



SynchLink 4-port Splitter Block

Catalog Number 1751-SL4SP

Use this document as a guide when you install a SynchLink™ 4-port splitter block.

Topic	Page
Important User Information	2
SynchLink Overview	3
Installing the 4-port Splitter Block	4
Indicators	8
Mounting Dimensions	9
European Communities (EC) Directive Compliance	10
Hazardous Location information	11
Rockwell Automation Support	13
Specifications	14

Related Publications

Publication Title	Publication Number
SynchLink Base Block Installation Instructions	1751-IN001A-EN-P
SynchLink 4-port Splitter Block Installation Instructions	1751-IN002A-EN-P
SynchLink Bypass Switch Block Installation Instructions	1751-IN003A-EN-P
ControlLogix SynchLink Module Installation Instructions	1756-IN575A-EN-P
SynchLink System Overview	1756-SO008A-EN-P
ControlLogix SynchLink Module User Manual	1756-UM521A-EN-P

Important User Information

Because of the variety of uses for the products described in this publication, those responsible for the application and use of this control equipment must satisfy themselves that all necessary steps have been taken to assure that each application and use meets all performance and safety requirements, including any applicable laws, regulations, codes and standards.

The illustrations, charts, sample programs and layout examples shown in this guide are intended solely for purposes of example. Since there are many variables and requirements associated with any particular installation, Allen-Bradley does not assume responsibility or liability (to include intellectual property liability) for actual use based upon the examples shown in this publication.

Allen-Bradley publication SGI-1.1, *Safety Guidelines for the Application, Installation and Maintenance of Solid-State Control* (available from your local Allen-Bradley office), describes some important differences between solid-state equipment and electromechanical devices that should be taken into consideration when applying products such as those described in this publication.

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Throughout this manual we use notes to make you aware of safety considerations:

ATTENTION



Identifies information about practices or circumstances that can lead to personal injury or death, property damage or economic loss.

Attention statements help you to:

- identify a hazard
- avoid a hazard
- recognize the consequences

IMPORTANT

Identifies information that is critical for successful application and understanding of the product.

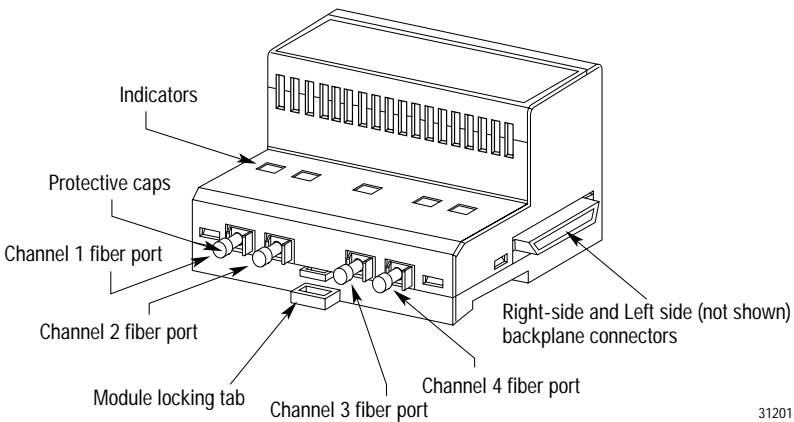
SynchLink Overview

We designed the SynchLink system to provide the synchronization and coordination of drive and motion control applications that are based on ControlLogix™ and PowerFlex 700s™ stations.

About the SynchLink 4-port Splitter Block

The 4-port splitter block converts electrical signals coming from the base block to optical signals and retransmits them simultaneously through four output ports. The splitter block is DIN rail-mounted and is housed in a two-piece plastic enclosure. Figure 1 identifies the components of the splitter block.

Figure 1 - Components of the splitter block



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Prevent Electrostatic Discharge

ATTENTION



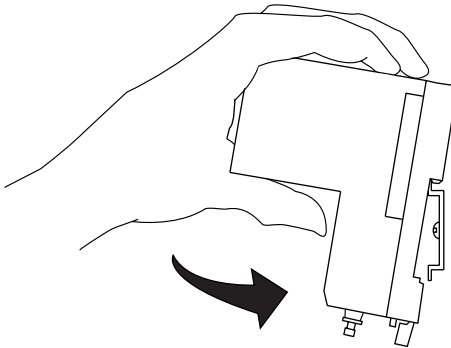
Electrostatic discharge can damage integrated circuits or semiconductors if you touch backplane connector pins. Follow these guidelines when you handle the splitter block:

- Touch a grounded object to discharge static potential.
 - Wear an approved wrist-strap grounding device.
 - Do not touch the backplane connector or connector pins.
 - Do not touch circuit components inside the splitter block.
 - If available, use a static-safe work station.
 - When not in use, keep the splitter block in its static-shield box.
-

Installing the 4-port Splitter Block

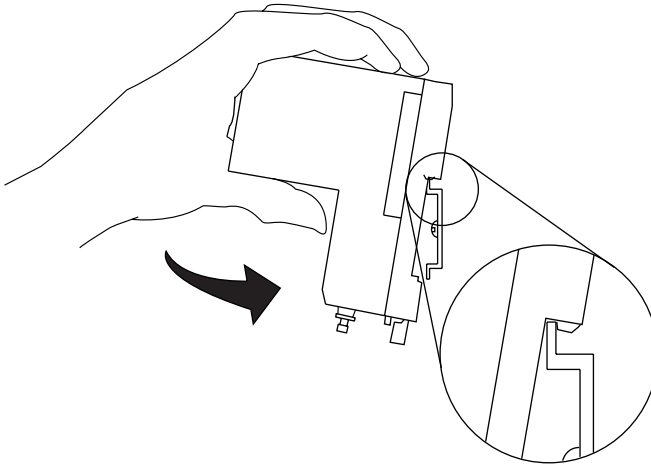
To install the 4-port splitter block:

1. Position the splitter block on a 35 x 7.5mm DIN rail (Allen-Bradley catalog number 199-DR1) at a 30° angle.



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- Hook the lip on the rear of the splitter block onto the top of the DIN rail, and rotate the splitter block onto the rail.

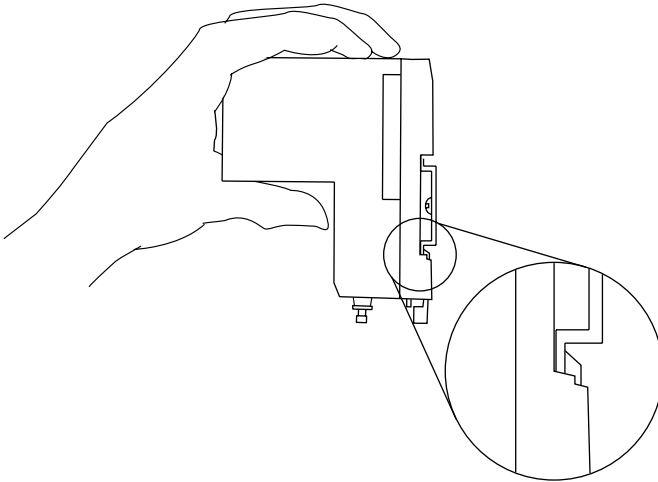


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- Press the splitter block down onto the DIN rail until flush.

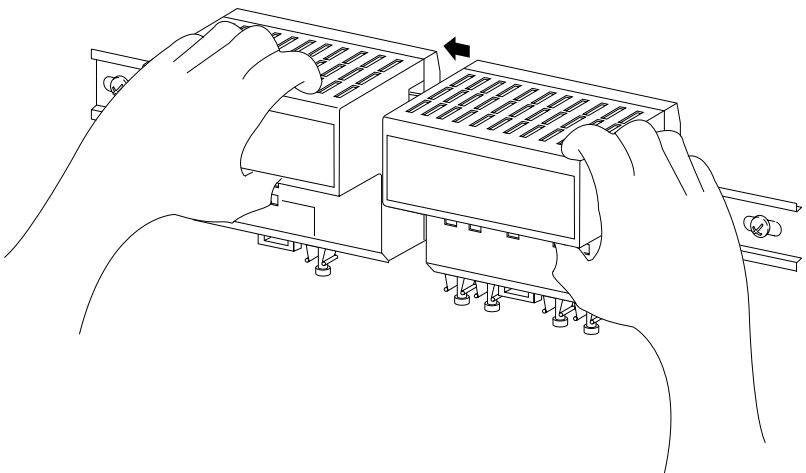
The locking tab should snap into position and lock the splitter block to the DIN rail. If the tab does not snap into position, follow step 4. If the tab does snap into position, proceed to step 5.

