

Serie MR 318



Features:

- 100% passive sensing design
- Constructed from non-metallic materials to be compatible with MRI systems
- Insensitive to EMI and RFI for use in and around medical equipment and „noisy“ industrial environments
- Immune to electrical static that „zaps“ conventional encoders
- Outdistances copper, link lengths to 1000m
- Standard model designed to operate in ambient laboratory environment
- Higher resolution and other from factors can be engineered for special applications

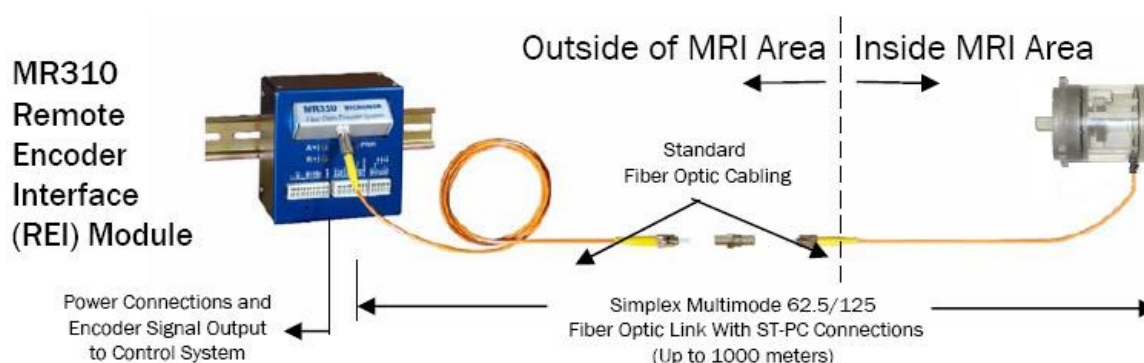
Product

The MR318 series ZapFREE™ Fiber Optic Rotary Encoder is an entirely passive, intrinsically safe, non-metallic fiber optic rotary encoder – designed specifically for use in Magnetic Resonance Imaging (MRI) systems used in hospitals, medical research and industrial applications.

Downstream, the MR310 Remote Encoder Interface (REI) module provides an array of interfaces and features:

- Direct A/B Pull-Up and A/A'/B/B' Line Driver quadrature outputs
- Multiplier/Divider function with separate A/A'/B/B' LD Outputs
- Fully programmable 4-20mA output (Speed or Position)
- Fully programmable $\pm 10V$ analog output (Speed or Position)
- RS422/RS485 serial interface (RS232 adapter available)

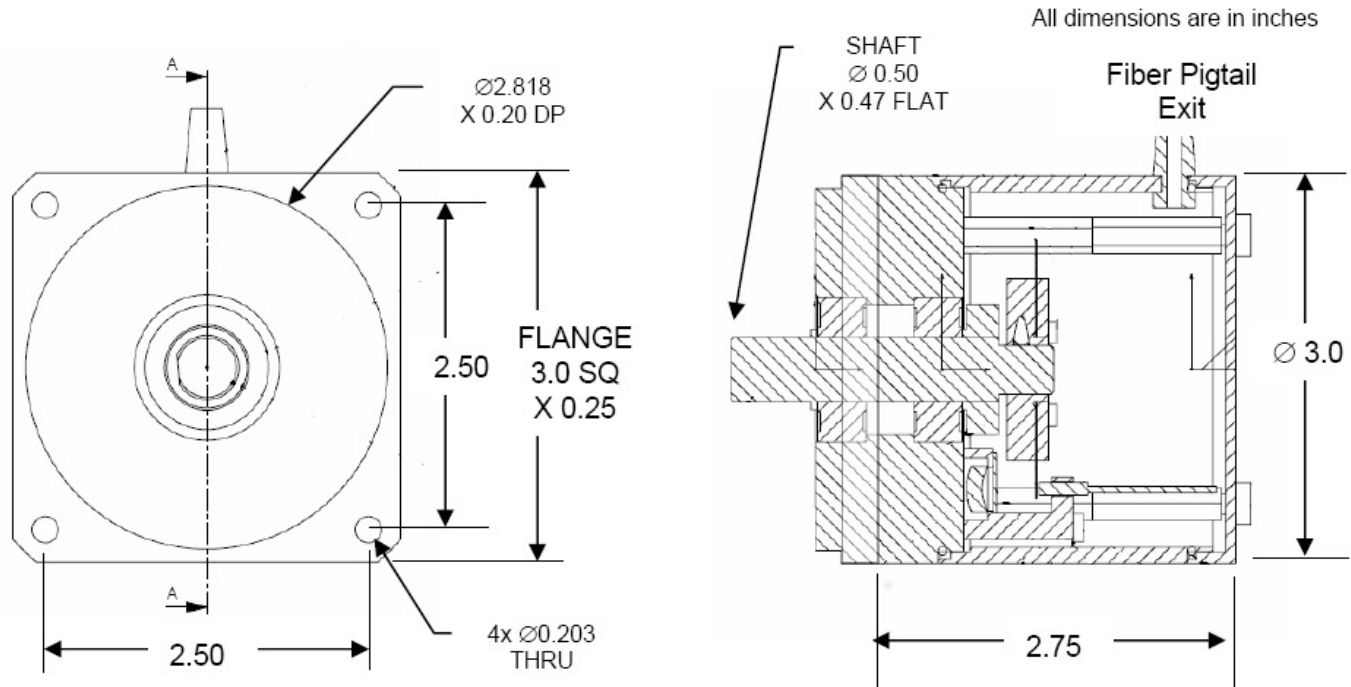
Installation



1. Connect the MR318 to the equipment and route fiber optic pigtail so that metallic ST connector end is outside the MRI area.
2. Connect the ST plug to the optical input of the MR310 interface module.
3. Make MR310 electrical connections (power, ground, quadrature signals, serial interface, etc.) to the control system via WAGO Quick-Connect plugs (supplied with the MR310).
4. The Fiber Optic Encoder System is now ready to operate!

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Outline drawing



Specifications

Resolution	200ppr (other options available upon request)
Optical Interface	ST-PC (for connection to MR310 REI Module)
Fiber Type	MM 62.5/125µm, Graded Index, 0.275NA
Fiber length (between MR310 and MR318)	Up to 1000m (3280ft)
Temperature / Humidity Range	Ambient laboratory environment
Weight (with 5m)	280g (9.75oz)
Materials	All materials are non-metallic except ST connector on end of fiber optical pigtail
ATEX Classification (sensor only)	Simple Apparatus, Intrinsically/Inherently Safe Optical Radiation

Order key

MR318