



***Allen-Bradley***

by ROCKWELL AUTOMATION

# Realize leaner, greener and more powerful machines

with  
ArmorKinetix  
Distributed  
Servo Drives

Let's start ►

# A new type of machine is taking shape

**Consumers continue to demand expanded offerings, personalized products and faster delivery times.**

And looking to the future, these requirements are only expected to grow. Trying to keep up using existing designs can put stress on your operations and drag down manufacturing performance, customer satisfaction and operating profitability.

But by rethinking the machine control architecture, companies can overcome these challenges and bring more efficient and profitable systems to operation.

These new designs provide the opportunity to:

- **Maximize** flexibility and modularity
- **Simplify** operation and maintenance
- **Advance** sustainability goals

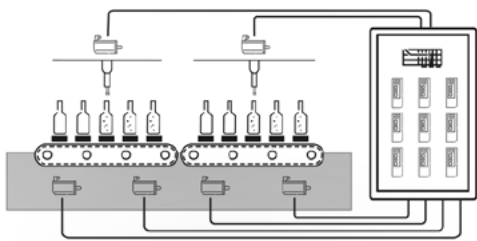
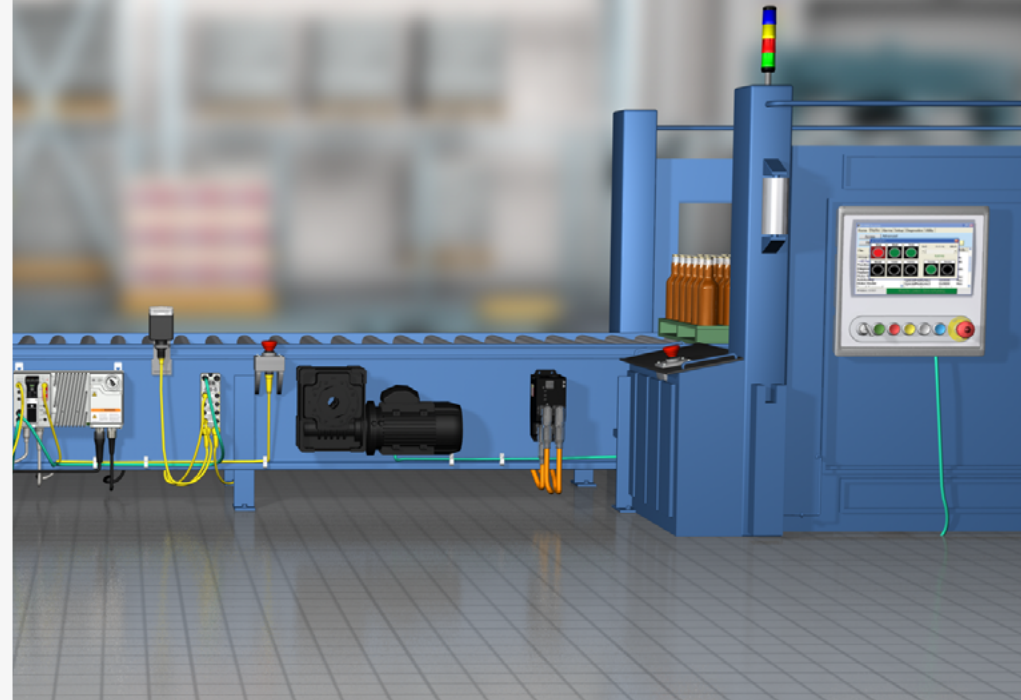


# Do more with less using decentralized control

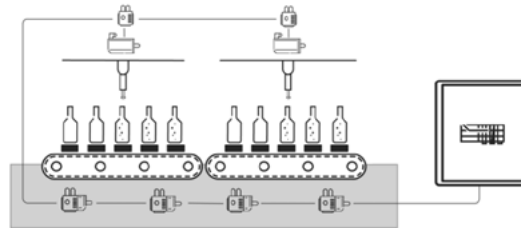
In today's competitive industrial marketplace, the phrase 'time is money' is more relevant than ever. **Our On-Machine™ solutions make it possible to simplify machine designs, shorten build and install times and make more productive machines a reality.** Using a decentralized control architecture, you can move away from using large, central enclosures to house all electrical components, and instead field mount your devices in locations that are more convenient for users and better optimized for your applications.

