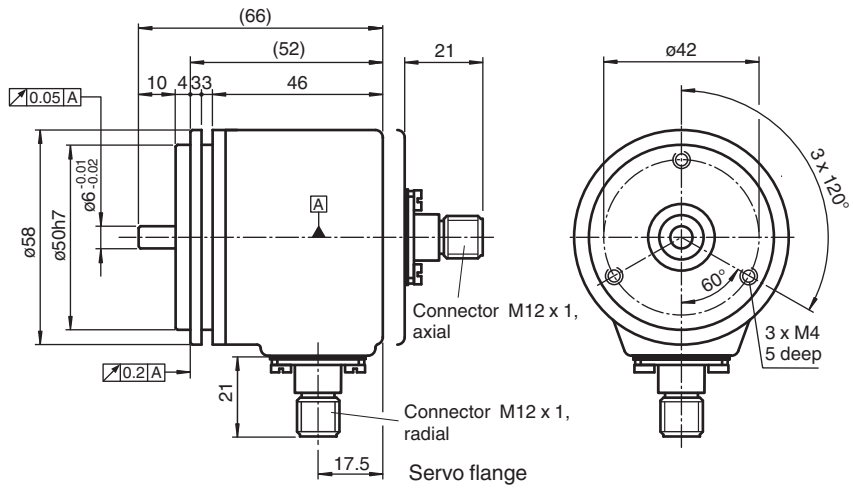
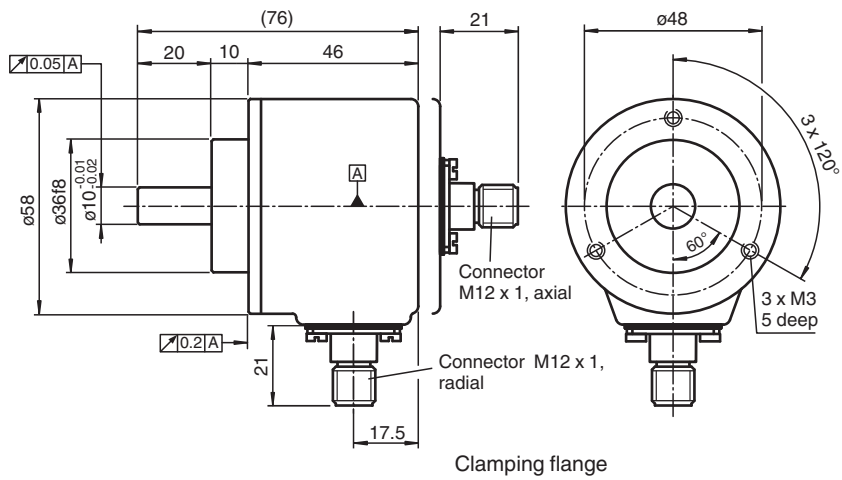
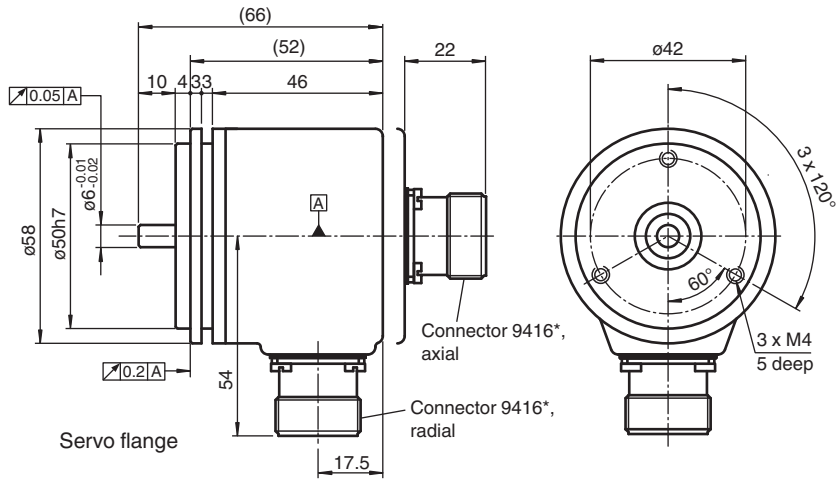


