A·B QUALITY

Installation Instructions

Port Splitters

Catalog Numbers 1747-DPS1, 1747-DPS2

Important User Information

Solid state equipment has operational characteristics differing from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls (publication SGI-1.1 available from your local Rockwell Automation sales office or online at http://literature.rockwellautomation.com) describes some important differences between solid state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.

In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

WARNING	Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.
IMPORTANT	Identifies information that is critical for successful application and understanding of the product.
ATTENTION	Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you to identify a hazard, avoid a hazard, and recognize the consequences.
SHOCK HAZARD	Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.
BURN HAZARD	Labels may be on or inside the equipment, for example, a drive or motor, to alert people that surfaces may reach dangerous temperatures.

Safety Guidelines

Follow these guidelines for environment and enclosure information for this equipment.

ATTENTION

⚠️

This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC publication 60664-1), at altitudes up to 2000 m (6562 ft) without derating.

This equipment is considered Group 1, Class A industrial equipment according to IEC/CISPR Publication 11. Without appropriate precautions, there may be potential difficulties ensuring electromagnetic compatibility in other environments due to conducted as well as radiated disturbance.

This equipment is supplied as open type equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The enclosure must have suitable flame-retardant properties to prevent or minimize the spread of flame, complying with a flame spread rating of 5VA, V2, V1, V0 (or equivalent) if non-metallic. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

In addition to this publication, see:

- Industrial Automation Wiring and Grounding Guidelines, Allen-Bradley publication 1770-4.1, for additional installation requirements.
- NEMA Standards publication 250 and IEC publication 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosure.

North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations.

Products marked "CL I, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.

WARNING

EXPLOSION HAZARD

Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.

Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.

Substitution of components may impair suitability for Class I, Division 2.

If this product contains batteries, they must only be changed in an area known to be nonhazardous.

Informations sur l'utilisation de cet équipement en environnements dangereux:

Les produits marqués "CL I, DIV 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.

AVERTISSEMENT   **RISQUE D'EXPLOSION**

Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement.

Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit.

La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I, Division 2.

S'assurer que l'environnement est classé non dangereux avant de changer les piles.

Preventing Electrostatic Discharge

ATTENTION	This equipment is sensitive to electrostatic discharge, which can cause internal damage and affect normal operation. Follow these guidelines when you handle this equipment:

- Touch a grounded object to discharge potential static.

- Wear an approved grounding wriststrap.

- Do not touch connectors or pins on component boards.

- Do not touch circuit components inside the equipment.

- Use a static-safe workstation, if available.

- Store the equipment in appropriate static-shield packaging when not in use.

About the 1747 Port Splitters

The 1747 Port Splitters, catalog numbers 1747-DPS1 and 1747-DPS2, allow a single RS-232/DF1 full-duplex communication port on a controller to be split (expanded) into two ports for communication with two external devices simultaneously. Port splitters are compatible with the following controllers:

- SLC 500
- PLC-5
- MicroLogix
- ControlLogix
- CompactLogix
- FlexLogix

Both port splitters require an external power source and use Allen-Bradley programming cables.
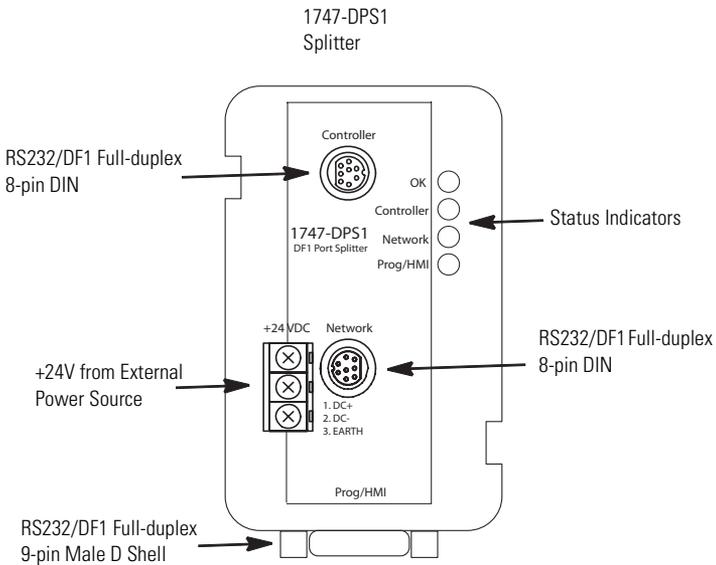
1747-DPS1 Port Splitter Features

The 1747-DPS1 port splitter, when connected to a controller, provides one network port for two-way communication between the controller and a local network.

