Explosion-proof incremental encoders with hollow shaft

EXDE68B Series

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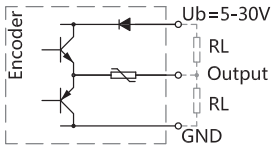
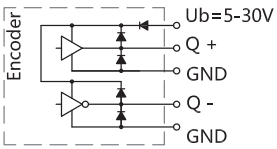
Sensing method Optical
Explosion proof mark Ex d II C T5/T6 Gb Ex tD A21 IP66 T95°C/T80°C
Housing size Φ68mm
Hollow shaft Φ10、Φ12mm
Max. resolution 1200PPR
Supply voltage 5-30VDC
Protection IP66

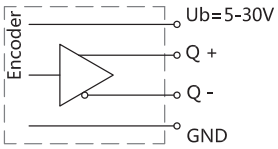
Mechanical characteristics

Shaft diameter（mm）	Φ10、Φ12mm
Protection	DIN EN 60529 IP66
Speed	3000r/min
Maximum shaft load	Max. 50N Axial；max. 80N Radial
Shock resistance	≤100g 6ms DIN EN 60068-2-27
Vibration resistance	10g 10…2000HZ DIN EN 60068-2-6
Bearing life	10^9 turns
Rotor moment of inertia	≈1.8×10^{-6} kgm2
Starting torque	<0.1Nm
Materials	Anodic oxidation of aluminum alloy
Spindle materials	Stainless steel
The shell material	Anodic oxidation of aluminum alloy
Working temperature	-40℃…+85℃
Storage temperature	-40℃…+85℃
Weight	480g（2m cable）

Electrical characteristics







Output circuit	Push-pull output	Push-Pull Differential	RS422（TTL）
Pulse rate	Max. 1200P/R	Max. 1200P/R	Max. 1200P/R
Supply voltage	5-30V	5-30V	5-30V
Power consumption(no load)	Max. 80 mA	Max.125mA	Max.80 mA
Permissible load/channel	±30 mA	±80 mA	±30 mA
Pulse frequency	100KHz	100KHz	100KHz
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. 1μs	Max. 1μs	Max. 1μs
Fall time Tf	Max. 1μs	Max. 1μs	Max. 1μs
Short circuit proof outputs	Yes	Yes	Yes

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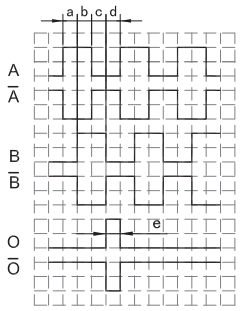
Terminal assignment

Signal	0V	+Ub	A	$\bar{A}$	B	$\bar{B}$	O	$\bar{O}$	⏚
Cable Colour	WH	BN	GN	PK	YE	BU	GY	RD	Shield



Shaft turning clockwise, top-view of clamping ring.
a、b、c、d = T/4 ± T/8
e = T/4 ± T/8

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

Ordering information

EXDE68B	12	E	1024	A	5-30	R	2
	①	②	③	④	⑤	⑥	⑦

①Shaft diameter
10: Φ10mm
12: Φ12mm

②Output channel
B: A B
D: A Ā B B̄
E: A Ā B B̄ O Ō

③Resolution
200、256、300
360、400、500
512、**600、1000**
1024、1200

④Output type
F: Push-Pull
A: Push-Pull Differential
B: RS422 (TTL Compatible)

⑤Supply voltage
5-30: DC5...30V

⑥Exit position
R: Radial

⑦Cable length
Cable length 2m

Note: Printed in bold=standard items

1, The resolution list is the number of common pulses, other pulse values should be determined by request.

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

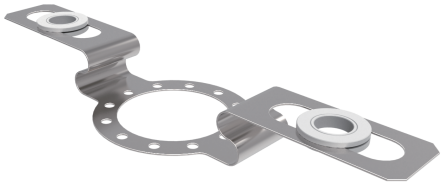
Ordering example: EXDE68B12E1024A5-30R2, Special requirements please indicate to the back。

Explanation: EXDE68B Series, Shaft diameter 12mm, Output channels A Ā、B B̄、O Ō, 1024PPR, Push-Pull Differential, 5-30VDC, Radial Output 2m。

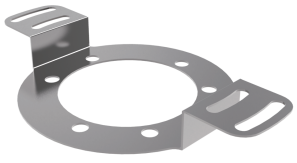
Accessories (sold separately) Note: Further stator coupling can be found in the accessories selection table.

