4   **3**   **2**   **1**
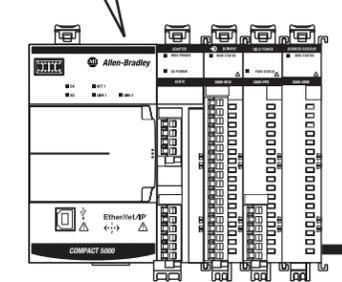
5069 Compact I/O Capacity
- 31 I/O Modules in a single rack

5069 Compact I/O Configuration
- Integrated USB for ease of configuration
- Supports Module Discovery and Add I/O Online
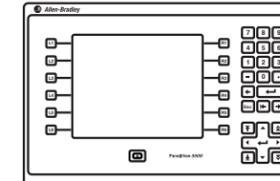
5069 Compact I/O Performance
- 1 Gb Dual Port EtherNet/IP Connectivity
- With ControlLogix 5580, under 1ms screw to screw performance

Plant Network

Optional Redundant 1 Gb Uplink

ControlLogix 5580 Overview	L83E	L85E
Memory	10 Mb	40 Mb
EtherNet/IP I/O nodes	100	300
Integrated Motion	1-256 Axis CIP Motion	1-256 Axis CIP Motion

1756 Slim Power Supply
- 29% reduction in width
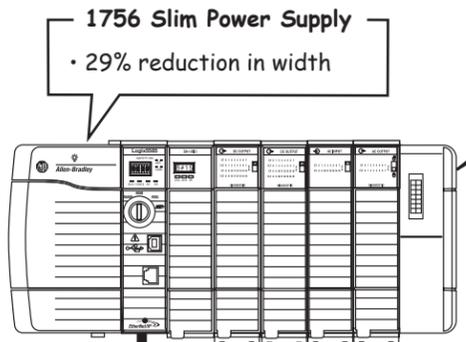
ControlLogix 5580 Performance
- 1GB built in EtherNet/IP Port while maintaining capability to add 1756-ENXT(R) as desired
- With 5069 Compact I/O, under 1ms screw to screw performance
- Communications no longer impacts controller performance
- Up to 40% more application capacity

ControlLogix 5580 Configuration
- Common developement environment for all control disciplines across the entire Logix family
- USB Port provides easy access to module and networks for configuration and troubleshooting
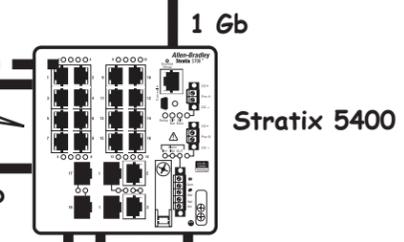
ControlLogix 5580 Capacity
- Scalable to a wide range of applications (See Table)
- Integrated Motion on EtherNet/IP provides a cost effective solution for from 1-256 axis of motion

Stratix Switch Family
- Scale your switch selection to your application with these Rockwell Automation switches with 1 Gb port capability:
  - Stratix 8300, 8000, 5700 and 5400 switches
- When connecting machines to a high level plant network, consider IT networking best practices.

Stratix 5400

1 Gb

1 Gb

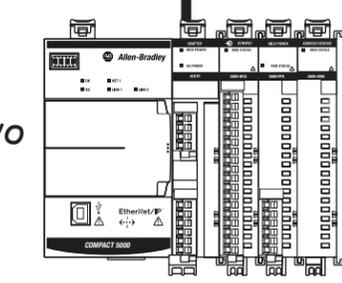1 Gb

Slim ArmorBlock SOE I/O Module

Slim ArmorBlock SOE I/O Module Capacity
- Sequence of Events (SOE) module
- Time stamp data can be used for motion soft registration support
- Includes 100us transition time stamp

POINT I/O Capacity
- The maximum is 63 POINT I/O modules per adaptor
- 1734-AENTR EtherNet/IP adaptor utilizes embedded switch technology to support linear or ring topologies

PanelView™ 5500

100 Mb

100 Mb

PowerFlex 527

Kinetix 5700

5069 Compact I/O

Panelview™ 5500 Capacity
- 512 MB - 1 Gb Memory
- Hot Swappable Secure Digital (SD) card slot
- 2-3 USB ports for external devices, programming
- Windows CE 6.0 operating system

Panelview™ 5500 Configuration
- Premier Integration with Logix Controllers
- Logix Tag Reuse, Global Objects, Faceplates and AOIs
- Single Developement Environment

