Integrated Architecture® System Hardware – What's New

4/9/2019

Roman Foukal

Agenda

1 Controllers / IO

2 Safety Controllers / IO

3 Networks

Controllers / IO

What is the customer purchase decision based on?

LOWEST COST	SCALABILITY / FLEXIBILITY	SAFE / SECURE / SIL rated
Micro800™ controller	CompactLogix™ / ControlLogix® controllers	AADvance Trusted® controllers

ControlLogix® 5580 controller

High performance

- 1 Gb Ethernet port supports Integrated Motion on EtherNet/IP
- Up to 45% increased memory capacity
- Integrated Motion on EtherNet/IP up to 256 axes

Enhanced productivity with Logix

- Onboard display allows for enhanced diagnostics and troubleshooting
- 2 GB Secure Digital (SD) card ships with the controller and provides nonvolatile memory and permanently stores user programs and tag data
- Controller task monitor now part of the embedded webpage
- Common control engine and one development environment for optimized productivity

Security capabilities

- Three-position keyswitch provides mode selection and added security
- Digitally signed and encrypted controller firmware
- Controller-based change detection and logging
- Role-based access control to routines and Add-On Instructions

Released

IEC 62443-4-2 Certification

Security certified 5580 Controller,

Security Level 1 (SL1)

- Independently certified by TUV Rheinland to 62443-4-2 Security Level 1
- Compliant with 62443-3-3 security architectures.

-K - ISA G3 / salt mist and high sulfur atmospheres.
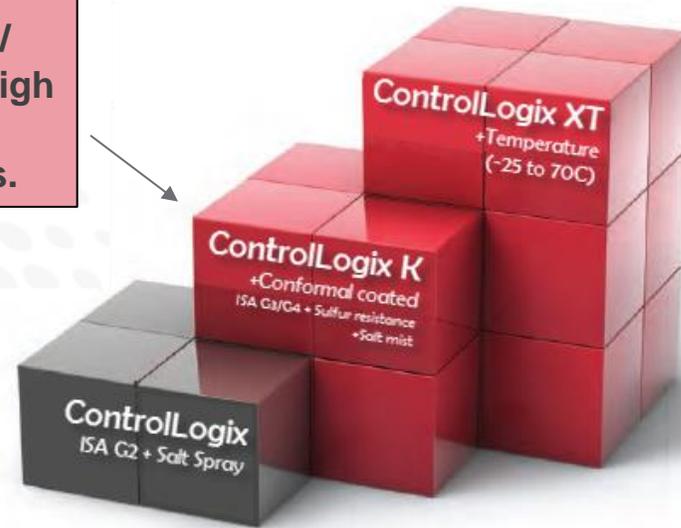
v33 (May 2020 Target)

5580 eXtreme controllers

Next generation of the 1756-L73XT controller

- -25 °C to + 70 °C
- Convection cooled design
- No fans, No filters and No maintenance
- Maintains same product certifications as the standard product
- Tested to ANSI/ISA-S71.04-1985; Class GX Standards

5580 No Stored Energy (NSE)

Next generation of the 1756 NSE controllers.

- For use in hazardous zone applications such as under ground mining and refineries requiring energy discharge to less than 200uJoules

V33 (May 2020 Target)

5580 High Availability

V33 (May 2020 Target)

- Support for 5069 and 5094 I/O
- No decrease in user memory when enabling redundancy
- Configured Alarms Support
- Supports DLR or PRP

High Availability Throughout the System

PlantPAx® System differentiates by Scalability: Scale availability needs to the locations that are most critical

- **I/O Redundancy** – Availability of device communication
  - 1715 I/O
- **Controller Redundancy** – Availability of Control actions
  - 5580, CompactLogix™ Hot Backup*
- **Server Redundancy** – Availability of Operator Interactions
  - FactoryTalk® View HMI Servers
  - Application Servers
  - Data Servers (FatoryTalk Linx)
- **Network Redundancy** – Availability of Network / Communication Paths
  - Stratix® Managed Switches
  - DLR and PRP support
- **Virtualization** – Virtual PCs on Physically Redundant Servers
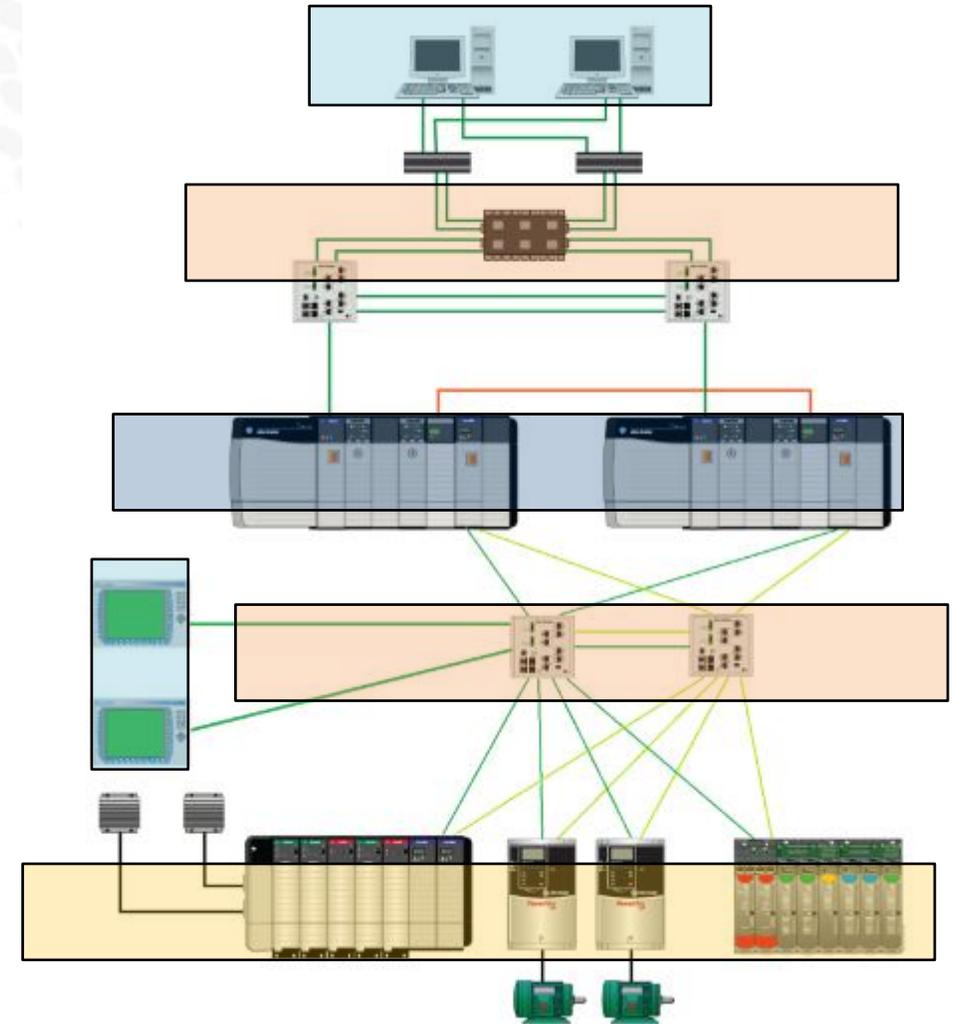
1756-EN4TR Communication Module

1756-EN4TR - *Greater Security and Higher Performance*

Overview

General purpose communication module to support our customers' growing need for continuous improvements in performance, capacity and security related concerns.

