

# Incremental rotary encoder

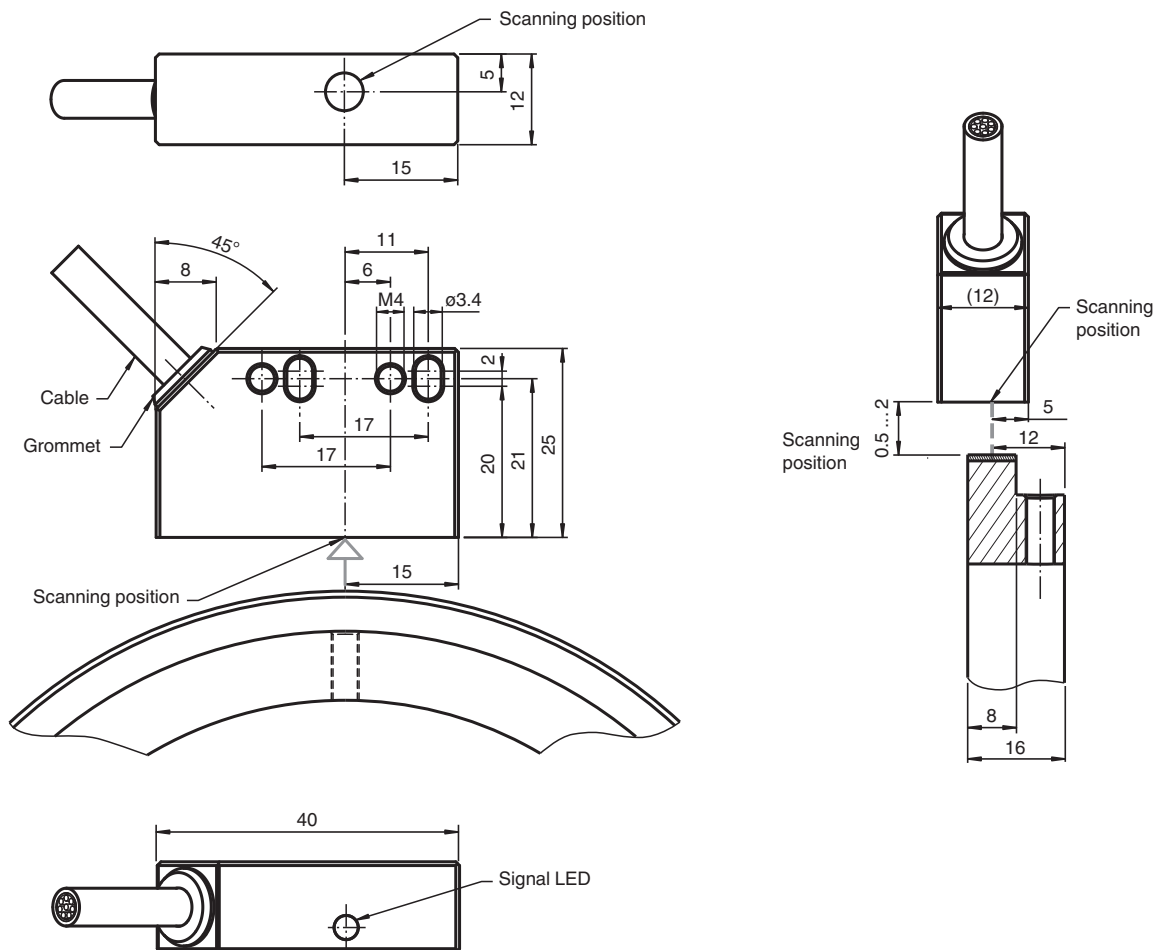
## MNIR50-PL0010-0-7UD1-LDY-00:01

- Cost-effective, bearing-free rotary encoder for rotational speed measurement
- Simple installation
- High degree of protection (IP67)
- Robust and flexible magnetic rings

