

# Yokogawa Electric Corporation

## Leading Edge Controller (with MECHATROLINK- II Interface)

### Features

FA-M3V is the result of a quest for high performance and advances functionality. FA-M3R features minimum scan time of 100µs and is faster than microcomputer boards. F3NC96-0N Positioning Module supports MECHATROLINK- II, an open field network standard designed for high-speed motion control, and is the No.1 choice for configuring a system involving many controlled axes.

- Occupying a single slot of the base module, the module can control up to 15 axes (motors), and can be easily connected to motors using connectors, requiring minimal wiring time and cost.
- A high baud rate of 10 Mbps supports a short cycle time of 1 ms per set of 8 axes, which means quicker response and better synchronization with peripheral devices.
- Command transmission enables maximum utilization of motor performance (high speed and resolution) to achieve fast and accurate positioning control.



Positioning Module F3NC96-0N (with MECHATROLINK- II Interface)

### Specifications

Item		Specifications
Interface		MECHATROLINK- II compliant
Transmission rate		10Mbps
Transmission byte		32 bytes
Cycle time/ no. of stations		1.0 ms for up to 8 axes, 2.0 ms for up to 15 axes (user selectable)
Network Topology		Bus (multi-drop)
Communication method		Master/slave synchronous
Transmission media		2-wire shielded twisted pair cable (proprietary cable)
Max. transmission distance		50 m (total length)
Min. distance between stations		0.5m
Positioning functions	Position reference	-2,147,483,648 to 2,147,483,647 (reference unit)
	Functions	<ul style="list-style-type: none"> <li>• Linear interpolation movement (starting and stopping multiple axes simultaneously)</li> <li>• Independent axis movement using MECHATROLINK- II commands (dependant on connected external equipment and supported MECHATROLINK- II commands)</li> </ul>
	Others	<ul style="list-style-type: none"> <li>• Reading of statuses (target position, current position, etc.) of external equipment</li> <li>• Reading and writing of parameters of external equipment</li> </ul>

### MECHATROLINK specifications

		M- I	M- II	
		17-byte	17-byte	32-byte
Command	Servo	-	-	×
	Stepping Motor Drivers	-	-	×
	Intelligent I/O	-	-	-
	Simple I/O	-	-	-
	Inverter	-	-	-
Transmission cycle				1ms, 2ms

### Contact Information

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