Key Features

- CIP Security
- 10M / 100M / 1 Gig Ports – Qty 2
- 256 Axes of Motion
- SD Card for Firmware, Configuration and Fault Logs
- Initial release supports DLR
- Integration with the Rockwell Automation EcoSystem
- Note: Redundant Adapters Future Firmware (Q2 FY20)

Customer Benefits

- Higher throughput for increased productivity
- 2x axes of motion compared to EN3TR
- CIP Security provides authentication between devices, integrity of data, and optional encryption of data.
  - Authentication: CIP Security prevents unauthorized connection to devices
  - Integrity: CIP Security prevents the modification of or tampering with data
 - Encryption: CIP Security prevents the viewing of sensitive data

1756-EN4TR: Redundant Adapters

Action Today: Begin communicating and positioning 1756-EN4TR design solutions with customers

- Targeted Q2 FY20

- Firmware update, no hardware changes required

- Topologies supported

  - Star

  - DLR Ring

- Redundant Adapter is for I/O chassis only

  - For controller chassis, use ControlLogix® Redundancy to provide redundant communication modules

Rockwell Automation
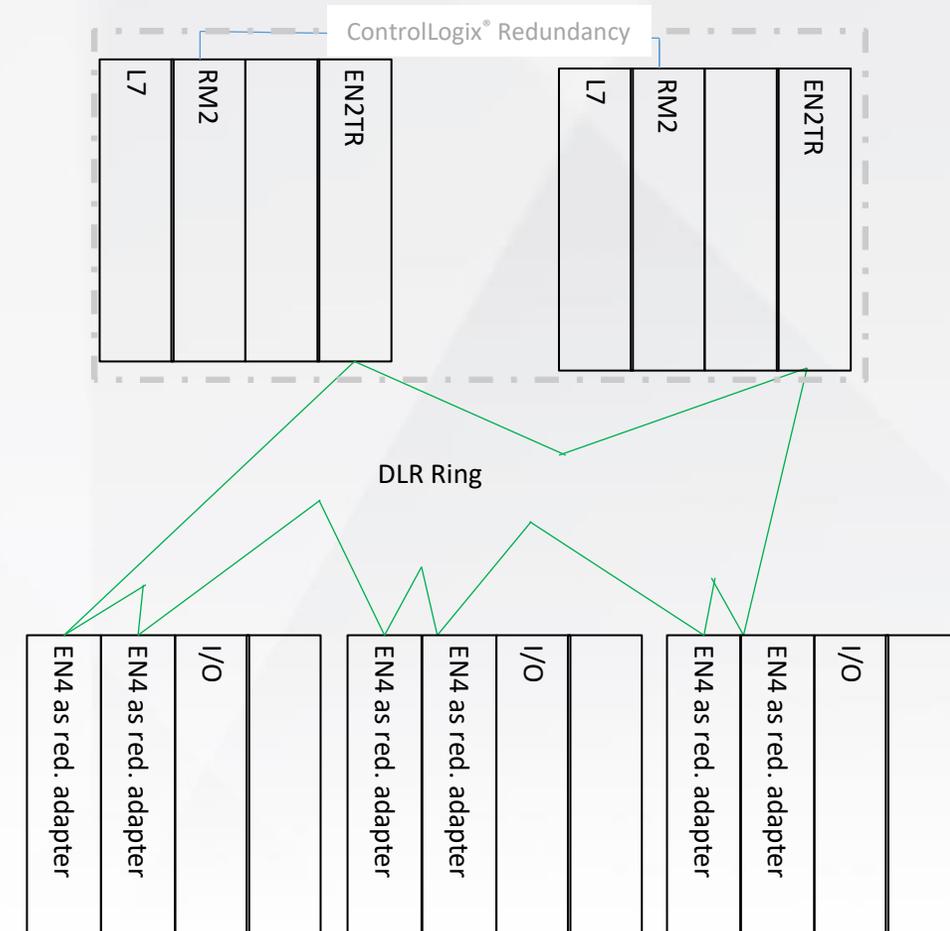
1783-CSP: CIP Security Proxy

1783-CSP - Integrate CIP Security for *legacy and non-CIP Security Embedded Products*

Overview

Target AFC: Q2 FY20

Standalone hardware solution that will facilitate Secure Communications

Installed equipment that is not CIP Security capable can be interfaced through the CIP Security Proxy – establishing secure communications across the network

Key Features

- CIP Security
- 10M / 100M / 1 Gigabit Ports on the network side
- Support For DLR on network side
- Security Event Generation
- Integration with the Rockwell Automation EcoSystem

Customer Benefits

- Allows customers with non-CIP Security embedded products to define and implement their unique migration roadmap to a CIP Security architecture
- Path forward for non-CIP Security capable products

CIP Security™ Proxy

CIP Security™ Proxy
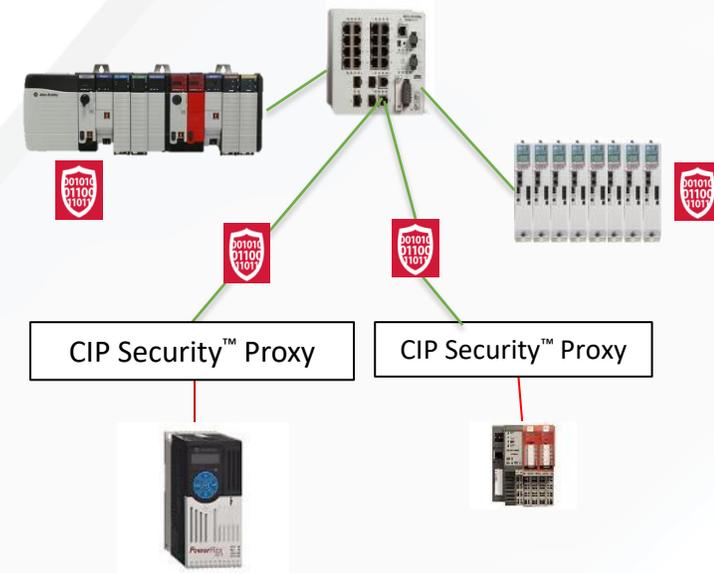
FLEX 5000 Parallel Redundancy Protocol

Features and Benefits

- PRP feature added to all FLEX 5000 EtherNet/IP adapters with 4.011 firmware version

- Provides a redundant network infrastructure for high availability, helping minimize the risk of downtime

- IEC 62439 -3 compliant

- Same packets sent out of both ports to eliminate network switchover time

- PPS performance 50K vs 100K for DLR.

Applications

- Process Applications where customer requires redundant network infrastructure

- ControlNet media redundancy migrations

- For customers that require redundancy beyond a ring topology

LAN A

LAN B
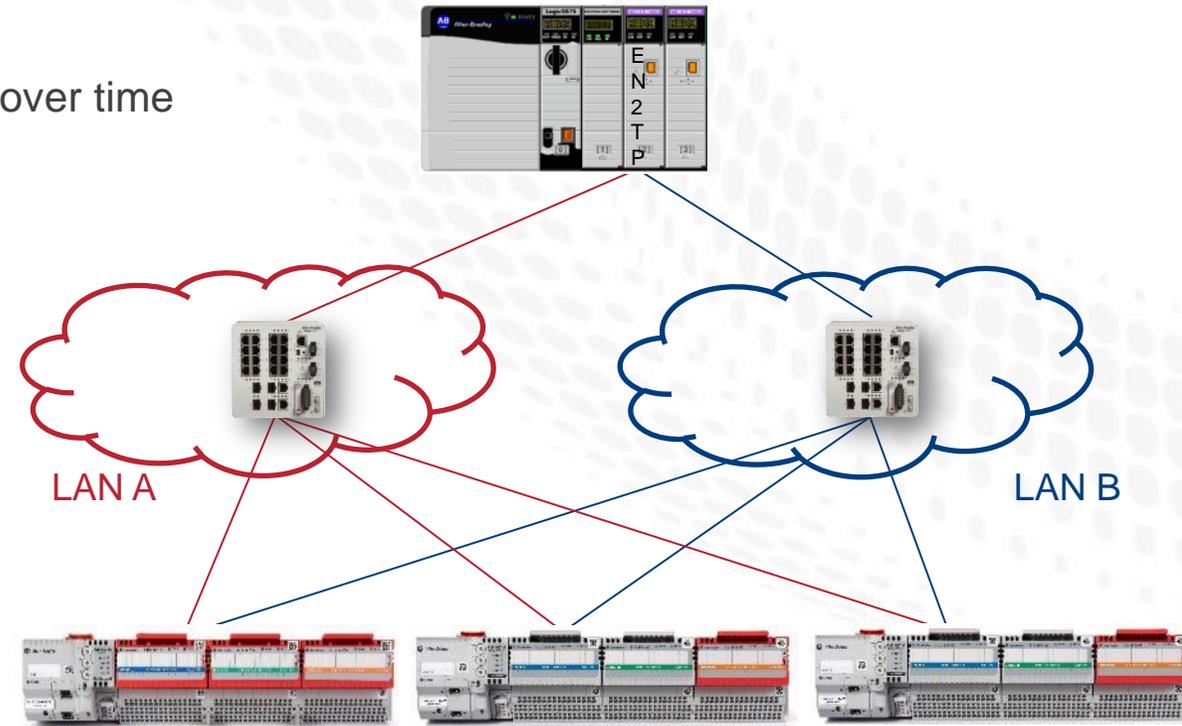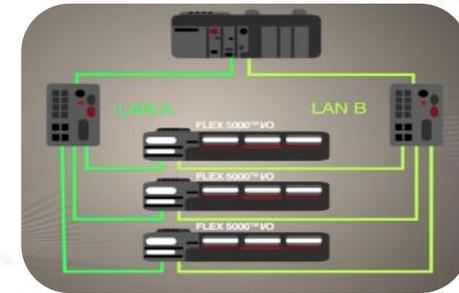
CompactLogix™ 5370

