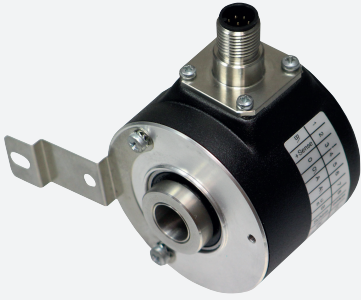


Incremental Encoder for special applications

RSI58N-*****1



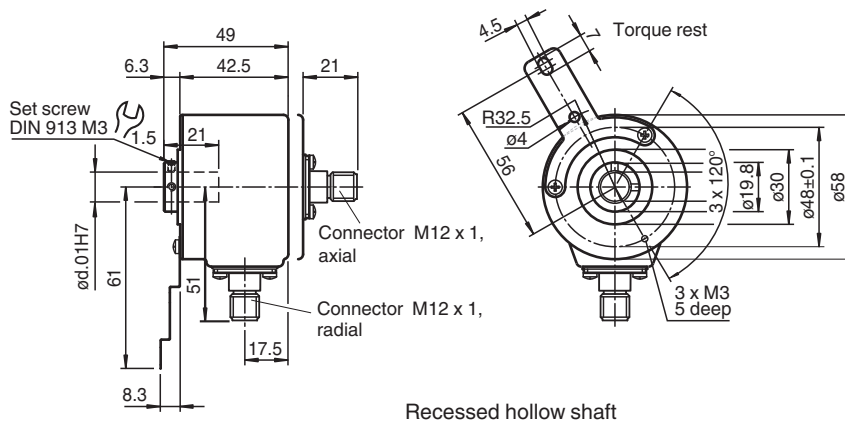
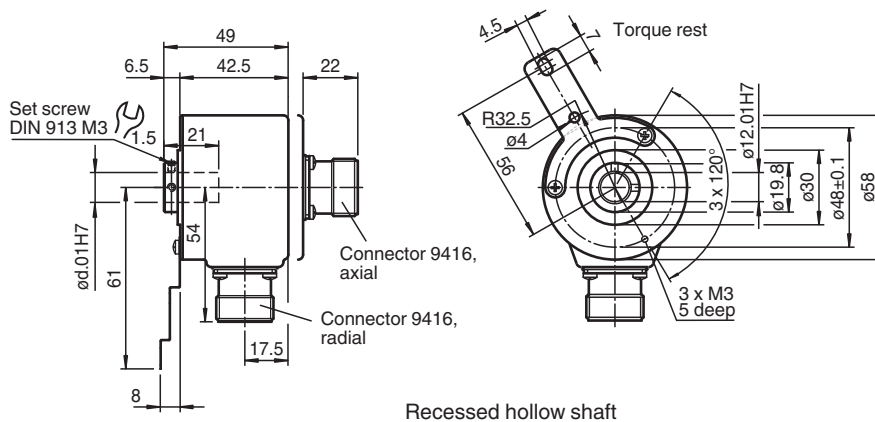
- Industrial standard housing $\varnothing 58$ mm
- Up to 50,000 ppr
- Recessed hollow shaft
- 10 V ... 30 V with short-circuit proof push-pull output



Function

High performance are key words for this rotary encoder. Its outstanding feature is the-high resolution angle. All six output channels are fitted for this incremental rotary encoder. It can thus be used universally in many different applications. This incremental rotary encoder is available in recessed hollow shaft design with a shaft 10 mm in diameter x 20 mm or with a shaft 12 mm in diameter x 20 mm. The rotary encoder is held in place by an included torque rest. The electrical connection is made by a 8-pin or a 12-pin round plug connector. It is also possible to obtain a version with a cable connector.

Dimensions



Release date: 2022-12-12 Date of issue: 2022-12-12 Filename: t151826_eng.pdf

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

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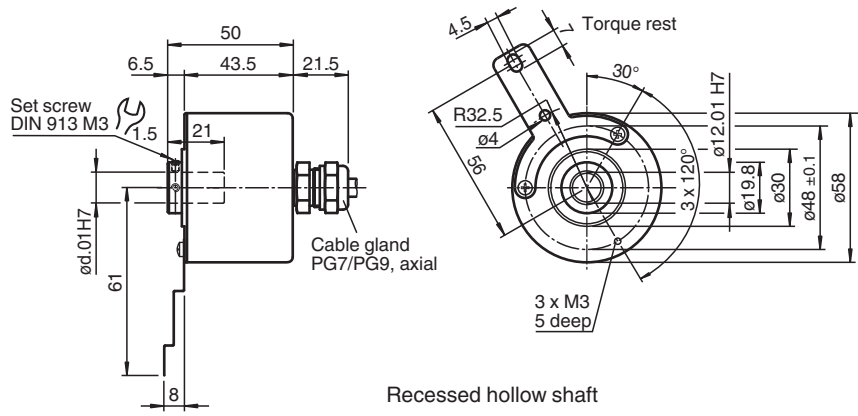
USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