Using decentralized control you can:

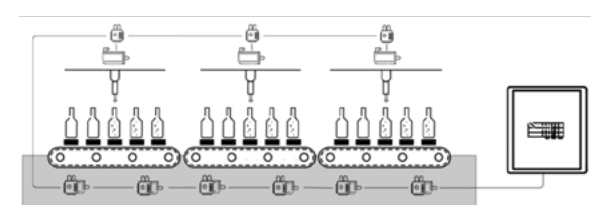
- **Accelerate** automation design and development
- **Reduce** machine cabling / terminations up to 90%
- **Lower** installation costs by an average of 30%



**Centralized System**



**Decentralized System**



**Decentralized System – Scaled up**

# ArmorKinetix Distributed Servo Drives

## Unlocking your next-generation smart machines

Meet the technology behind faster deployments and more capable smart machines. **ArmorKinetix® Distributed Servo Drives provide the high performance of the Kinetix® 5700 platform in a compact, On-Machine form factor** to enable your machines to become more efficient, flexible and cost-effective than ever before. With ArmorKinetix Distributed Servo Drives, you have the freedom to design your way. Select from the near-motor and integrated motor drive options to create your ultimate design and maximize the impact of your next machine.



## Innovative design

### Improve productivity and reduce footprint

ArmorKinetix Distributed Servo Drives are designed to be mounted outside of an electrical cabinet and are IP66/67 rated for washdown cleaning. Power and communication cables can be daisy chained together to create a streamlined motion network that further reduces the space claim of the system. Now you can experience:

- **Simplified** machine designs
- **Reduced** or eliminated electrical enclosures
- **Empowered** workers that can act faster

## Advanced sensing

### Your smart machine just got smarter

You must get the most out of your machines to keep up with demand and compete in a constantly innovating market. Integrated vibration and thermal sensors provide data-rich insights into your machines – unlocking the ability to:

- **Perform** advanced machine analytics
- **Improve** predictive maintenance
- **Maximize** machine performance and asset lifecycle

## Integrated safety and security

### Help protect what matters most

Simplify your safety network and help protect your people, equipment and profitability with CIP Security and CIP Safety support in a single cable solution. And with safe speed monitoring and Safe Torque Off capabilities you don't have to sacrifice productivity to design with safety in mind.



# Get more value across each stage of your machine lifecycle:

1

## Design

- Streamline processes with fewer parts to manage
- Simplify machines and reduce wiring requirements with multiple network topologies possible
- Design with performance and people in mind by mounting drives in any orientation

2

## Build

- Reduce risk with fewer terminations
- Save costs with less integration effort
- Improve returns by launching systems faster

3

## Operation

- Ease support by diagnosing drives without opening a control cabinet
- Lower energy use by reducing or eliminating electrical cabinet climate control
- Lessen downtime using advanced preventative maintenance

## Get more from your machines:

- **Lower** total system costs
- **Improve** productivity
- **Increase** uptime
- **Boost** sustainability efforts

# Technical specifications



## ArmorKinetix Distributed Servo and Motor

**Distributed servo drive with integrated Kinetix® VPL Motor offers:**

- 200/400V class product
- CIP Security
- IP66/67 rated
- Device Level Ring capable
- Connect any combination of 24 Distributed Servo Drives and Distributed Servo and Motors in each ring
- Standard encoder or Safety SIL 2 encoder
- Holding brake option
- Ideal for slip-ring applications

**Features an integrated Kinetix® VPL Motor in the following frame sizes:**

- 75 mm
- 100 mm
- 115 mm
- 130 mm



## ArmorKinetix Distributed Servo Drive

**Compact distributed servo drive offers:**

- 200/400V class product
- CIP Security
- IP66/67 rated
- Device Level Ring capable
- Connect any combination of 24 Distributed Servo Drives and Distributed Servo and Motors in each ring
- Advanced integrated safety – up to SIL 3
- Zero stack mounting

**Supports the following motors:**

- Kinetix® VP Motors in 63 mm to 130 mm frame sizes
- Kinetix® MP Motors with Hiperface sin/cos feedback and in 100 mm to 130 mm frame sizes
- Linear motors
- Induction motors with open loop or closed loop control



