mm
　(only for EIC58B)
8=Φ8mm
9=Φ9.52mm (3/8"×7/8")
10=Φ10mm

Flange type

A=Φ31.75 clamping flange, shaft length 20mm
B=synchro flange, only for shaft Φ6, shaft length 10mm
C=Φ36 clamping flange, shaft length 20mm
D=Φ63.5 square flange, shaft Φ31.75, shaft length 20mm

Housing diameter

58= housing diameter

Series

EV=Topydic incremental

Topview of 12-pin Connector

[1] When the voltage supply within the limited range and only one
signal channel is connected improperly at certain moment:
if U_B=5V, it's pXremitted to connect to signal channals, 0V or U_B;
if U_B＞5V, it's premitted to connect to signal channals or 0V.

Matched connector:
For connection type "T": TMSP1612F