



**SAFETY
CYBERSECURITY**



NEXT GENERATION OF SUBSYSTEM-I/O SYSTEM

This new IOM-range MAS 2xx gives you utmost flexibility while complying with safety and cyber security.

The new performant, flexible and compact new IOM platform serves as a central and/or remote IO system. It can be used as a remote IO system or be used together with the new midrange PLC as a central intelligent IO island connected over the local Ethernet backbone. The remote IO system also can be configured and connected to other automation platforms using TRDP/SDTv2 protocol.

The new IOM platform MAS 2xx has been developed according to the highest standards for Safety (Safety Integrity Level 2) & Cybersecurity (Security Level 2) and thus offer maximum protection for people and the system. With the latest future-proof technology the IOM system supports your application in the best way. The Ethernet-based architecture provides performance and redundancy on communication level. It supports the flexibility for system-integration into existing and new projects.



SELECTRON

Convincing user benefits offer cost advantages

Easy integration of safety-oriented signals via I/O-modules' mixed mode (SIL/non-SIL).

Various signal conditioning, such as digital and analog inputs and outputs

Various I/O-Modules (incl. function- and Wheel-Slide Protection Modules) at your disposal.

Redundant wiring concept fast installation and less cabling effort.

Easy integration into any TCMS with quality and performance on which you can rely, always.

Efficient monitoring and status indicators help commissioning and troubleshooting.

Security by Design and Defense in Depth provide protection against accidental and intentional data manipulation according to IEC 62443-4-2 Security Level 2 (SL-C 2).

Integration into 19"-Rack possible using a **DIN rail** support 3U.

The safety versions of IO-Modules comes with a SIL 2 (Safety Integrity Level 2) certification according to EN 50129:2018/AC:2019 SIL2 as standard.

Technical data

Fieldbus coupler

- SIL2 or BI
- 2 x Mbit Ethernet Interfaces, M12 (TRDP/SDTV2 protocol)
- wide range power supply 24...110 VDC

IO modules

Digital Input / Output modules

- 16 inputs (BI) 24...110 VDC
- 12 inputs (SIL2)
- 8 outputs (SIL2) 24...110 VDC
- 16 outputs (SIL2) 24 VDC/2A
- 16 outputs (BI) 24...110 VDC
- 16 outputs (BI) 24 VDC/2A

- 16 outputs (BI) 24 VDC/0,25

- 6 outputs (BI) Relays

Analog Input / Output modules

- 4 inputs (SIL2) current
- 4 inputs (SIL2) voltage
- 8 inputs (BI) voltage/current
- 4 outputs (BI) voltage/current

Functional modules

- Wheel slide protection modul,
 - Fast regulator modul,
 - Speed sensor module,
- common all modules**
- Fast Ethernet Extension Bus (EBus) for I/O-Module connection

Discover the entire range of Selectron solutions



Communication Technology

Invisible to the eye from the outside, train bus couplers, switches and converters perform indispensable functions in the safe operation of modern rail vehicles. The industry is currently in the midst of the transformation to Ethernet-based communication - with major challenges for train manufacturers and rail operators.



Our services - your success

Nothing is more important than responding to customer- and project-specific needs. We help projects achieve rapid success - with the right hardware architecture, reliable components, efficient software tools and overall knowledge transfer. Our job is to support you from the initial concept idea to the end of the lifecycle.



Holistic cybersecurity approach

The digitization of the railways is moving at high speed. The flip side of the coin: The rapid pace of technological development makes rail vehicles vulnerable to cybercrime. All the more important is that you can rely on someone who keeps an eye on the big picture. Selectron is on the spot with its forward-looking cybersecurity solutions.

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