

ARMORBLOCK 5000™ I/O BLOCKS

On-Machine™ Distributed I/O solution
for demanding applications
in harsh environments



**Rockwell
Automation**

Smarter More secure Greater flexibility

Are you constrained by the floor space in your plant? Imagine if you can:

- Increase production without expanding manufacturing space.
- Maintain productivity with lower installation and maintenance costs.
- Enable easier and faster changeover with minimal downtime.

Allen-Bradley® ArmorBlock 5000™ I/O blocks integrated with IO-Link technology can help with the ever-evolving challenges that manufacturers face in optimizing their operational throughput and resilience.

Optimize manufacturing processes

Designed for On-Machine™ use in harsh environments, ArmorBlock 5000™ I/O enables zero-cabinet architectures that can help simplify development and decrease machine size. The industrially-hardened blocks are engineered for better durability, meeting most demanding application requirements. More than that, the blocks offer flexible mounting options and reduced wiring for more efficient installation and commissioning.



Discover how ArmorBlock 5000™ I/O helps to enable a zero-cabinet design

THE NEXT GENERATION

of Allen-Bradley® On-Machine™ Distributed I/O

Smart machines can simplify production, improve system performance and mitigate safety risk. The scalable ArmorBlock 5000™ I/O blocks enable more connected machines and systems, providing greater flexibility for your application needs.

Develop and operate machines with ease

Do you need to work faster, smarter and with greater agility? ArmorBlock 5000™ I/O solution can help. The high performance I/O blocks and our Logix control platform share one user-friendly software. You will experience more efficient project development through common workflows in an intuitive Studio 5000 Logix Designer® environment. With Premier Integration, data can be accessed across the enterprise which can help ease design, integration and maintenance processes. This capability helps to reduce commissioning time and simplify machine setup.

Move beyond data – gain actionable insights

Empower your workforce with timely information that drives quick, fact-based production decisions. Enabled with IO-Link technology, the ArmorBlock 5000™ IO-Link master can help keep your operations running at optimal performance through easy integration to smart IO-Link enabled devices. In turn, the IO-Link enabled devices improve operation efficiency by providing real-time data and meaningful diagnostics such as detailed health status and accurate event data. This data flow allows you to stay ahead of device failures and avoid costly unplanned downtime, providing an agile environment.

Maximize productivity, minimize risk

To remain competitive, you must react fast to changing industry challenges. ArmorBlock 5000™ I/O blocks are designed for durability and security, which can help increase overall equipment effectiveness (OEE) and operational resilience. More than that, the information-enabled I/O blocks offer distributed monitoring and control capabilities that can take productivity and risk management to the next level.

Elevate manufacturing efficiency and visibility in increasingly complex industrial environments with ArmorBlock 5000™ I/O



[Watch and learn how](#)

Increase your machine capability with ArmorBlock 5000™ I/O

IO-Link master

16-point configurable block*

* Future release

Experience easy device integration through highly integrated IO-Link capabilities

Ease troubleshooting and maintenance with well-positioned light-emitting diode (LEDs)

Achieve better machine performance for time-critical applications through fast configurable I/O channels

Support On-Machine™ use with IP66/67/69K rating

Meet varying regional needs with three industry-standard power variants: Mini 4-pin, Mini 5-pin and L-coded

Improve machine precision and accuracy through Sequence of Events (SOE), scheduled output and input timestamp

IO-Link Class A ports

IO-Link Class B ports

Boost operational efficiency with high current ports up to 2A

Use higher current for output devices with standard configurable I/O channels

Visit [ArmorBlock 5000™ I/O Technical Documentation Center](#) for product specifications, user manuals and more.

Achieve improved business outcomes with ArmorBlock 5000™ I/O capabilities

Production efficiency

Flexible installation
Easy to setup and commission
More secure design



- Enables zero cabinet design and zero stacking up to five blocks mounted in six different orientations
- Provides a consistent design experience and reduces complexity with a common workflow in an integrated Logix environment
- Eases configuration of IO-Link enabled devices and integration with Allen-Bradley® controllers with the highly integrated IO-Link capabilities
- Drives demanding devices for better ROI with isolated high current 2A output channels
- Minimizes security risk with the stringent product design process and security capabilities

Minimal downtime

Fast, data-driven decisions
Agile production
Simplified maintenance



- Optimizes preventative maintenance through accurate and timely diagnostics with Precision Time Protocol (PTP) functionality, where all timestamps captured are synchronized with the control system
- Saves device recovery and replacement time with Automatic Device Configuration (ADC)
- Enhances system performance through a simplified platform that offers configurable blocks packed with smart capabilities such as Sequence of Events (SOE), scheduled output, input timestamping, event trigger, and more

Time and cost savings

Accelerated time to market
Lower total cost



- Speeds up design, installation and integration with common tag structure and configuration workflow
- Simplifies commissioning and troubleshooting through an On-Machine™ architecture and reduced wiring

LEARN MORE

- ▶ Visit rok.auto/armorblock5000
- ▶ Access [ArmorBlock 5000 I/O technical documentation](#)
- ▶ Get the right expertise at the right time at every stage of your smart manufacturing journey with [LifecycleIQ™ services](#)

Rockwell Automation recognizes that some of the terms that are currently used in our industry and in this publication are not in alignment with the movement toward inclusive language in technology. We are proactively collaborating with industry peers to find alternatives to such terms and making changes to our products and content. Please excuse the use of such terms in our content while we implement these changes.

Connect with us.    

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