Panelview™ 5500 Performance
- ARM 1.0 GHz or X86 1.66 GHz CPU
- 4, 6, 7, 9, 10, 12, 15 and 19 inch Display Sizes
- Color Keypad/Touch Screen Options

PowerFlex 527 Capacity
- 5 to 30 HP, 4 to 22KW
- 100 to 600V single or 3-phase
- 24vDC digital I/O
- Analog I/O
- Embedded EtherNet/IP (Linear/Ring with Dual Port Option)

PowerFlex 527 Configuration
- Studio 5000 Logix Designer common integrated motion programming, configuration, commissioning and drive diagnostic & maintenance tools.
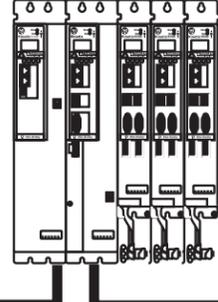- Embedded Safe Torque Off (SIL3 PLe)

PowerFlex 527 Performance
- Ideal complement to machines already using Kinetix servo drives.
- Designed for the in/out feed conveyors and fan and pump applications requiring induction motor control.

Kinetix 5700 Capacity
- Single or Dual Axis Modules
- 325-528VAC
- 1.6-60kW
- Embedded 2 Port EtherNet/IP supports Linear/Ring topologies

Kinetix 5700 Configuration
- Full integrated motion support for Kinetix 350, Kinetix 5500, Kinetix 5700, Kinetix 6500 & PowerFlex 755 using EtherNet/IP
- Studio 5000 Logix Designer common integrated motion programming, configuration, commissioning and drive diagnostic & maintenance tools.
- Network or Hardware Safety - Safe Torque Off - SIL3 PLe

Kinetix 5700 Performance
- High speed registration input on Kinetix drive can trigger a motion task in Studio 5000 Logix Designer for faster event task performance.

Note: Performance is what we tested, not the max capacity

Rockwell Automation

Integrated Motion on EtherNet/IP: ControlLogix 5580 Family

Bill of Material

Qty Catalog # Description

System: Controller Hardware

Qty	Catalog #	Description
1	1756-L85E	CONTROLLOGIX 5580 PROCESSOR 40MB MEMORY
1	1756-A7	7-SLOT CONTROLLOGIX CHASSIS
1	1756-PA50	85-265 VAC SLIM POWER SUPPLY (8A @ 5V DC)

System: Communication Hardware

Qty	Catalog #	Description
1	1783-HMS8T4CGN	STRATIX 5400 SWITCH 8FE, 4GE PORTS
1	1756-EN2T(R)	1 or 2-PORT CLX HI-CAP ETHERNET/IP

Motion Hardware

Qty	Catalog #	Description
1	2198-P031	KINETIX 5700 DC BUS SUPPLY 10A
2	2198-D006-ERS3	KINETIX 5700 Axis Module 2x2.5A
2	VPL-A1002A-CJ12AS	KINETIX VP LOW INERTIA MOTOR, IEC 100mm FRAME SIZE, 1500 RPM RATED SPEED

Single-Cable Technology - One cable between VPL Motor and Kinetix 5700 drive yields simplification and reduces costs. One cable for feedback, motor brake, and motor power.

Qty	Catalog #	Description
1	2090-CSBM1DE-14AA01	SINGLE CABLE FOR KINETIX 5700, 1 METER

Note: Catalog numbers consist of characters, each of which identifies a specific version or option for that component. Reference Publication GMC-SG001-EN-E Kinetix Motion Control Selection Guide for additional information

Drive Hardware

Qty	Catalog #	Description
1	25C-D2P3N104	POWERFLEX 527 DRIVE, 1 HP FRAME A
1	25C-D2P3N114	POWERFLEX 527 DRIVE WITH EMBEDDED DUAL PORT ETHERNET/IP AND INTEGRATED SAFETY, 1 HP FRAME A

Note: PowerFlex drives come in many variations - before ordering, you will need to identify voltage rating, horsepower, enclosure type. Please refer to the PowerFlex Selection Guide (PFLEX-SG002-EN-P) for additional details on selecting the right drive for you application.