The second port is respond only and can run a programming terminal or human machine interface (HMI). Both the network port and respond-only Prog/HMI port are DF1 full-duplex, 19.2 Kbps, 8 data bits, and 1 stop bit.

The 1747-DPS1 port splitter is **not** rated for Class I, Division 2 Group A, B, C, D Hazardous Locations.

1747-DPS1 Port Splitter

1747-DPS1
Splitter

RS232/DF1 Full-duplex
8-pin DIN

Controller

OK

Controller

1747-DPS1
DF1 Port Splitter

Network

Prog/HMI

Status Indicators

+24 VDC   Network

+24V from External
Power Source

1. DC+
2. DC-
3. EARTH

RS232/DF1 Full-duplex
8-pin DIN

Prog/HMI

RS232/DF1 Full-duplex
9-pin Male D Shell

1747-DPS2 Port Splitter Features

The 1747-DPS2 port splitter provides similar functionality as the 1747-DPS1 port splitter, but also allows the network port to be configured for communication with DH-485, DF1 half-duplex (master or slave), DF1 full-duplex, or DF1 radio modem networks.
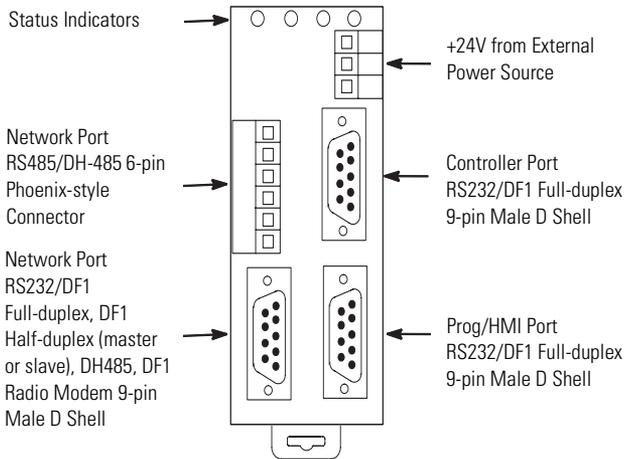
The network port is programmed as DH485 from the factory.

The network port is configured with a software utility that you can download from http://www.ab.com/programmablecontrol/plc/slcsystem/downloads.html.

The 1747-DPS2 port splitter has fully-isolated communication ports. Therefore, no external isolation is required.

The 1747-DPS2 port splitter is also rated for Class I, Division 2 Group A, B, C, D Hazardous Locations.

1747-DPS2 Port Splitter

Status Indicators

+24V from External
Power Source

Network Port
RS485/DH-485 6-pin
Phoenix-style
Connector

Controller Port
RS232/DF1 Full-duplex
9-pin Male D Shell

Network Port
RS232/DF1
Full-duplex, DF1
Half-duplex (master
or slave), DH485, DF1
Radio Modem 9-pin
Male D Shell

Prog/HMI Port
RS232/DF1 Full-duplex
9-pin Male D Shell

1747-DPS1 and 1747-DPS2 Controller Port

The controller port configuration turns on at DF1 full-duplex, 8 bits, no parity, 1 stop bit, but it autobauds between 19.2 and 38.4 Kbps as well as auto-checksums to either CRC or BCC. This lets you use the controller's maximum baud rate and to match the controller's checksum configuration.

IMPORTANT   Do not attempt to initiate any message instructions from the controller connected to the Controller port until the port splitter has completed its autobaud and auto-checksum detection, as indicated by the solid OK status indicator.

1747-DPS1 and 1747-DPS2 Prog/HMI Port

The Prog/HMI port is respond only. This DF1 port, intended for use with a programming station or HMI, has a 9-pin male D-shell connector. The port configuration is fixed at DF1 full-duplex, 19.2 Kbps, 8 bits, no parity, 1 stop bit, and CRC checksum.

