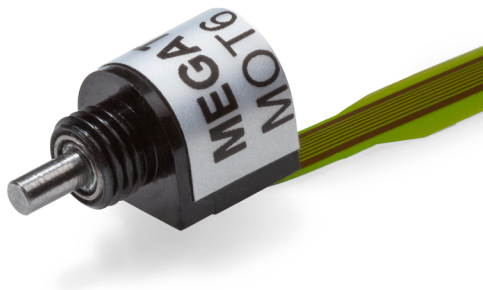


Data Sheet for Angle Sensors

Optical Encoders

Series MOT6



- Very small housing diameter 6 mm (lower side flattened)
- 1024 ppr.
- 2 channels and index
- NPN-voltage output
- Supply voltage 3,2 V
- Ball bearings

The MOT6 opens up a high resolution of 1024 pulses with a very small housing diameter of 6 mm. It is very suitable for miniaturized devices. Typically it is used for robots in medical appliances and medical devices. With the provided PCB-connector it is easy to attach on each application.

Electrical Data

Number of pulses	1024 ppr. (64 pulses x 16 internal interpolate)
Output channels	A, B, Z
Output electronics	NPN
Supply voltage	3 VDC \pm 0,1 V
Current consumption (no load)	\leq 20 mA
Output voltage low @ IOL	VOL \leq 0,3 V (when IOL +1mA)
Output voltage High @ IOH	\geq VSUP -0,3V (when IOH = -1mA)
Limit frequency	100 kHz

Mechanical and Environmental Data

Max. rotational speed	6000 rpm.
Max. axial shaft	0,98 N
Max. radial shaft load	0,98 N
IP-protection	IP40
Operating temperature	0..+60°C
Storage temperature	-20..+80°C
Bearing	ball bearings
Material shaft	stainless steel
Vibration	Durability 55 Hz; double amplitude 1.5 mm; 2 h each in X, Y, Z directions
Shock	Durability 500 m/s ² (about 50G), 3 times each in X, Y, Z directions
Humidity	90% RF no dewing
Mounting parts (included)	PCB with soldered socket for delivered plug connection incl. 8 solder lugs Hexagon nut wrench size 6
Weight	app. 5 g (incl. cable)

Data Sheet for Angle Sensors

Optical Encoders

Series MOT6

Order Code

Description	Options				
Series MOT6	MOT6				
Number of pulses [ppr]:		1024			
Supply Voltage:			3,2V		
2 Channels with Index:				BZ	
Output Electronics:					NPN

Order example MOT6

Requirement:

1024 pulses per revolution [ppr.], supply voltage 3,2V, 2 channels with index, NPN output electronics

Example for order code:

MOT6 1024 3,2V BZ NPN

For higher quantities or on-going demand, additional options are available as described below

