

Kinetix 5000 Shared-bus Connector Kits

Kinetix 5500 and Kinetix 5700 Drive Families

The Kinetix® 5000 servo drive families use the shared-bus connection system to extend AC input power, 24V control power, and DC-bus power from drive-to-drive in shared-bus multi-axis configurations.

These documents contain additional information concerning drive system installation.

Resource	Description
Kinetix 5500 Servo Drives User Manual, publication 2198-UM001	Provides detailed information on wiring, applying power, troubleshooting, and integration with Logix5000™ controllers.
Kinetix 5700 Servo Drives User Manual, publication 2198-UM002	
iTRAK® System User Manual, publication 2198T-UM001	

Kinetix 5700 Servo Drives

These shared-bus connector kits apply to Kinetix 5700 multi-axis servo drive systems.

Shared-bus Connector Kits Cat. No.	Drive Cat. No.	Application	Description
2198-TCON-24VDCIN36	2198-P031, 2198-P070, 2198-P141, ⁽¹⁾ 2198-P208, 2198-CAPMOD-2240	24V DC input power to control bus	24V DC input wiring connector
2198-H040-P-T	2198-D006-ERS3, 2198-D012-ERS3 2198-D020-ERS3, 2198-D032-ERS3 2198-CAPMOD-2240	Control power sharing	Control power T-connector with bus bars, 55 mm
2198-H070-P-T	2198-D057-ERS3 2198-S086-ERS3 2198-S130-ERS3	Control power sharing	Control power T-connector with bus bars, 85 mm
2198-S160-P-T	2198-S160-ERS3	Control power sharing	Control power T-connector with bus bars, 100 mm
2198T-W25K-P-IN	2198T-W25K-ER	24V DC input power to control bus	24V DC input wiring connector
2198T-W25K-P-T	2198T-W25K-ER	Control power sharing	Control power T-connector with bus bars, 100 mm

(1) The DC-bus power supply or capacitor module is the typical use. However, the input wiring connector can be inserted into any drive (mid-stream in the drive system) to begin a new 24V control bus when the maximum current value is reached. See the Kinetix 5700 Servo Drives User Manual, publication [2198-UM002](#).

Kinetix 5500 Servo Drives

These shared-bus connector kits apply to Kinetix 5500 multi-axis servo drive systems.

Shared-bus Connector Kits ⁽¹⁾ Cat. No.	Frame Size and Cat. No.	Application	Description
2198-H040-ADP-IN	Frame 1 or 2	First drive	<ul style="list-style-type: none"> Mains AC input wiring connector 24V DC input wiring connector DC bus T-connector
2198-H040-A-T	Next drive is . . . Frame 1 drives: <ul style="list-style-type: none"> 2198-H003-xxx 2198-H008-xxx Frame 2 drives: <ul style="list-style-type: none"> 2198-H015-xxx 2198-H025-xxx 2198-H040-xxx 	AC sharing only	AC bus T-connector
2198-H040-D-T		DC sharing only	DC bus T-connector
2198-H040-P-T		Control power sharing only	Control power T-connector
2198-H040-AD-T		AC and DC bus sharing	AC and DC bus T-connectors
2198-H040-AP-T		AC and control power sharing	AC and control power T-connectors
2198-H040-DP-T		DC and control power sharing	DC and control power T-connectors
2198-H040-ADP-T		AC, DC, and control power sharing	AC, DC, and control power T-connectors
2198-H070-ADP-IN	Frame 3 drive: 2198-H070-xxx	First drive	<ul style="list-style-type: none"> Mains AC input wiring connector 24V DC input wiring connector DC bus T-connector
2198-H070-A-T	Next drive is . . . Frame 3 drives: 2198-H070-xxx	AC sharing only	AC bus T-connector
2198-H070-D-T		DC sharing only	DC bus T-connector
2198-H070-P-T		Control power sharing only	Control power T-connector
2198-H070-AD-T		AC and DC bus sharing	AC and DC bus T-connectors
2198-H070-AP-T		AC and control power sharing	AC and control power T-connectors
2198-H070-DP-T		DC and control power sharing	DC and control power T-connectors
2198-H070-ADP-T		AC, DC, and control power sharing	AC, DC, and control power T-connectors

(1) Catalog numbers 2198-H040-xxx-T include 55 mm bus bars. Catalog numbers 2198-H070-xxx-T include 85 mm bus bars.

Replacement Bus-bar Connectors

Cat. No.	Description	Drive Family
2198-BARCON-55DCAC100	Replacement 55 mm bus-bar connectors (quantity 8) for: <ul style="list-style-type: none"> AC and DC-bus sharing 24V DC control power sharing 	Kinetix 5500 Kinetix 5500 and Kinetix 5700
2198-BARCON-85DCAC100	Replacement 85 mm bus-bar connectors (quantity 8) for: <ul style="list-style-type: none"> AC and DC-bus sharing 24V DC control power sharing 	Kinetix 5500 Kinetix 5500 and Kinetix 5700
2198-BARCON-100DC100	Replacement 100 mm bus-bar connectors (quantity 8) for 24V DC control power sharing	Kinetix 5700

Install the Connector Kits

The connection system for both drive families is comprised of three components.



SHOCK HAZARD: To avoid hazard of electrical shock, perform all mounting and wiring of the servo drives and shared-bus connector kits before applying power. Once power is applied, connector terminals can have voltage present even when not in use.