Mounting bracket
Model (common) : 8127A

Mounting bracket
Model (common) : 8135

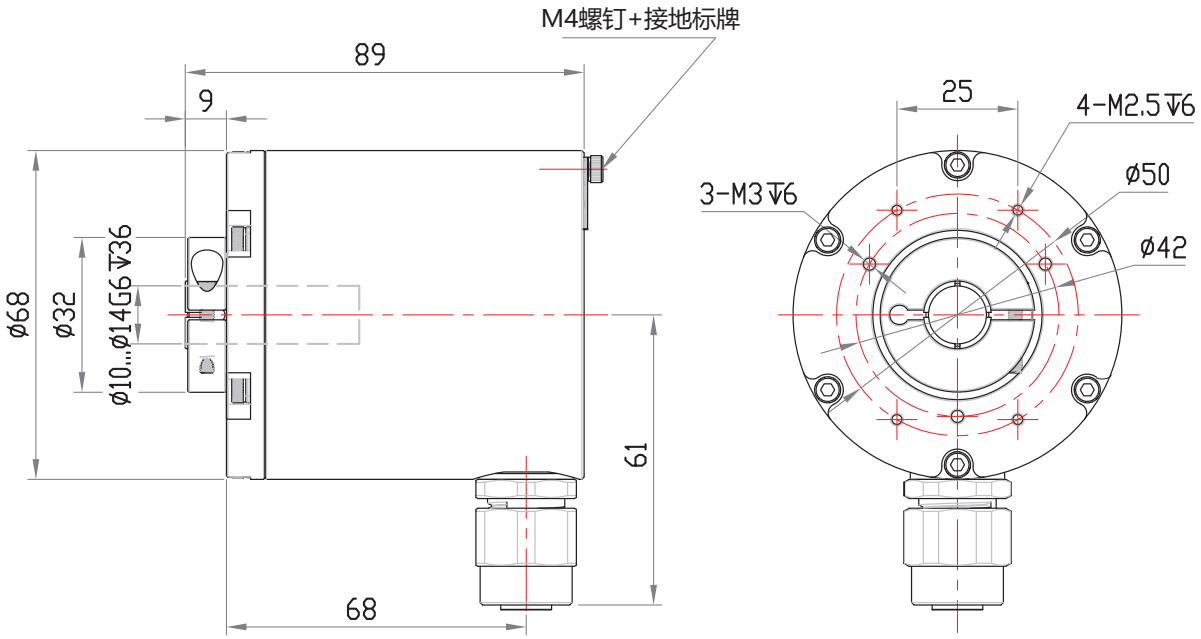


Mounting bracket
Model (common) : 8138A

