



- 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
- Loadable metal disk

Product description

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 is equipped with a metal disk that can accept a high load. It provides the ideal combination of non-sensitivity to temperature and high resolution.

TVI58N



Technical data

General specifications

Pulse count (ppr) max. 1500

Electrical specifications

Operating voltage 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 (RS 422, incremental)

Voltage drop U_d ≤ 2.5 V (< 2.5 V)

Operating current max. per channel 30 mA, short-circuit proof (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 mm², 0.5 m, UL-Style 2571

Standard conformity

Protection degree DIN EN 60529, IP54

Climatic testing DIN EN 60068-2-3, no moisture condensation

Emitted interference DIN EN 61000-6-4

Interference rejection DIN EN 61000-6-2

Shock resistance DIN EN 60068-2-27, 100 g, 6 ms

Vibration resistance DIN EN 60068-2-6, 10 g, 10 ... 2000 Hz

Ambient conditions

Operating temperature
Nickel disk -10 ... 70 °C (263 ... 343 K)

Storage temperature
Nickel disk -40 ... 80 °C (233 ... 353 K)

Mechanical specifications

Material
Housing aluminium, blank
Flange aluminium 3.1645
Shaft stainless steel 1.4305

Mass approx. 220 g

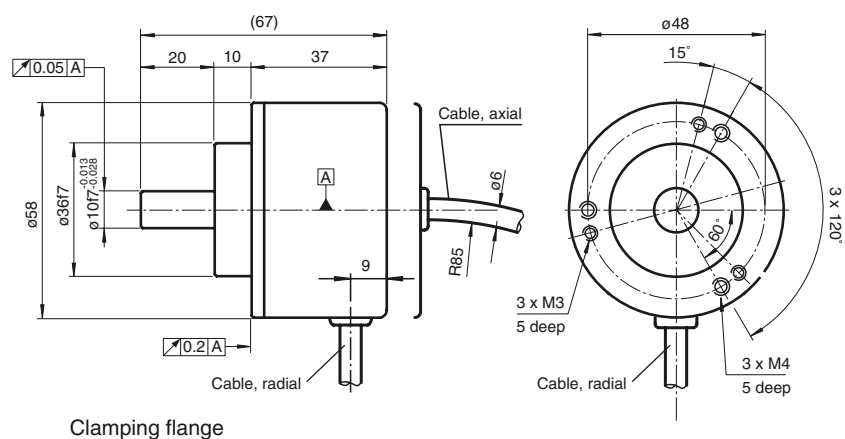
Rotational speed max. 6000 min⁻¹

Moment of inertia ≤ 20 gcm²

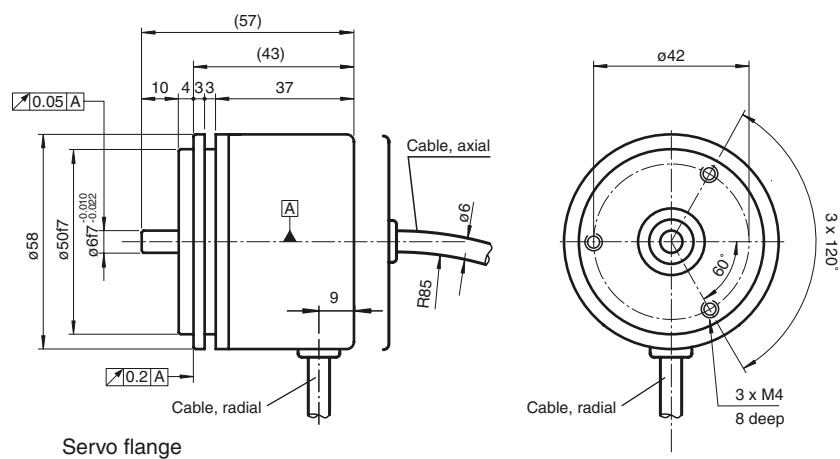
Starting torque ≤ 0.5 Ncm

Shaft load
Axial 20 N
Radial 40 N

Dimensions



Clamping flange

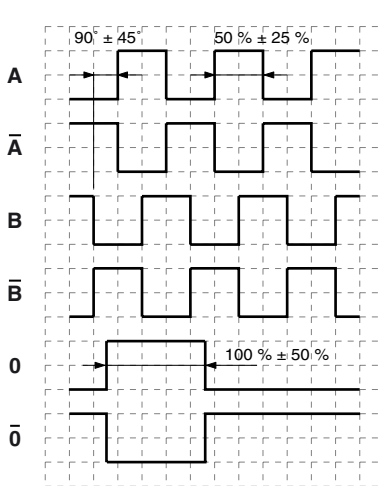


Servo flange

Electrical connection

Signal	Cable Ø6 mm, 8-core
GND	White
+U _b	Brown
A	Green
B	Grey
\bar{A}	Yellow
\bar{B}	Pink
0	Blue
$\bar{0}$	Red
Screen	-

Signal outputs



cw - with view onto the shaft

Accessories

Accessories	Name/defining feature	Order code
Couplings for shaft Ø6 x 10	D1: Ø6 mm, D2: Ø6 mm	9401 6 x 6
	D1: Ø6 mm, D2: Ø6 mm	9402 6 x 6
	D1: Ø6 mm, D2: Ø6 mm	KW 6 x 6
Couplings for shaft Ø10 x 20	D1: Ø10 mm, D2: Ø10 mm	9401 10 x 10
	D1: Ø8 mm, D2: Ø8 mm	KW 10 x 10

For additional information on the accessories, please see the "Accessories" section.

Order code



Pulse count 100, 125, 250, 360, 500, 512, 600, 1000, 1024, 1500

Option
N Normal

Output switching
T 4.75 V ... 30 V, push-pull

Signal output
6 A + B + 0 and \bar{A} + \bar{B} + $\bar{0}$

Exit position
A Axial
R Radial

Connection type
K0 Cable Ø6 mm, 8 x 0.14 mm², 0.5 m, UL style 2571
K2 Cable Ø6 mm, 8 x 0.14 mm², 2 m, UL style 2571

Shaft dimension/Flange version
01N Shaft Ø10 mm x 20 mm, clamping flange, 3 x M3 and 3 x M4
032 Shaft Ø6 mm x 10 mm, servo flange

Housing material/protection degree
N Aluminium, IP54

Shaft version
V Solid shaft