## Power Interface Module

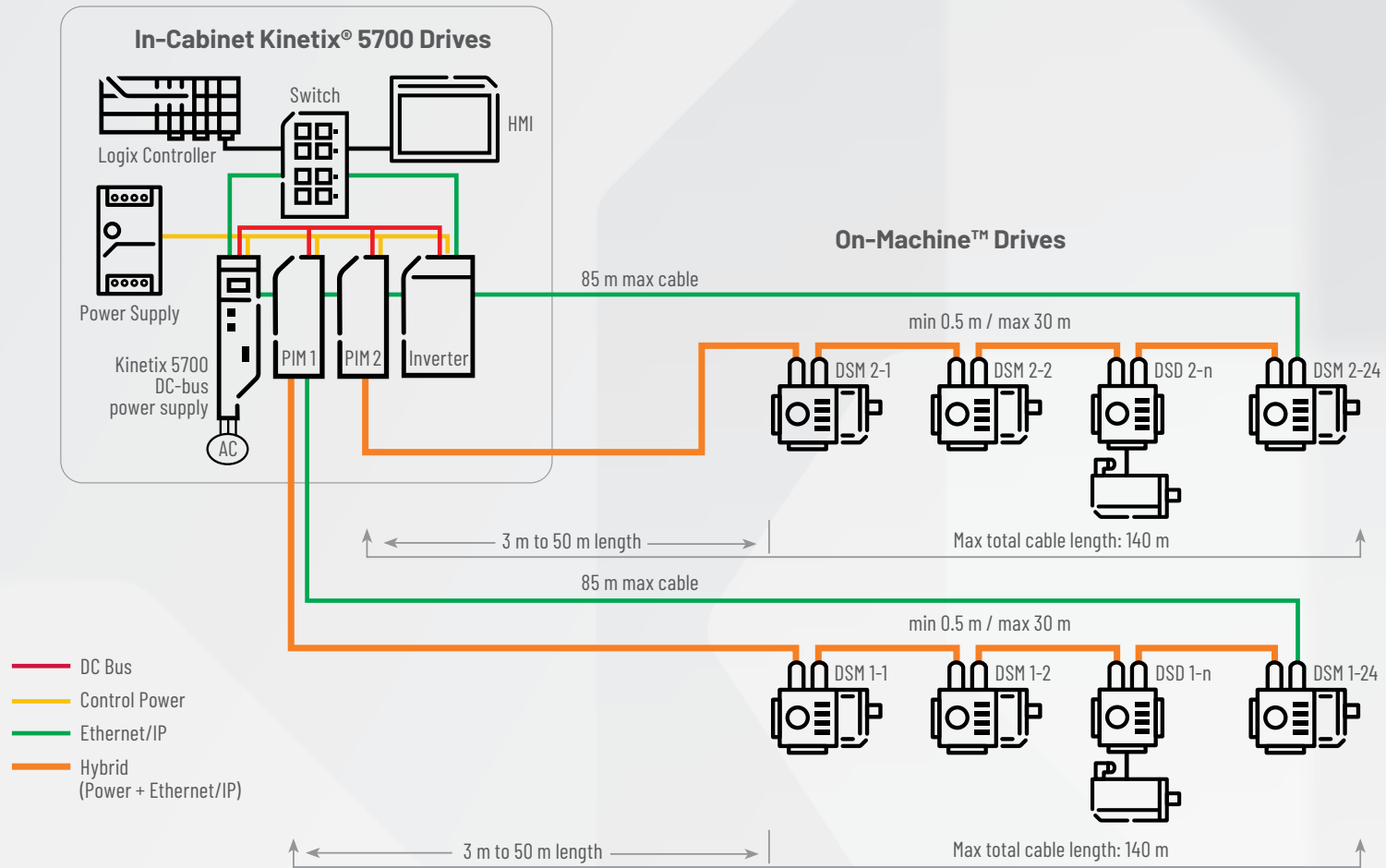
**Specifications:**

- 15kW output power
- 24 axes support – control power
- Multiple PIMs can be used for control of more than 24 axes
- 200V/400V class

**Features:**

- Applicable for both Distributed Servo Drive and Distributed Servo and Motor
- Ethernet CIP motion device
- Two port switch to connect to communication wires
- Front Kinetix® 5700 panel display with keypad
- Fault detection: Blown DC bus fuse and DC bus
- Overcurrent/overload
- Replaceable fuses
- Bus power management to monitor output current and voltage

# System diagram overview



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expanding **human possibility**<sup>®</sup>

AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2663 0600, Fax: (32) 2 663 0640

ASIA PACIFIC: Rockwell Automation SEA Pte Ltd, 2 Corporation Road, #04-05, Main Lobby, Corporation Place, Singapore 618494, Tel: (65) 6510 6608, FAX: (65) 6510 6699

UNITED KINGDOM: Rockwell Automation Ltd., Pitfield, Kiln Farm, Milton Keynes, MK11 3DR, United Kingdom, Tel: (44)(1908) 838-800, Fax: (44)(1908) 261-917

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Publication 2198-SP004A-EN-P - July 2023

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