



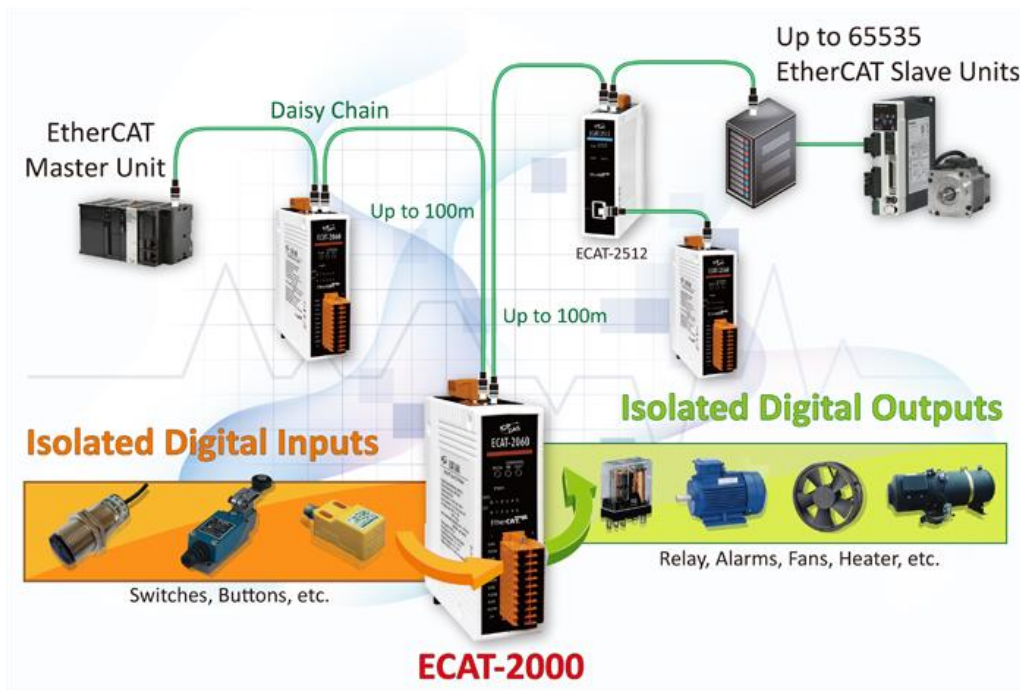
Making Data Acquisition Easy

CAGE/NCAGE Code: 3FNFO

## EtherCAT IO Expansion

EtherCAT( Ethernet for Control Automation Technology) is an open, high-performance but low-cost Industrial Ethernet-based fieldbus system. It was introduced in 2003 and has been an international standard since 2007. The goal of EtherCAT was to apply Ethernet to automation applications which require short data update times with low communication jitter and low hardware costs.

EtherCAT is the fastest industrial ethernet technology, but it also synchronizes within nanosecond accuracy. The EtherCAT Master is the only node allowed to actively send an EtherCAT frame; all other slave nodes merely forward the data "on the fly" or fill data in the frame as the frame is moving. This concept guarantees real-time capabilities and the frame is delayed only by hardware propagation delay times. The rapid reaction times work to reduce the wait times during the transitions between process steps, so EtherCAT's excellent performance leads to improved accuracy, greater throughput, and thus lower costs.

