



PowerFlex 4-Class DSI (Drive Serial Interface) Network Communication Adapter

This document explains how to install and wire a PowerFlex 4-Class Network Communication Adapter into a PowerFlex 40 Class or PowerFlex 400 Class drive.



ATTENTION: Risk of injury or death exists. The PowerFlex 40/400 Class drive may contain high voltages that can cause injury or death. Remove power from the drive, and then verify power has been discharged before removing the drive cover.



ATTENTION: Risk of equipment damage exists. The Network Communication Adapter contains ESD (Electrostatic Discharge) sensitive parts that can be damaged if you do not follow ESD control procedures. Static control precautions are required when handling the card. If you are unfamiliar with static control procedures, refer to Guarding Against Electrostatic Damage, publication 8000-4.5.2.

If the adapter is being installed in a DSI External Comms Kit, refer to its Installation Instructions, publication 22-COMM-IN001 before/when installing the adapter. See “Related Documentation” for details.

Related Documentation

Document	Description
DSI External Comms Kit Installation Instructions, publication 22COMM-IN001	Instructions to install and wire a PowerFlex 4-Class adapter in a DSI External Comms Kit.
PowerFlex 4-Class Network Communication Adapter User Manuals, publications 22COMM-UM	Provides complete installation, wiring, setup, and communication information for respective PowerFlex 4-Class Network Communication Adapter.
Guarding Against Electrostatic Damage, publication 8000-4.5.2	Provides static control procedures for protecting electrostatic discharge sensitive parts.
Wiring and Grounding Guidelines for PWM AC Drives, publication DRIVES-IN001	Guidelines for proper wiring, grounding, and shielding, and standard practices for noise protection.

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

To order paper copies of technical documentation, contact your local Rockwell Automation distributor or sales representative.

For information such as firmware updates and answers to drive-related questions, go to the Drives Service & Support web site at www.ab.com/support/abdriives and click on the “Downloads” or “Get help with the new Knowledgebase” link.

Step 1 Remove power from the drive.

Step 2 Remove the drive cover.

Step 3 If the adapter has address or data rate switches, and/or an Operating Mode jumper, set them to appropriate positions. See the adapter User Manual for complete details.

Step 4 Mount the adapter.

PowerFlex 40 Class Frames B and C, and PowerFlex 400 Class Frame C

A. Mount the adapter on the *required special* drive cover (see [Figure 1](#) for part numbers).

- Frame C: Use the adapter screw to secure the adapter to the cover.

Important: Tighten the adapter's lower left screw to properly ground the adapter (see [Figure 1](#)).

- Frame B: Disregard the screw and snap the adapter in place.

Important: Install the drive cover onto the drive using both cover fasteners to properly ground the adapter.

B. Connect one end of the Internal Interface cable to the DSI port on the drive and the other end to the mating DSI connector on the adapter ([Figure 2](#)).

Figure 1 Mounting and Grounding the Adapter – PowerFlex 40 Class Frames B and C, and PowerFlex 400 Class Frame C