CompactLogix™ 5380

CompactLogix™ 5480

CompactLogix™ Controllers

- **5370 Controllers**
  - Optimal Performance Standard and Safety Controllers (SIL3/PLe)
  - Linear and Device Level Ring (DLR) network Support
  - On-Machine™ Version

- **5380 Controllers**
  - High Performance Standard and Safety Controllers (SIL2/PLd)
  - Dual IP and Device Level Ring (DLR) network Support
  - Enhanced Security

- **5480 Controllers**
  - Logix based real time controller with Windows 10 IOT OS
  - Multiple Ethernet and communication options
  - Enhanced security features

CompactLogix™ -K
For harsh environment applications

Rockwell Automation expands the CompactLogix™ conformal coated product portfolio.

The CompactLogix™ -K is a globally stocked and readily available product and is recommended for all applications requiring corrosion protections in environments.

Catalog No	Technical Description
1769-L37ERMSK	Compact GuardLogix® CPU, L37ERMS, 4M/1.5M
1769-L37ERMK	CompactLogix™ 4MB controller
1769-L38ERMK	CompactLogix™ 5MB controller
1769-L38ERMSK	Compact GuardLogix® CPU, L38ERMS, 5M/1.5M
1769-ECRK	CompactLogix™ Right End Cap
1769-IA16K	CompactLogix™ 16 Pt 120VAC D/I Module
1769-IF4K	CompactLogix™ 4 Pt A/I C and V Module
1769-IF8K	CompactLogix™ 8 Pt Analog Input Module
1769-IQ16K	CompactLogix™ 16 Pt 24VDC D/I Module
1769-IQ32K	CompactLogix™ 32 Pt 24VDC D/I Module
1769-L24ER-QBFC1BK	CompactLogix™ 750KB DI/O AI/O Controller
1769-L30ERMK	CompactLogix™ 1 MB Motion Controller
1769-L32EK	CompactLogix™ 750KB Enet Controller
1769-L33ERMK	CompactLogix™ 2 MB Motion Controller
1769-L33ERMSK	Compact GuardLogix® CPU, L33ERMS, 2M/1M
1769-OA16K	CompactLogix™ 16 Pt 240VAC D/O Module

Available for sale

Catalog No	Technical Description
1769-OB16K	CompactLogix™ 16 Pt 24VDC D/O Module
1769-OB32K	CompactLogix™ 32 Pt 24VDC D/O Module
1769-OB8K	CompactLogix™ 8 Pt 24VDC D/O Module
1769-OF2K	CompactLogix™ 2 Pt A/O C and V Module
1769-OF4K	CompactLogix™ 4 Pt A/O C and V Module
1769-OW16K	CompactLogix™ 16 Pt D/O Relay Module
1769-PA2K	CompactLogix™ AC 2A/0.8A Power Supply
1769-PA4K	CMPLX Selectable AC 4A/2A Power Supply
1769-PB2K	CompactLogix™ DC 2A/0.8A Power Supply
1769-PB4K	CompactLogix™ DC 4A/2A Power Supply
1769-SDNK	CompactLogix™ DeviceNet Scanner Module

Available for sale

Catalog No	Technical Description
5069-L320ERS2K	Compact GuardLogix® SIL 2 2.0/1.0M
5069-L320ERMS2K	Compact GuardLogix® SIL 2 2.0/1.0M Motion
5069-L330ERS2K	Compact GuardLogix® SIL 2 3.0/1.5M
5069-L330ERMS2K	Compact GuardLogix® SIL 2 3.0/1.5M Motion
5069-L350ERS2K	Compact GuardLogix® SIL 2 5.0/2.5M
5069-L350ERMS2K	Compact GuardLogix® SIL 2 50/2.5M Motion
5069-IB8SK	Compact5000 DC Safety Input Module
5069-OBV8SK	Compact5000 DC Safety Output Module
5069-IB16K	Compact 5000 DC Input Module
5069-OB16K	Compact 5000 DC Output Module
5069-IY4K	Compact 5000 Universal Analog Input Module
5069-OF4K	Compact 5000 Analog Output Module

Available for sale

Catalog No	Technical Description
5069-AENTRK	Compact 5000 EtherNet/IP Adapter
5069-L320ERMK	CompactLogix™ 2MB Enet Motion Controller
5069-L330ERMK	CompactLogix™ 3MB Enet Motion Controller
5069-L350ERMK	CompactLogix™ 5MB Enet Motion Controller

Q4 FY19

Expand 5480 Catalog numbers

Alignment to 5380

	Node Count		I/O Count		Motion Axis	
	CMX 5380	**CMX 5480**	**CMX 5380**	**CMX 5480**	**CMX 5380**	**CMX 5480**
3MB	60	60	31	31	16	16
5MB	120	120	31	31	24	24
10MB	180	180	31	31	32	32
20MB	N/A	250	N/A	31	N/A	150

5069-L430ERMW   03MB

5069-L450ERMW 05MB

5069-L4100ERMW 10MB

5069-L4200ERMW 20MB*

Replacing the existing L46ERMW

Scalable compute portfolio / Benefits & Use cases today

Industrial personal computers (PCs) and thin clients

- **Industrial PCs for local applications** such as FactoryTalk® View ME

- Thin clients, along with the ThinManager® software, **provide an efficient system to manage content centrally**

ControlLogix® compute module

- Rack-based computer

- API built for access over the backplane for high speed needs

- Current customer use cases mainly reflect these benefits:
  - **Communication Gateway**
  - **Embedding custom program for High Speed Logix Connection**

CompactLogix™ 5480 controller

- **A high-performance Logix controller for motion applications**

- Common Customer Feedback:
  - **For Motion users who do not want Windows**
  - **For Windows users to benefit without price premium or Logix power**

Rockwell Automation

Chassis & Distributed I/O

Rockwell Automation® Platform Positioning

- CL18- FLEX 5000™ I/O: Use Standard and Safety in One Application
- CL15 - Smart Devices: Enabled with IO-Link Technology
- PR20 - I/O Solutions: Apply High Availability, Functional Safety & Intrinsic Safety in High Performance Process Applications
- SS08 - What's New and Coming Soon in Safety Automation Architectures

ControlLogix®

Chassis-based I/O

- I/O diagnostics for detection of both system and field-side failures
- Electronic keying to help prevent replacement errors
- Wide range of modules from high performance to process control

FLEX™, FLEX 5000™

Process Distributed I/O

- High-performance FLEX 5000™ I/O for CompactLogix™ 5380 and ControlLogix® 5580
- High-channel density on a distributed platform

1719 Ex, 1718 Ex

Intrinsic Safety

- 1719 Ex I/O for hazardous area locations (Safe / Zone 2)

NEW for 2019
- **1718 Ex I/O will ship Q4CY19**
- Certified for Zone 1 mounting (Zone 1/0, Div. 1 field devices).
- Modules offered will be similar to 1719

1715 Redundant

High Availability I/O

- 1715 Redundant I/O provides high availability for ControlLogix® controllers

NEW for 2019
- DNV-GL marking for marine applications Q3FY19
- IEC61508 edition 2 compliance Q3/Q4CY19

Compact I/O™, Compact 5000™

Discrete Machine I/O

- High-performance Compact 5000™ I/O for CompactLogix™ 5380 and ControlLogix® 5580
- High-density Compact I/O™ for CompactLogix™ 5370

NEW for 2019

IB8S ← Digital Safety Input
OBV8S ← Digital Safety Output

POINT I/O™

Smart Machine Distributed I/O

- Low-cost platform with lower density inputs and outputs
- Compact design makes installation easier
- Machine safety, specialty and IO-Link options available

