PRESS RELEASE **9 April 2026**

Driving Data-Centric Manufacturing Transformation with MX Controller

As manufacturers accelerate their digital transformation efforts, Mitsubishi Electric is helping address evolving operational needs with its advanced MX Controller series. As the latest addition to the MELSEC portfolio, the series includes MX-R and MX-F models designed to support faster, more flexible, and data-driven manufacturing operations.

In today's industrial landscape, competitiveness increasingly depends on connected, flexible, and insight-driven production environments. The MX Controller series brings together high-speed PLC functionality, precision motion control, IT/OT integration, and cybersecurity capabilities within a single platform—helping manufacturers improve visibility across operations and make faster, data-informed decisions.

Flexible Control for Diverse Manufacturing Environments

With control capacity ranging from 8 to 256 axes, MX-R and MX-F models are designed to meet varying production requirements. While MX-F supports applications such as packaging, labeling, and pick-and-place systems where compact design and cost efficiency are priorities, MX-R is suited for more complex manufacturing environments including battery production, semiconductor manufacturing, and high-precision cutting applications that require advanced multi-axis synchronization.

Supporting widely used protocols such as OPC UA, MQTT, and CC-Link IE TSN, MX Controller enables integration across robots, sensors, and SCADA systems. Its multi-core processing architecture allows manufacturers to manage real-time control and operational data analysis on a unified platform.

Supporting the Future of Smart Manufacturing

The MX Controller series accelerates design and commissioning processes by transferring production lines into a virtual environment through the integration of Mitsubishi Electric's MELSOFT Gemini digital twin technology. Its compatibility with MATLAB® and Simulink® also makes engineering processes more agile while reducing the risk of errors. On the cybersecurity side, its infrastructure compliant with the IEC 62443-4-2 standard provides strong protection for manufacturing facilities through user authentication and encrypted communication features.

The launch of the MX Controller series coincides with a period of strong growth momentum in the global machine control systems market. According to Consegic Business Intelligence data, the market, which reached a size of USD 6.38 billion in 2024, is expected to exceed USD 10.86 billion by 2032, growing at a compound annual growth rate (CAGR) of 7.5%. This projection highlights that the advanced capabilities offered by the MX Controller series — such as high-speed synchronization and secure connectivity — will play a critical role for manufacturers in the coming years.