IMPORTANT   When configuring the RSLinx Classic DF1 driver, set the device to match what is connected to the controller port. Set the baud rate to 19.2 Kbps, parity to none, stop bits to 1, error checking to CRC, and protocol to full-duplex. Do not attempt to click Auto-configure.

1747-DPS1 Network Port

The Network port on the 1747-DPS1 splitter allows message initiation from the controller as well as ASCII write initiation to be passed through. The port configuration is fixed at DF1 full-duplex, 19.2 Kbps, 8 bits, no parity, 1 stop bit, and CRC checksum.

The Network port can source power from the port-splitter's external Class 2 power supply to a 1761-NET-AIC or 1761-NET-ENI interface, if a 1761-CBL-AM00 or 1761-CBL-HM02 cable (or equivalent) is used.

IMPORTANT	Do not connect a MicroLogix 1100 controller to the Port Splitter Network port. Permanent damage to the MicroLogix 1100 communication port may result.

IMPORTANT	If a 1761-NET-DNI or 1761-NET-ENI interface is connected to the Network port, their serial ports must be configured for 19.2 Kbps. Do not attempt to use their autobaud capability.

1747-DPS2 Network Port

The Network ports on the 1747-DPS2 port splitter allow message initiation from the controller as well as ASCII write initiation to be passed through.

The Network ports also allow communication with DH-485, DF1 half-duplex, DF1 full-duplex, and DF1 radio modem networks. The communication parameters are also configurable.

IMPORTANT	If a 1761-NET-DNI or 1761-NET-ENI interface is connected to the Network port, their serial ports must be configured for 19.2 Kbps. Do not attempt to use their autobaud capability.

The Network port is programmed as DH485 from the factory.

The Network port is configured with a software utility that you can download from http://www.ab.com/programmablecontrol/plc/slcsystem/downloads.html.

External Power Supply

For the port splitters, a 24V dc external power supply capable of sourcing 100 mA is required.

ATTENTION

A Class 2 external power supply must be used with the 1747-DPS1 port splitter to maintain the UL Class 2 rating of this product.

Applying Power to the 1747-DPS1 Splitter via a MicroLogix Controller

The 1747-DPS1 splitter can also be powered by a MicroLogix 1000, 1200, and 1500 controller, thus eliminating the need for the 24V dc external power supply.

Required Tools and Equipment

You need the following tools to install the port splitter:

- Medium flat-blade screwdriver
- Medium Phillips-head screwdriver
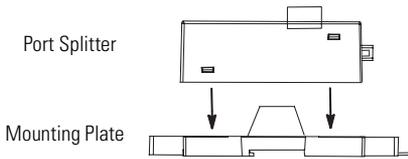
Installing the 1747-DPS1 Port Splitter

The 1747-DPS1 port splitter may be installed by either securing directly to the mounting surface by using a mounting plate or by mounting to a DIN rail.

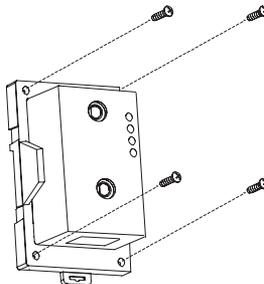## Install the 1747-DPS1 Port Splitter with a Mounting Plate

1. Determine your spacing requirements.
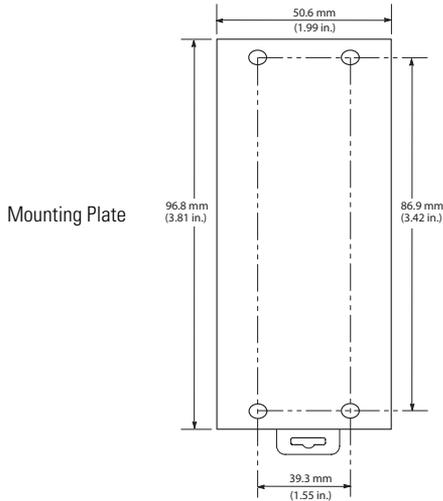
2. Drill holes into your mounting surface (#36 drill recommended).