Distributed I/O Hardware - 5069 Compact I/O

Qty	Catalog #	Description
1	5069-AEN2TR	ETHERNET/IP ADAPTER, P/S
1	5069-IB16	16 POINT 24 VDC INPUT MODULE
1	5069-OB16	16 POINT 24 VDC OUTPUT MODULE
1	5069-IF8	8 POINT ANALOG INPUT MODULE
1	5069-OF8	8 POINT ANALOG OUTPUT MODULE

Distributed I/O Hardware - POINT I/O

Qty	Catalog #	Description
1	1734-AENTR	1734 DUAL PORT ETHERNET IP ADAPTER
1	1734-FPD	FIELD POTENTIAL DISTRIBUTOR
1	1734-IA2	120V AC 2 CHANNEL INPUT MODULE
1	1734-OA2	120/230V AC 2 CHANNEL OUTPUT MODULE
4	1734-TB	MODULE BASE W/REMOVABLE IEC SCREW TERMINALS
1	1794-PS13	85-264V AC TO 24V DC 1.3A POWER SUPPLY

Distributed I/O Hardware - OTHER

Qty	Catalog #	Description
1	1732E-IB8M8SOER	SLIM ARMORBLOCK SOE MODULE

HMI Hardware

Qty	Catalog #	Description
1	2715-B10CD	PANELVIEW PLUS 5500 10" COLOR TOUCH TERMINAL, ETHERNET

Recommended Software

Qty	Catalog #	Description
1	9324-RLD300yyE	STUDIO 5000 LOGIX DESIGNER STANDARD EDITION

Note: ControlLogix Controllers can also be programmed when using Studio 5000 Logix Designer Standard, Full, or Pro.

About this Configuration

This ControlLogix 5580 based high performance system demonstrates the power and scalability of the Integrated Architecture on an EtherNet/IP based network. This system utilizes standard Ethernet technology to allow you to easily mix and match high speed Motion control, I/O control, drive control, and HMI on a single EtherNet/IP network.

A key advantage of this architecture is the ability to use Studio 5000 Logix Designer common integrated motion programming,configuration, commissioning, and motion tools for the Kinetix 5700, Kinetix 5500, PowerFlex 527 and PowerFlex 755 family of products.

About the Products

Logix Controllers
- A common set of controls, networks, and programming software available in multiple hardware platforms
- Multiple control disciplines in a single controller - sequential / motion / drives / process
- Multiple Program Languages available in all controllers - Ladder Diagram, Function Block, Structured Text, and Sequential Function Chart
- Tag-based architecture instead of addresses native in the controller

5069 Compact I/O
- A new generation of Compact I/O
- High performance control in a compact design
- Scan time improvements as much as 10x

PanelView 5500
- Reuse tags from Logix controllers by choosing them from a list
- 4" – 15" screen sizes available
- Touchscreen, keypad or combination
- Integrated EtherNet/IP , add-on communications for many other networks
- Advanced Operator Interface features such as trending, expressions, data logging, animation.

PowerFlex Drives
- Serves applications ranging from 0.2 kW (0.25 hp) to 6,770 kW (9,000 hp).
- Common set of networks, operator interface and programming for all PowerFlex drives
- Communication Options – Ethernet/IP, ControlNet, Devicenet, DH Plus, RIO, 3rd party networks
- Hundreds of pieces of status and diagnostic information are shared with Logix controllers directly

Kinetix Servos
- Scalable solution for applications from 100W to 112KW
- Integrated platform to simplify machine design and commissioning
- Smart Motor Technology to provide automatic identification of correct motor-to-drive connectivity

POINT I/O
- Available in IP-20 or IP-67 styles
- Densities from 2-8 points per module
- Removable screw or spring terminals without rewiring
- Mounts horizontally or vertically with no derating required
- Supports EtherNet/IP, ControlNet, DeviceNet and 3rd party networks

Stratix Switches and Network Infrastructure
- Stratix 5400, 5700, 8000 and 8300 Managed switches offer Loop Prevention, Security Services, Diagnostic Information, Segmentation Services(VLANs), Prioritization Services(QoS), and Multicast Management Services.
- Stratix 2000 Unmanaged Switches offer no layer 2 or layer 3 management functionality, but offer lower cost.
- Consider Network Address Translation (NAT), available with the 9300-ENA NAT device and the Stratix 5400/5700 with NAT option, depending on your application requirements.

For More Information and Help

For more information contact your local distributor or Rockwell Automation sales representative.
- www.ab.com (Product Directory, Publication Library, Technical Support)

Rockwell Automation