ArmorBlock®

On-Machine™ I/O

- IP67, IP67, IP69K rated modules
- Reduces wiring and panel space
- QuickConnect for tool changing application
- Analog, Digital, specialty, machine safety and IO-Link options available
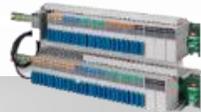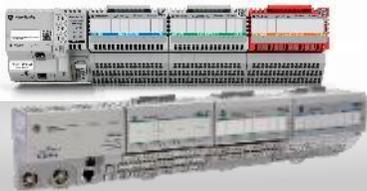
FLEX 5000™ I/O

Integrated control and safety

Rugged Design

Operating Temperature: -40 °C…70 °C (-40 °F...158 °F)

Extreme Environments: Class G1, G2, and G3

Hazardous Environments: Class I, Div. 2 Zone 2 Groups A, B, C, D, E, F

Performance
1 Gigabit (Gb) EtherNet/IP™
1 Gigabit (Gb) Backplane Speed

Standard I/O
32 Channel Digital In/Out
8 Channel Analog In/Out

Safety I/O (SIL 3, PLe, Cat. 4)
16 Channel Digital In/Out
4 Channel Analog In/Out
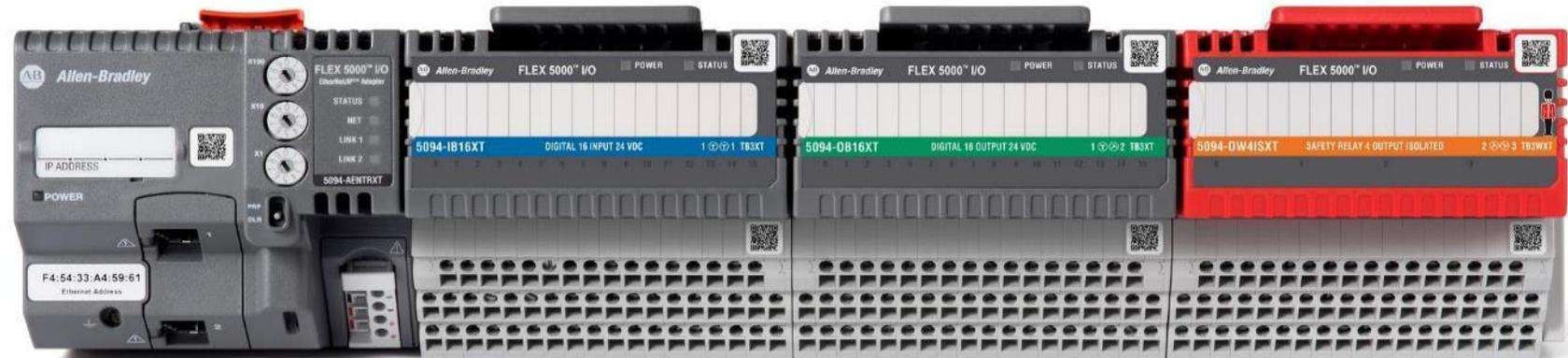
Network Media and Topologies
2 Copper/2 Fiber Ports
Supports Device Level Ring (DLR), Star, Linear, Parallel Redundancy Protocol (PRP)

Easy snap-on installation
Removal and Insertion Under Power (RIUP)

Consistent I/O Wiring
Direct Termination of 2, 3 & 4 wire devices

Distributed I/O for ControlLogix® 5580 controller, GuardLogix® 5580 safety controller
Distributed I/O for CompactLogix™ 5380 controller, Compact GuardLogix® 5380 safety controller

Rockwell Automation

FLEX 5000™ I/O

Discrete safety I/O

Safety digital 16 input

Shipping

- SIL 3, PLe, Cat. 4 single channel
- 6 ms safety reaction time
- 8 test output: pre-assigned
- Test output rating: 0.2 A
- Overload detection with test output

Safety digital 16 output

Shipping

- SIL 3, PLe, Cat. 4 single channel
- 4.5 ms safety reaction time
- Output rating: 0.5 A
- 1.5 A surge current for 150 ms*
- Safety mode, safety pulse mode

Safety Relay 4 output

Shipping

- SIL 3, PLe, Cat. 4 single channel
- 20 ms safety reaction time
- Output rating: 2 A / 4 A – 2 Channels
- 100K cycles @ 2A resistive load
- Safety mode
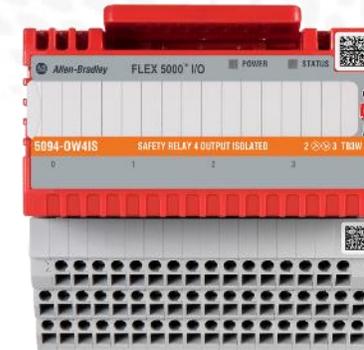
*Conditions apply

See *FLEX 5000™ modules technical data* (5094-TD001) *for more details.*

FLEX 5000™ I/O

Release schedule

Distributed I/O for

- ControlLogix® 5580 Controller
- CompactLogix™ 5380 Controller
- CompactLogix™ 5480 Controller
- GuardLogix® 5580 Controller
- Compact GuardLogix® 5380 Controller

June 2018	September 2018	April 2019	Q2 CY2019

Standard

Catalog	Description
5094-AENTR	EtherNet/IP Adapter RJ45 8 I/O
5094-AEN2TR	EtherNet/IP Adapter RJ45 16 I/O
5094-IB16	16 Point Digital Input
5094-OB16	16 Point Digital Output
5094-OW8I	8 Channel Relay Output Isolated
5094-IY8	8 Channel Universal Analog Input
5094-OF8	8 Channel Analog Output
5094-HSC	2 Channel High-Speed Counter
5094-IF8	8 Channel Analog Input

Available for sale

Network Support

Catalog	Description
5094-AENSFPR	EtherNet/IP Adapter SFP
5094-AEN2SFPR	EtherNet/IP Adapter SFP

Available for sale

SIL 3 Safety – Digital

Catalog	Description
5094-IB16S	16 Pt Digital Input Safety
5094-OB16S	16 Pt Digital Output Safety

Available for sale

SIL 3 Safety Relay, Network Support

Catalog	Description
5094-OW4IS	4 Point Relay Output Isolated Safety
PRP Firmware	PRP Adapter Support

Available for sale

Catalogs Available in 2 Variants (except cables)

- *Standard version with operating temperature at -40 °C…+70 °C (-40 °F...+158 °F)*
- *Extreme Environment (XT) variant with operating temperature at -40 °C…+70 °C (-40 °F...+158 °F) and conformal coating for G3 compliance*

Rockwell Automation

FLEX 5000™ I/O

**Positioning versus FLEX™ I/O**

- Continue to attach FLEX™ I/O with ControlLogix® 5570 architecture
    - FLEX™ I/O is ACTIVE and supports all generations of Logix 5000™ controllers
    - Longevity letters are available, including description of lifecycle support

- Attach FLEX 5000™ I/O with ControlLogix® 5580 or CompactLogix™ 5380 standard or safety architecture
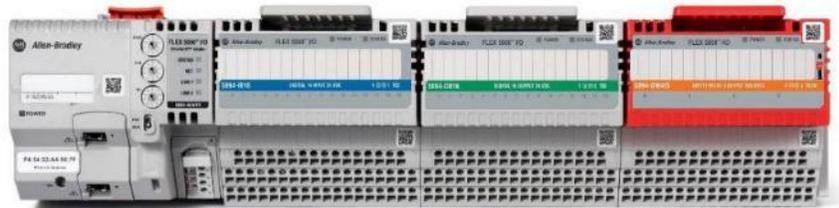
ArmorBlock® I/O