3. Align the port splitter to the mounting plate and snap the port splitter into place.
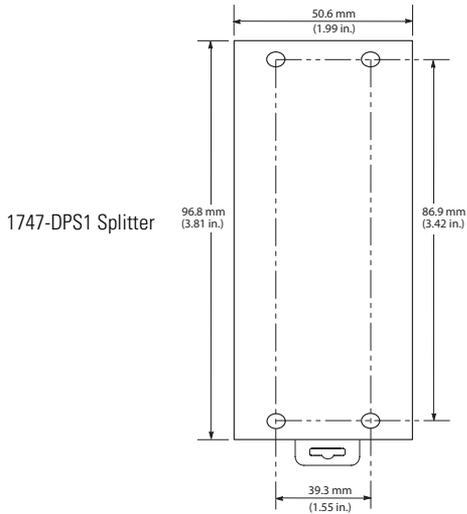

4. Fasten the mounting plate to your surface with four screws (6-32 recommended).

Install the 1747-DPS1 Port Splitter to a DIN Rail

1. Determine your spacing requirements.

50.6 mm
(1.99 in.)

1747-DPS1 Splitter 96.8 mm (3.81 in.)

86.9 mm (3.42 in.)

39.3 mm
(1.55 in.)

2. Mount the DIN rail to your mounting surface.

3. Align the port splitter to the mounting plate, and snap the port splitter into place.

Port Splitter
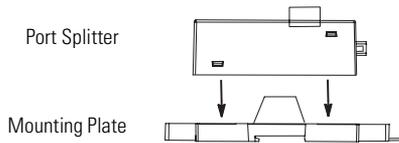
Mounting Plate

4. Pull the latch down and hook the top slot of the mounting plate over the DIN rail.
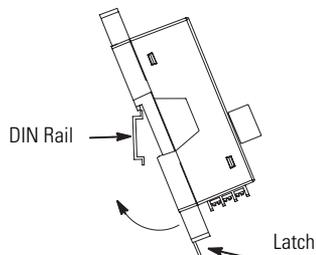
DIN Rail

Latch

5. While pressing the port splitter against the rail, push the latch up to secure the port splitter into place.

Installing the 1747-DPS2 Port Splitter

Before you mount the 1747-DPS2 port splitter on the DIN rail, you need to set the DIP switches.

Set the DIP Switches

You need to set the DIP switches to set the node address of the network port. For example, if you move switch 8 to the on position, this becomes node 1 on the DH485 network assuming DH485 protocol is running.

Addresses 0...31 are valid node addresses for the DH485 network and addresses 0...254 are valid node addresses for the DF1 network.

The default setting is with all the switches in the off position.

DIP Switch

DIP Switch Position per Node Address (0...254)

Switch Node	1	2	3	4	5	6	7	8
0	Off	Off	Off	Off	Off	Off	Off	Off
1	Off	Off	Off	Off	Off	Off	Off	On
2	Off	Off	Off	Off	Off	Off	On	Off
x	x	x	x	x	x	x	x	x
254	On	On	On	On	On	On	On	Off

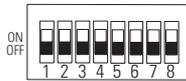## Mount the 1747-DPS2 Port Splitter to a DIN Rail

The 1747-DPS2 port splitter is installed by mounting to a DIN rail.

1. Determine your spacing requirements.
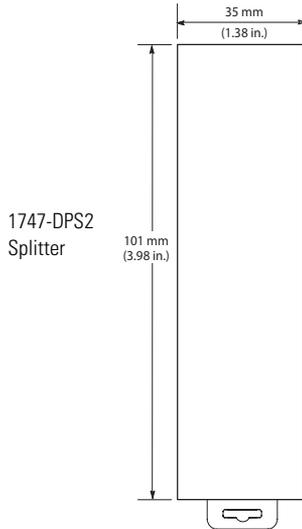
2. Mount the DIN rail to your mounting surface.

