

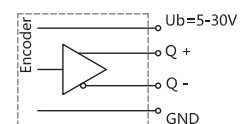
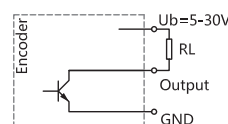
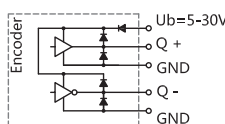
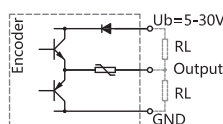


ESK58H Series
Incremental encoders
Sensing method Optical
Housing size $\Phi 58$ mm
Hollow shaft diameter $\Phi 10$ 、 $\Phi 12$ 、 $\Phi 14$ mm
Max. resolution 1500 PPR
Supply voltage 5VDC, 5-30VDC, 9-26VDC
Protection IP54/ IP65

Mechanical characteristics

Shaft diameter	$\Phi 10$ 、 $\Phi 12$ 、 $\Phi 14$ mm
Protection	IP54/IP65
Speed	Max. 6000 min ⁻¹
Shaft loading	Max. 40 N Axial; max. 80 N Radial
Shock resistance	100g, 6ms
Vibration resistance	10 g, 10...2000 HZ
Bearing life	10 ⁹ turns
Rotor moment of inertia	Approx. 1.8×10 ⁻⁶ kgm
Starting torque	<0.015 Nm
Materials	Solid shaft : Stainless steel Flange : Aluminum alloy Housing: Tensile iron shell +Black painted/ Aluminum alloy
Working temperature	-40°C...+85°C
Storage temperature	-40°C...+85°C
Weight	Approx. 200g (Cable 2m)

Electrical characteristics

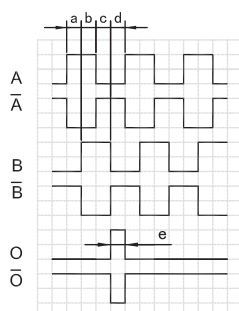


Output circuit	Push-Pull	Push-Pull Differential	Open Collector	RS422 (TTL Compatible)
Pulse rate	Max. 1500 P/R	Max. 1500 P/R	Max. 1500 P/R	Max. 1500 P/R
Supply voltage	5-30V	5-30V	5-30V	5-30V
Power consumption(no load)	Max. 125 mA	Max. 125 mA	Max. 80 mA	Max. 80 mA
Permissible load/channel	Max. ± 80 mA	Max. ± 80 mA	Max. -50 mA	Max. ± 50 mA
Pulse frequency	Max. 100 KHz	Max. 100 KHz	Max. 100 KHz	Max. 100 KHz
Signal level high	Min. Ub-2.5V	Min. Ub-2.5V	/	Min. 2.5V
Signal level low	Max. 0.8V	Max. 0.8V	/	Max. 0.4V
Rise time Tr	Max. 1 μ s	Max. 1 μ s	/	Max. 1 μ s
Fall time Tf	Max. 1 μ s	Max. 1 μ s	/	Max. 1 μ s
Short circuit proof outputs	Yes	Yes	Yes	Yes

Terminal assignment

Signal		OV	+Ub	A	$\bar{A}$	B	$\bar{B}$	O	$\bar{O}$	$\perp$
Cable Colour		WH	BN	GN	PK	YE	BU	GY	RD	Shield
Flange connector M12, 5-pin, CCW (9212)		BU 3	BN 1	BK 4		WH 2				Shield PH ¹⁾

Note: ¹⁾ PH= connected to housing



Shaft turning clockwise,
top-view of shaft.

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

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

Ordering information

ESK58 **XX** **H** **12** **E** **1024** **F** **5-30** **R** **9212** / **XXXX**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① Extended No. XX	② Shaft type H: Hollow shaft	③ Shaft diameter 10: 10mm 12: 12mm 14: 14mm	④ Channels B: A B C: A B O D: A $\bar{A}$ B $\bar{B}$ E: A $\bar{A}$ B $\bar{B}$ O $\bar{O}$	⑤ Pulse rate 30 ¹⁾ , 250, 256, 300, 360, 500, 512, 600, 1000, 1024, 1200, 1500	⑥ Output circuit F: Push-Pull A: Push-Pull Differential C: Open Collector B: 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	⑨ Connection type Figure: Cable length(m) 9212: M12 connector, 5-pin, CCW	⑩ Special code XXXX
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Note: Printed in bold=standard items

Notes: 1, ¹⁾ Only ESK5801H is optional.

2, Pulse rates available at a short notice (30,250,256,300,360,500,512,600,1000,1024,1200,1500) , other pulse rates on request.

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

Ordering example: 1. ESK58H12B1024F5-30R2, Special requirements please indicate to the back.

Explanation: ESK58H Series, Shaft diameter 12mm, Output channels A B, 1024PPR, Push-Pull, DC 5-30V, Radial Output 2m.

2. ESK5801H12B30F9-26R9212, Special requirements please indicate to the back.

Explanation: ESK5801H Series, Shaft diameter 12mm, Output channels A B, 30PPR, Push-Pull, DC 9-26V, Radial Output , M12 connector, 5-pin, CCW.

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

Mounting bracket
Model (common) : 8128

Mounting bracket
Model (common) : 8133

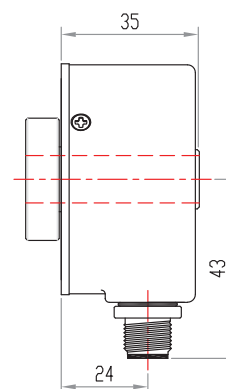
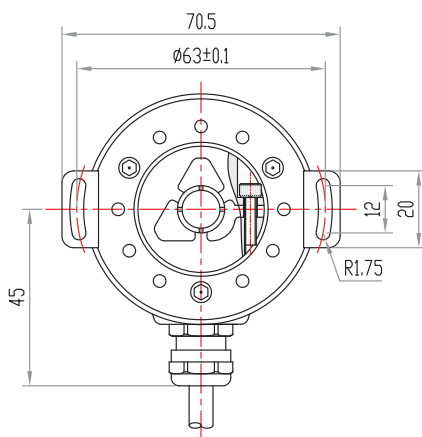
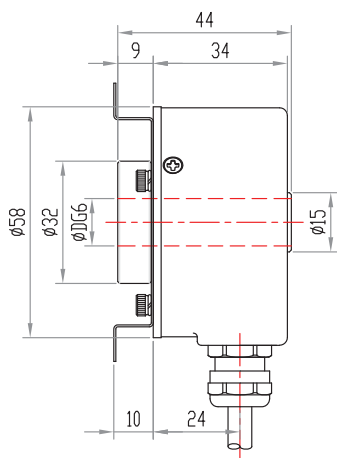
Female connector M12, 5-pin, CW (Mating connector for 9212)
Model: 9212B



Dimensions

ESK58H

ESK58H (9212)



ESK5801H (9212)

