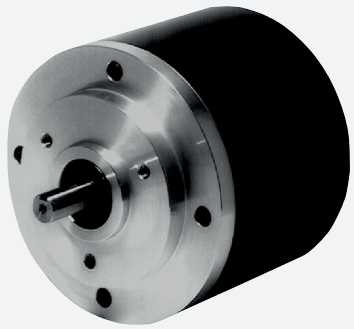


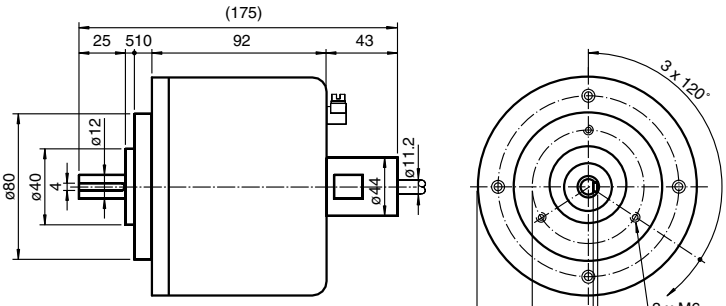
Incremental rotary encoder

14-1436X

- Up to 5000 ppr
- ATEX approval
- Flameproof enclosure
- 10 V ... 30 V with RS 422 interface

0102

Dimensions



Clamping flange

Technical Data

General specifications		
Detection type		photoelectric sampling
Pulse count		max. 5000
Electrical specifications		
Operating voltage	U_B	10 ... 30 V DC
No-load supply current	I_0	max. 150 mA
Output		
Output type		RS 422, incremental
Load current		max. per channel 20 mA , conditionally short-circuit proof, reverse polarity protected
Output frequency		max. 100 kHz
Rise time		100 ns
De-energized delay	t_{off}	100 ns
Connection		
Cable		Ø11.2 mm, 9-core, 2 m
Standard conformity		
Degree of protection		DIN EN 60529, IP66
Emitted interference		EN 61000-6-4:2007/A1:2011

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Technical Data

Noise immunity		EN 61000-6-2:2005
Ambient conditions		
Operating temperature		
Gas Ex-area		-40 ... 55 °C (-40 ... 131 °F)
Dust Ex-area		-30 ... 55 °C (-22 ... 131 °F)
Storage temperature		
Gas Ex-area		-40 ... 70 °C (-40 ... 158 °F)
Dust Ex-area		-30 ... 70 °C (-22 ... 158 °F)
Mechanical specifications		
Material		
Housing		3.1645 aluminum
Flange		3.1645 aluminum
Shaft		Stainless steel 1.4305 / AISI 303
Mass		approx. 3000 g
Rotational speed		max. 6000 min $^{-1}$
Moment of inertia		400 gcm^2
Starting torque		< 5 Ncm
Shaft load		
Axial		60 N
Radial		80 N
Data for application in connection with hazardous areas		
EU-Type Examination Certificate		ZELM 02 ATEX 0078 X
Marking		Ⓔx II 2G Ex db IIC T6 Gb Ⓔx II 2D Ex tb IIIC T80°C Db
Directive conformity		
Directive 94/9/EC		EN 60079-0:2012+A11:2013 EN 60079-1:2014 EN 60079-31:2014

Accessories

	**9101, 10**	Measuring wheel for shaft diameter 10 mm
	**9102, 10**	Measuring wheel for shaft diameter 10 mm
	**9103, 10**	Measuring wheel for shaft diameter 10 mm
	**9108, 10**	Measuring wheel for shaft diameter 10 mm
	**9109, 10**	Measuring wheel for shaft diameter 10 mm
	**9110, 10**	Measuring wheel for shaft diameter 10 mm
	**9112, 10**	Measuring wheel for shaft diameter 10 mm
	**9113, 10**	Measuring wheel for shaft diameter 10 mm

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Function

Incremental rotary encoders of the series 14 have been specially developed for use in areas with a high level of mechanical demand.

The shaft is specially equipped with a feather key groove for receiving a belt pulley wheel. The permissible radial force is 80 N and the permissible axial force is 60 N.

One special feature is the mechanical versatility of the flange. The incremental rotary encoder has a centering collar with a diameter of 40 mm and one with a diameter of 80 mm. Three M6 holes are available for fastening.

The pulse disk is designed in plastic for up to 1500 pulses. Beyond that, glass is used.

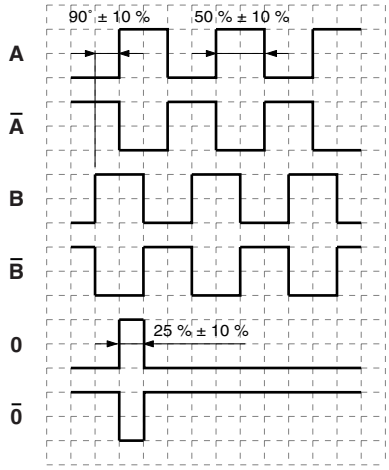
Connection

Electrical connection

Signal	Cable Ø11.2 mm, 9-core
GND	1
$+U_b$	2
A	3
B	4
$\overline{A}$	5
$\overline{B}$	6
0	7
$\overline{0}$	8
PE	Green/Yellow

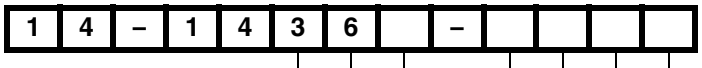
Operation

Signal outputs



↻ cw - with view onto the shaft

Order code



Pulse count 60, 100, 120, 180, 200, 250, 256, 300, 314, 360, 400, 500, 512, 600, 720, 900, 1000, 1024, 1200, 1250, 1500, 1800, 2000, 2048, 2400, 2500, 3000, 3600, 4000, 4096, 5000

Output switching

1 10 V ... 30 V, push-pull

6 5 V, RS 422

X 10 V ... 30 V, RS 422

Signal output

36 A + B + 0 and $\overline{A}$ + $\overline{B}$ + $\overline{0}$

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