

**MR 338** Absolute Encoder metal-free



**Features**

- 100% passiver Drehgeber – keine interne Elektronik
- Insensitive to high electromagnetic fields, high voltages
- Resolution 0.025° (14-bit) Single Turn
- Controller can register up to 4096 revolutions
- Distance encoder - controller up to 300 meters

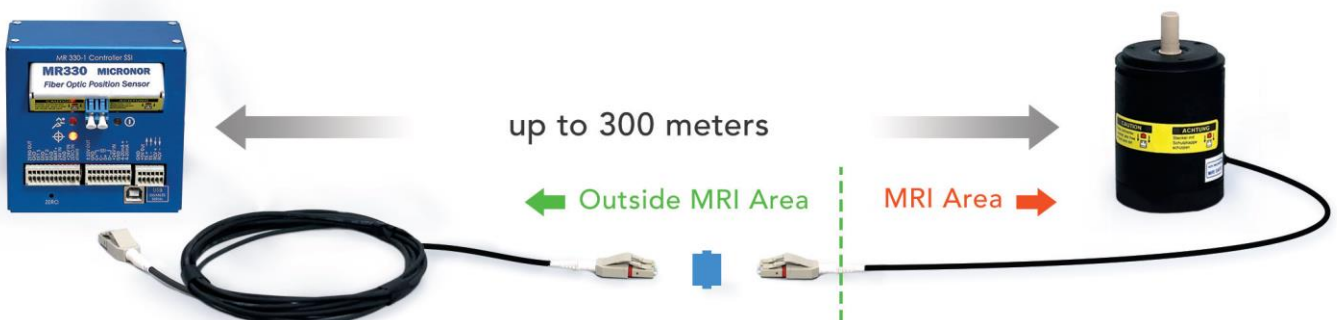
**Product Description**

The MR338 is an electrically passive, design-safe, absolute encoder of the MR330 series with a resolution of 0.025°. It contains no metal components and, together with the MR330 controller, forms Micronor's fiber optic absolute encoder system. Data is transmitted between the encoder and controller via a fiber optic cable that can be up to 300m long. This makes the system ideal for use in hazardous areas, harsh environments or in the presence of strong electromagnetic fields. The controller transmits the optical signals to/from the encoder and converts them into electrical signals. In doing so, it has standard interfaces via which PLC's, motor controllers, motion controllers or counters can be connected to the controller.

**Applications**

- Medicine / MRI
- Transportation
- Oil, gas and mining
- Industrial Robots
- General mechanical engineering

**System Planning**



1. 1. check if optical connections and optical cables are compatible.
2. 2. check that the total loss of optical connections is within the technical specifications of the controller
3. 3. further information and suggestions in Application Note AN118