Magnetic incremental rotary encoder for contactless sampling of a magnetic wheel



### Dimensions



Release date: 2022-12-19 Date of issue: 2022-12-19 Filename: 70150827\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
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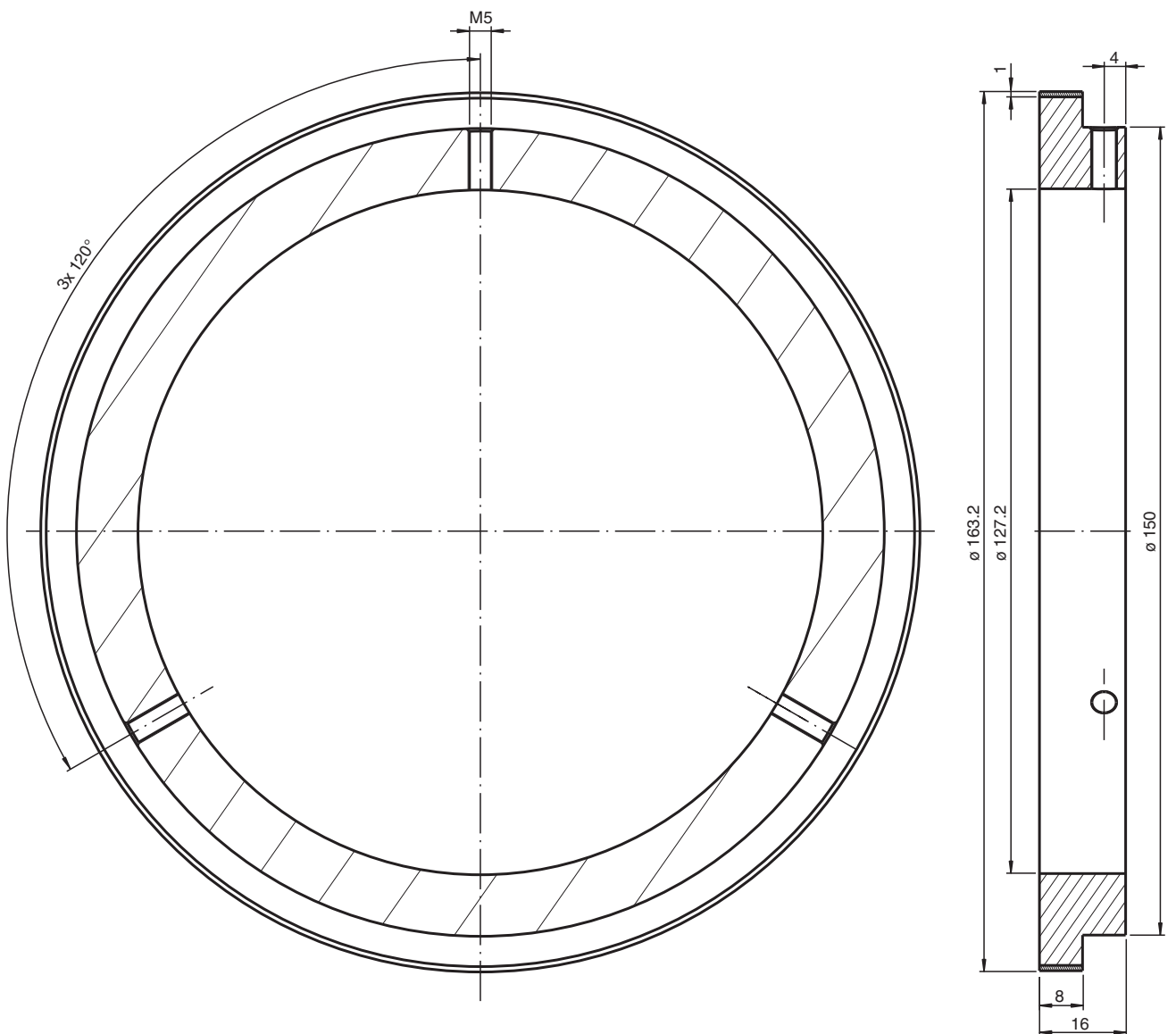
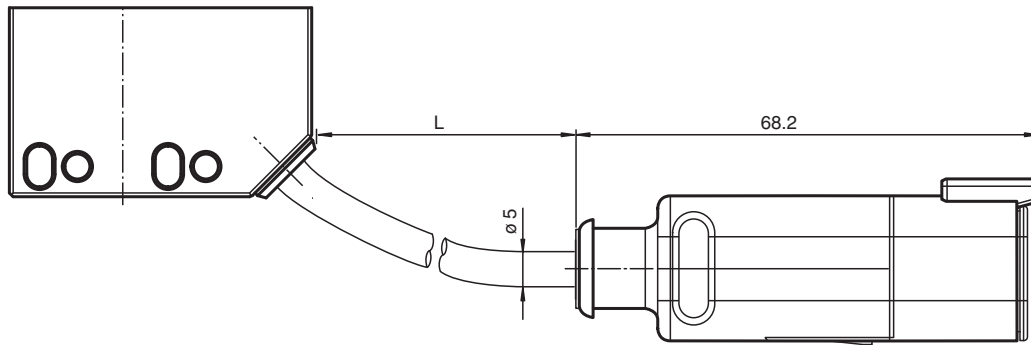
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**PF** PEPPERL+FUCHS

**Dimensions**



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**Technical Data**

**General specifications**

Detection type	magnetic sampling
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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