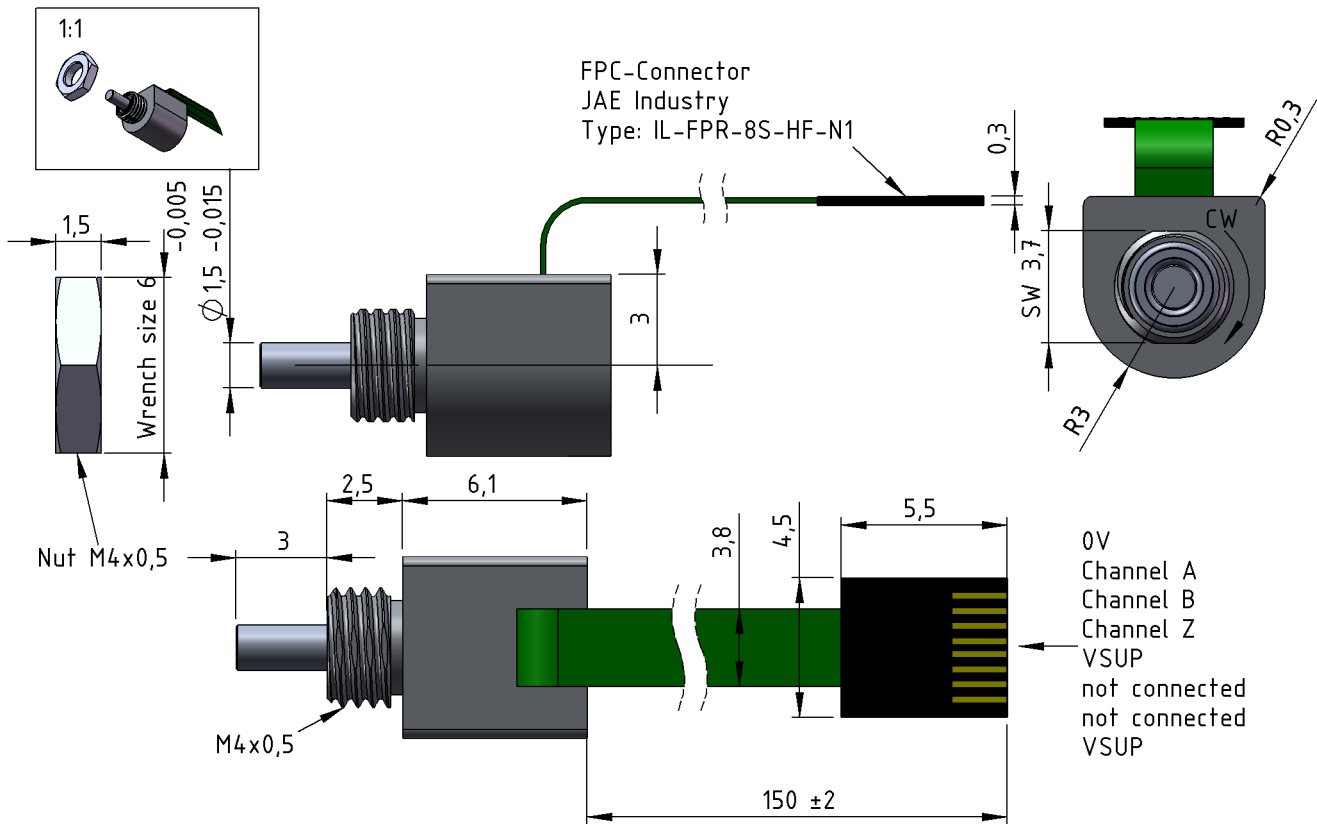
For example:

- Other resolutions
- Special cable length
- Special cable and connection design
- Customer specific housing

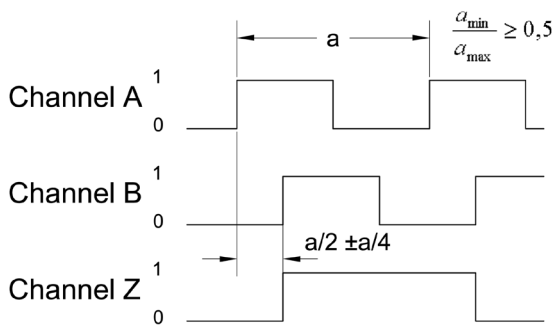
Data Sheet for Angle Sensors

Optical Encoders

Series MOT6

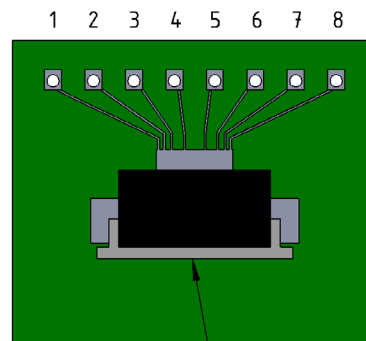


Waveform for clockwise turn (CW) of the shaft



Position of the Z-Puls is synchronized with Channel B

PCB with connector (included in delivery):



1	VSUP (3,2 VDC $\pm 0,1V$)
2	not connected
3	not connected
4	VSUP (3,2 VDC $\pm 0,1V$)
5	Channel Z
6	Channel B
7	Channel A
8	0 V