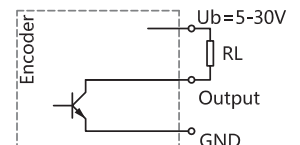
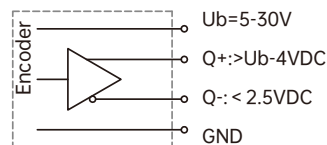
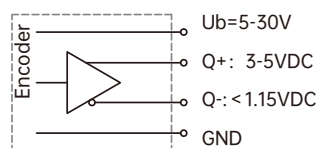


EDK100H Series
Incremental encoders
Sensing method Optical
Housing size Ø101 mm
Hollow shaft diameter Ø25, Ø30, Ø35, Ø38, Ø40, Ø42, Ø45mm
Max. resolution 3000 PPR
Supply voltage 5VDC, 5-30VDC, 9-26VDC
Protection IP66

Mechanical characteristics

Shaft diameter	Ø25, Ø30, Ø35, Ø38, Ø40, Ø42, Ø45mm (*Isolation inserts for hollow shaft onrequest which can prevent currents frompassing through the encoder bearings.)
Protection	IP66
Speed	3000RPM; 4000RPM (-40°C...+70°C)
Shaft loading	Max. 100N Axial; max. 200N Radial
Shock resistance	100g, 6ms
Vibration resistance	10g, 10...2000HZ
Bearing life	10 ⁹ turns
Rotor moment of inertia	< 150×10 ⁻⁶ kgm ² (The rotor moment of inertia depends on the diameter of the shaft)
Starting torque	<0.1Nm
Materials	Hollow shaft : Stainless steel Flange : Aluminum alloy Housing: Aluminum alloy
Working temperature	-40°C...+85°C
Storage temperature	-40°C...+85°C
Weight	Approx. 1 kg (Cable 2m)

Electrical characteristics



Output circuit	TTL	RS422	HTL	HCHTL	Open Collector
Supply voltage	5VDC	5-30VDC	5-30VDC	5-30VDC	5-30V
Power consumption (no load)	Max.80mA	Max.80mA	Max.125mA	Max.125mA	Max.80mA
Signal level high	±40mA	±200mA	±40mA	±200mA	-50mA
Pulse frequency	300KHz	300KHz	300KHz	300KHz	100KHz
Signal level high	3-5V	3-5V	>+Ub-4V	>+Ub-4V	-
Signal level low	<1.15V	<1.15V	<2.5V	<2.5V	-
Cable length max	50m at 100kHz	350m at 100kHz	30m at 100kHz	350m at 100kHz	20m at 100kHz
Tr Rise/ Fall time Tr	Max.1µs	Max.1µs	Max.1µs	Max.1µs	-
Interface protection	Surge protection, polarity reversal protection, short circuit protection, static electricity protection				

Terminal assignment

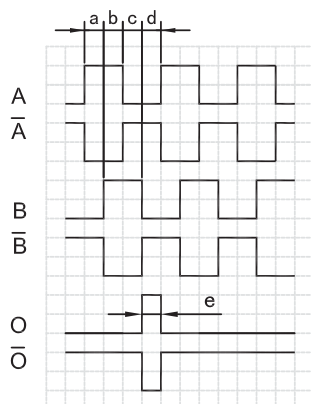
6 channels

Signal		0V	+Ub	A	$\bar{A}$	B	$\bar{B}$	O	$\bar{O}$	$\perp$
Color		WH	BN	GN	PK	YE	BU	GY	RD	Shield
Model: 9218 Plug, M18, 9-pin, ccw		2	7	1	3	4	5	6	8	PH ¹⁾
Model : 9223 Plug, M23, 12-pin, cw		10	12	5	6	8	1	3	4	PH ¹⁾
Model: 9223-2 Plug, M23, 12-pin, ccw		10	12	5	6	8	1	3	4	PH ¹⁾
Model: 9312 Plug, M23, 12-pin, cw		10	12	5	6	8	1	3	4	9

4 channels

Signal		0V	+Ub	A	$\bar{A}$	B	$\bar{B}$	$\perp$
Color		WH	BN	GN	PK	YE	BU	Shield
Model: 9312 Plug, M23, 12-pin, cw		1	2	3	6	4	7	9

Note: ¹⁾PH= connected to housing



⤵ Shaft turning clockwise,
top-view of clamping ring.

