



A Masterclass in Evolution

Robust. Flexible. Compact.

THE M100 SERIES

**I/O SYSTEM EXPANSION: IDEAL FOR DECENTRALIZED USE –
DESIGNED FOR FUTURE-PROOF AUTOMATION.**

**With its metal housing, the design is highly compact, extremely
robust and packed with functions:**

M100 Series – Minimize breakdowns caused by operating conditions and
guarantee high-efficiency operational performance over the long run.

**The variable fieldbus connection is prepared for every important
communication standard, such as EtherCAT and CAN:**

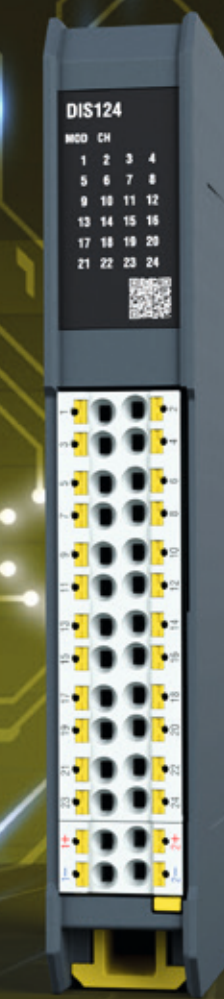
M100 Series – Minimal engineering and installation costs with an agile,
secure communication architecture.

**The completely new hardware architecture and a system design
based on the highest security standards are built for the long term:**

M100 Series – Ensure the best possible future for your system with
impressive performance, state-of-the-art technology, and a variety of
expansion options.

M100

I/O System Expansion



Tough without Compromise

The measure of things – ultra-slim modules deliver 100 % reliability

Bachmann stands for robust and powerful automation solutions, properties that are further proven by the capabilities of the M100 series.

Founded on the Bachmann quality guarantee, our aim was to develop a system extension to optimally deliver a modular machine concept, utilize the latest technology, and ensure maximum availability.

The M100 series comprises a wide portfolio of relevant modules for decentralized signal acquisition, processing and output. Remote units are securely connected to the controller via standardized, real-time-capable fieldbus couplers.

Module height
152.5 mm

Module width
24 mm

Module and channel status
easy to read

Module information
read directly via QR code

Potential bridge
quick assembly

M100 SERIES: FEATURES

Environmental robustness

- Bolted mounting on the stable and torsion-free backplane
- High-quality protection against penetrating dirt and moisture on all sides
- High shock and vibration resistance
- Operating temperature range from -30 °C to 70 °C
- Condensation-resistant
» Extended Climate Range » variants
- EMC-protected metal housing

Next-level architecture

- Latest technology in hardware components, logic and signal interfaces
- Multicore controller with dedicated network control units for higher throughput and clock rate
- Next-level security with TLS chip, secure boot and fast encryption/decryption

All in one

- State-of-the-art ASIC and FPGA technology allows the integration of several different functions in the same hardware design; this reduces development, testing, and machine and system servicing costs

Performance

- Delivers top-level automation with large in reserve for future applications
- Extremely high data throughput for big data analysis and predictive maintenance applications
- Instantaneous module-to-module communication

Separate potential groups

- Circuit decoupling in case of faults allows partial operation
- Easier troubleshooting in the event of a fault
- High operational security and reliability

Potential bridges

- Tool-free, extremely quick assembly without wiring effort delivers time and cost savings

PRODUCT PORTFOLIO

- Digital Input/Output Modules (DIS1xx / DOS1xx / DOH108 – 8, 12, 24 Channels)
- Analog Input / Output Modules (AIM112 / AIO112 / AIO104/I – 4, 12 Channels)
- Universal Input/Output Module (UIO106)
- Incremental encoder module (EII102)
- Absolute encoder module (EAS102)
- Bus coupler EtherCAT (NEC102)
- Backplanes with varied number of slots (BPS1xx / BPR1xx – 4 to 32 Slots)
- Accessories such as connectors, potential bridges, etc.

The M100 series is the perfect system addition for decentralized use in combination with the Bachmann M200 series.



»We claim to deliver permanent system availability, so our focus is always on the secure combination of state-of-the-art technology with robustness.«

Daniel Pfeifer
Director Technology at Bachmann electronic

Ready to Evolve

A paradigm shift in engineering

Engineering for the M100 has also evolved. For example, the future configurator can automatically determine the appropriate module combination from the desired channel functionality and required number of channels.

The result:

- High flexibility in the ongoing development process of plants and machines, as well as easy handling during commissioning
- Fast and convenient configuration in SolutionCenter including fieldbus and network configuration
- Faster channel adaptation to new hardware combinations
- Mapping of I/O process data to "Unified Fieldbus Model", and therefore easy integration into existing software projects
- Fieldbus-independent configuration for future bus systems



More about the M100 series at bachmann.info



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