ArmorBlock® I/O

On-Machine IP65/67/69K Block I/O Platform

The ArmorBlock® I/O family is a hardened I/O product suitable for On-Machine™ use. Water-resistant and corrosion-proof, it can mount directly on a machine (without a control cabinet) allowing OEMs and end users to reduce installation and operating costs. It can also mount close to sensors and actuators offering shorter cable runs and reduced wiring costs.

Advantages

- Enhanced scalability with IO-Link technology to expand the number of devices on IO-Link master via IO-Link hub
- QuickConnect functionality for tool changer application
- Timestamping functionality for Sequence of Events (SOE) application
- Scheduled Output functionality for position-based output control
- Constructed for harsh environment (Rated IP65/67/69K): Mount anywhere on a machine, close to the sensors and actuators, for shorter cable runs and lower wiring costs

- Simplified Design: Supports up to 2A per output, weld-splatter resistant housing and diagnostics in a single universal digital EtherNet/IP™ block
- Premier Integration: Offers Premier Integration into Integrated Architecture® with full Add-On Profiles in Studio 5000 Logix Designer® software reducing the need for additional configuration software
- Reduced Wiring: M12 L-coded power connector on selected blocks supports higher current allowing more blocks to be daisy-chained

ArmorBlock® I/O Family

The ArmorBlock I/O has a compact style with a low profile. Each block is sealed in an industrially-hardened housing and contains I/O circuits, a built-in power supply, and a built-in network adapter that provides EtherNet/IP™ or DeviceNet™ network capability.

Available in 4, 8, and 16 I/O points the blocks can be horizontally or vertically mounted. The points can be input only, output only, both input-output or self-configuring. The self-configuring blocks can have any mix of input and output. Selected blocks with electronic fusing provide protection for output load devices and easy resetting. For quick connection and easy replacement the I/O terminations are DC micro (M12) quick-disconnects or pico (M8) quick-disconnects. Additionally, the EtherNet/IP blocks support multi-cast and unicast and features embedded dual ports to allow flexibility in network configuration.

For use in safety applications, ArmorBlock® Guard I/O™ is available in 16-point combined input and output versions, for use with your choice of safety input and actuator devices. The blocks offer PLd-rated, single-channel safety inputs and PLe-rated, dual-channel safety inputs while safety outputs are rated up to PLe.

ArmorBlock I/O and ArmorBlock Guard I/O blocks are best-suited for automotive, material handling and packaging applications.

Sample application of conveying equipment in a material handling process.

For more information on ArmorBlock I/O, visit ab.com

Enabling The Connected Enterprise

Bringing people, processes and technology together.

It's about reshaping the future through leverage and convergence.

The Connected Enterprise leverages technology to better gather, analyze data and transform it into actionable, real-time information. Convergence of information technology (IT) and operations technology (OT) into a single, unified architecture capitalizes on operational, business and transactional data for improved enterprise, operations and supply chain performance.
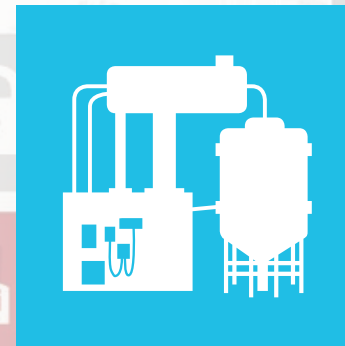
Faster time to market
Design productivity, faster commissioning times with intelligent devices, quicker startup of Greenfields, proven technology around risk mitigation for operations and IT, and the agility to respond to customer trends more quickly.

Lower total cost of ownership
Better lifecycle management, enabling more effective operations, improved energy management, and easier technology migration.

Improved asset utilization and optimization
Improved reliability and quality, and predictive maintenance driven by operational intelligence tools.

Enterprise risk management
Protection of intellectual property and brand image with a safe and secure operating environment, reduced exposure due to poor product quality and internal and external threats.