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

EDK100										XX	H	45	E	1024	F	5-30	R	2	/	XXXX																													
										①	②	③	④	⑤	⑥	⑦	⑧	⑨		⑩																													
①Extended No. XX										②Shaft type H: Hollow shaft										③Shaft diameter 25: 25mm 30: 30mm 35: 35mm 38: 38mm 40: 40mm 42: 42mm 45: 45mm										④ Channels B: A B C: A B O D: A $\bar{A}$ B $\bar{B}$ E: A $\bar{A}$ B $\bar{B}$ O $\bar{O}$ F: A B $\bar{O}$										⑤ Pulse rate 600,1024 1500,3000									
⑥Output circuit F: Push-Pull A: Push-Pull Differential C: Open Collector B: RS422 (TTL Compatible) W: HCHTL										⑦Supply voltage 5: 5VDC 5-30: 5...30VDC 9-26: 9...26VDC										⑧ Exit position R: Radial										⑨ Connection type Figure: Cable length(m) 9218: Plug, M18, 9-pin, ccw 9223: Plug, M23, 12-pin, cw 9223-2: Plug, M23, 12-pin, ccw 0.9 / 9312: 0.9m cable + Plug, M23, 12-pin, cw										⑩ Special code XXXX									
Note: Printed in bold=standard items																																																	

Notes: 1, Pulse rates available at a short notice (600,1024,1500,3000) , other pulse rates on 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: 1, EDK100H45C1024F5-30R2, Special requirements please indicate to the back.

Explanation: EDK100H Series, Shaft diameter 45mm, Output channels A B O, 1024PPR, Push-Pull, 5-30VDC, Radial, Output 2m.

Ordering example: 2, EDK100H45E3000A5-30R9223, Special requirements please indicate to the back.

Explanation: EDK100H Series, Shaft diameter 45mm, Output channels A $\bar{A}$ B $\bar{B}$ O $\bar{O}$, 3000PPR, Push-Pull Differential, 5-30VDC, Radial Output, M23 connector, 12-pin, CW.

Accessories (sold separately)

Note: For other options, please refer to the attached selection table.



Mounting bracket
Model: 8116



Mounting bracket
Model: 8116-A



Mounting bracket
Model: 8117



Mounting bracket
Model: 8117-A



Mounting bracket
Model: 8120



Mounting bracket
Model: : 8161B



Mounting bracket
Model: 8115



Insulating Sleeve
Model: 8663 45/38、8663A 45/30、8663M 38/G3/4 (Applicable to EDK100H45)
8665 30/25.4、8665A 30/25 (Applicable to EDK100H30)

Accessories (sold separately)

Note: For other options, please refer to the attached selection table.