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

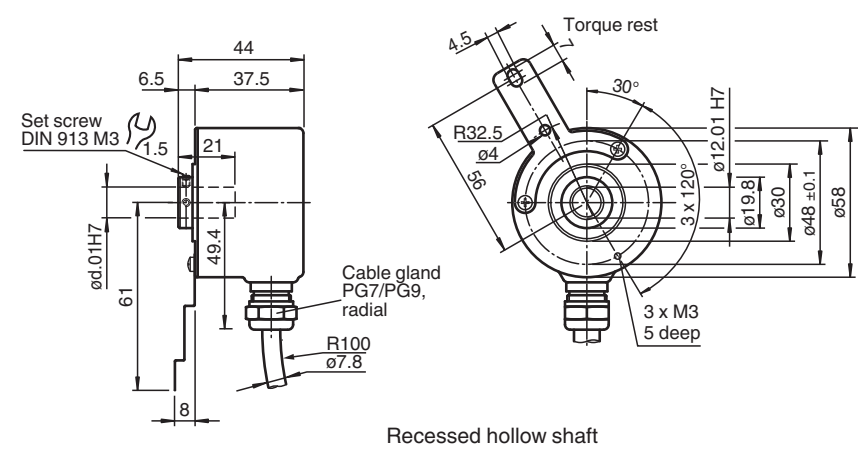
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Dimensions



Recessed hollow shaft



Recessed hollow shaft

Technical Data

General specifications		
Detection type		photoelectric sampling
Pulse count		max. 50000
Functional safety related parameters		
MTTF _d		140 a
Mission Time (T _M)		20 a
L ₁₀		70 E+9 at 6000 rpm
Diagnostic Coverage (DC)		0 %
Electrical specifications		
Operating voltage	U _B	10 ... 30 V DC
No-load supply current	I ₀	max. 60 mA
Output		
Output type		push-pull, incremental
Voltage drop	U _d	< 3 V
Load current		max. per channel 40 mA , short-circuit prtected (not with U _b), reverse polarity protected
Output frequency		max. 200 kHz
Rise time		400 ns
Connection		
Connector		type 9416 (M23), 12-pin or M12 connector, 8-pin
Cable		∅7.8 mm, 6 x 2 x 0.14 mm ² , 1 m
Standard conformity		
Degree of protection		DIN EN 60529, IP54

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Technical Data

Climatic testing	DIN EN 60068-2-78 , no moisture condensation
Emitted interference	EN 61000-6-4:2007/A1:2011
Noise immunity	EN 61000-6-2:2005
Shock resistance	DIN EN 60068-2-27, 100 g, 3 ms
Vibration resistance	DIN EN 60068-2-6, 10 g, 10 ... 2000 Hz
Approvals and certificates	
UL approval	cULus Listed, General Purpose, Class 2 Power Source
Ambient conditions	
Operating temperature	-5 ... 80 °C (23 ... 176 °F) , movable cable -20 ... 80 °C (-4 ... 176 °F), fixed cable
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications	
Material	
Housing	powder coated aluminum
Flange	3.1645 aluminum
Shaft	Stainless steel 1.4305 / AISI 303
Mass	approx. 280 g
Rotational speed	max. 12000 min ⁻¹
Moment of inertia	≤ 35 gcm ²
Starting torque	≤ 1 Ncm
Shaft load	
Angle offset	1 °
Axial offset	max. 1 mm

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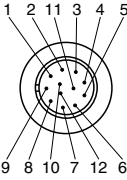
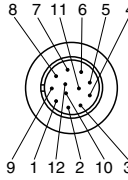
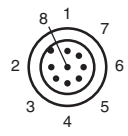
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 **PEPPERL+FUCHS**

Connection

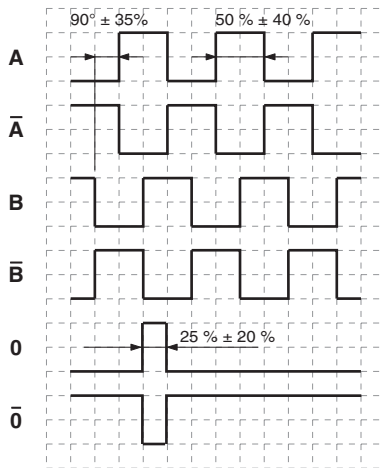
Signal	Cable	Connector 9416	Connector 9416L	Connector M12 x 1
GND	White	10	10	1
U _b	Brown	12	12	2
A	Green	5	5	3
B	Grey	8	8	5
\bar{A}	Yellow	6	6	4
\bar{B}	Pink	1	1	6
0	Blue	3	3	7
$\bar{0}$	Red	4	4	8
U _b Sens ^{*)}	Violet	2	2	-
NC	Grey/Pink	7	7	-
Screen	-	Housing	Housing	Housing
NC	-	9	9	-
GND Sens ^{*)}	Black	11	11	-

*) only for devices with 5 V supply and RS 422 interface (output circuit 6)

Operation

Signal outputs



↻ cw - with view onto the shaft clamping ring

Type Code

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