



Incremental rotary encoder

TVI58N

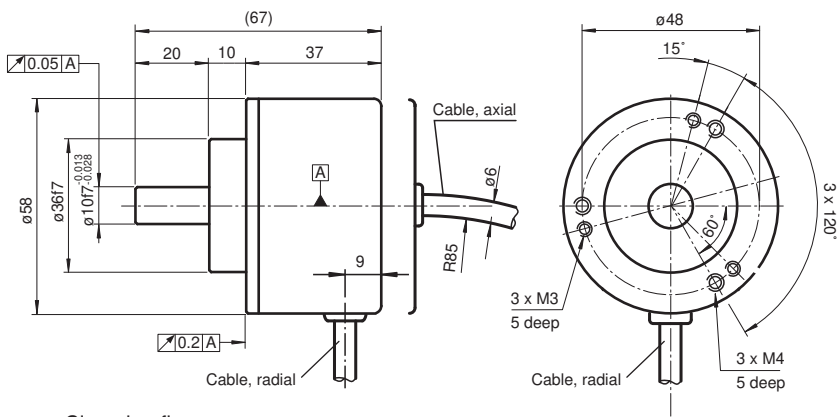
- Sturdy and compact design
- Up to 1500 ppr
- 4.75 V ... 30 V with short-circuit proof push-pull output
- RS 422 functionality at 5 V operation



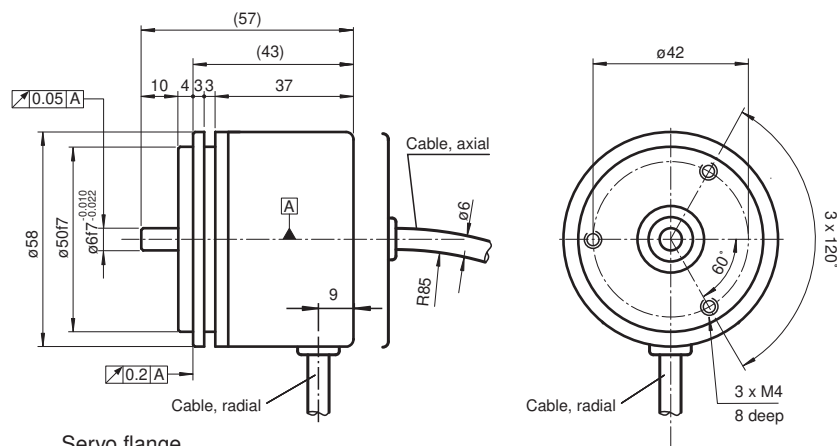
Function

The TVI58 extends the economical target line of Pepperl+Fuchs. With its outside diameter of 58 mm, the device is fully mechanical compatible to the usual industry standard. The technology of the rotary encoder is optimally adapted to the requirements of the rotary encoder market. Innovative fast technology with Opto-ASIC forms the central basis of the device. The rotary encoder is available with a pulse count of up to 1500 pulses per revolution. The rotary encoder provides the ideal combination of non-sensitivity to temperature and high resolution.

Dimensions



Clamping flange



Servo flange

Release date: 2025-01-22 Date of issue: 2025-01-22 Filename: t26260_eng.pdf

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

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Technical Data

General specifications		
Detection type		photoelectric sampling
Pulse count		max. 1500
Electrical specifications		
Operating voltage	U_B	4.75 ... 30 V DC 5 V DC for RS-422
No-load supply current	I_0	max. 55 mA
Output		
Output type		push-pull, incremental or RS-422, incremental
Voltage drop	U_d	≤ 2.5 V (< 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. 100 kHz (max. 100 kHz)
Rise time		980 ns (225 ns)
De-energized delay	t_{off}	980 ns (225 ns)
Connection		
Cable		$\varnothing 6$ mm, 8 x 0.14 mm ² , 0.5 m, UL-Style 2571
Standard conformity		
Degree of protection		DIN EN 60529, IP54
Climatic testing		DIN EN 60068-2-3, no moisture condensation
Emitted interference		EN IEC 61000-6-4:2019
Noise immunity		EN IEC 61000-6-2:2019
Shock resistance		DIN EN 60068-2-27, 100 g, 6 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
Maximum permissible ambient temperature		max. 60 °C (max. 140 °F)
Ambient conditions		
Operating temperature		-10 ... 70 °C (14 ... 158 °F)
Storage temperature		-40 ... 80 °C (-40 ... 176 °F)
Mechanical specifications		
Material		
Housing		aluminum, blank
Flange		3.1645 aluminum
Shaft		Stainless steel 1.4305 / AISI 303
Mass		approx. 220 g
Rotational speed		max. 6000 min ⁻¹
Moment of inertia		≤ 20 gcm ²
Starting torque		≤ 0.5 Ncm
Shaft load		
Axial		20 N
Radial		40 N
Dimensions		
Length		47 mm
Diameter		58 mm

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