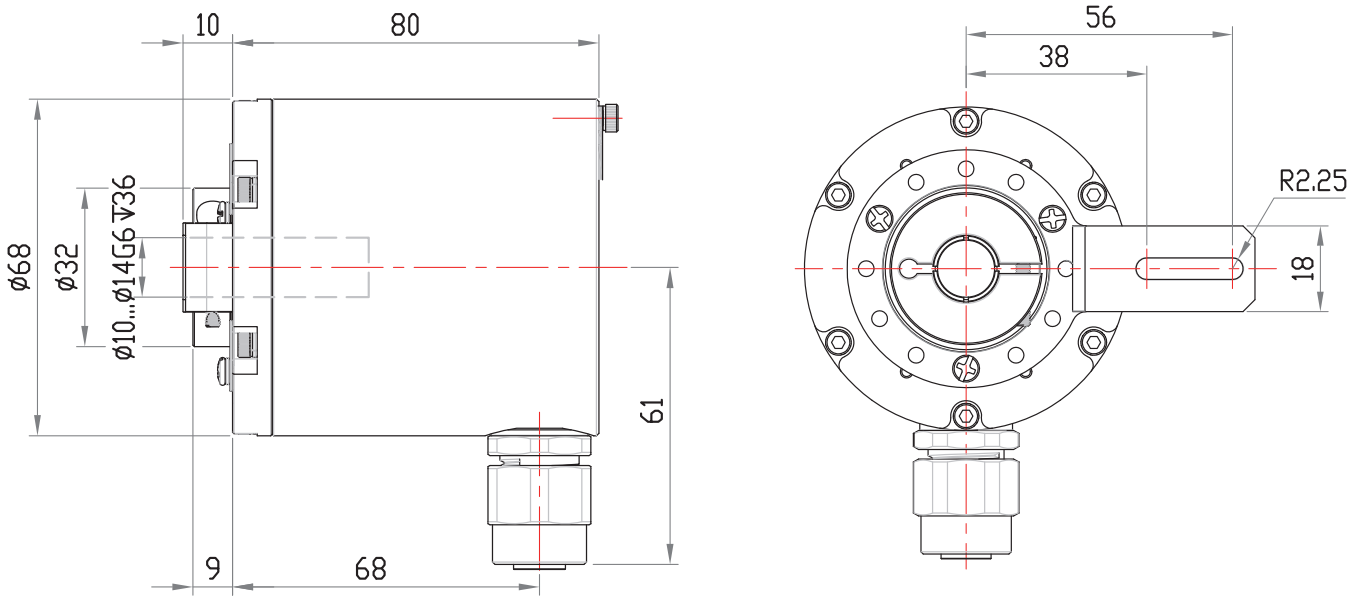


Dimensions

EXDE68B

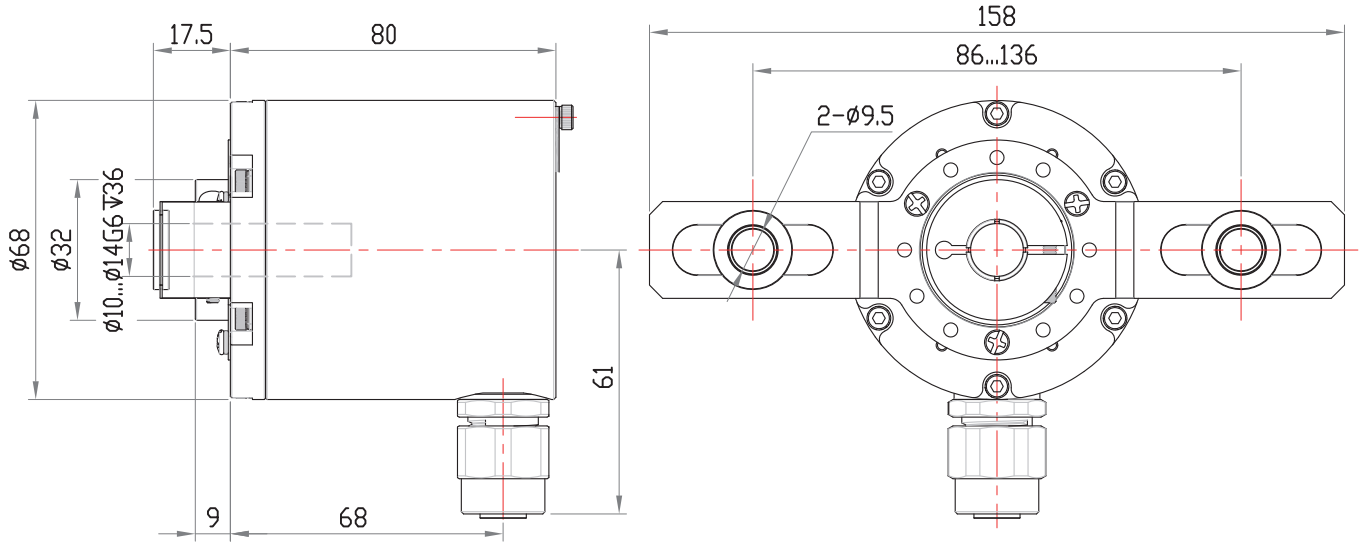


EXDE68B+8127A



Dimensions

EXDE68B+8135



EXDE68B+8138A