Allen-Bradley

FLEX 5000 I/O

Flexible I/O platform enabling integrated control for The Connected Enterprise

FLEX 5000™ I/O is a reliable and flexible distributed I/O solution, allowing you to choose your I/O to meet your operational needs. FLEX 5000 I/O enhances communication with 1 Gb EtherNet/IP™ connectivity, offering higher speed and increased bandwidth. Flexibility is provided through multiple network architectures and topology options in addition to a wide range of standard and safety I/O modules.

Advantages

- Supports 1 Gb EtherNet/IP for Device Level Ring (DLR), Linear, Star and Parallel Redundancy Protocol (PRP) topologies
- Wide range of architecture options with network support for two copper or two fiber small form factor pluggable (SFP) transceiver ports
- Easily replace modules while the system is in operation with snap-on installation via Removal and Insertion Under Power (RIUP)
- Optimize footprint by mounting up to 16 modules on a single node, vertically or horizontally, and in any module sequence
- Ability to operate at -40...70 °C (-40...158 °F) temperatures
- Operates in hazardous areas in Class I, Division 2, Zone 2, Groups A, B, C, D
- Allows for use in extreme environments with XT version up to G3 with conformal coating
- Certifications include c-UL-us, CE, RCM, Ex, IECEx and KC
- Offers true integrated safety with discrete fail-safe I/O modules, TÜV certified up to SIL 3/PLe/Cat. 4

FLEX 5000 I/O

FLEX 5000 I/O delivers The Connected Enterprise through enhanced 1 Gb EtherNet/IP connection and flexible installation options, enabling you to respond to your process faster with intelligent control.

Smart

- Fast, flexible architecture with 1 Gb EtherNet/IP connected via copper or fiber; supporting DLR, Linear, Star and PRP topologies
- Improved uptime with enhanced device integration, extensive diagnostic coverage, time-stamping and real-time device health monitoring

Secure

- Secure IT/OT convergence with open, standard, IT-friendly Ethernet network
- Defense-in-depth security strategy achieved with module vendor certificates, firmware encryption and secure boot functionality

Productive

- Shortened engineering time with simplified wiring, direct wiring terminations, snap-on shield bars and common data structures
- Reduced downtime with simplified RIUP and online module addition

Enabling The Connected Enterprise

Bringing people, processes and technology together

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

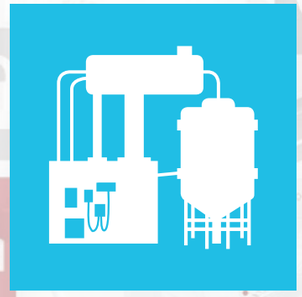
The Connected Enterprise leverages technology to better gather, analyze data and transform it into actionable, real-time information. Convergence of information technology (IT) and operations technology (OT) into a single, unified architecture capitalizes on operational, business and transactional data 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 life-cycle 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.

Adapters

Description	Catalog Number	
	Non-extreme Environment	Extreme Environment[#]
EtherNet/IP Adapter with 2 RJ45 Ports, Supports up to 8 FLEX 5000 I/O Modules	5094-AENTR	5094-AENTRXT
EtherNet/IP Adapter with 2 RJ45 Ports, Supports up to 16 FLEX 5000 I/O Modules	5094-AEN2TR	5094-AEN2TRXT
EtherNet/IP Adapter with 2 SFP Slots, Supports up to 8 FLEX 5000 I/O Modules*	5094-AENSFPR	5094-AENSFPRXT
EtherNet/IP Adapter with 2 SFP Slots, Supports up to 16 FLEX 5000 I/O Modules*	5094-AEN2SFPR	5094-AEN2SFPRXT

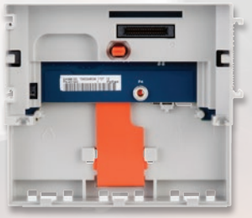
**Small form factor pluggable (SFP) transceivers sold separately*
[#]ANSI/ISA S71.04 G3 with conformal coating

Mounting Bases and Removable Terminal Blocks

Description	Catalog Number	
	Non-extreme Environment	Extreme Environment[#]
Mounting Base	5094-MB	5094-MBXT
Removable Terminal Block Screw	5094-RTB3	5094-RTB3XT
Removable Terminal Block Spring	5094-RTB3S	5094-RTB3SXT
Removable CJC Terminal Block Screw	5094-RTB3T	5094-RTB3TXT
Removable CJC Terminal Block Spring	5094-RTB3TS	5094-RTB3TSXT
Removable Relay Terminal Block Screw	5094-RTB3W	5094-RTB3WXT
Removable Relay Terminal Block Spring	5094-RTB3WS	5094-RTB3WSXT
Removable Isolated Terminal Block Screw	5094-RTB3I	5094-RTB3IXT
Removable Isolated Terminal Block Spring	5094-RTB3IS	5094-RTB3ISXT

