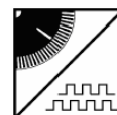


Incremental encoder-ISE68Ex series

Ex-proof Shaft encoder



- Ex-proof shaft encoder
- Approval  II 2 G/D EEx d IIC T6
- Up to 5000 PPR
- Low current consumption to be connected directly to PLC'S and counters
- Short circuit protection
- Wide supply voltage min 4.5V to 30V
- IP66
- Strong mechanical construction



Electrical Data:

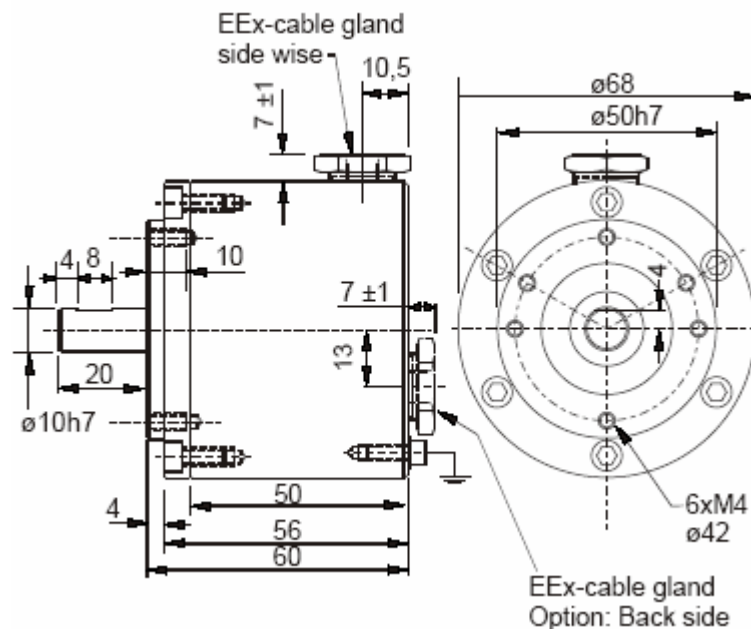
At +25°C	
Output waveform	Incremental (A, B)
Zero or index pulse	(Z) one pr. Rev.
Output	Push-pull. RS422 line driver
Supply-voltage (Vin)	Min 4,5V to Max. 30V * Reverse polarity protection
Current (no load)	Max. 45 mA
Max. load pr. output	30 mA -(Short circuit protected) *
V Out low	Max. 500 mV @ I =10 mA
Operating temp.	- 40°C to + 75°C
Storage temp.	- 40°C to + 75°C
Max. pulse frequency	300 kHz *
V out high	Min. (Vin -0,6) @ I = -10mA Min. (Vin -1,3) @ I = -25mA
Cable data	8 leads (0,14 mm ²) pair-twisted/shielded
Output signals	Standard, Inverted, Differential (RS-422A compatible)
EMC Certified acc. to EEx Certified acc. To	EN 50081-1 and EN 50082-2 EN 50014 and EN 50018 and 94 / 9 / EC (ATEX)
	*= It is not recommended to combine

Ex-proof Shaft encoder

Mechanical Data:

Weight	About 540g
Materials :	
Housing	Aluminum
Shaft	Brass
Bearings	Lifetime lubricated ball bearings
Shaft dimensions	ø10 mm
H.-Shaft loads	Axial max. 50 N Radial max. 50 N
Max. rev.	3.000 rev./min.
IP-rating	Standard IP 66
Start torque	IP 66 < 0,05 Nm at 25°C IP 67 < 0,2 Nm at 25°C IP 68 < 0,2 Nm at 25°C
Mass moment of inertia	35 gcm ²
Max. shock	100 G/11 ms
Bump	10 G - 16 ms (1000 x 3 axis)
Vibration	(10 - 2000 Hz)/10 G

Mechanical Dimensions

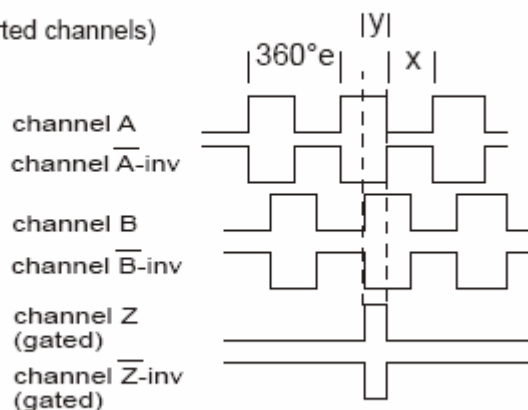


Ex-proof Shaft encoder

Signal output :



($\overline{\text{inv}}$ = inverted channels)



$X = 180^\circ \pm 36^\circ$ and $Y = 90^\circ \pm 18^\circ$
Z puls: Gated with A and B (standard)

Connections :

Color code	Standard
Pink	Ch. A
Grey*	Ch. A Gnd
Green	Ch. B
Yellow*	Ch. B Gnd
White	Ch. Z
Brown*	Ch. Z Gnd
Red	Vcc
Blue*	Gnd

*Blue, grey, yellow and brown are internal connected

Color code	Differential or Inverted
Pink	Ch. A
Grey	Ch. A inv.
Green	Ch. B
Yellow	Ch. B inv.
White	Ch. Z
Brown	Ch. Z inv.
Red	Vcc
Blue	Gnd

Type code :

I S E 68Ex / [A].[B].[C].[D].[E].[F].[G]

ISE68Ex– incremental Ex-proof shaft encoder housing ø68 mm

A : 10 – Ø10x20mm shaft

B: K1 – Cable 1m

C: R – radial

A - axial

D: 3 – A+B+O

6 – A+B+O and A/+B/+O/

E: A – 4.5-30VDC Push pull

B – 4.5-30VDC RS422

F: G – general version

G: Pulse – 100, 360, 500, 1000, 1024, 2048, 2500, 3600, 4096, 5000