

SPiiPlusNTM

EtherCAT Motion and Machine Master Controller



- Up to 32 fully synchronized axes
- Open Architecture - ACS' and third party EtherCAT devices, drives and I/O
- A rich set of tools for application development, set up, tuning and diagnostics
- Powerful ACSPL+ multitasking motion programming language
- Supports all capabilities and features of the field proven SPiiPlus line of high performance controllers

The Most Powerful EtherCAT Network Based Controller

ACS' SPiiPlusNTM is a state of the art EtherCAT network-based, multi-axis machine and motion line of controllers. It is specifically designed to extend the capabilities of the SPiiPlus line of controllers, to address the needs of modern machinery for an economical high performance multi-axis, scalable and distributed control of motion centric applications. The SPiiPlusNTM open architecture operates in conjunction with ACS' line of EtherCAT servo and step motor drives and I/Os modules, as well as with any certified third party EtherCAT module that complies with Can over EtherCAT (CoE) protocol, providing a comprehensive and cost effective control solution for demanding motion centric machinery. The SPiiPlusNTM generates the motion profile for all axes. The drives executes the real time control of the axes. The whole network scanning rate is 1kHz. All ACS made drives are executing the control algorithms at a 20kHz rate using a distributed clock with accuracy better than 0.1 microsecond.

The SPiiPlusNTM is fully supported by the SPiiPlus suite of software tools that are designed to minimize time to market while providing the flexibility to meet the specific machine requirements throughout its complete life cycle. It provides extraordinarily easy setup, fast host and embedded application development, and quick diagnostics. Set up of third party drives are done using by the third party tuning tools. Once connected to the EtherCAT network, real time variables, such as position, position error, velocity and others can be viewed, monitored and recorded with ACS' tools. All tools include a built-in simulator, powerful remote access and diagnostics, and fast error recovery, thus reducing training effort and costs.

CE

Number of axes

Up to 32

MPU Cycle Rate

1kHz

Supported EtherCAT Slaved Modules

All ACS EtherCAT network modules

Refer to ACS web site for an updated list of modules.

Third party Modules

ACS qualifies drives and I/O modules made by other vendors.

Refer to ACS web site for an updated list of third party supported modules.

Communication Channels

Serial: two RS-232. Up to 115,200bps.

Ethernet: one, TCP/IP, 10/100 Mbits/sec.

Simultaneous communication through all channels is fully supported. Modbus protocol as master or slave is supported via all channels.

EtherCAT: One, 100 Mbit/sec, supporting CoE and FoE protocols.

MPU

User Memory: RAM: 128Mb.

Flash: 128Mb.

Powerup Time: 25sec.

Power supply

24Vdc \pm 10%, 1A

Standards & Environment

Operating Temperature: 0°C to 55°C.

Storage Temperature: - 40°C to 70°C.

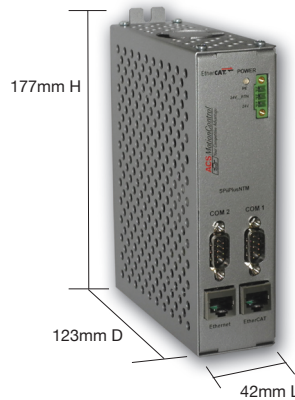
Humidity: 90%RH, non-condensing.

The controllers are CE (EMC) certified and RoHS compliant.

Dimensions

177mm H x 123mm D x 42mm L

Panel or DIN rail mounted



Ordering options

• SPIiPlusNTM Network Controller

Example: SPIi+NTM-32-00-01-00-NNN

Maximum number of axes

- [4] – four axes
- [8] – eight axes
- [16] – sixteen axes
- [32] – thirty two axes

Number of axes with EtherCAT 3rd party Servo drives

[00], [01], ..., [32]

Number of axes with EtherCAT 3rd party Step motor drives

[00], [01], ..., [32]

Number EtherCAT 3rd party I/O nodes

[00], [01], ..., [99]

Option: PLC programming (IEC-61131-3)

- [Y] – option enabled
- [N] – option disabled

Option: ServoBoost

- [Y] – option enabled
- [N] – option disabled

Option: Input Shaping

- [Y] – option enabled
- [N] – option disabled