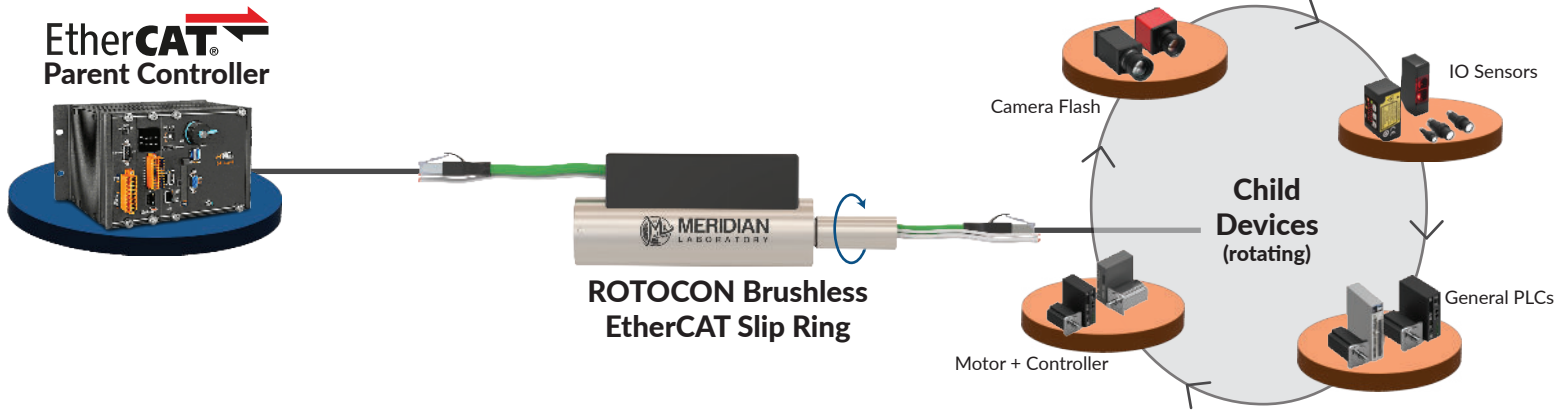


# ROTOCON Brushless Slip Rings deliver flawless EtherCAT transmission

Meridian Laboratory's EtherCAT Slip Rings are engineered to deliver flawless EtherCAT transmission for industrial and automation applications where precision and reliability are critical. ROTOCON brushless slip rings are uniquely designed to support the high-speed, real-time performance of EtherCAT (Ethernet for Control Automation Technology) while simultaneously handling power I/O—all within the same assembly, without interference.



## Certified Reliability: Zero Bit Errors, Zero Packet Loss

Meridian Laboratory's EtherCAT Slip Rings have been rigorously tested to ensure zero bit errors and zero packet loss, whether stationary or in rotation. This makes them ideal for challenging industrial environments, including rotating machinery, robotics, and automated manufacturing systems. With ROTOCON EtherCAT slip rings, you get continuous, uninterrupted data transmission—guaranteeing real-time communication without delay or failure. See page two for results.

## Maintenance-Free Design for Maximum Reliability & Performance



Unlike traditional slip rings, ROTOCON brushless slip rings require zero maintenance, eliminating the need for regular upkeep, reducing downtime, and cutting operational costs. Their rugged, long-lasting design ensures maximum performance and longevity, making them the ideal choice for industries where uptime, precision, and reliability are essential.



## Seamless Compatibility with Multiple Industrial Protocols

Beyond EtherCAT, ROTOCON brushless slip rings are capable of transmitting a wide range of industrial communication protocols, including:

- EtherLink
- PROFIBUS
- CC-Link IE
- MECHATROLINK-III
- PROFINET
- Modbus TCP/IP
- SERCOS III
- ControlNet
- EtherNet/IP
- Powerlink
- SynqNet
- RS485, RS432, RS422

Any Ethernet-based or similar communication protocol!

## General Requirements and Test Results\*



EtherCAT Specifications	EtherCAT Values
Low Latency for 100 BASE-TX @ full bandwidth (100Mbps)	0.75 us - 1.5 us (round trip)
Low Bit Error Rate (BER)	<= 1 out of 10 <sup>8</sup> bits

### Ethernet Testing Values Summary Table:

Test	Results	EtherCAT Requirements	Test Result
Latency	0 RPM: 1.36 us 70 RPM: 1.36 us 500 RPM: 1.36 us	0.75 us - 1.5 us	Pass
Bit Error Rate (BER)	0 RPM: 0 bits 70 RPM: 0 bits 500 RPM: 0 bits	1 out of 10 <sup>8</sup> bits	Pass

### Packet Expert Test Documents Table:

Test	Speed	Test Result	Test Documents
Propagation Delay	0 RPM	Pass	Please contact Meridian Laboratory for data
Propagation Delay	70 RPM	Pass	Please contact Meridian Laboratory for data
Propagation Delay	500 RPM	Pass	Please contact Meridian Laboratory for data
BER	0 RPM	Pass	Please contact Meridian Laboratory for data
BER	70 RPM	Pass	Please contact Meridian Laboratory for data
BER	500 RPM	Pass	Please contact Meridian Laboratory for data

\* All Ethernet Testing including variation of packet size from 64 - 1432 byte