

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 $\Phi 6/\Phi 8/\Phi 10$, 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)	$\Phi 6g6/\Phi 8g6/\Phi 10g6$
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	$1.9 \times 10^{-6} \text{ kg m}^2$
Starting torque	$<0.01 \text{ Nm}$ IP65
Body material	Al-alloy
Housing material	Al-alloy
Operating temperature	$-20 \sim +90^\circ \text{C}$
Storage temperature	$-40 \sim +100^\circ \text{C}$
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)	$\leq 80 \text{ mA}$	$\leq 125 \text{ mA}$
Permissible load(channel)	$\pm 50 \text{ mA}$	$\pm 80 \text{ mA}$
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 1 μ S
Fall time Tf	Max 200ns	Max 1 μ S

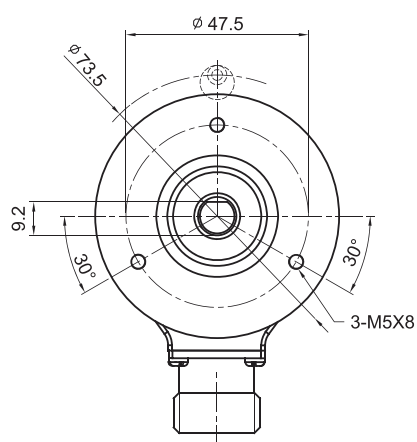
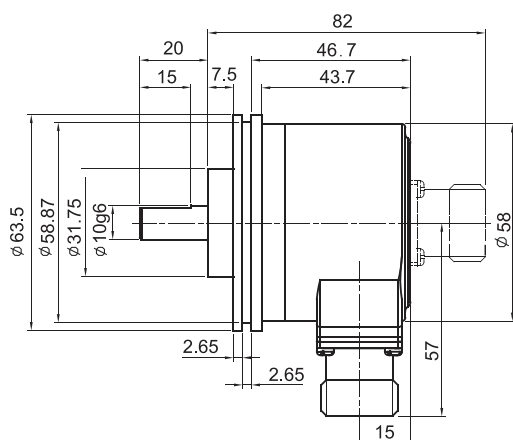
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Terminal Configuration

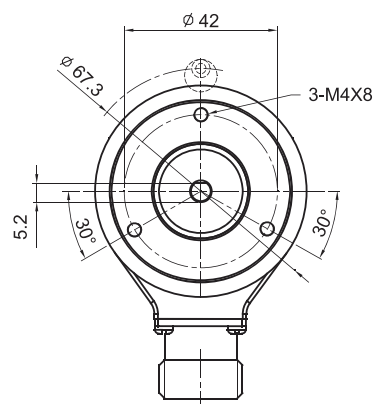
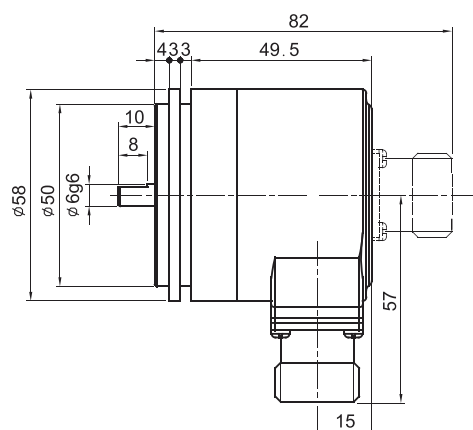
Signal	0V	+U _b	A	\bar{A}	B	\bar{B}	Z	\bar{Z}	Shield
Color	WH	BN	GN	YE	GY	PK	BU	RD	\perp
Pin	10	12	5	6	8	1	3	4	PH

Dimensions

EV58A



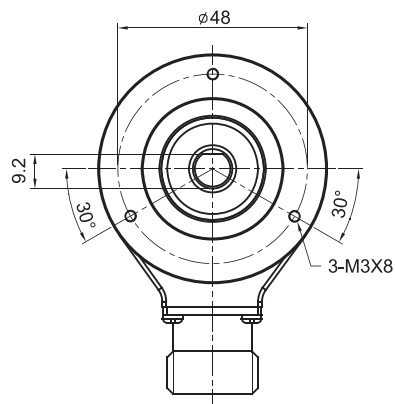
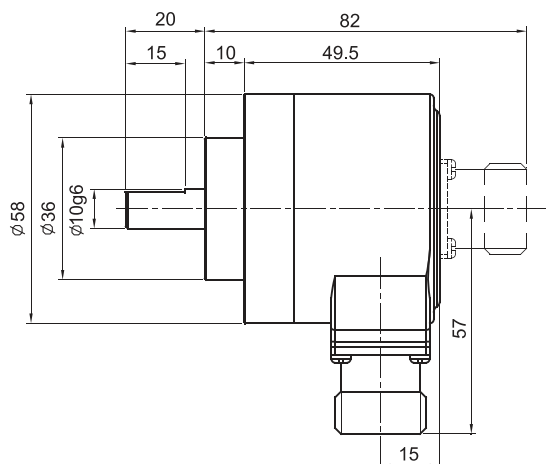
EV58B



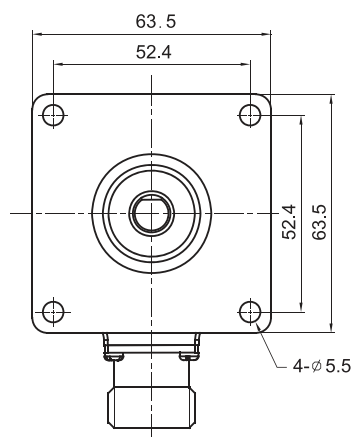
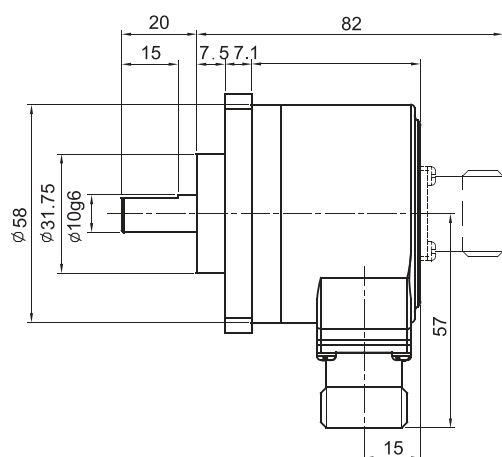
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Dimensions

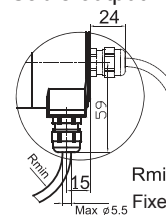
EV58C



EV58D



Cable output



Rmin

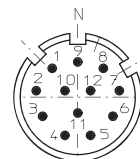
Fixed installation: 55mm
Drag installation: 70mm

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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	
			Shaft diameter 6=Φ6mm (only for EIC58B) 8=Φ8mm 9=Φ9.52mm (3/8"×7/8") 10=Φ10mm		Output & Supply voltage¹⁾		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			
			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 permitted to connect to signal channels, 0V or U_B ;
if $U_B > 5V$, it's permitted to connect to signal channels or 0V.

Matched connector:
For connection type "T": TMSP1612F