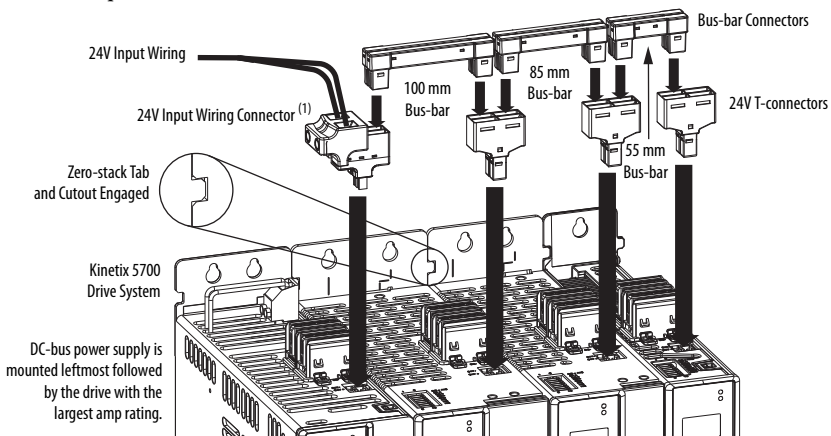
DANGER D'ÉLECTROCUTION: Pour éviter le risque d'électrocution, procéder à l'installation et au câblage des servovariateurs et des connecteurs du bus partagé avant de mettre sous tension. Lorsque l'alimentation est raccordée, les bornes du connecteur peuvent être sous tension même lorsqu'elles ne sont pas utilisées.

IMPORTANT When the shared-bus connection system is used, the zero-stack tab and cutout must be engaged between adjacent drives.

Kinetix 5700 Connection System

- The 24V input-wiring connector that plugs into the DC-bus power supply or capacitor module (typically) and receives input wiring for 24V DC.
- 24V DC T-connectors that plug into the drives downstream from the power supply where the 24V control power is shared.
- Bus bars that connect between drives to extend the 24V control power from drive to drive.

This example illustrates the 24V input wiring connector inserting into the DC-bus power supply along with downstream T-connectors and bus-bar connectors. For information on installing the DC-bus connector kit, refer to the Kinetix 5700 DC-bus Connector Kit Installation Instructions, publication [2198-IN007](#).

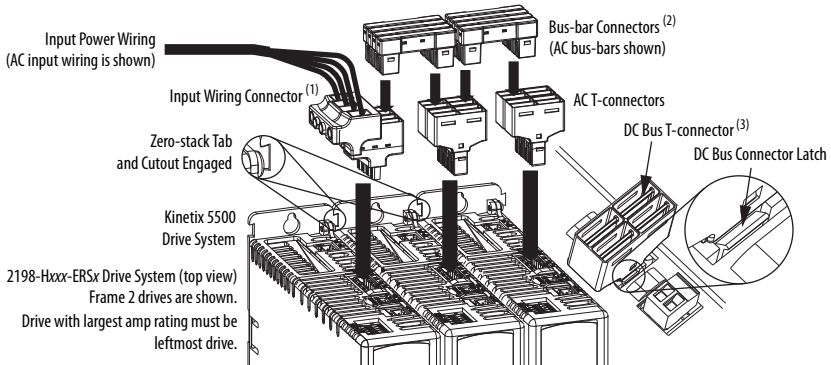


(1) Due to the higher amp rating of the iTRAK power supply (catalog number 2198T-W25K-ER), the input wiring connector (catalog number 2198T-W25K-P-IN) is slightly larger than the input wiring connector for the remaining Kinetix 5700 drive modules (catalog number 2198-TCON-24VDCIN36).

Kinetix 5500 Connection System

- Input-power wiring connectors plug into the leftmost drive and receive input wiring for AC input power and 24V DC input power.
- AC bus, DC bus, and 24V DC T-connectors plug into the drives downstream from the first drive where AC, DC, and/or 24V control power is shared. DC bus T-connectors also plug into the first drive where DC bus power is shared.
- Bus bars connect between drives to extend the AC input bus, DC bus, and 24V DC control power from drive-to-drive.

This example illustrates the AC input power wiring connector, T-connectors, and bus-bar connectors. The 24V bus and DC bus systems connect in a similar way.



- (1) Due to the higher amp rating of frame 3 drives, the input wiring connector for frame 3 drives (catalog number 2198-H070-ADP-IN) is slightly larger than the wiring connector for frame 1 and 2 drives (catalog number 2198-H040-ADP-IN).
- (2) Due to the extra width of frame 3 drives, bus-bar connectors between frame 3 drives are slightly longer (85 mm) than connectors between frame 2 and frame 1 drives (55 mm).
- (3) DC bus T-connectors latch on both sides when inserted into the drive. To remove the DC bus T-connector, at least one latch must be pried away with a non-conductive probe.

Power Ratings

Attribute	Value	Drive Family
AC input current, max	52 A	Kinetix 5500
Bus-bar current, max	70 A	

Attribute	Value	Drive Family
24V control power current, max	32 A	Kinetix 5500 Kinetix 5700

The Kinetix 5000 servo drive families are rated for use on a circuit capable of delivering up to 200,000 A (fuses) and 65,000 A (circuit breakers) when used with fuses and circuit breakers specified in the Kinetix Servo Drives Technical Data, publication [GMC-TD003](#).

Rockwell Automation maintains current product environmental information on its website at <http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page>.

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Publication 2198-IN005D-EN-P - February 2016

Supersedes Publication 2198-IN005C-EN-P - March 2015

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