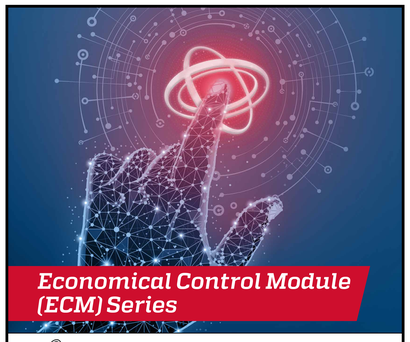
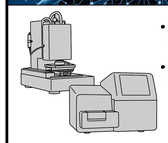
ACS MOTION CONTROL

Smarter Motion

35+ Years of Smarter Motion

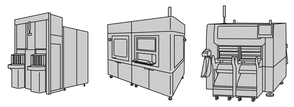


Economical Control Module (ECM) Series



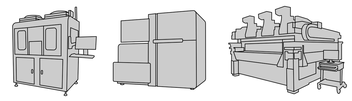
- All-in-one motion controllers with integrated drives
- For cost- and space-sensitive OEM machines up to 4 axes

SPiiPlus Platform



- Flagship EtherCAT-based motion control ecosystem
- For high-tech OEM machines with demanding throughput and accuracy requirements
- Up to 128 axes, 10 kHz max control network rate
- Unique algorithms to enhance performance and machine uptime

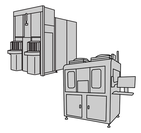
ServoBoost™ **ServoBoost Plus™** **LearningBoost™** **MotionBoost™**



Intelligent Drive Module (IDM) Series

- DS402 EtherCAT drives for high-precision motion stages
- For OEM machines with demanding motion requirements

EtherCAT Conformance tested



Common Software Tools

SPiiPlus ADK Suite

MMI Application Studio
Motion control sytem configuration, application development, and performance optimization

Controller Simulator
Develop host and controller application code rapidly without hardware

Host Application Libraries
APIs for developing high-tech OEM machine UIs

Smarter Motion Tools (SMT)
Define, measure, and verify motion system performance specifications

Advanced Analysis Libraries
APIs for developing advanced data/performance analysis UIs and preventive maintenance features

Host PC/PLC

Ethernet TCP/IP & UDP EtherNet/IP Modbus

MOTION CONTROLLERS WITH DRIVES

- **ECMSA** 12-150 Vdc 15/30 A* — 1 axis
- **ECMSM** 12-48 Vdc 5/10 A — 4 axis
- **ECMMA** 24-150 Vdc 15/30 A* — 4 axis
- **ECMDX** 100-240, 360-440 Vac 15/30 A — 2 axis

PLC

Host PC/PLC

Ethernet TCP/IP & UDP EtherNet/IP Modbus

MOTION CONTROLLERS

- **SPiiPlusSCLT/HP** High-Performance PC-Based Soft EtherCAT Motion Controller
- **SPiiPlusES** High-Performance EtherCAT Motion Controller and Slave Node — EtherCAT
- **EC-PX** High-Performance EtherCAT Motion Controller — PX NEXT GEN

MOTION CONTROLLERS WITH INTEGRATED DRIVES (CONTROL MODULES)

- **CMNT** 85-265 Vac 7.5/15 A — 2 axis
- **CMXA** 85-265 Vac 15/30 A — 3 axis
- **CMHV** 185-250, 400-525 Vac 15/30 A (480Vac) 20/60 A (230Vac) — 2 axis
- **MP4U** 100-240 Vac 13.3/40 A — NanoPWM™ — 8 axis
- **MC4U** 8 built-in drives 85-265 Vac 45/90 A* — NanoPWM™ — 8 axis

DRIVES

- **MDMST** 12-48 Vdc 5/10 A — NEW — 1 axis
- **UDMLC** 12-48 Vdc 2.5/5 A (4 axis) 5/10 A (2 axis) — 4 axis
- **UDMSD** 12-48 Vdc 2.5/5 A — 4 axis
- **UDMSM** 12-48 Vdc 5/10 A — NEXT GEN — 4 axis
- **UDMNT** 12-80 Vdc 10/20 A — 2 axis
- **UDMSA** 12-150 Vdc 15/30 A* — NEXT GEN — 1 axis
- **UDMMA** 24-150 Vdc 15/30 A* — NEXT GEN — 4 axis
- **UDMCB, NPMPC** 12-100 Vdc 13.3/40 A — NanoPWM™ — 2 axis

DRIVE INTERFACES

- **PDICL** Pulse/Direction command interface — 4 axis
- **UDILT/HP** +/-10 V command interface — 4 axis

I/O & LASER CONTROL

- **UDMPA, NPMPM** 12-100 Vdc 13.3/40 A — NanoPWM™ — 2 axis
- **UDMPM** 85-265 Vac 7.5/15 A — 2 axis
- **UDMDX** 100-240, 360-440 Vac 15/30 A — NEXT GEN — 2 axis
- **UDMXA** 85-265 Vac 15/30 A — 3 axis
- **UDMHV** 185-250, 400-525 Vac 15/30 A (480Vac), 20/60 A (230Vac) — 2 axis
- **MP4UDC** 100-240 Vac 13.3/40 A — NanoPWM™ — 8 axis
- **MC4UDC** 85-265 Vac 45/90 A* — NanoPWM™ — 8 axis
- **IOMNT** 32/32 digital (source type)
- **IOMPS-ED** 32/32 digital (sink type)
- **IOMPS-EA** 4/0, 0/4 analog (+/- 10V)
- **LCI** High-speed digital and analog I/O for laser and measurement device control

Host PC/PLC

Non-ACS Controller

EtherCAT

DRIVES

- **IDMSA** 12-150 Vdc 15/30 A* — 1 axis
- **IDMSM** 12-48 Vdc 5/10 A — 4 axis
- **IDMMA** 24-150 Vdc 15/30 A* — 4 axis
- **IDMDX** 100-240, 360-440 Vac 15/30 A — 2 axis

EtherCAT Conformance tested

ACS Product Map v1.0

* Max current not available for all configurations / axes

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