Releases in 2019

IO-link Hubs Available

Shipping

1. 16 Digital Input
2. 10 Digital 6 Digital Output
3. 16 Universal Digital

Q4CY19

IO-Link Hub

Standard Sensors

IO-Link Hub

Standard Sensors

EtherNet/IP™

IO Link Smart Sensors

IO Link Smart Sensors
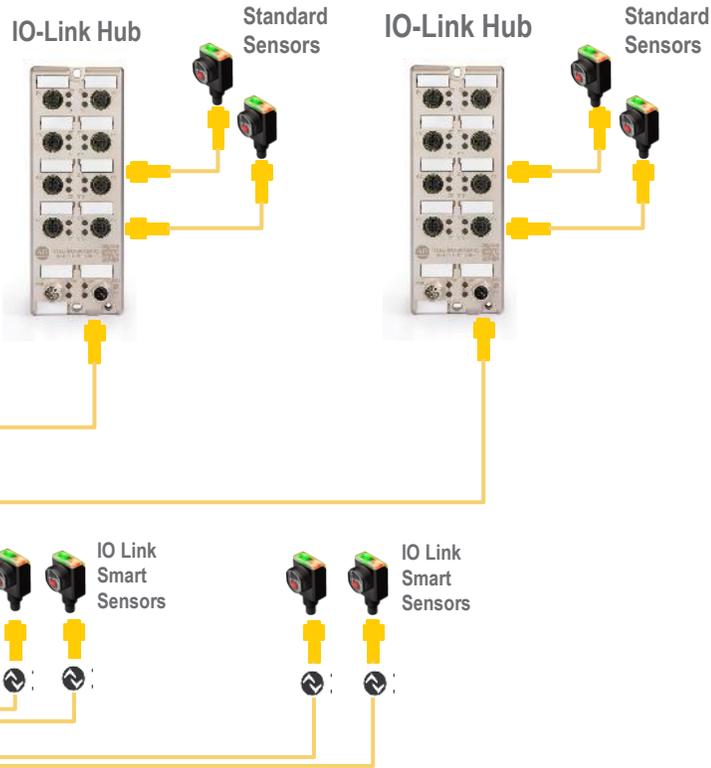
IO-Link Master

Illustration purpose only

EtherNet/IP Universal Digital Module

Standard I/O
16 universal digital I/O

Rugged Design
Nickel plated zinc-die cast

Flexibility
2 A support per output

Reduced Errors
Keyed & color-coded connectors

Reduced Wiring
16 A M12 L-coded auxiliary power connector

Increased Uptime
Short circuit & overload diagnostics
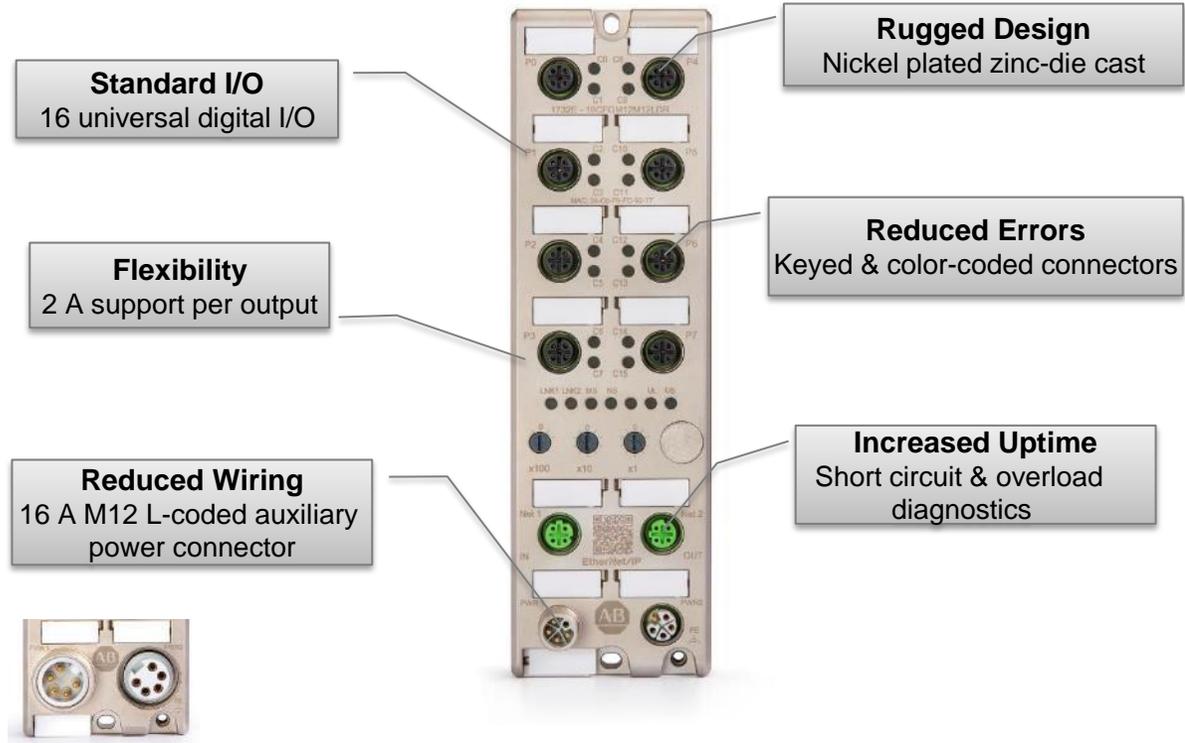
Also available in 5-pin 7/8" auxiliary power

IO-Link

Rockwell Automation

POINT I/O™-K

Designed for harsh environment applications

Rockwell Automation expands the POINT I/O™ conformal coated product portfolio.

The POINT I/O™-K is a globally stocked and readily available product and is recommended for all applications requiring corrosion protections in environments up to ISA Gx and for high sulfur atmospheres.

Catalog No	Technical Description
1734-AENTRK	POINT I/O™ Dual Port Network Adaptor-K
1734-EP24DCK	POINT I/O™ Expansion Power Supply-K
1734-FPDK	POINT I/O™ Field Distributor Module-K
1734-IE4CK	POINT I/O™ 4 Point Analog Input Module-K
1734-IR2K	POINT I/O™ 2 Point RTD Input Module-K
1734-OE4CK	POINT I/O™ 4 Point Analog Output Module-K
1734-SSIK	POINT I/O™ SSI Encoder Module-K
1734-VHSC24K	POINT I/O™ Very High Speed Ctr Module-K
1734-IB8K	POINT I/O™ 8 Point Digital Input Module-K
1734-OB8K	POINT I/O™ 8Point Digital Output Module-K
1734-VTMK	POINT I/O™ Voltage Terminal Module-K
1734-IT2IK	POINT I/O™ 2 Point Thermocouple Input-K
1734-OB8EK	POINT I/O™ 8Point Digital Output Module-K
1734-485ASCK	POINT I/O™ ASCII Interface Module-K

Available for sale

Catalog No	Technical Description
1734-AENTK	POINT I/O™ Single Port Network Adaptor-K
1734-IE8CK	POINT I/O™ 8 Point Analog Input Module-K
1734-CTMK	POINT I/O™ Current Terminal Module-K
1734-OW4K	POINT I/O™ 4 Point Relay Output Module-K
1734-ARMK	POINT I/O™ Address Reserve Module-K
1734-OB4K	POINT I/O™ 4Point Digital Output Module-K
1734-OE2CK	POINT I/O™ 2 Point Analog Output Module-K
1734-OE2VK	POINT I/O™ 2 Point Analog Output Module-K
1734-IE2CK	POINT I/O™ 2 Point Analog Input Module-K
1734-IE2VK	POINT I/O™ 2 Point Analog Input Module-K
1734-IV8K	POINT I/O™ 8 Point Digital Input Module-K
1734-OV8EK	POINT I/O™ 8Point Digital Output Module-K
1734-IB4K	POINT I/O™ 4 Point Digital Input Module-K

Available for sale

Catalog No	Technical Description
1734-ACNRK	POINT I/O™ ControlNet Adapter-K
1734-IA4K	POINT I/O™ 4 Point AC Input Module-K
1734-OA4K	POINT I/O™ 4 Point AC Output Module-K
1734-IKK	POINT I/O™ Counter Input Module-K
1734-EPACK	POINT I/O™ Expansion Power Supply AC Input-K
1734-ADNK	POINT I/O™ DeviceNet Adapter-K
1734-4IOLK	POINT I/O™ 4 Point IO-Link Master-K

Q3 CY19

Safety Controllers / IO

GuardLogix® controller differentiation

New capabilities in the GuardLogix® controller support new applications

GuardLogix® 5570S

- On-Machine™ versions
- Extreme environment versions

GuardLogix® 5580S

- Enables higher performance safety I/O (1756, 5069, 5094) **NEW**
- Advance drive safety instructions **NEW**
- 1 gigabit (Gb) embedded Ethernet port enables high-speed I/O and motion control for up to 300 nodes **NEW**
- Scalable as SIL2/PLd or SIL3/PLe options **NEW**

New applications in these (and other) industries

Entertainment

Packaging

Consumer products

Compact GuardLogix® controller differentiation

New capabilities in the Compact GuardLogix® controller support new applications

Compact GuardLogix® 5370S

- This is our current offering for SIL 3, PLe, CAT4 version
- On-Machine™ version
- Fully compatible with 1769 I/O

Compact GuardLogix® 5380S

- Enables higher performance safety I/O (5069, 5094) **NEW**
- Advance drive safety instructions **NEW**
- Dual NIC support for linear and Device Level Ring topologies, **NEW**
- Scalable as SIL2/PLd or SIL3/Ple (AFC November 2019) **NEW**

Right size your control!

