Explosion-proof Shaft Incremental Encoder EXI80A

Explosion-proof encoder ExdIIC T4
CESI certificate number CE13.1440
ExdII C T4

EEx	Electrical system for explosive and hazardous areas
d	Explosion-proof box
IIC	The electrical system can be operated in hazardous areas except for the mines where "grisou" gas is present. The type-C protection is based on the special interstice that is designed to have the maximum security on the explosion-proof encoder (MESG) C= maximum security.
T4	Maximum encoder surface temperature 135ºC.

Description:

Explosion-proof incremental encoder EXI80 series delivers good performance against mechanical damage, and is capable of withstanding higher axial and radial loads. EXI80 series have been used in explosive and hazardous areas, especially in the petrochemical industry. The mechanical structure meets the explosion-proof standard, and the maximum resolution is up to 5000ppr.

Features:

- European standard flange
- High protection class, promotes greater IP level
- Pre-screwed holes, convenient for use
- Durable stainless steel shaft Φ8/Φ10/Φ12
- Stainless steel housing for better shock resistance
- Protection class IP66
- Max.resolution 5000 ppr
- Top grade protection metal fixed wiring

Mechanical parameters

Shaft diameter（mm）	Φ8g6/Φ10g6/Φ12g6
Protection acc. to EN 60529	IP66
Speed（r/m）	6000
Max load capacity of the shaft	
Axial load capacity	200 N
Radial load capacity	200 N
Shock resistance	50G/11ms
Vibration resistance	10G 10~2000Hz
Bearing life	10^9 revolution
Moment of inertia	$1.8\times10^{-6}kgm^2$
Starting torque	<0.01Nm
Body material	AL-alloy
Housing material	AL-alloy
Operating temperature	-20°C~~+80°C
Storage temperature	-25°C~~+85°C
Weight	1330g

Resolution：10，20，30，40，50，60，70，80，90，100，200，300，360，400，500，512，600，
800，1000，1024，1200, 1440, 2000, 2048, 2500,4000，4096, 5000

Attention：Others on request

Electrical parameters

Output circuit	RS422	Push-pull	Push-pull
Resolution	Max. 5000ppr	Max. 5000ppr	Max. 5000ppr
Supply voltage（Vdc）	5V/10-30V	10-30V	5-30V
Power consumption (no load)	≤80mA	≤125mA	≤125mA
Permissible load (channel)	±50mA	±80mA	±80mA
Pulse frequency	Max. 800kHz	Max. 300kHz	Max. 300kHz
Signal level high	Min.3.4V	Min.Ub-1.8V	Min.Ub-1.8V
Signal level low	Max.0.4V	Max.2.0V	Max.2.0V
Rise timeTr	Max 200ns	Max 1μs	Max 1μs
Fall timeTf	Max 200ns	Max 1μs	Max 1μs

Terminal Assignment

Signal	0V	$+U_b$	A	$\overline{A}$	B	$\overline{B}$	Z	$\overline{Z}$	Shield
Color	WH	BN	GN	YE	GY	PK	BU	RD	⏚

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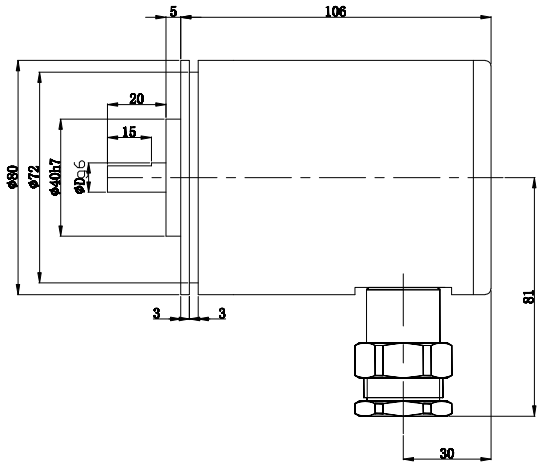
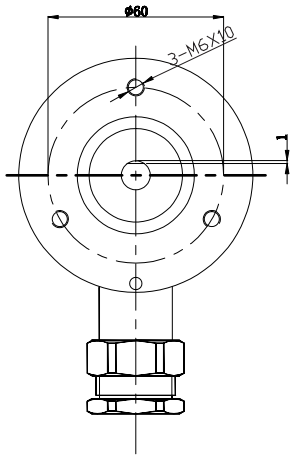
Dimensions

