

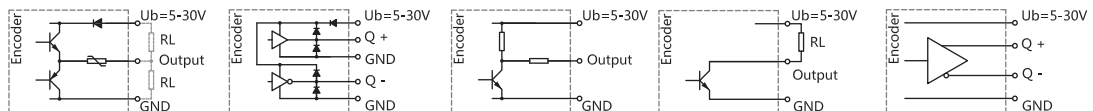


ESG50S Series	
Sensing method	Optical
Housing size	Φ50 mm
Shaft diameter	Φ8 mm
Max. resolution	2500 PPR
Supply voltage	5VDC, 5-30VDC, 9-26VDC
Protection	IP54

Mechanical characteristics

Shaft diameter	Φ8 mm
Protection	IP54
Speed	max. 6000 min ⁻¹
Shaft loading	max. 30 N Axial; max. 60 N Radial
Shock resistance	50g,6ms
Vibration resistance	10g,10...2000 HZ
Bearing life turns	10 ⁹ turns
Rotor moment of inertia	approx. 1.8×10 ⁻⁶ kgm ²
Starting torque	<0.01 Nm
Materials	Solid shaft : Stainless steel Flange : Aluminum alloy Housing: Tensile iron shell +Black painted
Working temperature	-20~+70 °C
Storage temperature	-30~+85 °C
Weight	Approx. 150g

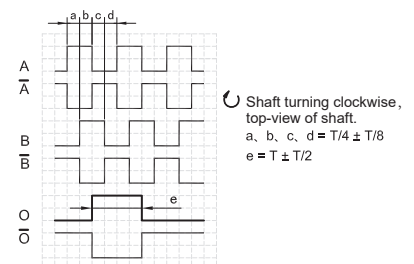
Electrical characteristics



Output circuit	Push-Pull	Push-Pull Differential	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. 125mA	max. 125 mA	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}	
Cable Colour		WH	BN	GN	PK	YE	BU	GY	RD	Shield



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

Ordering information

ESG50 **XX** **S** **8** **E** **1024** **F** **5-30** **R** **2** / **XXXX**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

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

Ordering example: ESG50S8E1024A5-30R2, Special requirements please indicate to the back.

Explanation: ESK5001S Series , Shaft diameter 8 mm , Output channels A A B B O O , 1024PPR, Push-Pull Differential , DC5-30V , Radial.

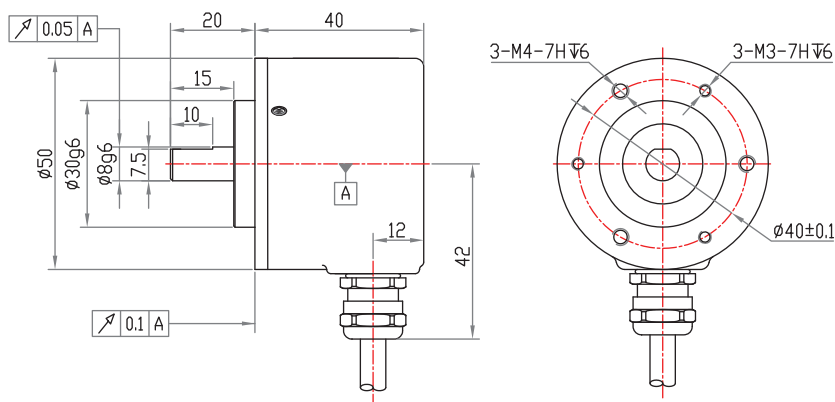
Accessories (sold separately) Note: Further coupling can be found in the coupling selection table.

Coupling
Model (common) : 8212B 8-8



Dimensions

ESG50S



Dimensions

ESG5001S

