

# Incremental encoders

EX approval ATEX II 2G Ex de IIC T5/T6 Gb and IECEx Ex de IIC T5/T6 Gb

Resolution 1...5000 pulses

## EEx OG 9 - incremental



EEx OG 9

### Features

- Encoder incremental / ATEX / IECEx
- Optical sensing
- Ex-approved by ATEX II 2G Ex de IIC T5/T6 Gb
- IECEx Ex de IIC T5/T6 Gb
- Shaft  $\varnothing$ 11 mm
- Robust light-metal housing
- Logic level TTL with regulator UB 9...26 VDC
- Logic level HTL with power linedriver
- Big terminal box, turn by 90°

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm$ 5 % 9...26 VDC 9...30 VDC
Consumption w/o load	$\leq$ 100 mA
Resolution (steps/turn)	1...5000
Phase shift	90°
Scan ratio	40...60 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	$\leq$ 120 kHz (pulse number $\leq$ 1250) $\leq$ 250 kHz (pulse number $>$ 1250)
Output signals	K1, K2, K0 + inverted
Output circuit	TTL (RS422) HTL (power linedriver)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4

### Technical data - mechanical design

Dimensions (flange)	$\varnothing$ 120 mm
Shaft	$\varnothing$ 11 mm
Shaft loading	$\leq$ 200 N axial $\leq$ 350 N radial
Flange	EURO flange B10
Protection DIN EN 60529	IP 56
Operating speed	$\leq$ 6000 rpm (T5, mechanical) $\leq$ 4500 rpm (T6, mechanical)
Operating torque typ.	4 Ncm
Rotor moment of inertia	290 gcm <sup>2</sup>
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-20...+55 °C
Resistance	DIN EN 60068-2-6 Vibration 10 g, 50-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Explosion protection	II 2G Ex de IIC T5/T6 Gb Ex de IIC T5/T6 Gb
Connection	Terminal box
Weight approx.	3.5 kg

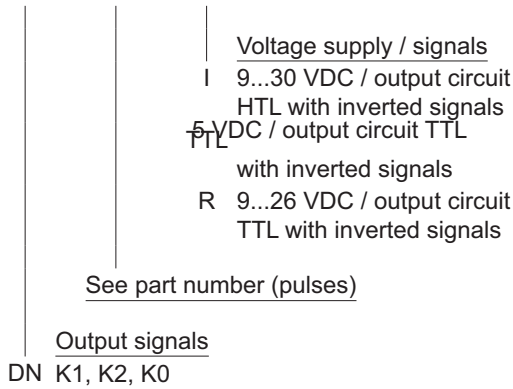
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### Part number

EEx OG 9 **DN**



### Accessories

#### Connectors and cables

HEK 8 Sensor cable for encoders

#### Mounting accessories

K 35 Spring disk coupling for shaft ø6...12 mm

K 50 Spring disk coupling for shaft ø11...16 mm

K 60 Spring disk coupling for shaft ø11...22 mm

#### Diagnostic accessories

HENQ 1100 Analyzer for encoders

### Part number (pulses)

1	16	80	256	1024
2	20	100	300	1042
3	25	112	360	1200
4	26	120	400	1250
5	30	128	500	2000
6	36	150	512	2048
7	40	176	600	2160
8	45	180	720	2500
10	50	192	800	3072
11	60	200	900	3600
12	64	240	1000	4096
15	72	250	1006	5000

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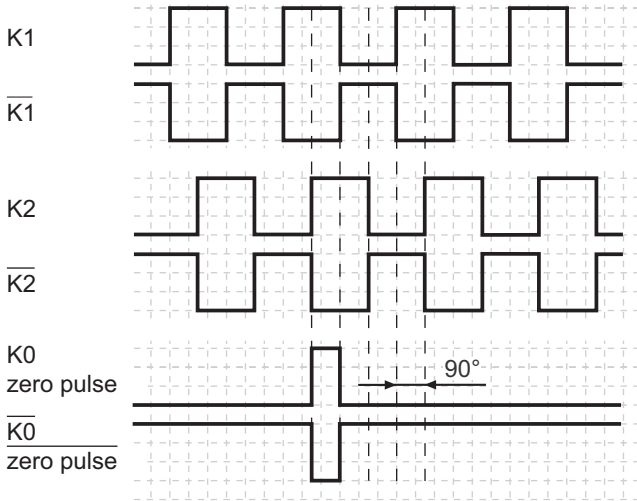
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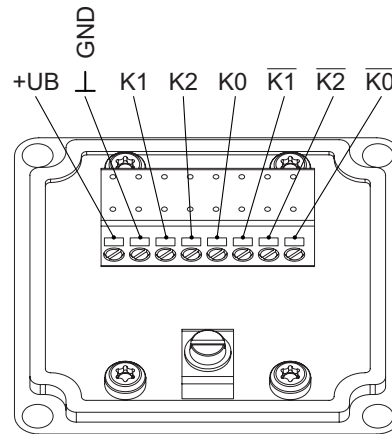
### Output signals

at positive rotating direction



### Terminal assignment

View A - Connecting terminal



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## Dimensions