4. Use a screwdriver or similar device to move the locking tab down while pressing the splitter block flush onto the DIN rail. Release the locking tab to lock the splitter block in place. If necessary, push up on the locking tab to lock.



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5. Once attached to the DIN rail, slide the splitter block to the left to mate with the base block or another splitter block.



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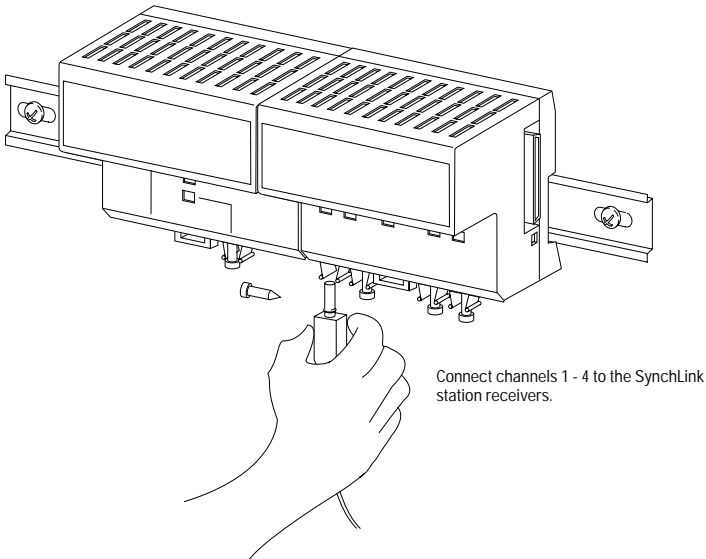
6. Use DIN rail end anchors to secure the units together. (Allen-Bradley catalog number 1492-EAH35)

ATTENTION

Make certain that the splitter block and base block are secured together with DIN rail anchors. Failure to do so may result in the loss of communications and/or cause damage to the blocks.

Failure to use the DIN rail interlocks in hazardous location installations could cause an explosion.

7. Connect pre-terminated cables to the fiber optic connectors as shown.



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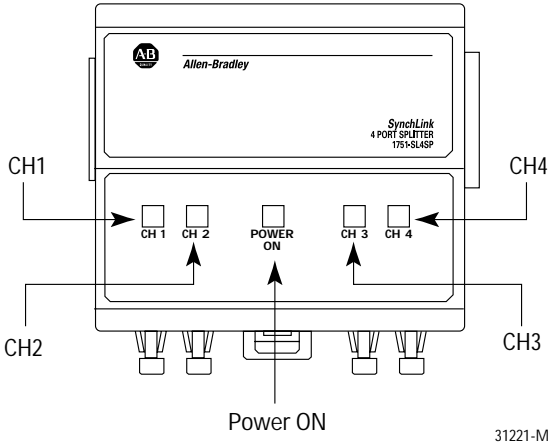
ATTENTION

Do not look directly into the fiber ports or fiber cables. Light levels may cause damage to eyesight. The splitter block is a Class 1 LED product.

Indicators

Figure 2 identifies the status indicators on the splitter block.

Figure 2 - Status indicators



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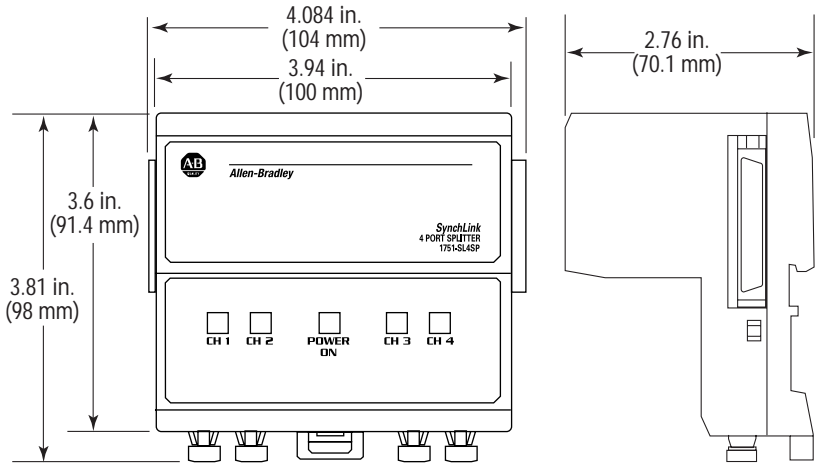
This table helps you to interpret the status indicators.