3. Pull the latch down and hook the top slot of the 1747-DPS2 splitter over the DIN rail.

4. While pressing the port splitter against the rail, push the latch up to secure the port splitter into place.
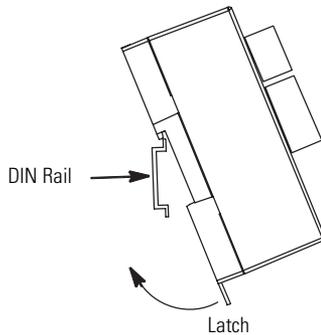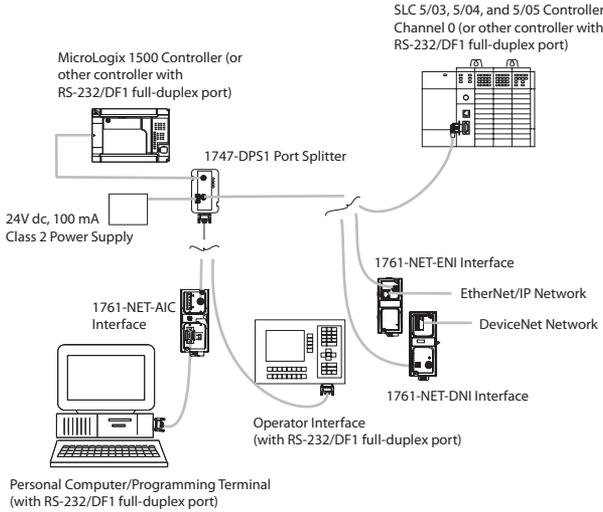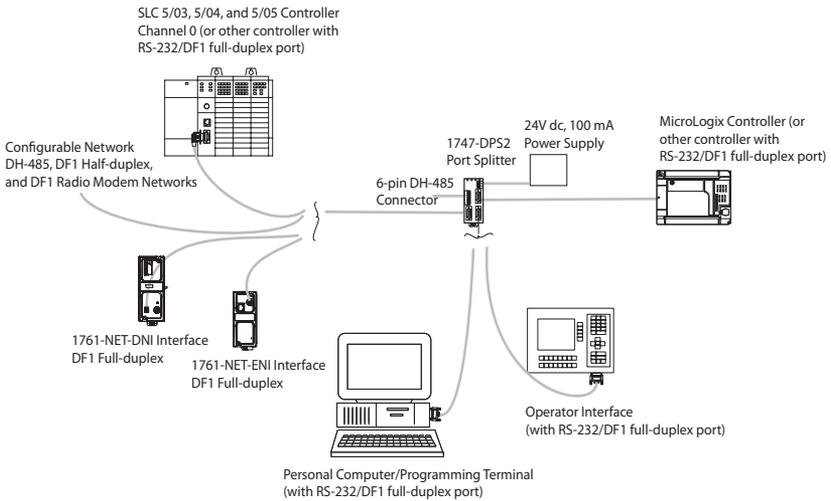
Connecting to the Port Splitters

1747-DPS1 Port Splitter

SLC 5/03, 5/04, and 5/05 Controller
Channel 0 (or other controller with
RS-232/DF1 full-duplex port)

MicroLogix 1500 Controller (or
other controller with
RS-232/DF1 full-duplex port)

1747-DPS1 Port Splitter

24V dc, 100 mA
Class 2 Power Supply

1761-NET-ENI Interface

EtherNet/IP Network

DeviceNet Network

1761-NET-AIC
Interface

1761-NET-DNI Interface

Operator Interface
(with RS-232/DF1 full-duplex port)

Personal Computer/Programming Terminal
(with RS-232/DF1 full-duplex port)

1747-DPS2 Port Splitter

SLC 5/03, 5/04, and 5/05 Controller
Channel 0 (or other controller with
RS-232/DF1 full-duplex port)

Configurable Network
DH-485, DF1 Half-duplex,
and DF1 Radio Modem Networks

24V dc, 100 mA
Power Supply

1747-DPS2
Port Splitter

6-pin DH-485
Connector

MicroLogix Controller (or
other controller with
RS-232/DF1 full-duplex port)

1761-NET-DNI Interface
DF1 Full-duplex

1761-NET-ENI Interface
DF1 Full-duplex

Operator Interface
(with RS-232/DF1 full-duplex port)

Personal Computer/Programming Terminal
(with RS-232/DF1 full-duplex port)

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IMPORTANT	For the 1747-DPS1 port splitter, refer to the Port Isolation table to determine isolation requirements for Allen-Bradley controllers and operator interface devices.

