

# Incremental encoders

EX approval ATEX EEx d IIC T4

Resolution 5...5000 pulses

## X 700 - incremental



X 700 with EX-proof housing

### Features

- Encoder incremental / ATEX
- Optical sensing
- Resolution max. 5000 ppr
- Clamping flange / shaft  $\varnothing$ 10 mm
- Explosion-proof in line with EEx d IIC T4
- Area of application: EX I/II 2 GD / ATEX 133213X
- Material stainless steel

### Technical data - electrical ratings

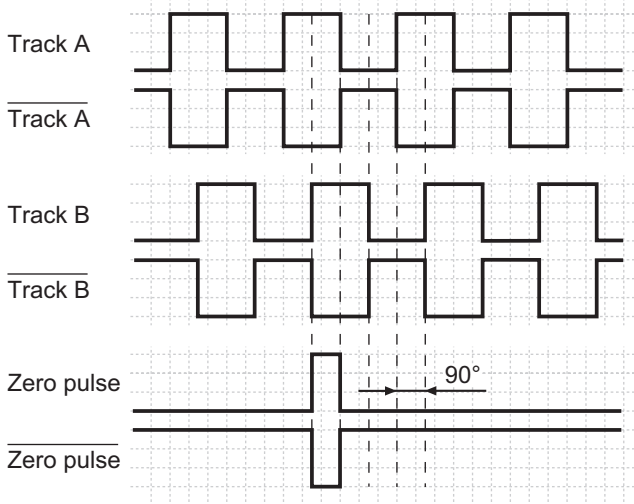
Voltage supply	4.75...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	$\leq$ 50 mA
Resolution (steps/turn)	5...5000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	$\leq$ 300 kHz
Output signals	A 90° B, N + inverted
Output circuit	Push-pull short-circuit proof
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4

### Technical data - mechanical design

Housing	$\varnothing$ 70 mm
Shaft	$\varnothing$ 10 mm (clamping flange)
Flange	Clamping flange
Protection DIN EN 60529	IP 67
Operating speed	$\leq$ 6000 rpm
Starting torque	$\leq$ 0.04 Nm
Admitted shaft load	$\leq$ 60 N axial $\leq$ 50 N radial
Materials	Housing: stainless steel Flange: stainless steel
Operating temperature	-25...+70 °C
Relative humidity	95 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 12-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Weight approx.	1300 g
E-connection	Cable 2 m (other length upon request)

### Output signals

Clockwise rotating direction when looking at flange.



Optional: other reference impulse.

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### Part number

X 700.I 1

- See part number (pulses)
- E-connection
  - 32 Cable 2 m, axial
  - 34 Cable 5 m, axial
- Voltage supply / signals
  - 1 4.75...30 VDC / push-pull
  - 2 5 VDC / RS422
- Flange / Shaft
  - 1 Clamping flange /  $\varnothing 10$  mm IP 67

### Part number (pulses)

49 (5)	40 (60)	09 (250)	22 (1000)
36 (10)	41 (100)	13 (360)	23 (1024)
50 (25)	57 (128)	14 (400)	26 (1500)
39 (50)	06 (200)	15 (500)	28 (2000)

Other pulse numbers upon request.  
Example: ordering key 23 = 1024 pulses

### Terminal assignment

Core no.	Core colour	Assignment
#1	white	GND
#2	brown	UB
#3	green	Track A
#4	yellow	Track B
#5	grey	Track N
#6	pink	Track A inv.
#7	blue	Track B inv.
#8	red	Track N inv.

### Trigger level

Outputs	Push-pull short-circuit proof
Output level High	>UB -1.4 V (I = -20 mA)
Output level Low	<0.5 V (I = 20 mA)
Load High	<20 mA
Load Low	<20 mA

### Dimensions

