

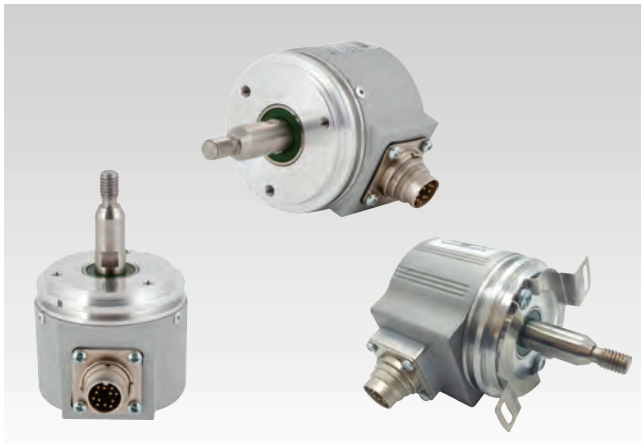
# Incremental encoders

Resolution 1...65,536



## FNC 58S 81 Series

Direct replacement to  
1XP8001-1 and 1XP8001-2



### Features

- Industry 58 mm standard size, servo flange
- Robust mechanical and electrical construction
- Protection up to IP67
- Up to 65.536 ppr max.
- <300 kHz frequency
- Special shaft design

### Technical data-electrical ratings

Voltage supply	4.75VDC to 30VDC 4.75VDC to 5.5VDC
Protection	Output short circuit protection. Reverse polarity protection (except 5V version)
Consumption w/o load	≤60 mA (24 VDC)
Resolution (steps/turn)	1...65,536 ppr
Reference signal	Zero pulse, width 90° 180°, 360° optional
Optoelectronic life time	100.000 (min)
Output frequency	<300 kHz
Output signals	90° shifted A and B, Z+ inverted
Output circuit	Linedriver / RS422 Push-pull short-circuit proof NPN Open Collector
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	CE

### Technical data-mechanical ratings

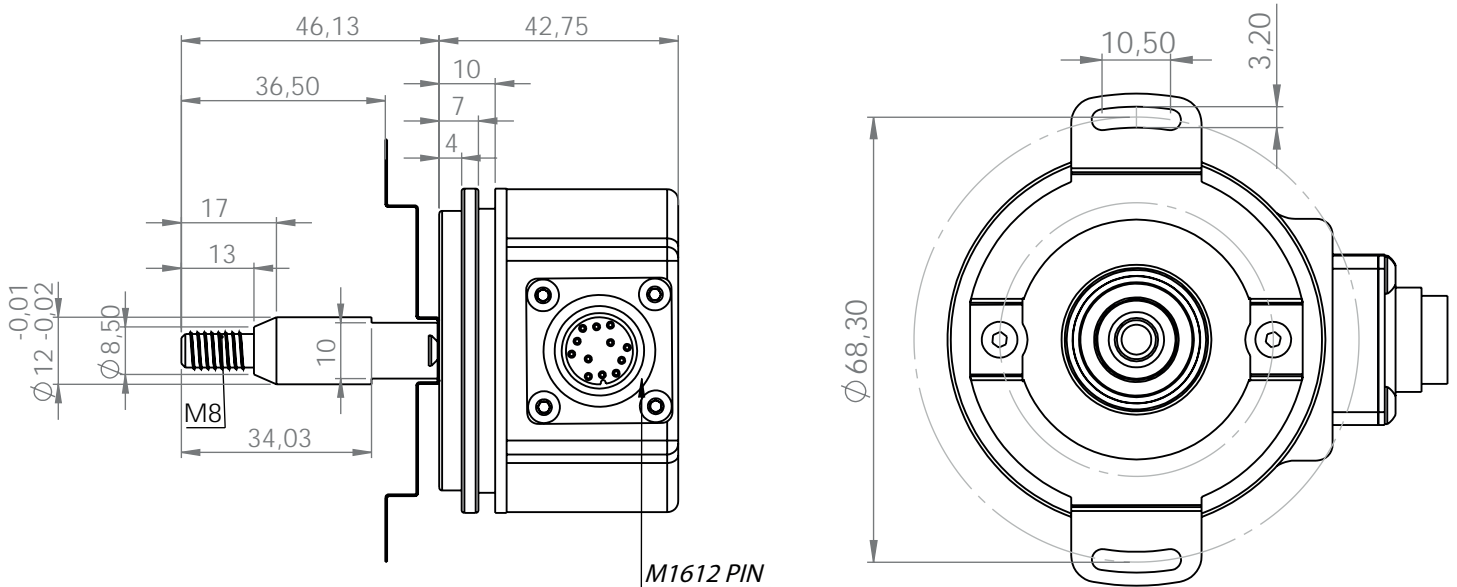
Dimensions (flange)	Ø58 mm
Shaft loading	≤120 N axial ≤200 N radial
Protection DIN EN 60529	IP54, IP65
Operating speed	≤10.000 rpm
Starting torque	≤0.025 Nm (IP67)
Materials	Housing: aluminum Flange: aluminum Shaft: stainless steel
Shaft diameter	6, 8, 10, 12 mm (other diameters on request)
Bearings lifetime	2x10 <sup>9</sup> rev. at 100% of full rated shaft load (minimum)
Operating temperature	-20...+85°C
Storage temperature	-30°C up to +90°C
Weight approx.	200 g

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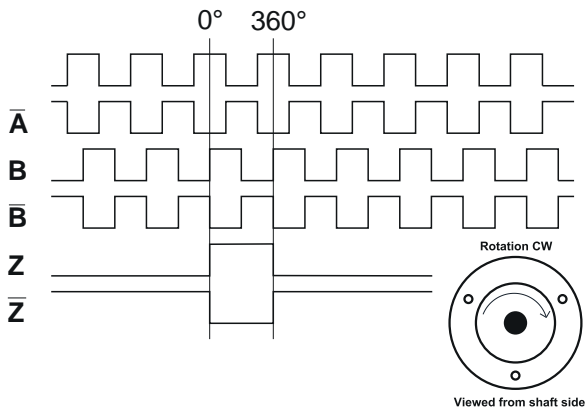
Mechanical Dimensions  
Pulse Diagram, Part Number

## FNC 58S 81 Series

### Mechanical Dimensions



### Pulse Diagram



### Encoder Part Number

FNC 58 S 81 - 1 / Up = 10...30V

FNC 58 S 81 - 2 / Up = 5V ±10%