## Technical Data

Pulse count		1020
UL File Number		E223176 "For use in NFPA 79 Applications only" , if UL marking is marked on the product.
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		942 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
LED green		Operating display
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	4.75 ... 30 V DC
No-load supply current	I <sub>0</sub>	max. 55 mA
<b>Output</b>		
Output type		push-pull, incremental
Voltage drop	U <sub>d</sub>	< 2.5 V
Load current		max. per channel 30 mA , short-circuit protected (max. per channel 20 mA, conditionally short-circuit proof)
Output frequency		max. 800 kHz
<b>Connection</b>		
Connector		L = 0.3 m fixed cable with Deutsch connector DTM04-6P
Cable		Ø4,7 mm, 4 x 2 x 0,128 mm <sup>2</sup>
<b>Standard conformity</b>		
Degree of protection		DIN EN 60529, IP67, IP68
Climatic testing		DIN EN 60068-2-30
Emitted interference		EN 61000-6-4:2007/A1:2011
Noise immunity		EN 61000-6-2:2005
Shock resistance		DIN EN 60068-2-27, 200 g, 6 ms
Vibration resistance		DIN EN 60068-2-6, 40 g, 10 ... 2000 Hz
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose, Class 2 Power Source, Type 1 enclosure , if UL marking is marked on the product. adapters providing field wiring on request
Maximum permissible ambient temperature		max. 80 °C (max. 176 °F)
<b>Ambient conditions</b>		
Operating temperature		-40 ... 100 °C (-40 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
<b>Mechanical specifications</b>		
Material		
Housing		PA
Cable		PUR
Magnetic wheel		steel 1.4021 (AISI 420) ferrite filled cured rubber
Mass		approx. 760 g
Rotational speed		max. 3000 min <sup>-1</sup>

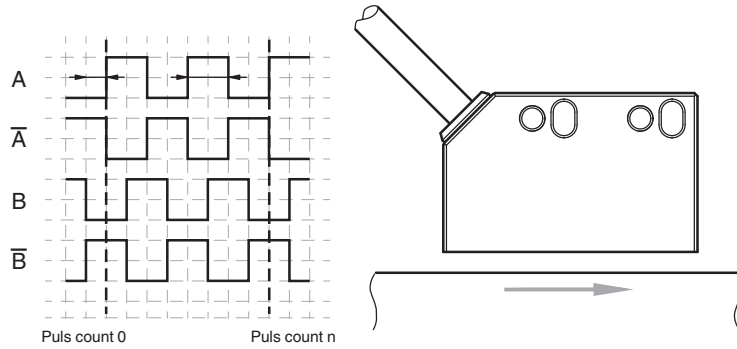
## Indication

### LED-Indicators

LED status	Description
Green On	Sensor is ready for operation: Supply volage applied and magnetic tapel is detected.
LED Off	Possible reason: - Supply voltage drop or no supply voltage - Magnetic tape is not detectable e. g. too large gap

**Operation**

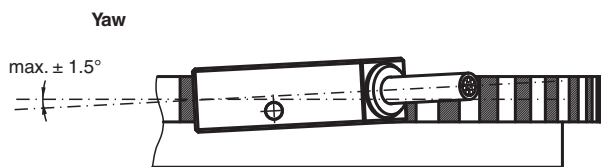
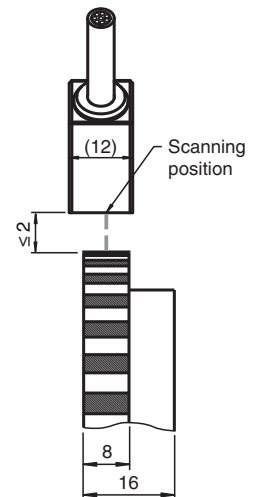
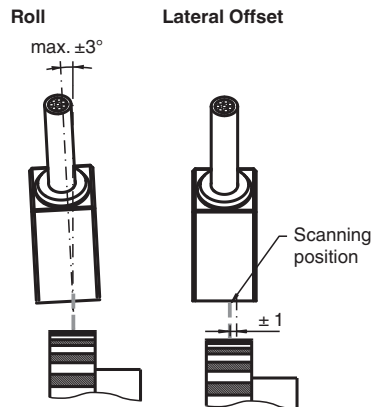
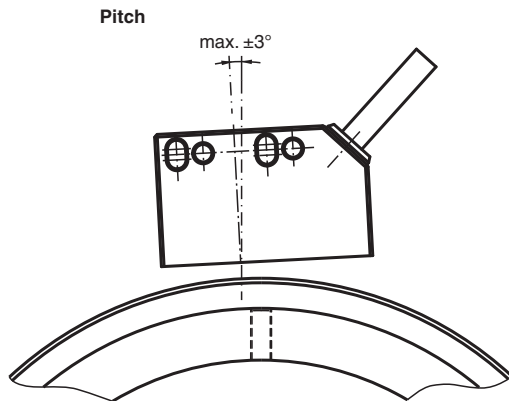
**Signal outputs**



**Installation Conditions**

**Permissible angular deviation in consideration of the nominal dimensions**

**Basic nominal dimensions for alignment**



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## Connection

Signal	Deutsch connector DTM04-P6, 6-pin
+U <sub>b</sub>	1
GND	2
A	3
$\bar{A}$	4
B	5
$\bar{B}$	6
Pinout	