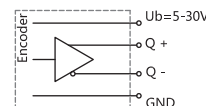
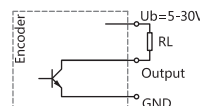
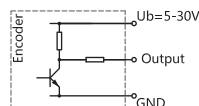
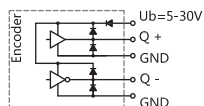
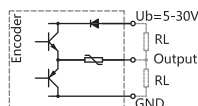


ESG38S Series	
Sensing method	Optical
Housing size	Φ38mm
Shaft diameter	Φ6mm
Max. resolution	2500PPR
Supply voltage	5VDC, 5-30VDC, 9-26VDC
Protection	IP54

Machine characteristics

Shaft diameter	Φ6mm
Protection	IP54
Speed	max.6000min ⁻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	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. 83g

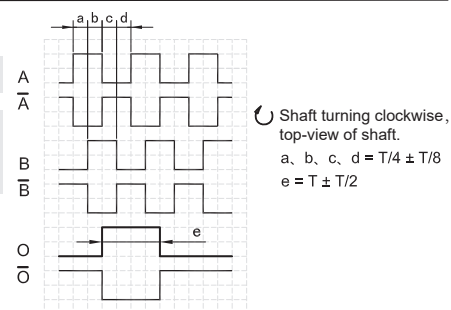
Electrical characteristics



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.125 mA	max.125mA	max.80 mA	max.80 mA
Permissible load/channel	max.±80mA	max.±80mA	/	max.-50mA	max.±50mA
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

ESG38S XX 6 E 1024 F 5-30 R 2 / XXXX

① Extended No. XX ② Shaft diameter 6: 6mm ③ Channels
 B: A B
 C: A B O
 D: A A B B
 E: A A B B O O
 F: A B O

④ Pulse rate
 50,100,200,
 256, **360**, 500,
512, **600**, 720,
 1000, 1024,
 2000, 2048, 2500

⑤ Output circuit
 F: Push-Pull
 A: Push-Pull Differential
 C: Open Collector
 E: Voltage
 L: RS422 (TTL Compatible)

⑥ Supply voltage
 5: 5VDC
 5-30: 5...30VDC
 9-26: 9...26VDC

⑦ Exit position
 R: Radial
 C: Axial

⑧ Connection type
 Figure: Cable length(m)

⑨ Special 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 diameter、Channels、Pulse rate、Output circuit、Supply voltage、Exit position、Cable length and Special code.

Ordering example: ESG38S6E1024A5-30R2, Special requirements please indicate to the back.

Explanation: ESG38S Series, Shaft diameter 6mm, Output channels $\overline{A} \overline{B} \overline{O} \overline{O}$, 1024PPR, Push-Pull Differential, 5-30VDC, Radial Output 2m.

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

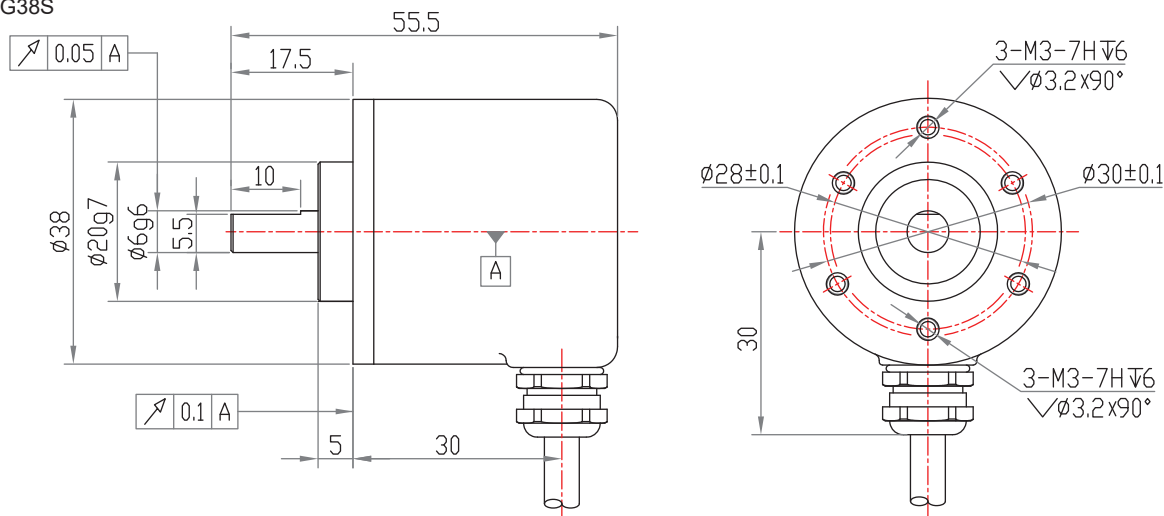
Coupling

Model (common) : 8212 6-6



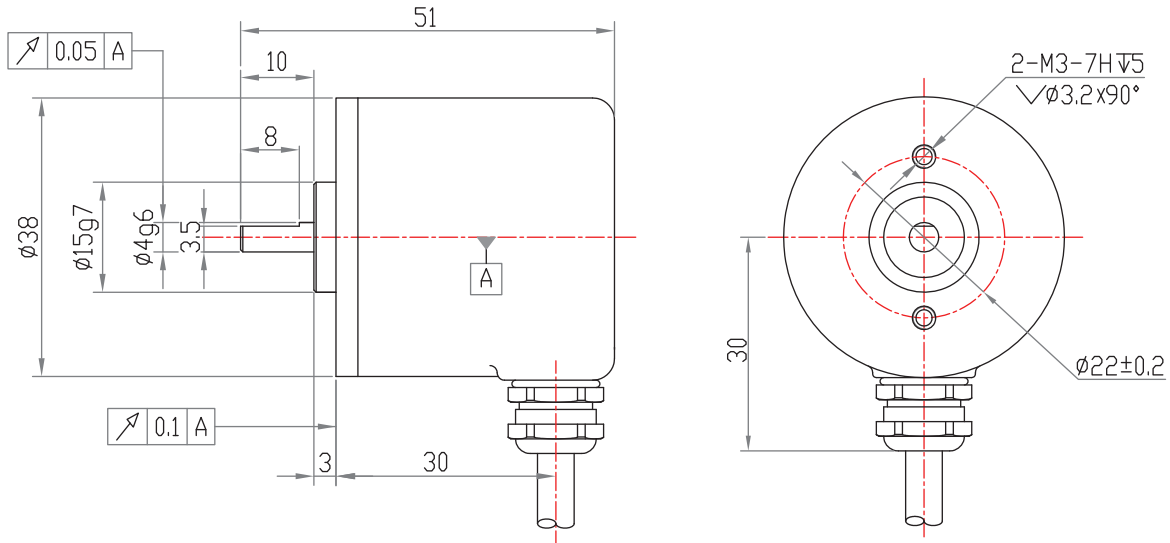
Dimensions

ESG38S



Dimensions

ESG3801S



ESG3802S