Cables Used to Connect to the Programming Port

This port for the 1747-DPS1 and 1747-DPS2 port splitter	Connects to	With this cable
Programming/HMI port (9-pin D-shell)	Personal computer (9-pin D-shell)	1747-CP3 (3 m, 10 ft)
		1756-CP3 (3 m, 10 ft)
		1761-CBL-AC00 (0.5 m, 1.5 ft)
	PanelView 300 through PanelView 1400 terminals and PanelView PLUS terminal (9-pin D-shell)	2711-NC13 (5 m, 16 ft)
		2711-NC14 (10 m, 32 ft)
		2706-NC13 (3 m, 10 ft)
	PanelView Micro terminal (8-pin mini DIN)	1761-CBL-AP00 (0.5 m, 1.5 ft)
		1761-CBL-PM02 (2 m, 6.5 ft)
		2711-CBL-PM05 (5 m, 16 ft)
		2711-CBL-PM10 (10 m, 32 ft)
	1761-NET-AIC port 1 (9-pin D-shell)	1747-CP3 (3 m, 10 ft)
		1761-CBL-AC00 (0.5 m, 1.5 ft)
	1761-NET-AIC port 2 (8-pin mini DIN)	1761-CBL-AP00 (0.5 m, 1.5 ft)
		1761-CBL-PM02 (2 m, 6.5 ft)

Cables Used to Connect to the 1747-DPS1 Network/Controller Ports

This port on the 1747-DPS1 port splitter	Connects to	With this cable
Network port (8-pin mini DIN) or Controller port (8-pin mini DIN)	Controller/interface with RS-232/DF1 port (9-pin D-shell)	1761-CBL-AP00 (0.5 m, 1.5 ft)
		1761-CBL-PM02 (2 m, 6.5 ft)
		2711-CBL-PM05 (5 m, 16 ft)
		2711-CBL-PM10 (10 m, 32 ft)
	Controller/interface with RS-232/DF1 port (8-pin mini DIN)	1761-CBL-AM00 (0.5 m, 1.5 ft)
		1761-CBL-HM02 (2 m, 6.5 ft)
		2711-CBL-HM05 (5 m, 16 ft)
		2711-CBL-HM10 (10 m, 32 ft)
	1761-NET-AIC port 1 (9-pin D-shell)	1761-CBL-AP00 (0.5 m, 1.5 ft)
		1761-CBL-PM02 (2 m, 6.5 ft)
	1761-NET-AIC port 2 (8-pin mini DIN)	1761-CBL-AM00 (0.5 m, 1.5 ft)
		1761-CBL-HM02 (2 m, 6.5 ft)

IMPORTANT	Do not connect a MicroLogix 1100 controller to the 1747-DPS1 Port Splitter Network port. Permanent damage to the MicroLogix 1100 communication port may result.

Cables Used to Connect to the 1747-DPS2 Network/Controller Ports

This port on the 1747-DPS2 port splitter	Connects to	With this cable
Network port (9-pin D-shell) or Controller port (9-pin D-shell)	Controller/interface with RS-232/DF1 port (9-pin D-shell)	1747-CP3 (3 m, 10 ft)
		1756-CP3 (3 m, 10 ft)
		1761-CBL-AC00 (0.5 m, 1.5 ft)
	Controller/interface with RS-232/DF1 port (8-pin mini DIN)	1761-CBL-AP00 (0.5 m, 1.5 ft)
		1761-CBL-PM02 (2 m, 6.5 ft)
	1761-NET-AIC port 1 (9-pin D-shell)	1747-CP3 (3 m, 10 ft)
		1761-CBL-AC00 (0.5 m, 1.5 ft)
	1761-NET-AIC port 2 (8-pin mini DIN)	1761-CBL-AP00 (0.5 m, 1.5 ft)
		1761-CBL-PM02 (2 m, 6.5 ft)

No standard cable is available for connecting to the PLC-5 controller. A 25-pin male to 9-pin male adapter is required.

