

# Incremental rotary encoder

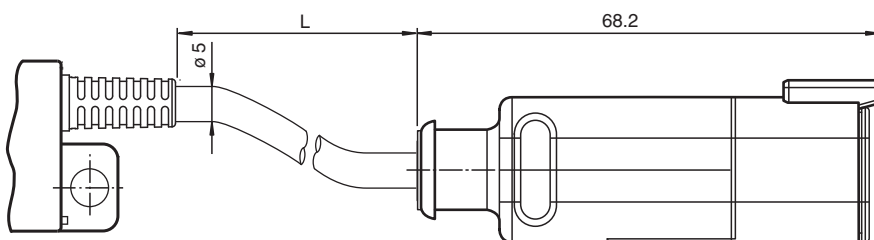
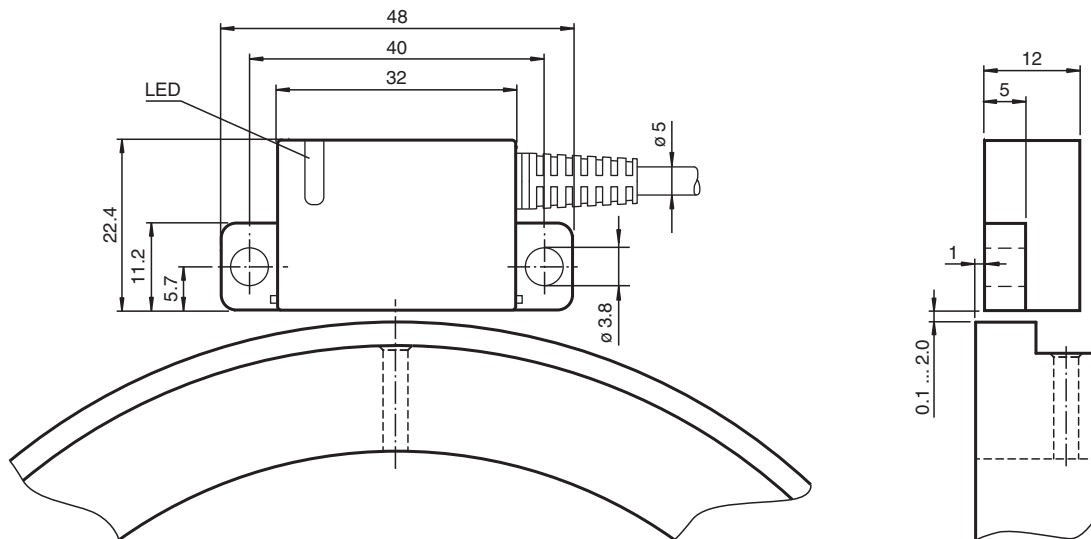
## MNI45N

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

Magnetic, Non Contact



### Dimensions



Release date: 2022-04-08 Date of issue: 2022-12-12 Filename: 70106057\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

