



Features

- High precision optical miniature encoder
- Singleturn, incremental
- 3 channels: 2 pulse tracks, 1 index pulse
- Low power consumption
- Easy assembly
- Metal housing
- Hollow shaft made of brass
- Two precision miniature ball bearings
- Simple mounting
- Inverse-polarity protection
- Short-circuit proof

Electrical data

Supply voltage (DC)	3 V...6 V
Supply current	typ. 4 mA
Output drive current (at 4,5 V)	typ. 5 mA
Speed (mechanically permissible maximum speed)	12000 rpm
Impulses / revolution (signal edges)	1024 (4096)
Channel Z (Index)	1
Duty cycle for A and B	typ. 50 %
Phase shift between A to B (Φ)	typ. 90 °e
Pulse width index (Z)	typ. 90 °e
Signal rise time	100 ns
Signal fall time	100 ns
(R = 1 kΩ, C = 47 pF)	
Interface	CMOS / TTL

Technical data

Weight	9,8 g
Radial load	in preparation
Axial load	in preparation

Due to the many factors influencing the ambient conditions (operating mode, speeds, vibrations, shocks, operating temperature, shaft loads, type of mounting, etc.), it is not possible to give a general indication of the service life.

Environmental Specifications

Operational temperature	-20 °C to 85 °C
Storage temperature	-20 °C to 85 °C
IP Protection	IP 50

Tests, Regulations

Burst (IEC 61000-4-4)	In preparation
ESD IEC 61000-4-2)	In preparation
Shock resistance (IEC 60068-2-27)	In preparation
Vibration resistance (IEC 60068-2-6)	In preparation

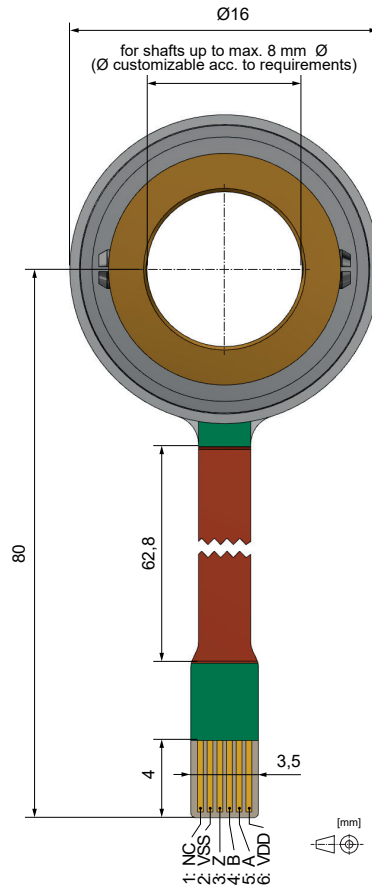
Connection and Installation

Recommended Flexprint-connector	Type ZIF / LIF
	6-pol. / pitch 0,5 mm / thickness 0,3 mm
Mounting / anti-twist protection	M2
Shaft fixing (included in scope of delivery)	M2

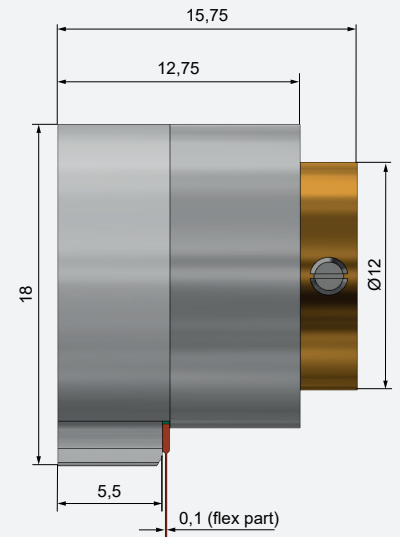
Options

Customer-specific adaptations on request

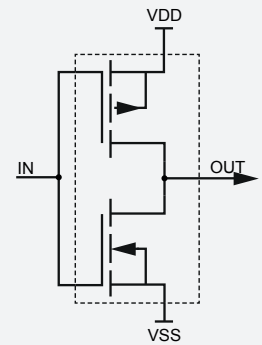
Dimensions



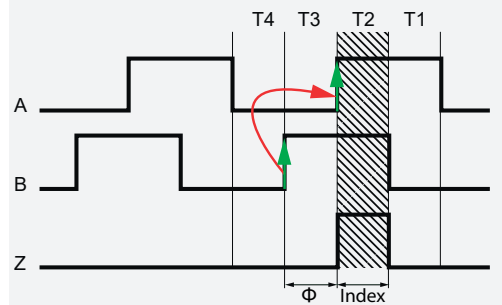
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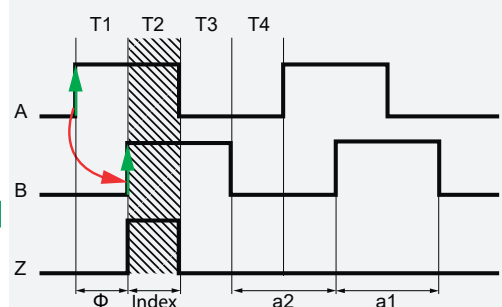
Output Diagram (per Channel A, B and Z)



Signal Diagram CW



Signal Diagram CCW



$$\text{Duty Cycle} = \frac{a1}{a1 + a2} \times 100\%$$

Threaded hole M2 for fastening / anti-twist protection

M2 screws (2x) for shaft fixing

Product Key

