Allen-Bradley

Universal Feedback Connector Kit

Catalog Number 2198-K57CK-D15M

About the Connector Kit

This kit is designed for use with Allen-Bradley® 2090-Series motor feedback cables and provides wire terminations for encoder signals to the universal feedback (UFB) connector on Kinetix® 5700 drives.

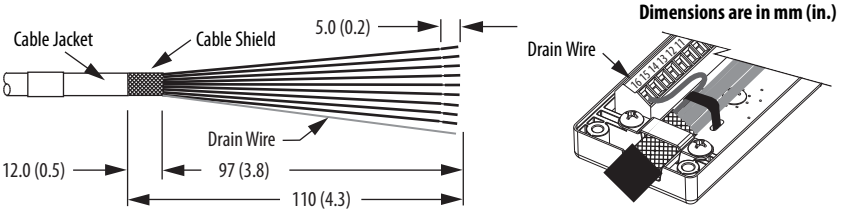
Refer to the Kinetix 5700 Servo Drives User Manual, publication 2198-UM002, for more information on compatible 2090-Series feedback cables and wiring this kit.

Prepare the Feedback Cable

To prepare your existing Bulletin 2090 cables for use with the universal feedback connector kit, some preparation is necessary so that the cable shield, conductor lengths, and strip lengths are correct. Make sure your feedback cable preparation follows these guidelines:

- Trim the shield flush so that no strands can cause a short to adjacent terminals.
- Measure the conductor lengths so they are long enough to provide a service loop.
- Remove just enough insulation from each conductor to provide the proper strip length.

Feedback Cable



IMPORTANT The drain wire from your 2090-Series motor cable must be connected to pin 16. If your cable does not include a drain wire, you must create one from the overall shield during wire preparation and connect it to pin 16.

Install the Connector Kit

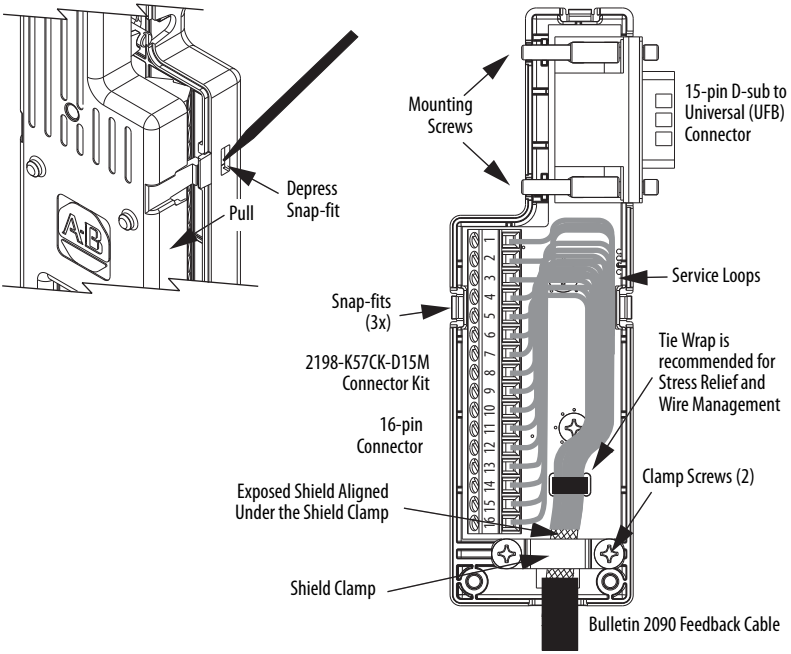
Follow these steps to install the connector kit.

1. Depress the snap-fits with a small screw driver or probe to remove the cover.
2. Route signal wires/drain wire to the proper terminals.

   See Connector Data on page 3, for the 16-pin terminal pinout.
3. Tighten terminal screws to achieve 0.25 N•m (2.2 lb•in), maximum torque.
4. Apply the shield clamp to the 12 mm (0.5 in.) of exposed cable shield to achieve a high-frequency bond between the shield braid and clamp.

IMPORTANT	The purpose of the shield clamp is to provide a proper ground and improve system performance. To achieve this, clamping the exposed braid under the shield clamp is critical.

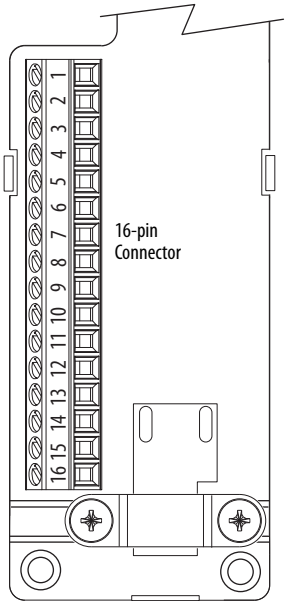
5. Attach a tie wrap (customer-supplied) for stress relief.
6. Tighten clamp screws to achieve 0.34 N•m (3.0 lb•in), maximum torque.



7. Replace the cover and install cover screw.

   Tighten cover screw to achieve 0.34 N•m (3.0 lb•in), maximum torque.

Connector Data



Terminal	Signal		Wire Color
1	SIN+	AM+	Black
2	SIN–	AM–	White/Black
3	COS+	BM+	Red
4	COS–	BM–	White/Red
5	DATA+	IM+	Green
6	ECOM (1)		White/Gray
7	EPWR_9V		Orange
8	S3		White/Yellow
9	CLK+		Brown
10	DATA–	IM–	White/Green
11	TS+		White/Orange
12	S1		White/Blue
13	S2		Yellow
14	EPWR_5V		Gray
15	CLK–		White/Brown
16	Drain		Shield

(1) The ECOM and TS- connections are tied together and connect to the cable shield.

Connector Kit Specifications

Attribute	Value
Cable diameter	6.5…11.9 mm (0.26…0.47 in.)
Screw terminal wire size	0.08…1.5 mm^2 (28…16 AWG)
Recommended wire strip length	5 mm (0.2 in.) single conductor
Recommended torque Mounting screws Terminal screws Clamp and cover screws	 0.39 N•m (3.5 lb•in) 0.22…0.25 N•m (1.9…2.2 lb•in) 0.34 N•m (3.0 lb•in)
Kit contents	• Connector kit • Parts bag containing: – 1 cover screw, and 1 spare, #4-20, (0.375 in.) – 2 clamp screws, and 1 spare, #4-40, (0.25 in.) – 1 shield clamp

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
Kinetix 5700 Servo Drives User Manual, publication 2198-UM002	Information on installing, configuring, starting, and troubleshooting your Kinetix 5700 servo drive system.
Kinetix Servo Drives Specifications Technical Data, publication GMC-TD003	Provides product specifications for the Kinetix Integrated Motion over EtherNet/IP network, Integrated Motion over sercos interface, EtherNet/IP networking, and component servo drive families.
Kinetix Motion Accessories Specifications Technical Data, publication GMC-TD004	Provides product specifications for Bulletin 2090 motor and interface cables, low-profile connector kits, drive power components, and other servo drive accessory items.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation® industrial system.
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at http://www.rockwellautomation.com/literature.

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