Connectors and cables

Model: 9312/X-18.002

Plug A: Plug, M23, 12-pin, clockwise, straight

Plug B: Bare wire end, × meters cable, PVC, shielded wire 3*2*0.2mm², Ø6.8

*The cable is suitable for the output channel **A+A-B+B-**



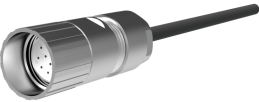
Connectors and cables

Model: 9312/X-22.004

Plug A: Plug, M23, 12-pin, clockwise, straight

Plug B: Bare wire end, × meters cable, PVC, shielded wire 4*2*0.2mm², Ø6.8

*The cable is suitable for the output channel **A+A-B+B-O+O-**



Connectors and cables

Model: 9223B/X-18.002

Plug A: Plug, M23, 12-pin, clockwise, straight

Plug B: Bare wire end, × meters cable, PVC, shielded wire 3*2*0.2mm², Ø6.8

*The cable is suitable for the output channel **A+A-B+B-**



Connectors and cables

Model: 9218B/X-18.002

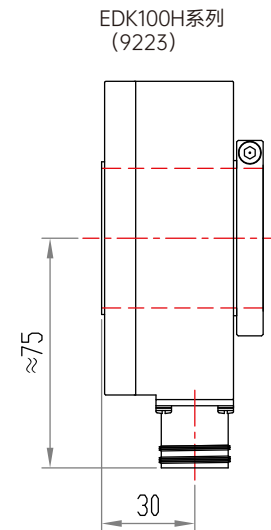
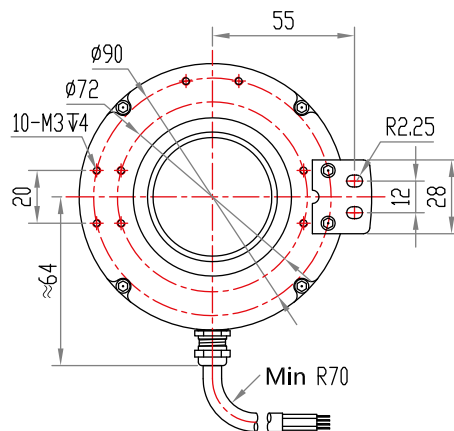
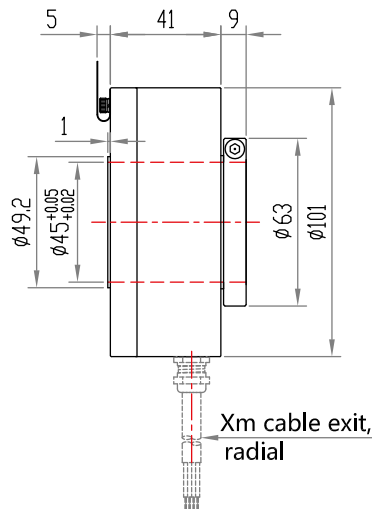
Plug A: Plug, M18, 9-pin, counterclockwise, straight

Plug B: Bare wire end, × meters cable, PVC, shielded wire 3*2*0.2mm², Ø6.8

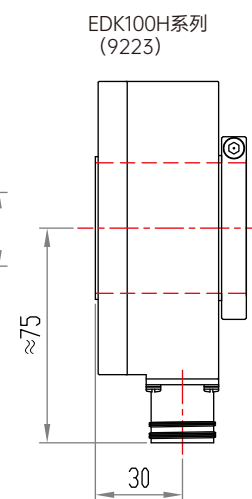
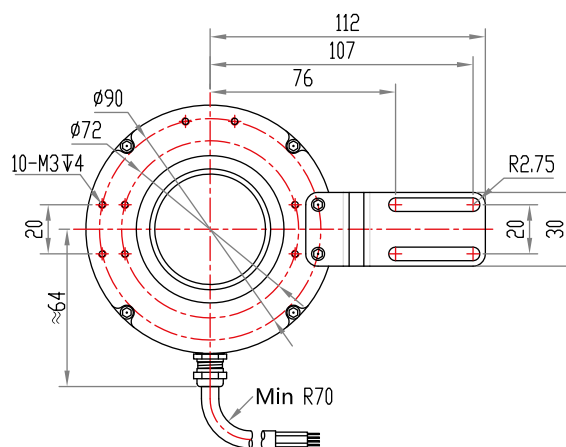
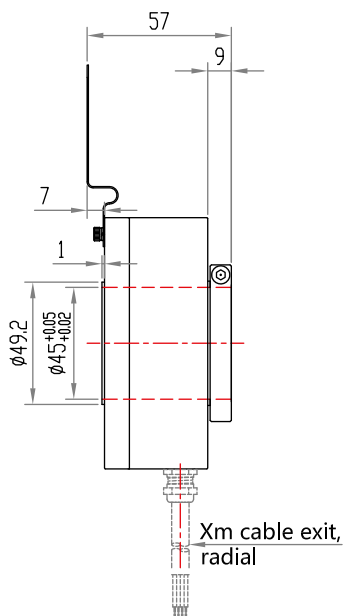
*The cable is suitable for the output channel **A+A-B+B-**