Improved scalability and competitive positioning with 33 catalog numbers

Compact GuardLogix® 5380 | SIL 3

High-performance CPU
- Optimized for faster safety reaction time

Scalable safety level
- SIL CL3, Up to PLe

Available Late 2019

Dual 1-Gb embedded EtherNet/IP™ ports
- Configurable dual IP or DLR
- Integrated safety on EtherNet/IP™

Compact 5000™ local safety I/O - increased scalability
- 5069-L306ERMS3: 600 KB Std / 300 KB Sfy; 2 axes; 16 nodes
- 5069-L310ERMS3: 1 MB Std / 0.5 MB Sfy; 4 axes; 24 nodes
- 5069-L320ERMS3: 2 MB Std / 1 MB Sfy; 8 axes; 40 nodes
- 5069-L330ERMS3: 3 MB Std / 1.5 MB Sfy; 16 axes; 60 nodes
- 5069-L340ERMS3: 4 MB Std / 2 MB Sfy; 20 axes; 90 nodes
- 5069-L350ERMS3: 5 MB Std / 2.5 MB Sfy; 24 axes; 120 nodes
- 5069-L380ERMS3: 8 MB Std / 4 MB Sfy; 28 axes; 150 nodes
- 5069-L3100ERMS3: 10 MB Std / 5 MB Sfy; 32 axes; 180 nodes

Excellent solution for OEMs with Integrated Motion

What's NEW in AADvance

System Release R1.40

IMPROVED DIAGNOSTICS

- Ability to remotely reset faults on any processor slice

- Updated CIP Stack (Produce/Consume with Status)

- Offering new development environment based on VS Shell
  - Faster, more intuitive, enhanced capabilities

ADDITIONAL FUNCTIONALITY / CERTIFICATIONS

- Certified IEC61508 ed.2 – SIL 2 to SIL 3

- Improved documentation generation

- Enhanced ladder and function block editors
  - Drawing capabilities / graphics

- Import/export variables now includes bindings
  - Connections between controllers

FASTER COMMUNICATIONS

- Peer to Peer between AADvance and Trusted

- Ability to prioritize Ethernet traffic

Rockwell Automation

What's NEW in Trusted

Complete Hardware Refresh

INVESTMENT IN LOGEVITY

- Form factor – no change, function, form & fit compatible with series A.

- Certification – no change existing certification will be maintained for series B

- Software – existing Trusted toolset can be used to program series B

MORE RUGGED DESIGN

- Improved durability of plastics in more humid/corrosive environments

- Conformal coating is standard

- Principle driver in RoHS compliance
  - Being adopted primarily in Europe, but also in many other industrial countries in some form or another.

IMPROVED PERFORMANCE

- Applications now execute 2-3x faster

Networks

Stratix® 5800 Modular Switch

Modular switch with *hardware flexibility*

Overview

New high-tier modular switch platform.

- Layer 2 Access Switching
- Layer 3 Distribution Application
  - Future

Key Features

- Base Model 10 ports
- Expandable up to 26 ports
- All gig ports
- Wide variety of copper, fiber, and Power over Ethernet (PoE) ports
- Non-Expandable catalog numbers with fixed 10 all gig ports
- Cisco® IOS-XE operating system

Benefits

- Modular in design, allowing customers greater configuration flexibility
- Up to 26 all gig ports for higher throughput and increased productivity

Cisco® IOS-XE operating system, on Stratix 5800
Allows for tighter integration to Cisco's IT ecosystem, a feature that is being requested more often as IT and OT convergence becomes more prevalent
within our customers' organizations. (Particularly as it relates to security.)

Rockwell Automation

FactoryTalk® Network Manager™

Overview

Software solution that helps give you increased network visibility, real time troubleshooting, and simplified configuration and maintenance. Provides insight into the performance of your network operations by getting a closer look into your devices connected on the plant floor.

Key Features

- Visibility
  - Discovery of plant floor assets
  - Overall topology and device view
  - DLR Overlay and Backplane Bridging
- Troubleshooting
  - Real-time alarms / events
  - Historical retention/log
- Configuration and Maintenance
  - Plug-n-Play (PnP)
  - Remote switch configuration
  - Switch configuration
  - Configuration backup and compare

Customer Benefits

- Designed to meet the operational needs of the OT personnel
- Discovers end devices and across the backplane
- Supports industrial protocol discovery - DLR

Rockwell Automation
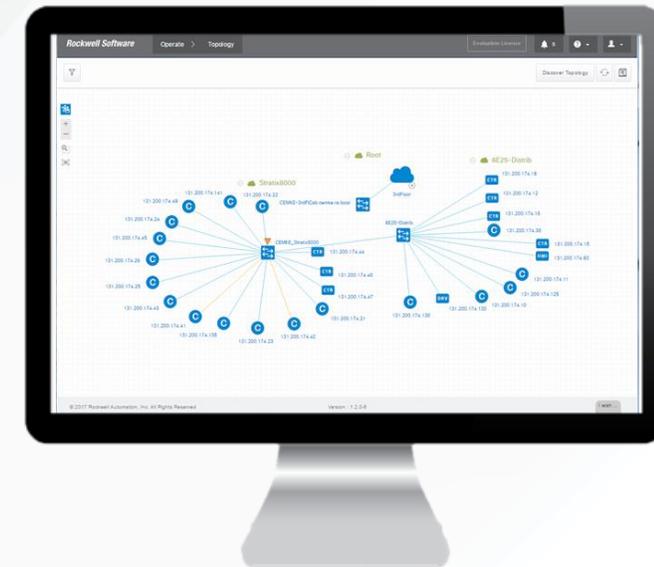
Networking Conformal Coated Solutions

Overview

The application of conformal coating protects electrical equipment against the effects of moisture, corrosive gases/vapors, and fungal growth.

Catalogs:
1783-ETAPK
1783-ETAP1FK
1783-ETAP2FK

Key Features

- Modules will be exactly the same functionally and will utilize the same FW as the respective uncoated catalogs.

Customer Benefits

- For applications requiring additional corrosion protections in environments up to ISA G3 and for salt mist and high sulfur atmospheres.

AFC:
End of Dec 2019

Catalog:
1756-TIMEK

Target Industries

- Water Wastewater
- Pulp & Paper
- Metal & Mining
- Food & Beverage Processing
- Chemical Processing
- Hydrocarbon Processing
- Oil Rigs
- Marine/Shipboard
- Tire & Rubber

Dongle Activation

Questions?

Where do I get the Dongle Drivers for the FactoryTalk Activation Utility?

How do I check if my Dongle is correctly recognized?

Why does my Dongle activation not work?

Why is my license information in the available activation showing as n/a ?

There are several HASP (Dongle) driver manufactures, for example: Aladdin, Macrovision, MAI Digital Security, and WIBU

Download:

https://sentinelcustomer.gemalto.com/sentineldownloads/

Drivers name: **Sentinel HASP/LDK - Windows GUI Run-time Installer**

Installation:

1. Download and extract drivers for Dongle to a temporary directory.
2. Unplug Dongle from the USB port
3. Go to the directory in which you extracted the drivers.
4. Run the HASPUserSetup.exe for drivers installation.
5. Follow the prompts. Wait until the installation is complete, then finish.
6. Once the installation is complete, plug the Dongle into a USB port.

Studio 5000 Logix Designer

Studio 5000 Logix Designer application

ONE DESIGN ENVIRONMENT FOR ALL DISCIPLINES

- Supports comprehensive design and maintenance of the automation control system.