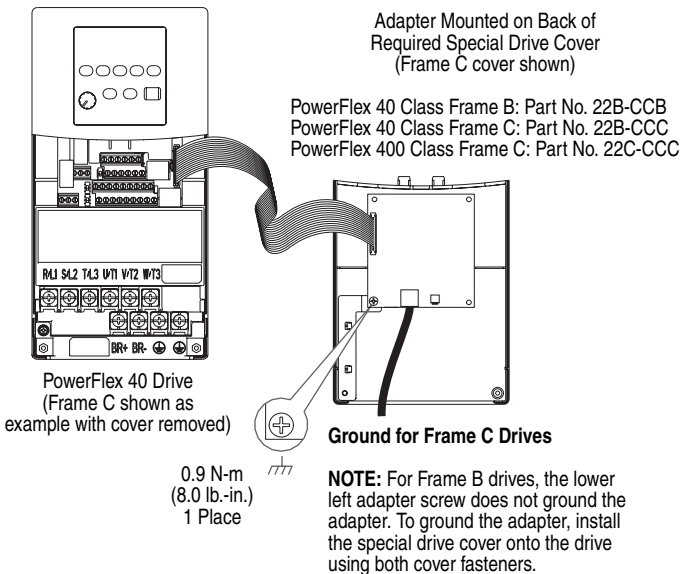
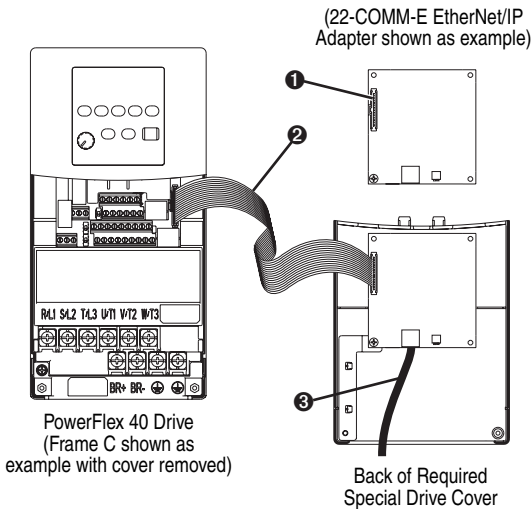


Figure 2 Connecting DSI Ports with Internal Interface Cable



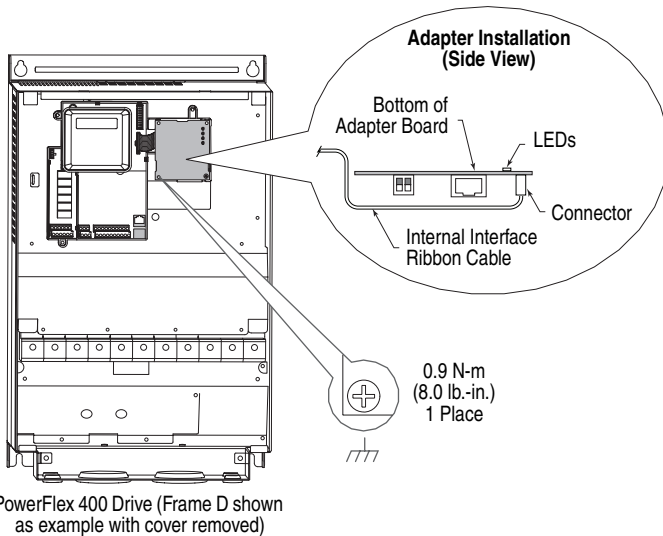
Item	Description
❶	DSI Connector
❷	15.24 cm (6 in.) Internal Interface cable
❸	Network cable

PowerFlex 400 Class Frame D and Higher

- C. With the adapter board right side up, remove its mounting screw from the lower left hole. Save the screw for mounting in step F.
- D. Connect the Internal Interface cable to the DSI port on the drive (see [Figure 3](#)).
- E. With the adapter board oriented bottom side up, route the Internal Interface cable under the adapter, and then to the mating DSI connector on the adapter.
- F. Install the adapter, bottom side up, to the right side of the display board by snapping it into place. Then insert the adapter mounting screw into the lower left hole on the board.

Important: Tighten the mounting screw in the adapter's lower left hole to ground the adapter to the drive.

Figure 3 Mounting and Connecting the Adapter – PowerFlex 400 Class Frame D and Higher



Step 5 Connect one end of the network cable to the network. Make sure to use the proper cable for the network. See the adapter User Manual’s “Related Documentation” section for appropriate publication(s).

Step 6 Route the other end of the network cable through the bottom of the PowerFlex 40/400 Class drive, and connect the cable to the adapter using the adapter’s mating socket or terminal block. For complete wiring details, see the adapter User Manual.

Important: Make sure to properly route, wire, and ground the cable. Always separate the communications wiring from the power and motor wiring. For more information, see *Wiring and Grounding Guidelines for PWM AC Drives*.

Step 7 Read the adapter User Manual for information to configure and determine how to apply the network to the host product.

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