Incremental Encoder for special applications

RVI58N-*****X



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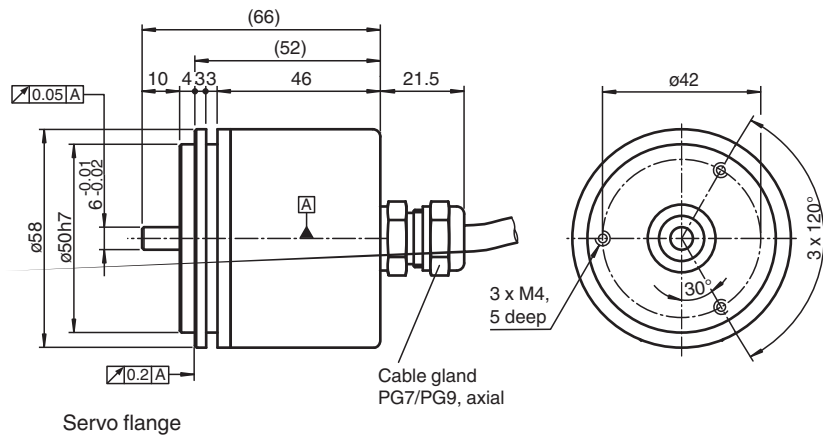
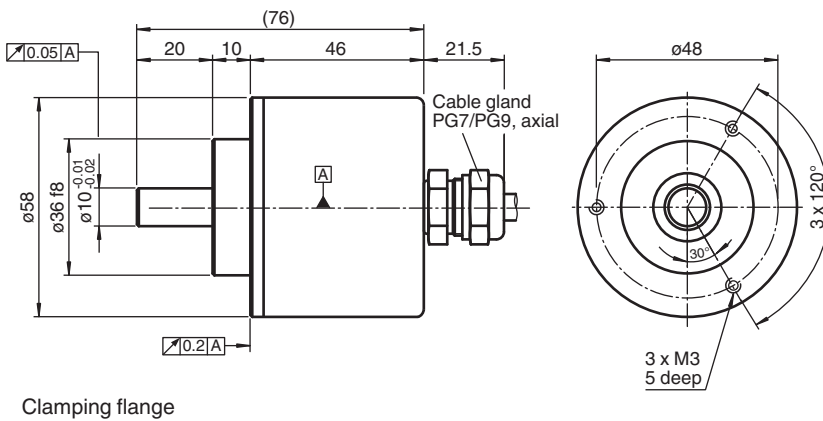
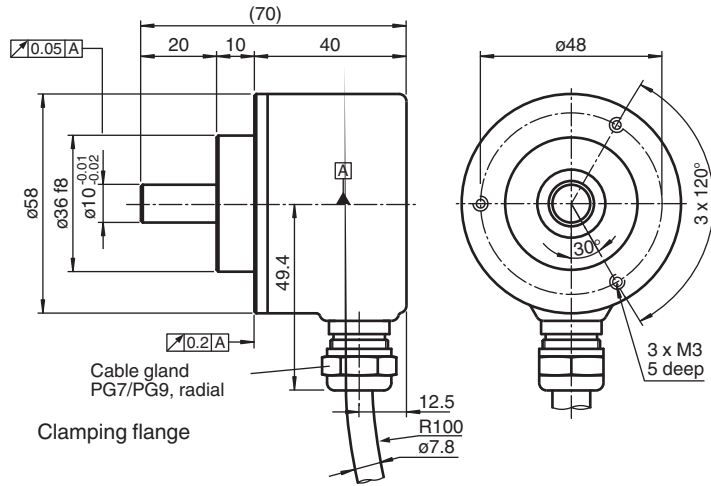
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PF PEPPERL+FUCHS

Incremental Encoder for special applications

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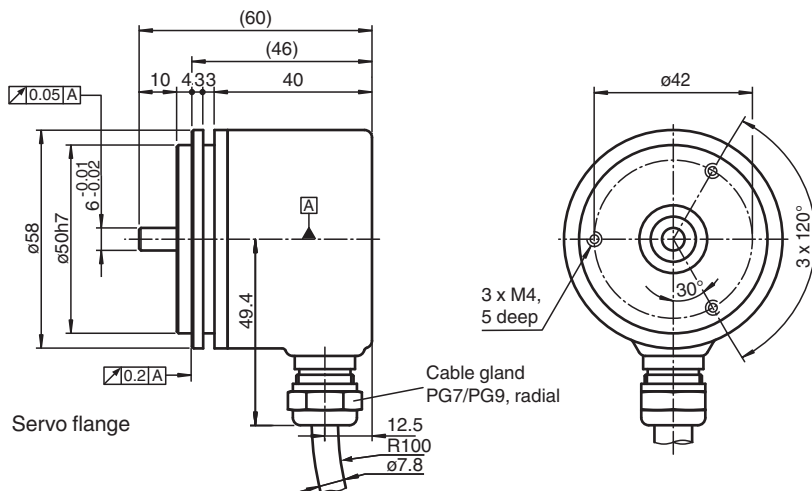
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fa-info@us.pepperl-fuchs.com

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PF PEPPERL+FUCHS



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. 50 mA

Output

Output type	RS 422, incremental
Load current	max. per channel 20 mA , conditionally short-circuit proof (not with U _b), reverse polarity protected
Output frequency	max. 200 kHz
Rise time	100 ns