[#]ANSI/ISA S71.04 G3 with conformal coating

Specifications	Adapter	Terminal Base Assembly
Dimension (HxWxD)	92.7 x 94.0 x 96.5 mm (3.65 x 3.70 x 3.80 in.)	89.3 x 94.0 x 63.0 mm (3.52 x 3.70 x 2.48 in.)
Operating Temperature	-40...70 °C (-40...158 °F)	
Storage Temperature	-40...85 °C (-40...185 °F)	
Relative Humidity	5...95% Non-condensing	
Operating Shock	30 g	
Non-Operating Shock	30 g	
Vibration	5 g @ 10...500 Hz Displacement: 0.030 inch (pp)	
Corrosive Resistance Classification	ANSI/ISA S71.04 G2 - Non-XT catalogs ANSI/ISA S71.04 G3 with conformal coating - XT catalogs	



Standard I/O Modules

Description	Catalog Number	
	Non-extreme Environment	Extreme Environment[#]
Digital 16 Input 24V DC	5094-IB16	5094-IB16XT
Digital 16 Output 24V DC	5094-OB16	5094-OB16XT
Relay 8 Output Isolated	5094-OW8I	5094-OW8IXT
Analog 8 Input	5094-IF8	5094-IF8XT
Universal Analog 8 Input	5094-IY8	5094-IY8XT
Analog 8 Output	5094-OF8	5094-OF8XT
High Speed Counter with Digital 4 Outputs	5094-HSC	5094-HSCXT

[#]ANSI/ISA S71.04 G3 with conformal coating

Specifications of Standard I/O Modules	
Dimension (HxWxD)	87.0 x 94.0 x 54.0 mm (3.43 x 3.70 x 2.13 in.)
Operating Temperature	-40...70 °C (-40...158 °F)
Storage Temperature	-40...85 °C (-40...185 °F)
Relative Humidity	5...95% Non-condensing
Operating Shock	30 g
Non-Operating Shock	30 g
Vibration	5 g @ 10...500 Hz Displacement: 0.030 inch (pp)
Corrosive Resistance Classification	ANSI/ISA S71.04 G2 - Non-XT catalogs ANSI/ISA S71.04 G3 with conformal coating - XT catalogs

Accessories

Description	Catalog Number
* Interconnect Cable 0.5 Meter	5094-CE05
* Interconnect Cable 1 Meter	5094-CE10
* Interconnect Cable 3 Meter	5094-CE30
Power Jumper Screw	5094-SAJMPR
Shield RTB Screw	5094-STB

** Future release in Q4 CY2019*

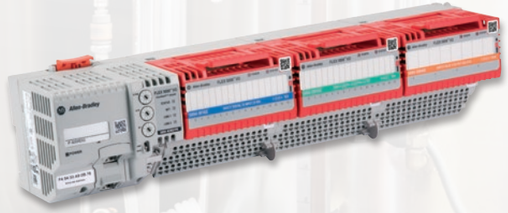
Safety I/O Modules

Description	Catalog Number	
	Non-extreme Environment	Extreme Environment[#]
Safety Digital 16 Input 24V DC	5094-IB16S	5094-IB16SXT
Safety Digital 16 Output 24V DC	5094-OB16S	5094-OB16SXT
Safety Relay 4 Output Isolated	5094-OW4IS	5094-OW4ISXT

[#]ANSI/ISA S71.04 G3 with conformal coating

Specifications of Safety I/O Modules	
Dimension (HxWxD)	87.0 x 94.0 x 54.0 mm (3.43 x 3.70 x 2.13 in.)
Operating Temperature	-40...70 °C (-40...158 °F)
Storage Temperature	-40...85 °C (-40...185 °F)
Relative Humidity	5...95% Non-condensing
Operating Shock	30 g^
Non-Operating Shock	30 g
Vibration	5 g^ @ 10...500 Hz Displacement: 0.030 inch (pp)
Corrosive Resistance Classification	ANSI/ISA S71.04 G2 - Non-XT catalogs ANSI/ISA S71.04 G3 with conformal coating - XT catalogs

^ Refer to Technical Data (5094-TD001) for more details



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