# FLEX-6-NANO

## Integrated EtherCAT Controller


### FEATURES

- ✶ Dual core 1GHZ Arm Processor
- ✶ 2 - 64 Axes
- ✶ 1GB DDR3 Memory
- ✶ 1GB Fast Serial Flash Memory to Store Data Such as Programs, VRs and Tables
- ✶ Built in Long Time Retention RTC
- ✶ Built in Ethercat Coupler for direct access to Trio's Flexslice slaves
- ✶ Cycle time as Low as 125us
- ✶ Completely Field programmable with *Motion* Perfect
- ✶ High Performance, Flexible Topology and Simple Configuration
- ✶ Bus Cycle Time Synchronised with *Motion Coordinator* Servo Period
- ✶ Ethercat Protocol Remains Fully Intact Down to Individual Modules Using the E-Bus System
- ✶ I/O Functions Tightly Synchronised to Motion Using Ethercat Distributed Clocks
- ✶ Multiple Practical Push-In Connector Options – No Break Outs Required
- ✶ Clip-Together Design With 'Quick Release' Locks For Mechanical Integrity

EtherCAT®

The Flex-6-Nano is a compact, integrated EtherCAT solution offering up to 64 Axes of motion. The on-board memory can be boosted to 32Gb with the addition a micro SD card.

The Flex-6-Nano "plugs" straight into our Flexslice System removing the need for the EtherCAT coupler (P366).

Trio's Flexslice input/output system modules provide a robust, high speed and flexible solution for both motion control and general automation. EtherCAT cycle times down to 125$\mu$secs are supported and the bus coupler uses EBUS technology to bring all the sub-modules on to the EtherCAT network with no degradation in performance.

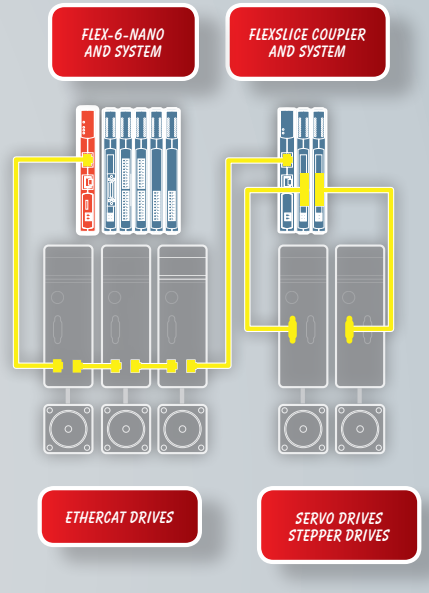
The Flexslice system makes available a selection of digital and analogue I/O terminals as well as motion modules with pulse + direction outputs designed for precise positioning of stepper and servo motors via suitable drive technology.

The digital I/O modules have high-speed functionality. In addition, analogue modules and axis modules may be fitted to make a superbly tailored system that can be placed remotely from the master if needed.

All Flexslice modules support automatic addressing with the master to automatically detect and configure the modules on startup. The bus coupler can support up to 16 input/output modules which have a positive mechanical lock and bus connector, making a reliable EBUS connection through the backplane. The complete assembly can be DIN rail mounted.



Note: Preliminary information only



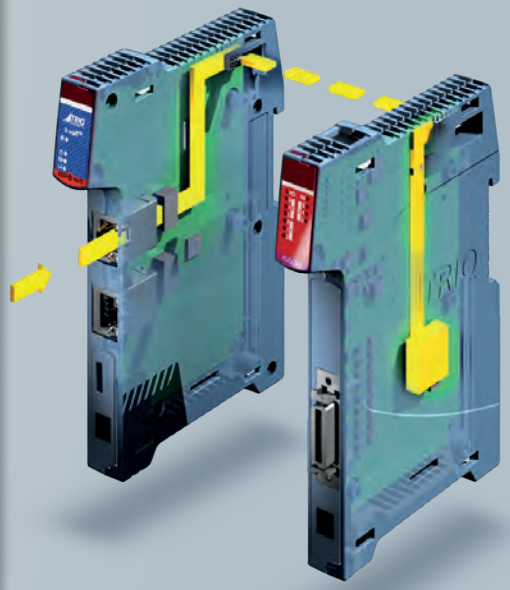

## SPECIFICATION

| | |
|---|---|
| Power supply requirement | 24V DC, 0.8A min for full system |
| EtherCAT Connection | RJ45 |
| Protocol | EtherCAT |
| Data rate | 100 Mbit/s |
| Dimensions (mm) | 17.2w x 147h x 107d |
| Weight | 160g |
| Network Cable | CAT5e min |
| Compliance | RoHS, CE and UL |



To help with identification, each Flexslice module incorporates a handy removable tab that can be written on. It simply slides in and out of a slot at the top of each module.

The robust metal chassis provides a good earth from the pcb of each module to the DIN rail to reduce noise and dissipate heat.



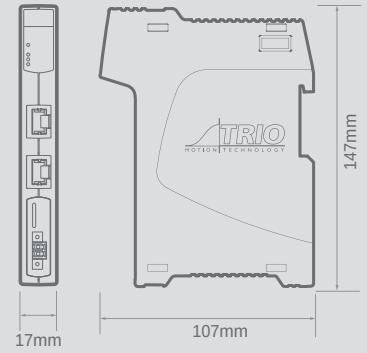
The field programmable FPGA allows customisation of the functionality of some Flexslice Modules using *Motion* Perfect v4. The program can be "locked-down" creating a unique function for a machine builder which protects the functionality from being copied.

The Flex-6-Nano plugs straight into the Flexslice System via the EBUS connector.

## PRODUCT CODES:

| | | |
|---|---|---|
| P600 | Flex-6-Nano | 2 Axes |
| P601 | Flex-6-Nano | 4 Axes |
| P602 | Flex-6-Nano | 8 Axes |
| P603 | Flex-6-Nano | 16 Axes |
| P604 | Flex-6-Nano | 32 Axes |
| P605 | Flex-6-Nano | 64 Axes |

## OVERALL DIMENSIONS



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