Connection

Connector	type 9416 (M23), 12-pin, type 9416L (M23), 12-pin or M12 connector, 8-pin
Cable	Ø7.8 mm, 6 x 2 x 0.14 mm ² , 1 m

Standard conformity

Degree of protection	DIN EN 60529, IP65
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
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Ambient conditions

Operating temperature	-5 ... 80 °C (23 ... 176 °F) , movable cable -20 ... 80 °C (-4 ... 176 °F) , fixed cable -40 ... 80 °C (-40 ... 176 °F) with Option T , 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

















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Technical Data

Mass		approx. 350 g
Rotational speed		max. 12000 min ⁻¹
Moment of inertia		≤ 25 gcm ²
Starting torque		≤ 1.5 Ncm
Shaft load		
Axial		40 N at max. 6000 min ⁻¹ 10 N at max. 12000 min ⁻¹
Radial		60 N at max. 6000 min ⁻¹ 20 N at max. 12000 min ⁻¹

Accessories




















	9203	Angled flange
	9416	Female cordset
	9310-3	Synchro clamping element
	9416L	Female cordset
	9300	Mounting bracket for servo flange
	KW-10/10	Helical coupling
	KW-6/10	Helical coupling
	KW-6/6	Helical coupling
	KW-6/8	Helical coupling
	9401 10*10	Spring steel coupling
	9401 10*12	Spring steel coupling
	9401 6*10	Spring steel coupling
	9401 6*6	Spring steel coupling
	9402 6*6	Spring steel coupling
	9404 10*10	Spring disk coupling
	9404 6*6	Spring disk coupling

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Accessories

	9409 10*10	Bellows coupling
	9409 6*10	Bellows coupling
	9409 6*6	Bellows coupling
	9409 6*8	Bellows coupling
	9410 10*10	Precision coupling
	9460 6*6	Stainless steel bellows coupling
	9410 6*6	Precision coupling
	9460 10*10	Stainless steel bellows coupling
	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
	9108, 6	Measuring wheel
	9109, 6	Measuring wheel for shaft diameter 6 mm
	9110, 6	Measuring wheel for shaft diameter 6 mm
	9113, 6	Measuring wheel for shaft diameter 6 mm

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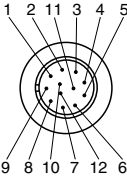
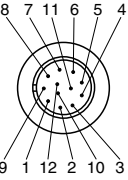
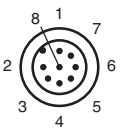
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fa-info@us.pepperl-fuchs.comGermany: +49 621 776 1111
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Connection

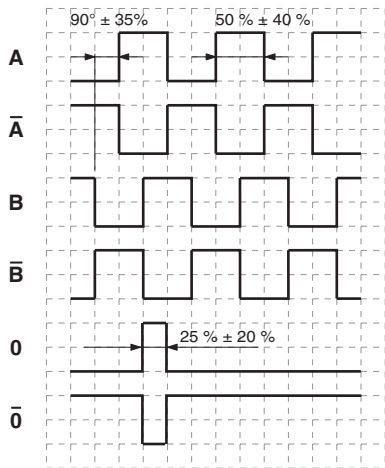
Signal	Cable	Connector 9416	Connector 9416L	Connector M12 x 1
GND	White	10	10	1
U _b	Brown	12	12	2
A	Green	5	5	3
B	Grey	8	8	5
\bar{A}	Yellow	6	6	4
\bar{B}	Pink	1	1	6
0	Blue	3	3	7
$\bar{0}$	Red	4	4	8
U _b Sens ^{*)}	Violet	2	2	-
NC	Grey/Pink	7	7	-
Screen	-	Housing	Housing	Housing
NC	-	9	9	-
GND Sens ^{*)}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

RVI58N-*****X



Pulse count 1024, 2048, 2500, 4096, 5000, 8192, 10000, 20000, 50000

Option

- N** Normal
- T** Extended temperature range, -40 °C

Output switching

- 1** 10 V ... 30 V, push-pull
- 6** 5 V, RS 422
- X** 10 V ... 30 V, RS 422

Signal output

- 6** A + B + 0 and \bar{A} + \bar{B} + $\bar{0}$

Exit position

- A** Axial
- R** Radial

Connection type

- AA** Plug connector type 9416, 12-pin
- AB** Plug connector type 9416L, 12-pin
- BE** Plug connector M12 x 1, 8-pin
- K1** Cable Ø7.8 mm, 6 x 2 x 0.14 mm², 1 m

Shaft dimension/flange version

- 011** Shaft Ø10 mm x 20 mm with clamping flange
- 032** Shaft Ø6 mm x 10 mm with servo flange
- 044** Shaft Ø10 mm x 20 mm (flat 1 mm x 20 mm) with clamping flange

Housing material

- N** Aluminium, powder coated

Shaft version

- V** Solid shaft

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