Port Isolation

ATTENTION

This table lists port isolation characteristics for Allen-Bradley controllers and operator interface devices. Per UL requirements, when the 1747-DPS1 splitter is connected to a nonisolated port on a personal computer, controller, or operator interface, external isolation must be provided via a 1761-NET-AIC interface or similar device.

Controller	Isolated Port	Connector	Operator Interface/ Personal Computer	Isolated Port	Connector
CompactLogix L20 channel 0	No	9-pin D-shell	InView P22	No	9-pin D-shell
CompactLogix L30 channel 0	No	9-pin D-shell	InView (others)	No	Terminals
CompactLogix L30 channel 1	Yes	9-pin D-shell	PanelView 300	No	9-pin D-shell
CompactLogix L31 channel 0	Yes	9-pin D-shell	PanelView 300 Micro	No	8-pin mini DIN
CompactLogix L31 channel 1	No	9-pin D-shell	PanelView 550 and 550T	No	9-pin D-shell
CompactLogix L32 channel 0	Yes	9-pin D-shell	PanelView 600 and 600T	No	9-pin D-shell
CompactLogix L35 channel 0	Yes	9-pin D-shell	PanelView 1000K and 1000T	No	9-pin D-shell
ControlLogix channel 0	Yes	9-pin D-shell	PanelView 1400	No	9-pin D-shell
FlexLogix channel 0	No	9-pin D-shell	PanelView 100E	No	9-pin D-shell
MicroLogix 1000 channel 0	No	8-pin mini DIN	PanelView 1400E	No	9-pin D-shell
MicroLogix 1100 channel 0	Yes	8-pin mini DIN	PanelView Plus 400	No	9-pin D-shell
MicroLogix 1200 channel 0	No	8-pin mini DIN	with optional RS-232 card	Yes	9-pin D-shell
MicroLogix 1500 channel 0	No	8-pin mini DIN	PanelView Plus 600	No	9-pin D-shell
MicroLogix 1500 LRP channel 1	Yes	9-pin D-shell	with optional RS-232 card	Yes	9-pin D-shell
PLC-5 channel 0	Yes	25-pin D-shell	PanelView Plus 700	Yes	9-pin D-shell
SLC 5/03, 5/04, 5/05 channel 0	Yes	9-pin D-shell	PanelView Plus 1000	Yes	9-pin D-shell
			PanelView Plus 1250	Yes	9-pin D-shell
			PanelView Plus 1500	Yes	9-pin D-shell
			Personal Computer	No	9-pin D-shell
			RAC 6000 Series	No	9-pin D-shell
			VersaView	No	9-pin D-shell

Remove the Port Splitter

To remove the port splitter from the DIN rail, place a screwdriver in the DIN rail latch at the bottom of the port splitter. While holding the port splitter, pry downward on the latch until the port splitter is released from the rail.
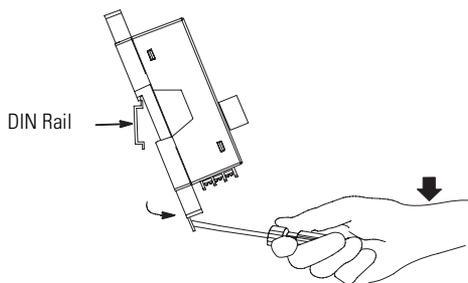
To remove the 1747-DPS1 port splitter from the mounting surface, unscrew the screws.

Interpret the Status Indicators

The port splitter has four status indicators.

Indicator	State	Description
OK	Flashing green or red	Port splitter is turning on and auto-configuring.
	Solid green or red	Port splitter is on and operational.
Controller	Flashing red	Controller port is transmitting DF1 data.
	Flashing green	Controller port is receiving DF1 data.
Network	Flashing red	Network port is transmitting data.
	Flashing green	Network port is receiving data.
Prog/HMI	Flashing red	Prog/HMI port is transmitting DF1 data.
	Flashing green	Prog/HMI port is receiving DF1 data.

Additional Resources

You can view or download publications at http://literature.rockwellautomation.com. To order paper copies of technical documentation, contact your local Rockwell Automation distributor or sales representative.

