

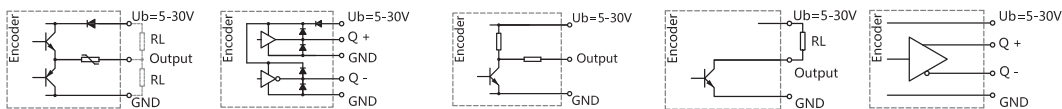


ESG38B Series	
Sensing method	Optical
Housing size	Φ38mm
Blind hollow shaft	Φ5、Φ6、Φ8mm
Max. resolution	2500PPR
Supply voltage	5VDC, 5-30VDC, 9-26VDC
Protection	IP54

Mechanical characteristics

Shaft diameter	Φ5、Φ6、Φ8mm
Protection	IP54
Speed	max. 6000 min ⁻¹
Shaft loading	max. 25N Axial ;max. 50N Radial
Shock resistance	50g, 6ms
Vibration resistance	10g, 10...2000HZ
Bearing life	10 ⁹ turns
Rotor moment of inertia	Approx. 1.8×10 ⁻⁶ kgm ²
Starting torque	<0.005Nm
Materials	Copper Flange : Aluminum alloy Housing : Tensile iron shell +Black painted
Working temperature	-20...+70°C
Storage temperature	-30...+85°C
Weight	≈120g

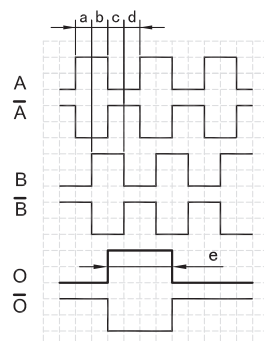
Electrical characteristics



Output circuit	Push-Pul	Push-PullDifferential	Voltage	Open Collector	RS422 (TTL Compatible)
Pulse rate	Max. 2500 P/R	Max. 2500 P/R	Max. 2500 P/R	Max. 2500 P/R	Max. 2500 P/R
Supply voltage	5-30V	5-30V	5-30V	5-30V	5-30V
Power consumption(no load)	Max. 125 mA	Max. 125 mA	Max. 125mA	Max. 80 mA	Max. 80 mA
Permissible load/channel	Max. ±80 mA	Max. ±80 mA	/	Max. -50 mA	Max. ±50 mA
Pulse frequency	Max. 300KHz	Max. 300KHz	Max. 300KHz	Max. 300KHz	Max. 300KHz
Signal level high	Min. Ub-2.5V	Min. Ub-2.5V	Min. Ub-2.5V	/	Min. 2.5V
Signal level low	Max. 0.8V	Max. 0.8V	Max. 0.4V	/	Max. 0.4V
Rise time Tr	Max. 1μs	Max. 1μs	Max. 2μs	/	Max. 1μs
Fall time Tf	Max. 1μs	Max. 1μs	Max. 2μs	/	Max. 1μs
Short circuit proof outputs	Yes	Yes	Yes	Yes	yes

Terminal assignment

Signal		OV	+Ub	A	$\bar{A}$	B	$\bar{B}$	O	$\bar{O}$	
Colour		WH	BN	GN	PK	YE	BU	GY	RD	Shield



Shaft turning clockwise, top-view of shaft.

$a, b, c, d = T/4 \pm T/8$

$e = T \pm T/2$

Note: Positional relationship of O channel and A&B channels is not specified.

Ordering information

ESG38 XX B 8 E 1024 F 5-30 R 2 / XXXX									
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
①Extended No. XX	②Shaft type B: Blind hollow shaft	③Shaft diameter 5: 5mm 6: 6mm 8: 8mm		④Channels B: A B C: A B O D: A $\bar{A}$ B $\bar{B}$ E: A $\bar{A}$ B $\bar{B}$ O $\bar{O}$ F: A B $\bar{O}$		⑤Pulse rate 50,100,200, 256, 360 ,500, 512,600 ,720, 1000,1024 , 2000,2048 ,2500			
⑥Output circuit F: Push-Pull A: Push-Pull Differential C: Open Collector E: Voltage L: RS422 (TTL Compatible)		⑦Supply voltage 5: 5VDC 5-30: 5...30VDC 9-26: 9...26VDC		⑧Exit position R: Radial C: Axial		⑨Connection type Figure: Cable length(m)		⑩Special code XXXX	

Note: Printed in bold=standard items

Notes: 1, Pulse rates available at a short notice (50,100,200,256,360,500,512,600,720,1000,1024, 2000,2048,2500) , other pulse rates on request.

2, Please chose the ordering information: Extended No., Shaft type, Shaft diameter, Channels, Pulse rate, Output circuit, Supply voltage, Exit position, Cable length and Special code.