Dimensions

EDK100H (8120)

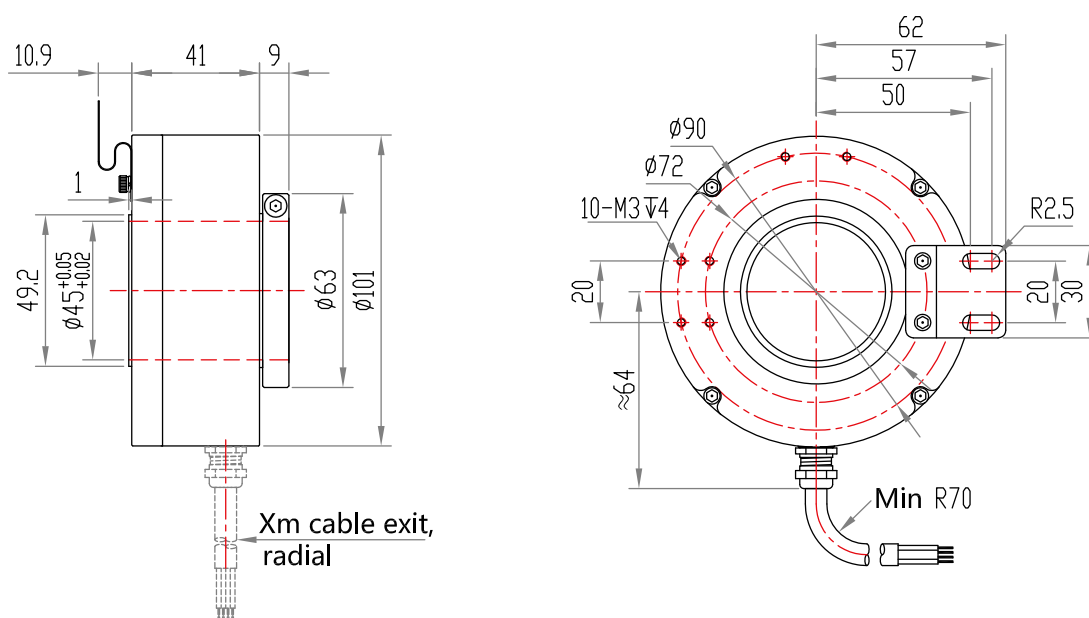


EDK100H (8115)

