



PowerFlex 7-Class DPI (Drive Peripheral Interface) Network Communication Adapter

This document explains how to install and wire a PowerFlex 7-Class Network Communication Adapter into a PowerFlex 7-Class drive.



ATTENTION: Risk of injury or death exists. The PowerFlex 7-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 not being installed in a PowerFlex 7-Class drive, refer to the instructions for the host product (DPI External Comms Kit, SMC Flex Smart Motor Controller, PowerFlex 7000 drive, PowerFlex DC drive, etc.) before/when installing the adapter.

Related Documentation

Document	Description
DPI External Comms Kit Installation Instructions, publication 20COMM-IN001	Instructions to install and wire a PowerFlex 7-Class adapter in a DPI External Comms Kit.
PowerFlex 7-Class Network Communication Adapter User Manuals, publications 20COMM-UM	Provides complete installation, wiring, setup, and communication information for respective PowerFlex 7-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.

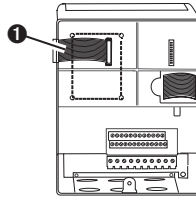
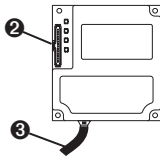
Step 1 Remove power from the drive.

Step 2 Remove the drive cover or open the drive door.

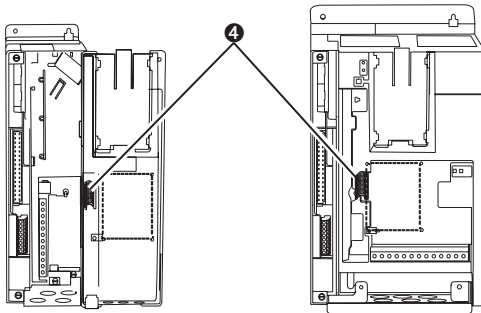
Step 3 If the adapter has address or data rate switches, set them to appropriate positions. See the adapter User Manual for complete details.

Step 4 Connect one end of the Internal Interface cable to the DPI port on the drive and the other end to the mating DPI connector on the adapter.

(20-COMM-E EtherNet/IP Adapter shown as example)

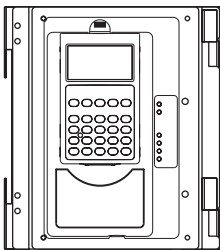


PowerFlex 70 - All Frames

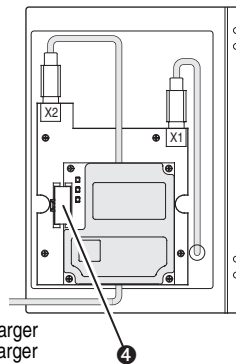


PowerFlex 700 Frames 0 and 1
PowerFlex 700S Frames 0 and 1

PowerFlex 700 Frames 2 and Larger
PowerFlex 700S Frames 2 through 6



HIM panel opens to allow access to DPI interface. To open panel, remove screws on left side of HIM panel and swing open.



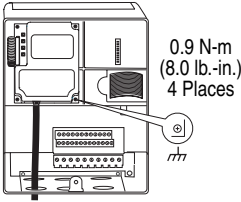
PowerFlex 700H Frames 9 and Larger
PowerFlex 700S Frames 9 and Larger

Item	Description
1	15.24 cm (6 in.) Internal Interface cable
2	DPI Connector

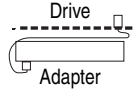
Item	Description
3	Network cable
4	2.54 cm (1 in.) Internal Interface cable

Step 5 Secure and ground the adapter to the drive by doing the following:

- On a PowerFlex 70 drive, fold the Internal Interface cable behind the adapter and mount the adapter on the drive using the four captive screws. Use the torque recommended in the drawing.
- On a PowerFlex 700, PowerFlex 700H drive or PowerFlex 700S drive, mount the adapter on the drive using the four captive screws. Use the torque recommended in the drawing.

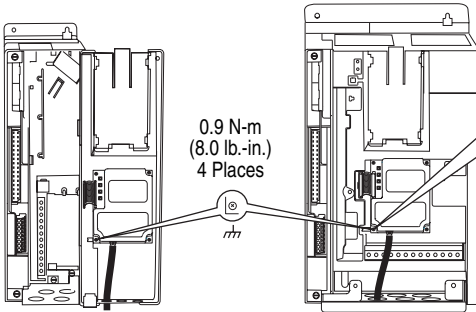


PowerFlex 70 - All Frame Sizes
(Adapter mounts in drive.)



Internal Interface Cable folded behind the adapter and in front of the drive.

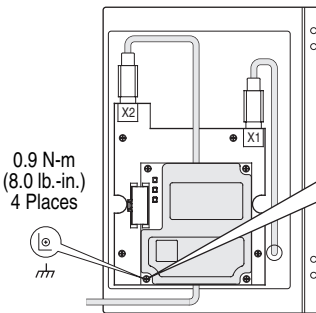
Ground Tab Detail



PowerFlex 700 Frames 0 and 1
PowerFlex 700S Frames 0 and 1
(Adapter mounts on door.)

PowerFlex 700 Frames 2 and Larger
PowerFlex 700S Frames 2 through 6
(Adapter mounts in drive.)

Verify metal ground tab is bent 90° and is under the adapter before tightening screw. After tightening the screw, verify continuity exists between the head of the screw and drive ground.



PowerFlex 700H Frames 9 and Larger
PowerFlex 700S Frames 9 and Larger
(Adapter mounts behind HIM panel.)

Verify metal ground tab is bent 90° and is under the adapter before tightening screw. After tightening the screw, verify continuity exists between the head of the screw and drive ground.

Step 6 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 7 Route the other end of the network cable to the outside of the 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 8 Read the adapter User Manual for information to configure and determine how to apply the network to the host product.

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