Specifications

RS-232/DF1 Port Splitter- 1747-DPS1, 1747-DPS2

Attribute	Value	
	1747-DPS1	**1747-DPS2**
Power supply requirements	100 mA @ 24V dc Class2/SEL V	100 mA @ 24V dc
Isolation	No	Yes
Controller port communication rate and checksum	8-pin DIN, autobaud @ 19.2 Kbps or 38.4 Kbps auto-sum BCC or CRC	9-pin male D-shell, autobaud @ 19.2 Kbps or 38.4 Kbps auto-sum BCC or CRC
Network port communication rate and checksum	8-pin DIN, DF1 full-duplex 19.2 Kbps/CRC	9-pin male D-shell, 6-pin Phoenix-style connector for DH-485 configurable for DH-485, DF1 half-duplex (master or slave), DF1 full-duplex, or DF1 radio modem networks. The communication parameters are also configurable.
Prog/HMI port communication rate and checksum	9-pin male D-shell, 19.2 Kbps/CRC	9-pin male D-shell, 19.2 Kbps/CRC
Status indicators	4	4
Dimensions (HxWxD) without DIN rail, approx.	96.8 x 50.6 x 33.3 mm (3.81 x 1.99 x 1.31 in.)	N/A
Dimesions (HxWxD) with DIN rail, approx.	96.8 x 50.6 x 33.3 mm (3.81 x 1.99 x 1.31 in.)	101 x 35 x 70 mm (3.98 x 1.38 x 2.75 in.)

Environmental Specifications

Attribute	Value
Temperature, operating	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): 0…60 $^{\circ}$C (32…140 $^{\circ}$F)
Temperature, storage	IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bc, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock): −40…85 $^{\circ}$C (−40…185 $^{\circ}$F)
Relative humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5…95% noncondensing

Environmental Specifications

Attribute	Value
Vibration	IEC60068-2-6 (Test Fc, Operating): 2 g @10…500 Hz
Shock	IEC60068-2-27:1987, Test Ea (Unpackaged shock, ES#002) Operating - 30 g Nonoperating - 50 g
Emissions	CISPR 11: Group 1, Class A (with appropriate enclosure)
ESD immunity	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges
Radiated RF immunity	IEC 61000-4-3: 10 V/m with 1 kHz sine-wave 80% AM from 80…2000 Mhz
EFT/B immunity	IEC 61000-4-4: +2 kV at 5 kHz on communication ports
Surge transient immunity	IEC 61000-4-5: ±2 kV line-earth (CM) on communication ports
Conducted RF immunity	IEC 61000-4-6: 10 V rms with 1 kHz sine-wave 80% AM from 150 kHz…80 MHz
North American temperature code	T5

Certifications

Certification (when product is marked)[1]	Value
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E113724. UL Listed for Class I, Division 2 Group A, B, C, D Hazardous Locations, certified for US and Canada for the 1747-DPS2 port splitter. See UL File E10314.[2]
CE	European Union 89/336/EEC EMC Directive, compliant with: EN 61000-6-2; Industrial Immunity. EN 61000-6-4; Industrial Emissions.
C-Tick	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions.

[1]   See the Product Certification link at http://ab.com for Declarations of Conformity, Certificates, and other certification details.

[2]   The 1747-DPS1 port splitter is not rated for Class I, Division 2.

Rockwell Automation Support

Rockwell Automation provides technical information on the Web to assist you in using its products. At http://support.rockwellautomation.com, you can find technical manuals, a knowledge base of FAQs, technical and application notes, sample code and links to software service packs, and a MySupport feature that you can customize to make the best use of these tools.

For an additional level of technical phone support for installation, configuration, and troubleshooting, we offer TechConnect Support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit http://support.rockwellautomation.com.

Installation Assistance

If you experience a problem with a hardware module within the first 24 hours of installation, please review the information that's contained in this manual. You can also contact a special Customer Support number for initial help in getting your module up and running.

United States	1.440.646.3434 Monday – Friday, 8am – 5pm EST
Outside United States	Please contact your local Rockwell Automation representative for any technical support issues.

New Product Satisfaction Return

Rockwell tests all of its products to ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning, it may need to be returned.

United States	Contact your distributor. You must provide a Customer Support case number (see phone number above to obtain one) to your distributor in order to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for return procedure.