Ordering example: ESG38B8E1024A5-30R2, Special requirements please indicate to the back.

Explanation: ESG38B Series , Shaft diameter 8mm, Output channels A $\bar{A}$ B $\bar{B}$ O $\bar{O}$, 1024PPR, Push-Pull Differential, 5-30VDC, Radial Output 2m.

Accessories(sold separately) Note: Further stator coupling can be found in the accessories selection table.

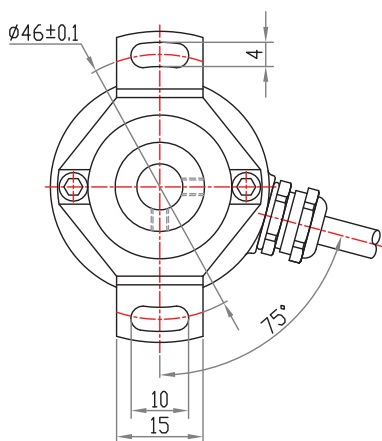
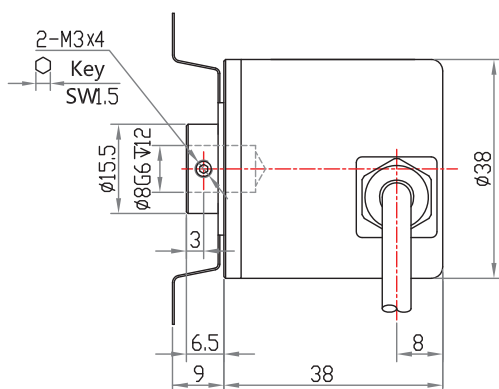
Stator coupling, double-winged
Model (common) : 8121

Stator coupling, double-winged
Model (common) : 8122

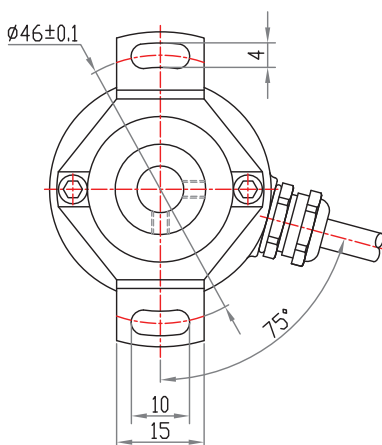
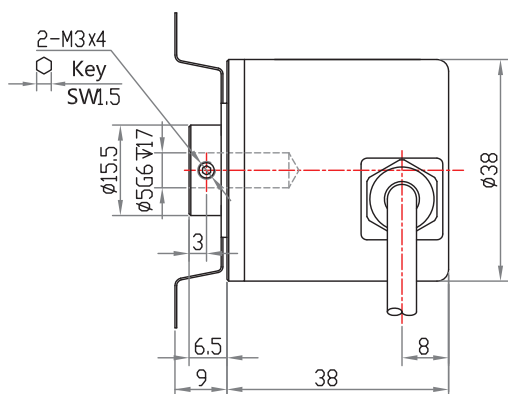


Dimensions

ESG38B

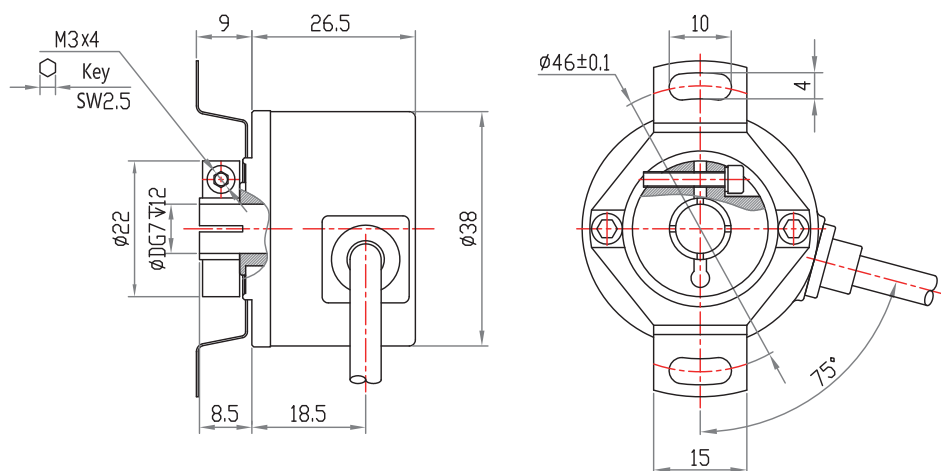


ESG3801B



Dimensions

ESG3802B



ESG3803B