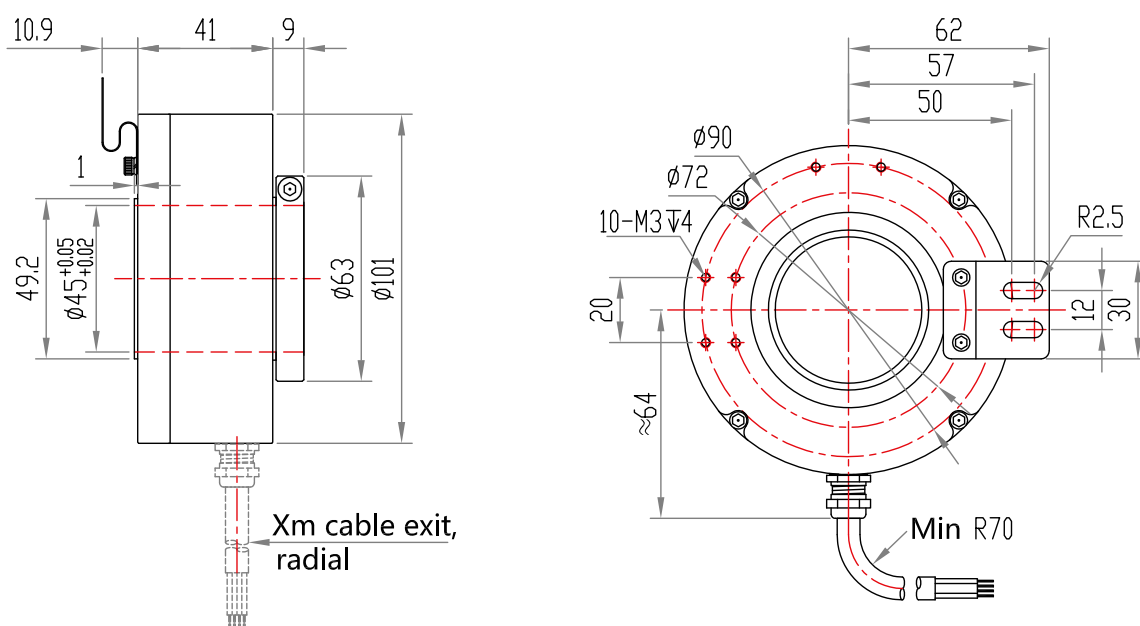


Dimensions

EDK100H (8116)

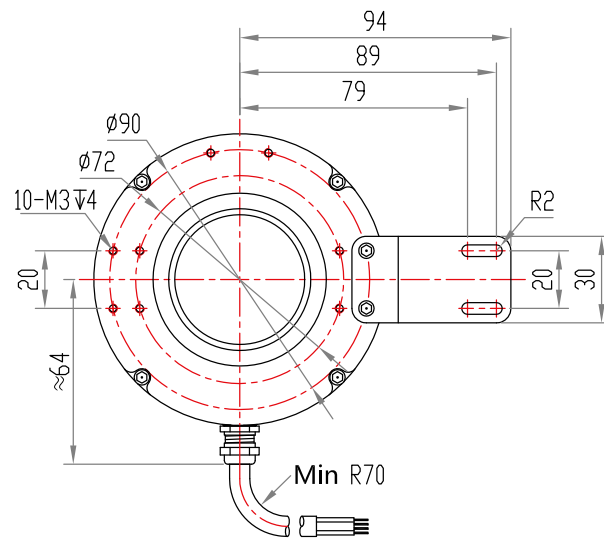
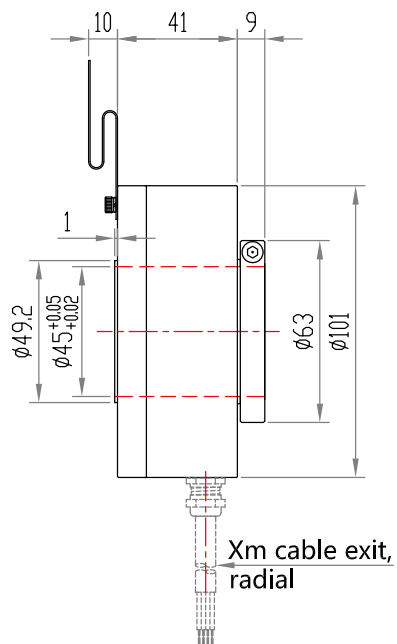


EDK100H (8116-A)