EXI80A





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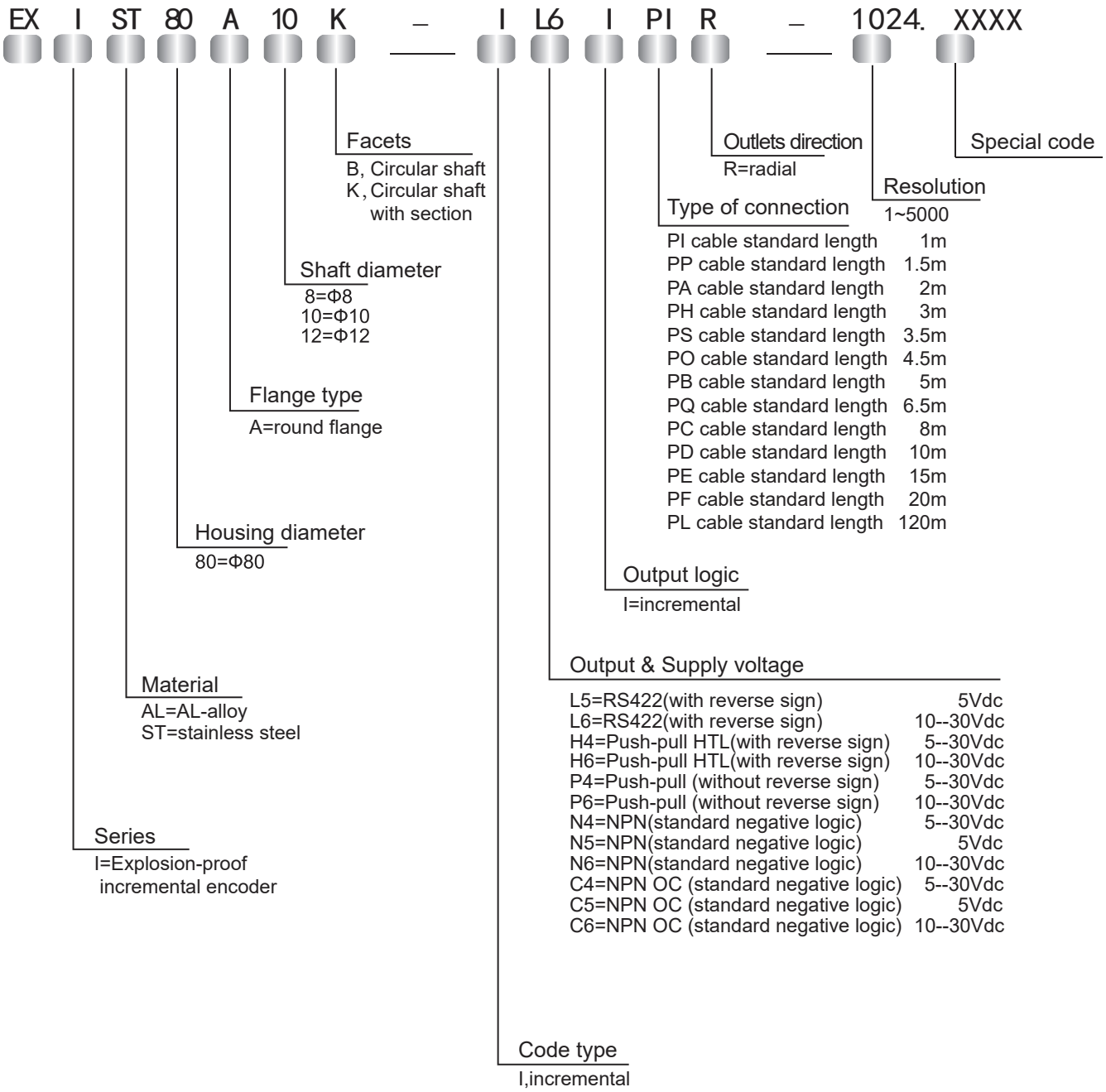
Order Code:



[1] When the provided power voltage is correct:
short-circuit to channel, 0V, or +UB is permitted when UB=5V,
short-circuit to channel or 0V is permitted when UB=10…30V.