COLLABORATIVE DEVELOPMENT

- Focused on delivering automation productivity, ease of use, and simplified workflows.
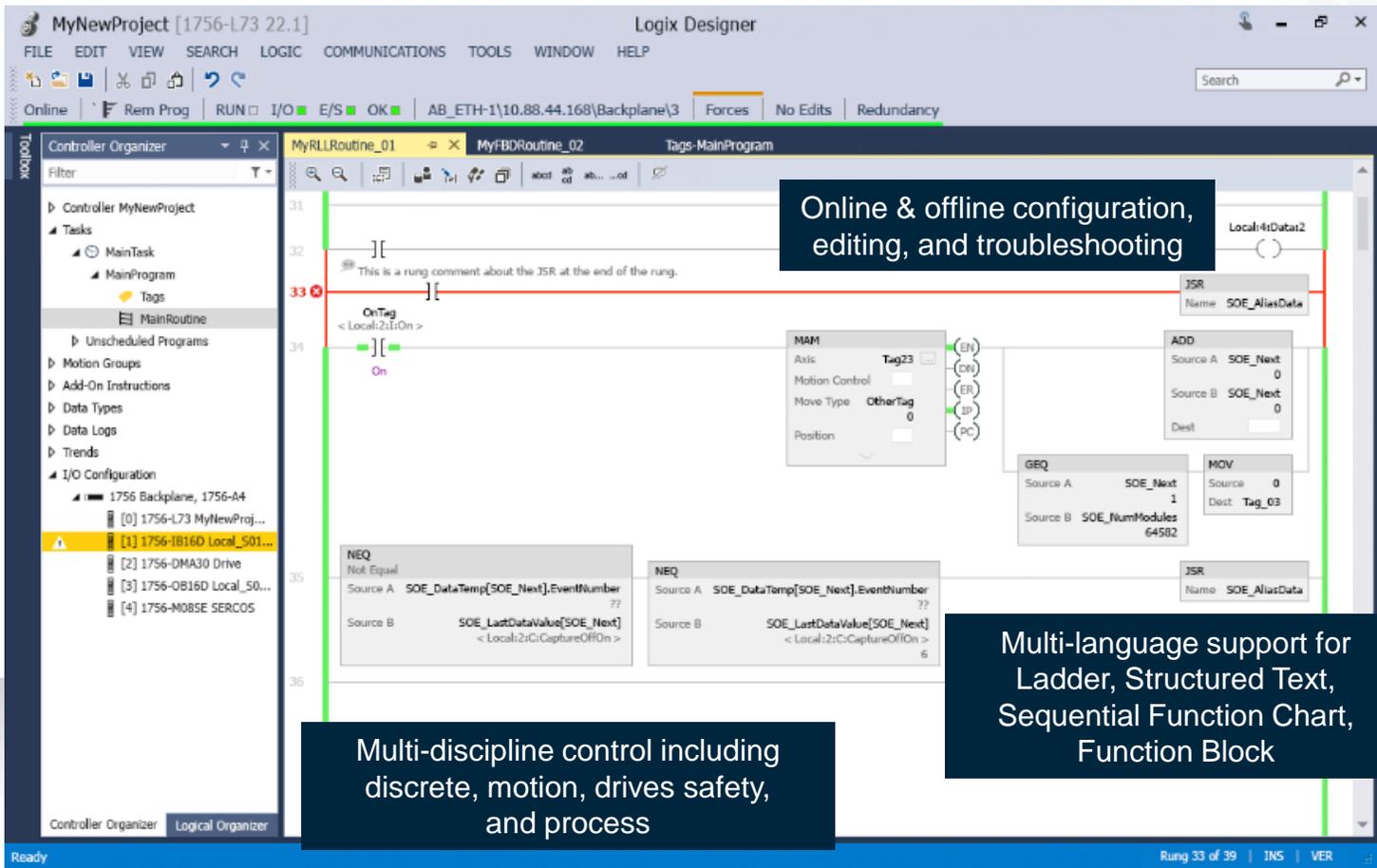
Online & offline configuration, editing, and troubleshooting

Multi-language support for Ladder, Structured Text, Sequential Function Chart, Function Block

Multi-discipline control including discrete, motion, drives safety, and process
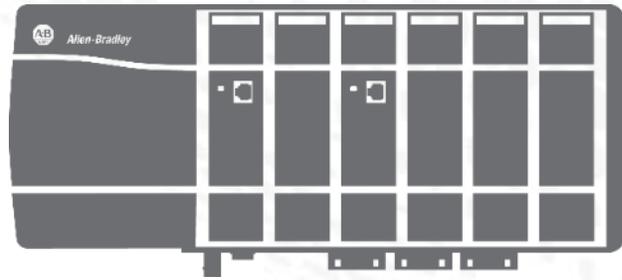
Single Programming Environment for ALL Logix Controllers

Studio 5000 Logix Designer®

What's New?
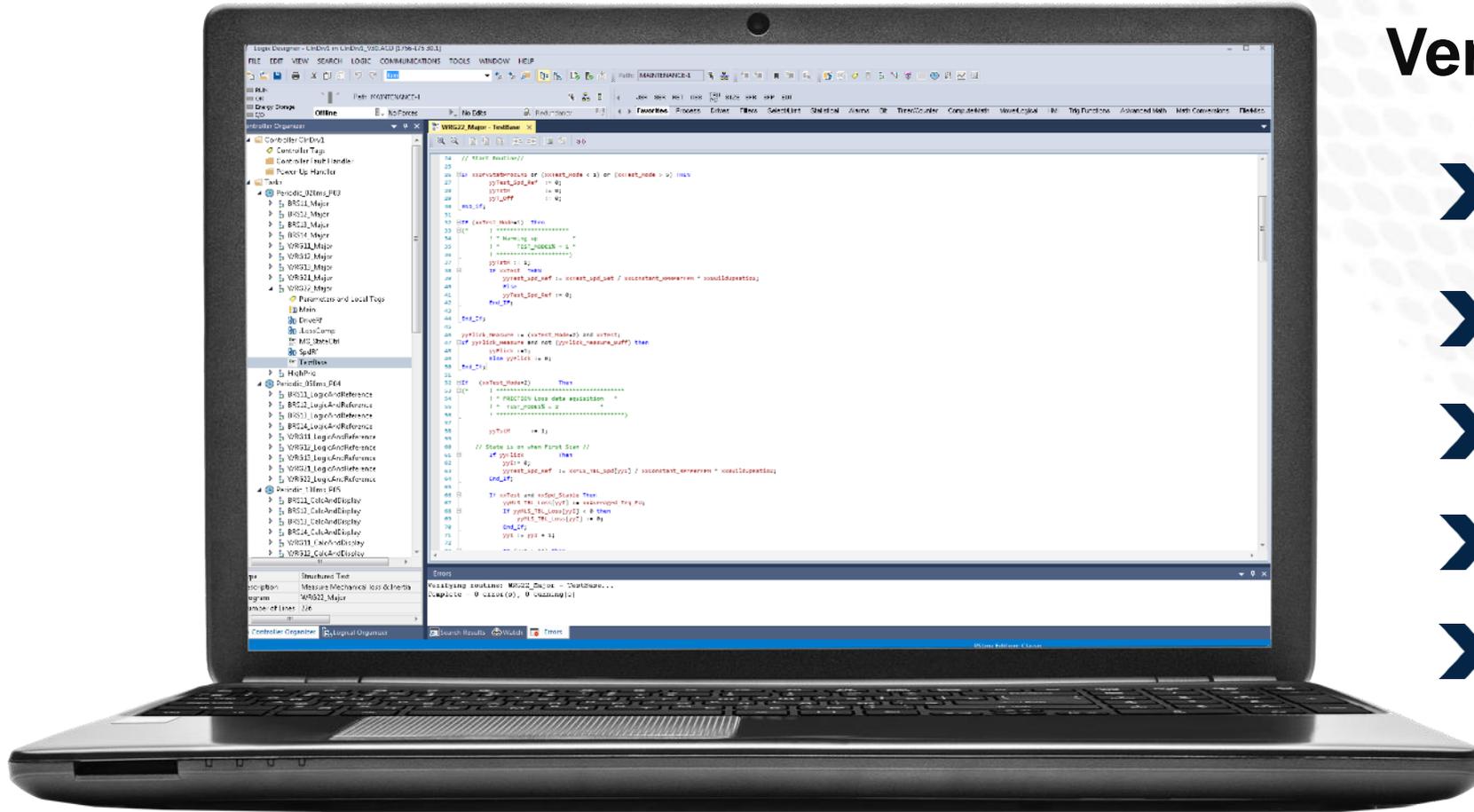
Version 32 Summary

➤ Extended Data Types (64-Bit Math)

➤ Tag-based Alarm Enhancements

➤ New FBD Functions

➤ Productivity Enhancements

➤ PhaseManager™ Support

Extended Data Types

64-Bit Math

Overview

Now use new extended data types to calculate more precise or larger values for use in your calculations.