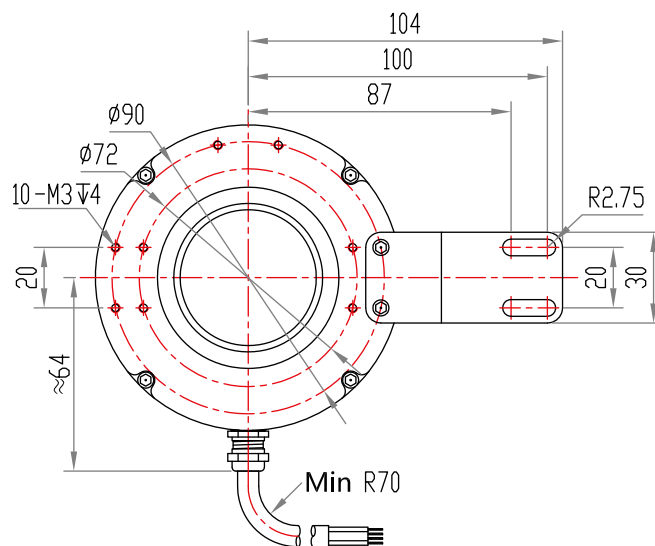
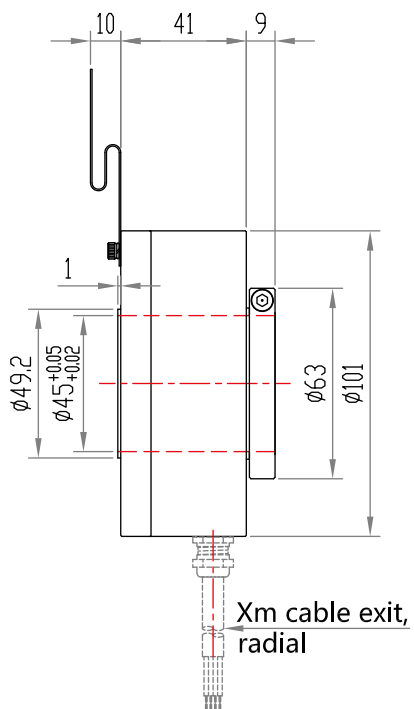


Dimensions

EDK100H (8117)

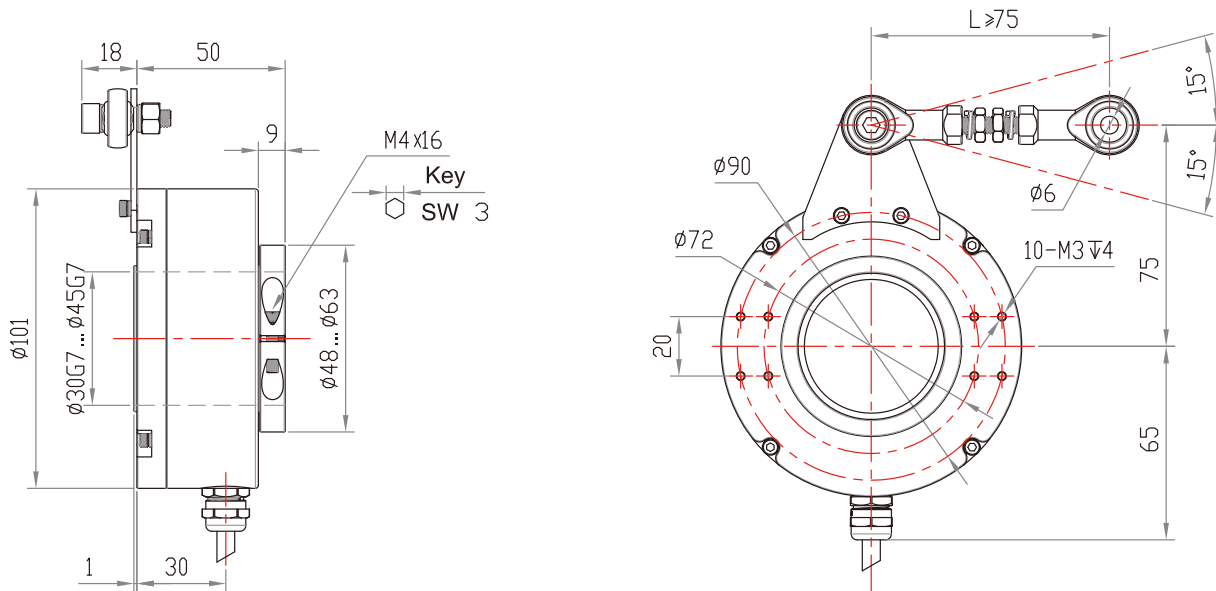


EDK100H (8117-A)



Dimensions

EDK100H+8150+8561



EDK100H (8161B)