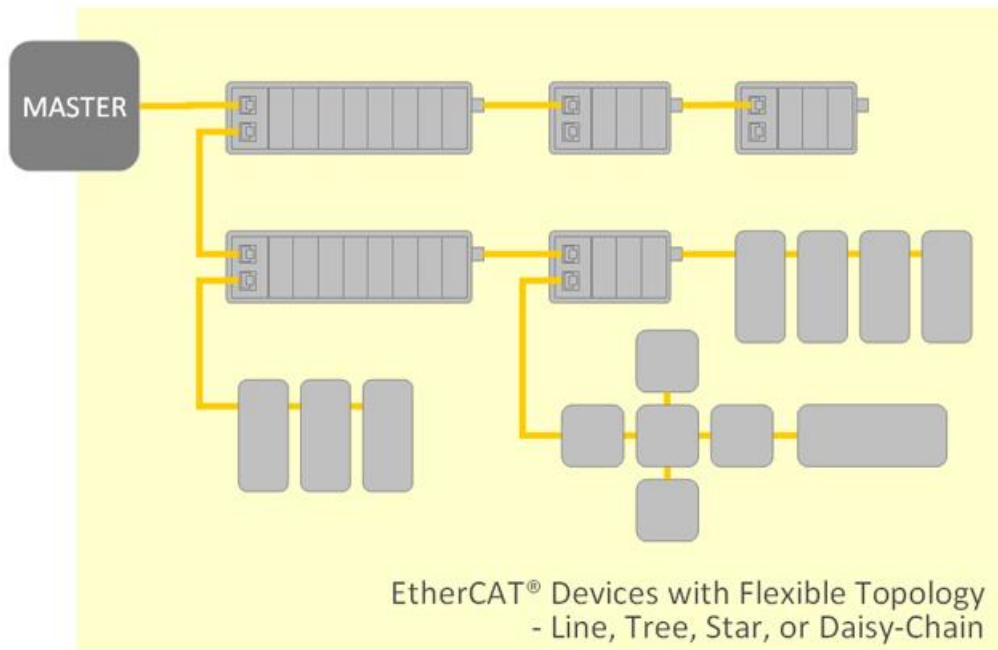




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EtherCAT supports almost all of topologies, and the combination of lines with branches is particularly beneficial. The connected ports can not only create branches but also directly integrate in various I/O modules, so no additional switches or active infrastructure components are required. Up to 65,535 devices can be connected to EtherCAT, so network expansion is virtually unlimited. EtherCAT offers a lot of flexibility regarding cable types, so inexpensive industrial Ethernet cable can be used between two nodes up to 100m apart in 100BASE-TX mode.



ICP DAS offers a wide variety of Analog and Digital EtherCAT slave I/O modules. All have dual Ethernet ports to support flexible installations. Slave I/O modules also help to reduce wiring costs. Instead of having to wire each I/O device back to the master, each slave device can be situated at a convenient location near or central to several devices.



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Model	Description
ECAT-2045	Isolated 16-ch Digital Outputs (Sink)
ECAT-2045-32	Isolated 32-ch Digital Outputs (Sink)
ECAT-2050	Isolated 4-ch Digital Outputs (Sink/Source) and Isolated 13-ch Digital Inputs
ECAT-2051	Isolated 16-ch Digital Inputs (Wet/Dry)
ECAT-2051-32	Isolated 32-ch Digital Inputs (Wet/Dry)
ECAT-2052	Isolated 8-ch Digital Outputs (Source) and Isolated 8-ch Digital Inputs (Wet)
ECAT-2052-NPN	Isolated 8-ch Digital Outputs (Sink) and Isolated 8-ch Digital Inputs (Wet)
ECAT-2053	Isolated 16-ch Digital Inputs (Wet)
ECAT-2055	Isolated 8-ch Digital Outputs (Sink) and Isolated 8-ch Digital Inputs (Wet/Dry)
ECAT-2055-32	Isolated 16-ch Digital Outputs (Sink) and Isolated 16-ch Digital Inputs (Wet/Dry)
ECAT-2057	Isolated 16-ch Digital Outputs (Source)
ECAT-2057-NPN	Isolated 16-ch Digital Outputs (Sink)
ECAT-2057-8P8N	Isolated 8-ch Source Digital Outputs and 8-ch Sink Digital Outputs
ECAT-2060	Isolated 6-ch Relay Outputs and Isolated 6-ch Digital Inputs (Wet/Dry)
ECAT-2061	Isolated 16-ch Relay Outputs

If you have any questions, please feel free to contact us to discuss any applications you may have.