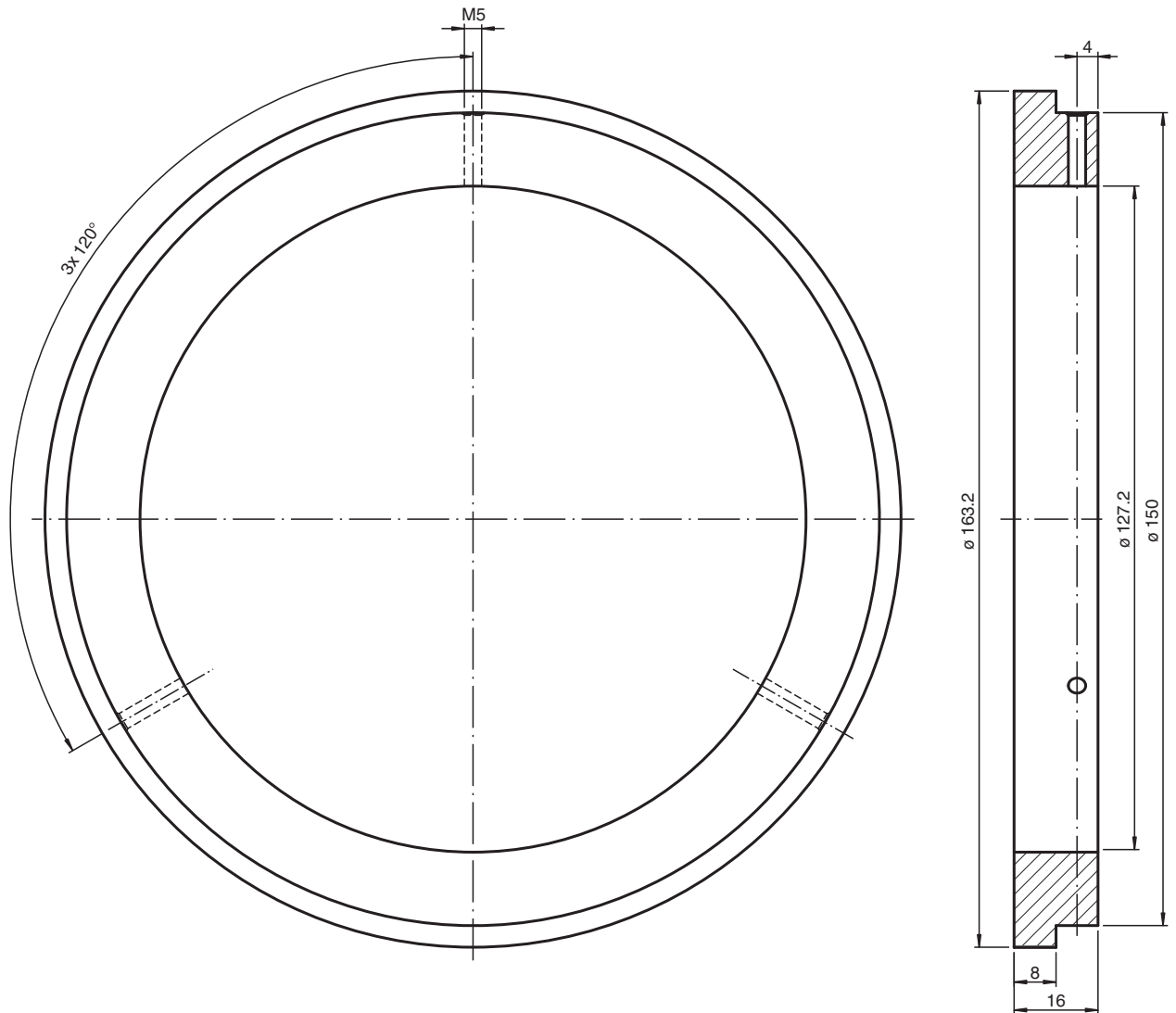
USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Dimensions



Release date: 2022-04-08 Date of issue: 2022-12-12 Filename: 70106057\_eng.pdf

Technical Data

General specifications	
Detection type	magnetic sampling
Pulse count	1020
UL File Number	E223176 "For use in NFPA 79 Applications only" , if UL marking is marked on the product.
Functional safety related parameters	
MTTF <sub>d</sub>	942 a
Mission Time (T <sub>M</sub> )	20 a

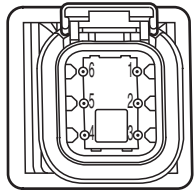
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

## Technical Data

Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
LED green		Operating display
<b>Electrical specifications</b>		
Operating voltage	$U_B$	10 ... 30 V DC
No-load supply current	$I_0$	max. 55 mA
<b>Output</b>		
Output type		push-pull, incremental
Voltage drop	$U_d$	< 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		
<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
Magnetic ring		
Mass		approx. 760 g
Rotational speed		max. 3000 min <sup>-1</sup>

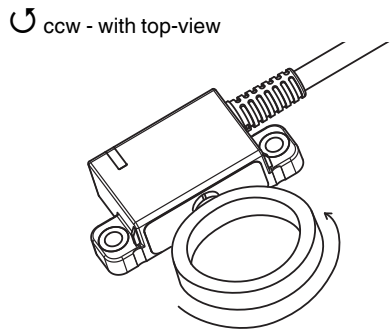
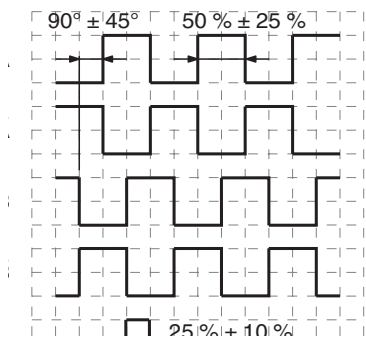
Release date: 2022-04-08 Date of issue: 2022-12-12 Filename: 70106057\_eng.pdf

**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	

**Operation**

**Signal outputs**



Release date: 2022-04-08 Date of issue: 2022-12-12 Filename: 70106057\_eng.pdf