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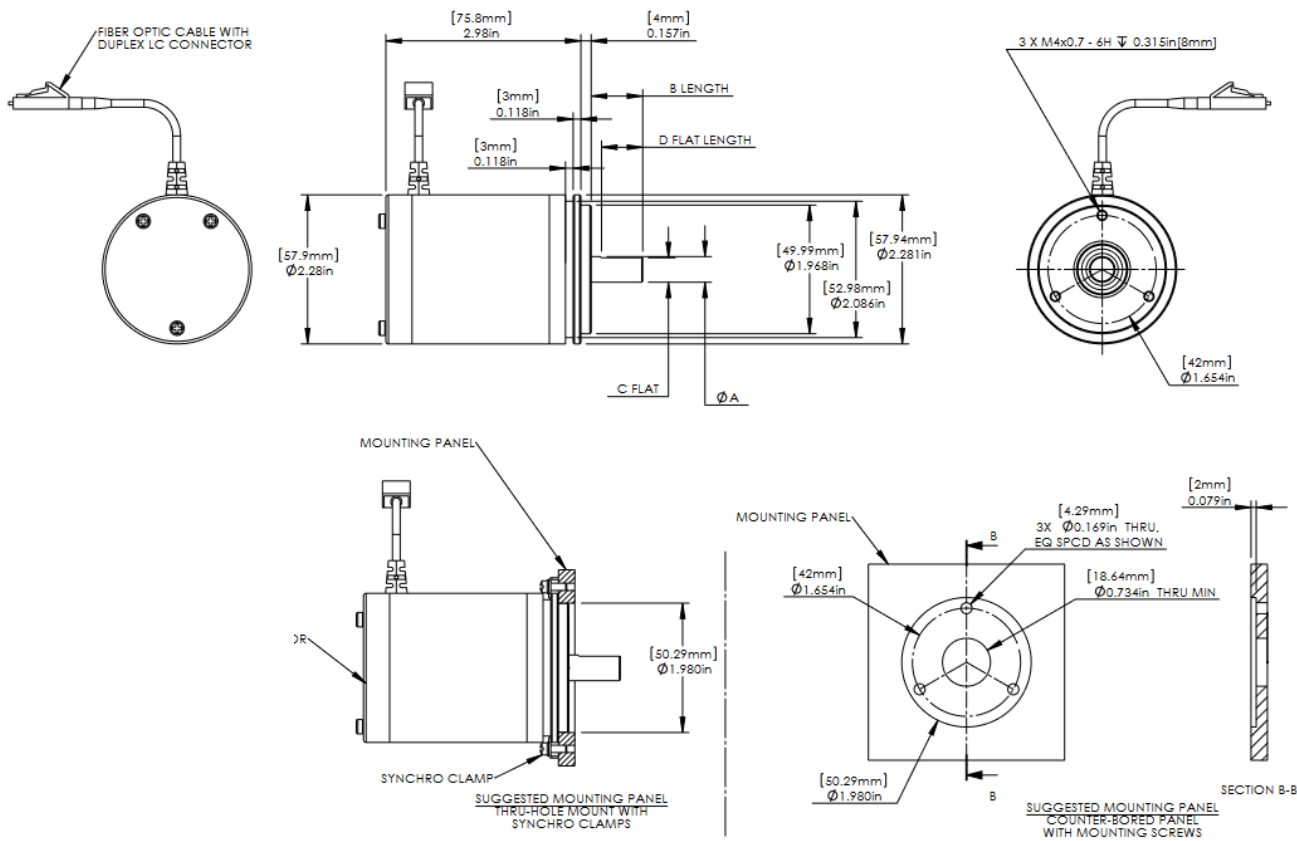
**Specifications**

Measuring Parameter	
Measurement Range	0° to 360° (continuous)
Resolution	13 bits (8192), 14 bits (13950)
Maximale RPM	Max. 2,5000 rpm for position reading; Mechanical limit is 6,500 rpm
Mechanical Performance	
Moment of Inertia	2.17E-06 kg*m <sup>2</sup>
Starting Torque	3.58E-04 N*m with shaft seal
Max Shaft Loads	Axial 30N (6.75 lbf), Radial 60N (13.5 lbf)
System MTBF (ISO-Method)	L10 Bearing life at 100% of axial and radial load and 2500 rpm: 5.68E+05 hr L10 Bearing life at 100% of axial and radial load and 2500 rpm: 1.22E+06 hr
MRI Features	
MRI Zones	Zone I - IV
Optical Interface	
Optical Interface	LC Duplex, 62.5/125µm Graded Index Fiber, 0.275NA, Type OM1
Link Length	Up to 300 meters with MR330 Controller
Environmental Performance	
Temperature/Humidity	-20° C to +65° C, storage temperature: -20° C to +65° C; 0%-95% RH (non-condensing)
Ingress Protection	IP40
Physical Attributes	
Dimension	∅ 58mm x 80mm L
Weight	215g (7.58 oz)
Materials	Non-metallic; exception: plug end

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**Drawing Inch [mm]**



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**Order Code**

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9700.01.502	MR338-N-10-C05	Duplex LC Pigtail with 5m length
9700.01.503	MR332-N-10-C10	Duplex LC Pigtail with 10m length

**Related Products**

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MR332	Encoder Ø 58mm
973XX.XX.XXX	Optical extension cable