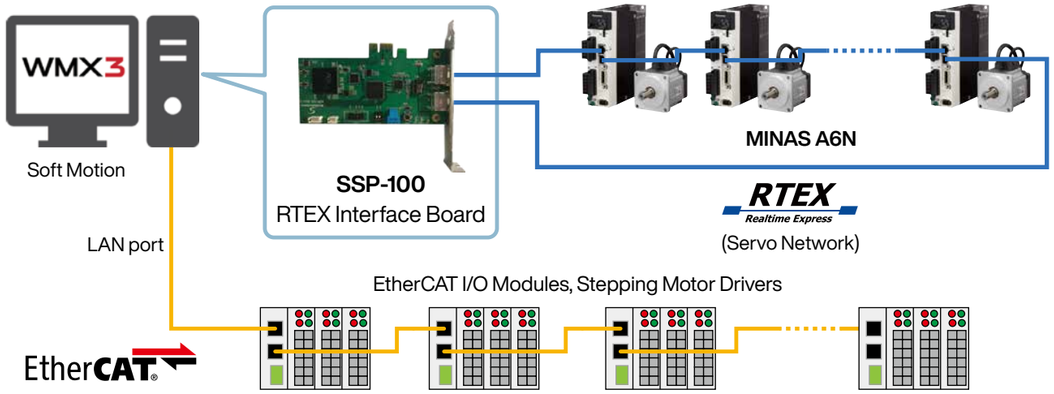
Manufacturer/
Distributor: MOVENSYS **Movensys, Inc.**

64-Axis Multi-Function Soft Motion Controller

WMX3 with Realtime Express



<Advantages of hybrid controls>

If you feel...

- ☑ Not enough I/O points left for operations.
- ☑ A large number of nodes sacrifices the communication cycle.
- ☑ I/O modules are too costly.
- ☑ Want to choose the right I/O module from a lot of options.

Hybrid Network can provide solutions

- High-performance RTEX servo network for axis control requiring high synchronization
- High cost performance EtherCAT modules for I/O control and stepper motors.
- Soft motion enables high-speed real time control over the servo network and I/O network.

Solution!

Features

1 RTEX and EtherCAT. Soft Motion technology gets the best of both worlds.

- Proven high-performance motion controller WMX3 (patented) now supports "hybrid" networks that simultaneously communicate with the high-speed networks RTEX and EtherCAT. Up to 64 axis synchronous control is possible.
- Applying RTEX to the servo network and EtherCAT to the sub-network enables using cost effective EtherCAT I/O modules.
- Advanced functions such as gantry control and various acceleration/deceleration profiles can be easily realized.

2 Integrated into one PC. Slimming. Networking.

- WMX3 enables the integration of operation screens, image processing, and motion control applications of up to 64-axis for a slimmer control device.
- Reduced wiring man-hours and material costs by reducing wiring through networking. Contributes to noise immunity.
- Use a commercially available Windows PC: Users can freely choose between PCs for small embedded applications as well as high-spec industrial applications depending on the user's application and concept.

Specification (Motion)

Positioning	64-axis * Simultaneous override (Dynamic destination can be changed)
Acceleration / Deceleration Profiles	Speed curve: Trapezoid, S-Curve, Jerk, Two-Step Speed, Acceleration time specification trapezoid, Acceleration curve: S-Curve, Quadratic Curve, Sine Curve
Interpolation Types	Linear, Arc, 3D Arc, Helical, PVT
Continuous Trajectory	Combination of straight line and Arc, Spline interpolation, Automatic prefetch speed control, Linear / Circular continuous trajectory with rotating stage
Gantry Control	Complete synchronous gantry control
Event	Register triggers (reach axis target value, I / O input, etc.) and actions (start axis movement, I / O output, etc.) and execute real-time operations
API Buffer	Register the motion API in the buffer and perform real-time operation. Execution waits and branches can be made depending on conditions.
Position synchronization output (PSO)	Real-time output of I / O at the specified position (position comparison performance depends on the communication cycle). When more precise operation is required, position comparison at 1 pulse level is possible with a dedicated hardware option.
Synchronization Control	Simple synchronization, synchronous gear ratio / offset specification, synchronization deviation correction, dynamic synchronization axis setting / change / cancel. Multiple axes (up to 32 sets for EtherCAT and up to 32 sets for RTEX) can be defined for single-axis to multi-axis synchronization.
Electronic Cam	8 cam curves can be defined. Cam curve for each communication cycle. Phase manipulation. clutch.
Return to Origin	Index pulse, origin sensor, limit sensor, limit proximity sensor, external input signal, mechanical end, etc. It is possible to return to the origin of the gantry axis.
I/O	11600 inputs / 11600 outputs, Supports most commercial EtherCAT I/O modules
Compensation Function	Pitch error, Backlash, Straightness correction
API Supported Language	C Language (C/C++), .NET Languages (C#,VB), .NET Framework: 4.0 or later
Development Environment	Microsoft Visual Studio 2012, 2013, 2015, 2017, LabVIEW, Python 3.6
Recommended Operating Environment	OS: Windows 7(32-bit/64-bit), Windows 10 (64-bit), IoT Enterprise LTSC CPU: Min. ATOM 2 GHz (E3845, etc.) 2 cores or more, Memory: 4 GB or more

Sales area

● Asia ● North America ● Europe

Language

● Korean ● Japanese
● English ● Chinese

For more information

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