ArmorBlock® EtherNet/IP™ I/O Blocks

Catalog Number	Description
1732E-12X4M12QCDR	24V DC, 12-Input/4-Output with Diagnostic and QuickConnect, 4-Pin Mini Aux Power
1732E-12X4M12P5QCDR	24V DC, 12-Input/4-Output with Diagnostic and QuickConnect, 5-Pin Mini Aux Power
1732E-16CFGM12M12LDR*	24V DC, 16-Point Self-Configuring with Diagnostic and QuickConnect, M12 L-Coded Aux Power
1732E-16CFGM12P5DR*	24V DC, 16-Point Self-Configuring with Diagnostic and QuickConnect, 5-Pin Mini Aux Power
1732E-16CFGM12QCR	24V DC, 16-Point Self-Configuring with QuickConnect, 4-Pin Mini Aux Power
1732E-16CFGM12P5QCR	24V DC, 16-Point Self-Configuring with QuickConnect, 5-Pin Mini Aux Power
1732E-16CFGM12R	24V DC, 16-Point Self-Configuring with Dual-port
1732E-8CFGM8R	Slim Form Factor, 24V DC, 8-Point Self Configuring with Dual-port
1732E-8IOLM12R	24V DC, 8-Point IO-Link Master
1732E-8X8M12DR	24V DC, 8-Input/8-Output with Diagnostic and Dual-port
1732E-IB16M12DR	24V DC, 16-Point Input with Diagnostic and Dual-port
1732E-IB16M12R	24V DC, 16-Point Input with Dual-port
1732E-IB16M12SOEDR	24V DC, 16-Point Input with CIP Sync and Dual-port
1732E-IB8M8SOER	Slim Form Factor, 24V DC, 8-Point Input with Sequence of Events and Dual-port
1732E-OB16M12DR	24V DC, 16-Point Output with Diagnostic and Dual-port
1732E-OB16M12R	24V DC, 16-Point Output with Dual-port
1732E-OB8M8SR	Slim Form Factor, 24V DC, 8-Point Output with Scheduled Output and Dual-port
1732E-IF4M12R	Slim Form Factor, 24V DC, 4-Point Analog Input, 16 Bits and Dual-port
1732E-OF4M12R	Slim Form Factor, 24V DC, 4-Point Analog Output, 16 Bits and Dual-port
1732E-IT4IM12R	Slim Form Factor, 24V DC, 4-Point Isolated Thermocouple Input, 16 Bits and Dual-port
1732E-IR4IM12R	Slim Form Factor, 24V DC, 4-Point Isolated RTD Input, 16 Bits and Dual-port

Future Release

ArmorBlock® IO-Link I/O Blocks

Catalog Number	Description
1732IL-10X6M12*	24V DC, 10-Point Digital Input, 6-Point Digital Output, IO-Link Port Class B
1732IL-16CFGM12M12L*	24V DC, 16-Point Self-Configuring, M12 L-Coded Aux Power
1732IL-IB16M12	24V DC, 16-Point Digital Input

Future Release

Refer to the Selection Guide, 1732-SG001

Armor™ WeldBlock EtherNet/IP™ I/O Blocks

Catalog Number	Description
1732E-16CFGM12QCWR	24V DC, 16-Point, Self-Configuring with QuickConnect, WeldBlock, 4-Pin Mini Aux Power
1732E-16CFGM12P5QCWR	24V DC, 16-Point, Self-Configuring with QuickConnect, WeldBlock, 5-Pin Mini Aux Power

ArmorBlock® DeviceNet™ I/O Blocks

Catalog Number	Description
1732D-16CFGM12M12	24V DC, 16-Point, Self-Configuring, M12 Aux Power
1732D-16CFGM12MN	24V DC, 16-Point, Self-Configuring, Mini Aux Power
1732D-8CFGM12	24V DC, 8-Point, Self-Configuring, M12 I/O
1732D-8CFGM8	24V DC, 8-Point, Self-Configuring, M8 I/O
1732D-8I8O1212D	24V DC, 8-Input/8-Output, 0.5A DeviceNet Powered with Diagnostic
1732D-IB161212D	24V DC, 16-Input, 0.5A DeviceNet Powered with Diagnostic
1732D-OB16M12M12	24V DC, 16-Point Output, M12 Aux Power
1732D-OB16M12MINI	24V DC, 16-Point Output, Mini Aux Power
1732D-IBDPM12MND	24V DC, 16-Input, 0.5A DeviceNet Powered with Diagnostic

ArmorBlock® Guard I/O™ Blocks

Catalog Number	Description
1732ES-IB16	24V DC, 16-Input EtherNet/IP Safety
1732ES-IB8XOB8	24V DC, 8-Input/8-Sourcing Out EtherNet/IP Safety
1732ES-IB8XOBV4	24V DC, 8-Input/4-Bipolar Pair Out EtherNet/IP Safety
1732ES-IB12XOBV2	24V DC, 12-Input/2-Bipolar Pair Out EtherNet/IP Safety
1732ES-IB12XOB4	24V DC, 12-Input/4-Sourcing Out EtherNet/IP Safety
1732DS-IB8	24V DC, 8-Input DeviceNet Safety
1732DS-IB8XOBV4	24V DC, 8-Input/4-Bipolar Pair Out DeviceNet Safety

Refer to the Selection Guide, 1732-SG001

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