Benefits

- Calculate more precise values in your calculations with higher resolution
- More flexibility to comply with open/third-party communications standards. For example, HART

Boolean	**BOOL**
Short Integer	**SINT**
Integer	**INT**
Double Integer	**DINT**
Real Number	**REAL**
Unsigned Short Integer	**USINT**
Unsigned Double Integer	**UDINT**
Unsigned Integer	**UINT**
Unsigned Long Integer	**ULINT**
Long Real Number	**LREAL**
Long Integer	**LINT**

Supported in Bulletin 5580, 5480, and 5380 Controllers Only

Function Block Functions


Before
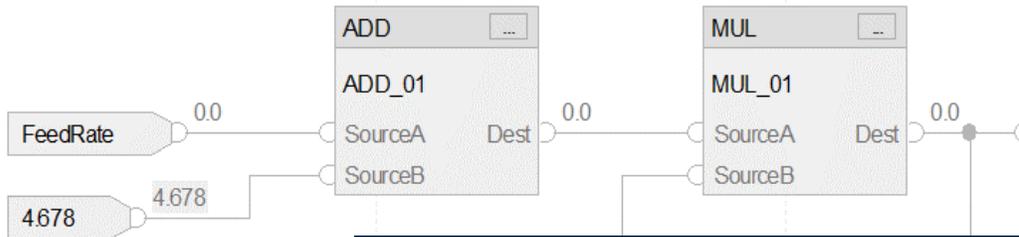
After
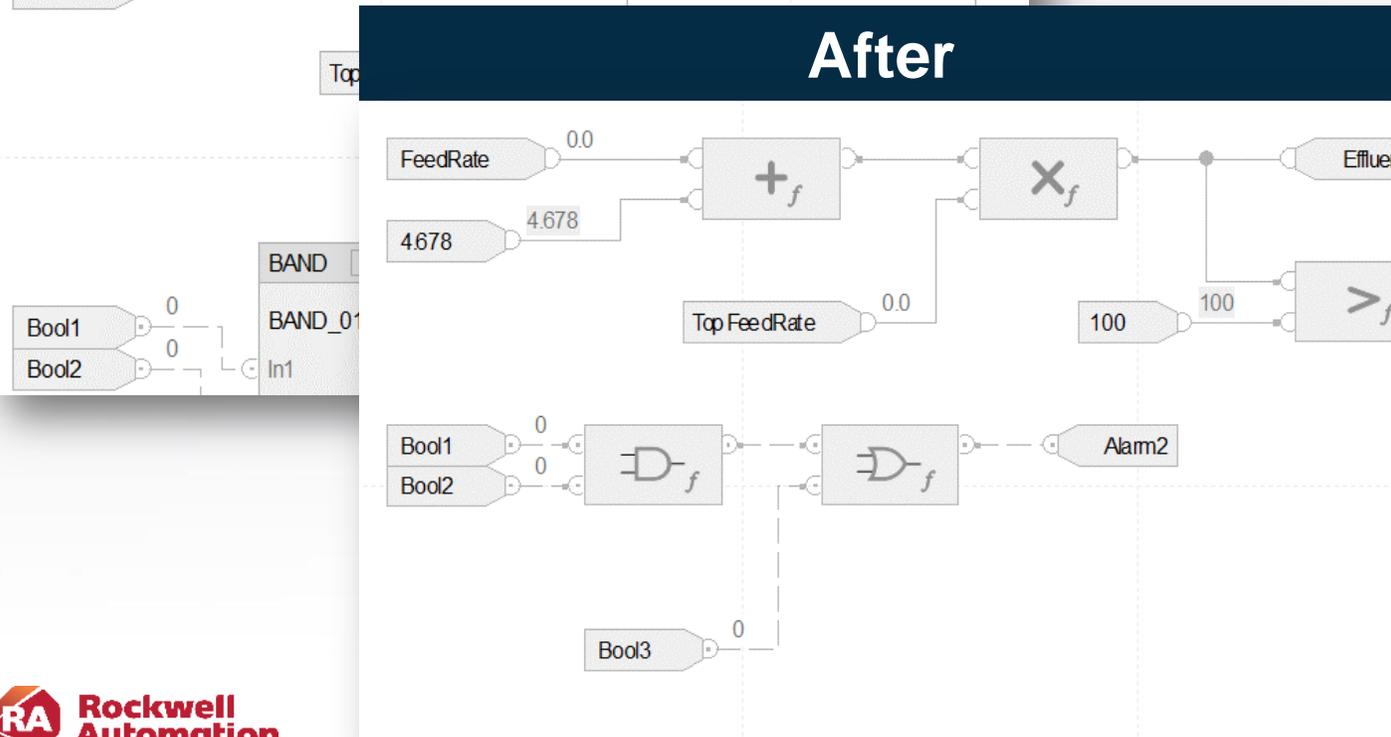
Overview

Simpler function block construction mitigates how much configuration is needed, lowering overall design times

Benefits

- Faster troubleshooting with simpler user interface

- Drag and drop functions available without additional configuration

- Increased function performance leads to lower controller utilizations

- New functions to replace existing instructions

  - Smaller visual footprint

  - No backing tag

  - More intuitive symbol-based functions

  - Compare/Compute/Boolean Logic Instructions

PhaseManager™ Support
Use Phase Instructions in High Performance Architecture

PhaseManager™ supported in High Performance Controllers

V32 Logix Designer

Previously Phase Instructions only available for CompactLogix 5370, Compact GuardLogix® 5370, ControlLogix® 5570 and GuardLogix 5570 controllers.

Productivity Enhancements

Online Editing

User-Defined Data Type

- Design UDT with excess memory

- Rename unused members while editing online

- Download not required

Tags on Scan

- Rename tags that are being trended by:
  - Logix Designer application
  - FactoryTalk® Linx software
  - PanelView™ 5000 HMI

Controller Organizer

Trend Management: Multi-selection

- Copy/Cut/Paste

- Delete

- Export/Import
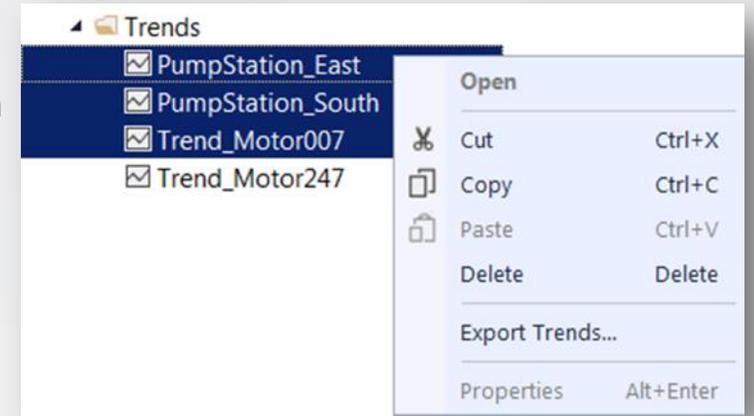
Nested Delete

- Edit I/O Trees simply by deleting nested groups
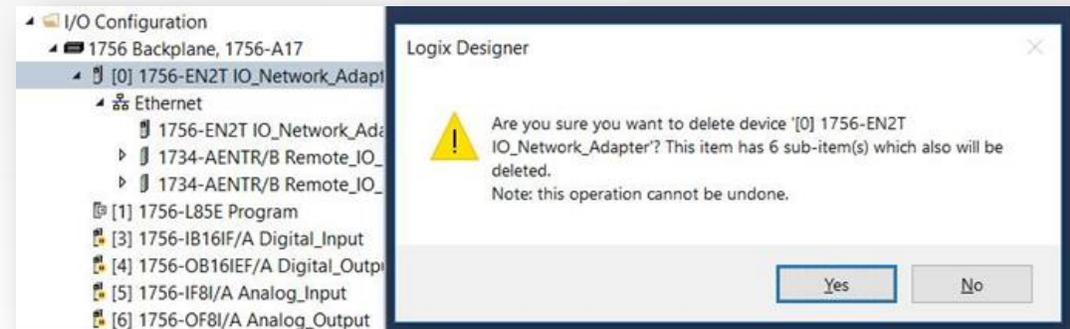
Thank you

www.rockwellautomation.com