Indicator	When LED is ON
Power ON	power is applied to the splitter block
CH1	channel 1 transmitter is on
CH2	channel 2 transmitter is on
CH3	channel 3 transmitter is on
CH4	channel 4 transmitter is on

Mounting Dimensions

Figure 3 provides mounting dimensions for the splitter block.

Figure 3 - Mounting dimensions



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European Communities (EC) Directive Compliance

If this product has the CE mark it is approved for installation within the European Union and EEA regions. It has been designed and tested to meet the following directives.

EMC Directive

This product is tested to meet the Council Directive 89/336/EC Electromagnetic Compatibility (EMC) by applying the following standards, in whole or in part, documented in a technical construction file:

- EN 50081-2 EMC - Generic Emission Standard, Part 2 - Industrial Environment
- EN 50082-2 EMC - Generic Immunity Standard, Part 2 - Industrial Environment

This product is intended for use in an industrial environment.

Low Voltage Directive

This product is tested to meet Council Directive 73/23/EEC Low Voltage, by applying the safety requirements of EN 61131-2 Programmable Controllers, Part 2 - Equipment Requirements and Tests. For specific information required by EN 61131-2, see the appropriate sections in this publication, as well as the Allen-Bradley publication Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.

Open style devices must be provided with environmental and safety protection by proper mounting in enclosures designed for specific application conditions. See NEMA Standards publication 250 and IEC publication 529, as applicable, for explanations of the degrees of protection provided by different types of enclosure.

Hazardous Location information

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 1, Division 2.
 - S'assurer que l'environnement est classé non dangereux avant de changer les piles.
-

Rockwell Automation Support

Rockwell Automation offers support services worldwide, with over 75 sales/support offices, over 500 authorized distributors, and 260 authorized systems integrators located throughout the United States alone, plus Rockwell Automation representatives in every major country around the world. Contact your local Rockwell Automation representative for:

- sales and order support
- product technical training
- warranty support
- support service agreements

Obtain Pre-Sales Product Support

If you need to contact Rockwell Automation for pre-sales product support, try one of the following methods:





- Call your local Rockwell Automation representative
- Network Pre-sales support line, 1.440.646.3638 (3NET)
- Pre-Sales e-mail, RACle3net@ra.rockwell.com

Obtain Technical Product Support

If you need to contact Rockwell Automation for technical assistance, try one of the following methods:

- Call your local Rockwell Automation representative
- Post-Sales Technical Support, 1.440.646.5800
- Fax Back system, 1.440.646.5436 (requires a touch-tone telephone)
- Web Links <http://www.ab.com> — as a registered member, open to <http://www.ab.com/mem/technotes/techmain.html>

Specifications

Communication Rate	5M bit/s
Splitter Block Power Consumption	5V dc input from 1751-SLBA 0.300 A @ 5.1V dc
Environmental Conditions ⁽¹⁾	
Operating Temperature	0°C - 60°C
Storage Temperature	-40°C - 85°C
Relative Humidity	5 to 95%, 0°C - 60°C non-condensing
Shock	
Operating	30g peak acceleration, 11 (± 1)ms pulse width
Non-operating	50g peak acceleration, 11 (± 1)ms pulse width
Vibration	Tested 5 g @ 10 - 500Hz per IEC 68-2-6
Fiber Optic Cable	
Fiber Type	200/230 micron HCS (Hard Clad Silica)
Fiber Termination Type	Versalink V-System
Assemblies	Cable assemblies can be ordered from Allen-Bradley, catalog number 1403-CFxxx (xxx = length in meters); or from Lucent Technologies, Specialty Fiber Technologies division.
Maximum Length	300 meters
Minimum Length	1 meter
Agency Certifications When product is marked:	 Listed Industrial Control Equipment  Certified Process Control Equipment Certified Class I, Division 2, Group A, B, C, D  Marked for all applicable directives  marked for all applicable acts N223

⁽¹⁾ This product must be mounted within a suitable system enclosure to prevent personal injury resulting from accessibility to live parts. The interior of this enclosure must be accessible only by the use of a tool. This industrial control equipment is intended to operate in a Pollution Degree 2 environment, in overvoltage category II applications, (as defined in IEC publication 664A) at altitudes up to 2000 meters without derating.

Notes:

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Publication 1751-IN002A-EN-P - March 2001

PN 957345-11

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