
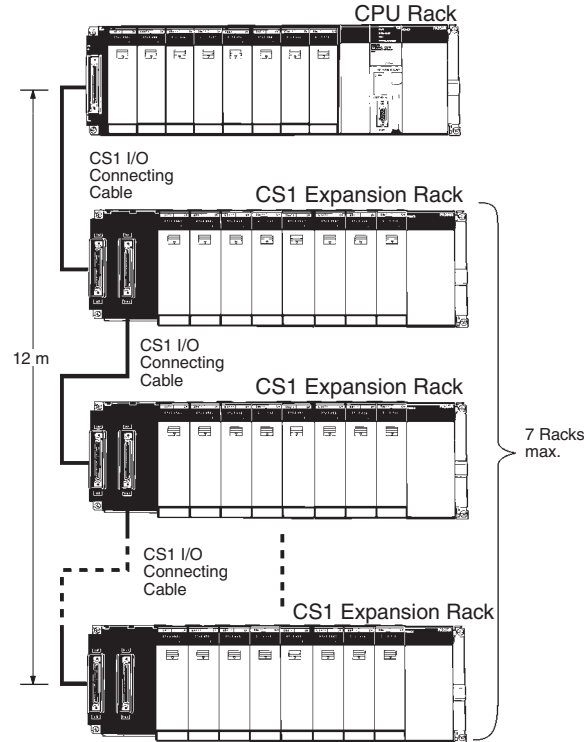


Name	Model	Specifications	Cable Length
I/O Interface Unit	CS1W-II102	Connects CS1 Expansion Racks. Must be used together with I/O Control Unit to connect Long-distance Expansion Racks (50 m max.). Not required to connect CS1 Expansion Racks within 12 m.	---
CS1 I/O Connecting Cables	CS1W-CN313	<p>Connects CS1 Expansion I/O Backplanes to CPU Backplanes or other CS1 Expansion I/O Backplanes.</p> <p>When using a CS1W-CN313 or CS1W-CN713 I/O Connecting Cable with a CS1□-CPU□□H CPU Unit, use only Cables produced on or after September 20, 2001 (production number 2091). Cables with no production number, a 6-digit production number, or produced before September 20, 2001, cannot be used.</p> <p><b>Reading the production number</b></p>  <p>Year (e.g., 1997=7) Month (1 to 9, X (10), Y (11), Z (12)) Day (01 to 31)</p>	0.3 m
	CS1W-CN713		0.7 m
	CS1W-CN223		2 m
	CS1W-CN323		3 m
	CS1W-CN523		5 m
	CS1W-CN133		10 m
	CS1W-CN133-B2		12 m
Long-distance Connecting Cables	CV500-CN312	<p>For Long-distance Expansion Racks</p> <p>Connects the I/O Control Unit to I/O Interface Units or connects one I/O Interface Unit to the next I/O Interface Unit.</p>	0.3 m
	CV500-CN612		0.6 m
	CV500-CN122		1 m
	CV500-CN222		2 m
	CV500-CN322		3 m
	CV500-CN522		5 m
	CV500-CN132		10 m
	CV500-CN232		20 m
	CV500-CN332		30 m
	CV500-CN432		40 m
	CV500-CN532		50 m
CS1-C200H I/O Connecting Cables	CS1W-CN311	<p>Connects C200H Expansion I/O Backplanes to CPU Backplanes or CS1 Expansion I/O Backplanes.</p>	0.3 m
	CS1W-CN711		0.7 m
	CS1W-CN221		2 m
	CS1W-CN321		3 m
	CS1W-CN521		5 m
	CS1W-CN131		10 m
	CS1W-CN131-B2		12 m
C200H I/O Connecting Cables	C200H-CN311	<p>Connects C200H Expansion I/O Backplanes to other C200H Expansion I/O Backplanes.</p>	0.3 m
	C200H-CN711		0.7 m
	C200H-CN221		2 m
	C200H-CN521		5 m
	C200H-CN131		10 m

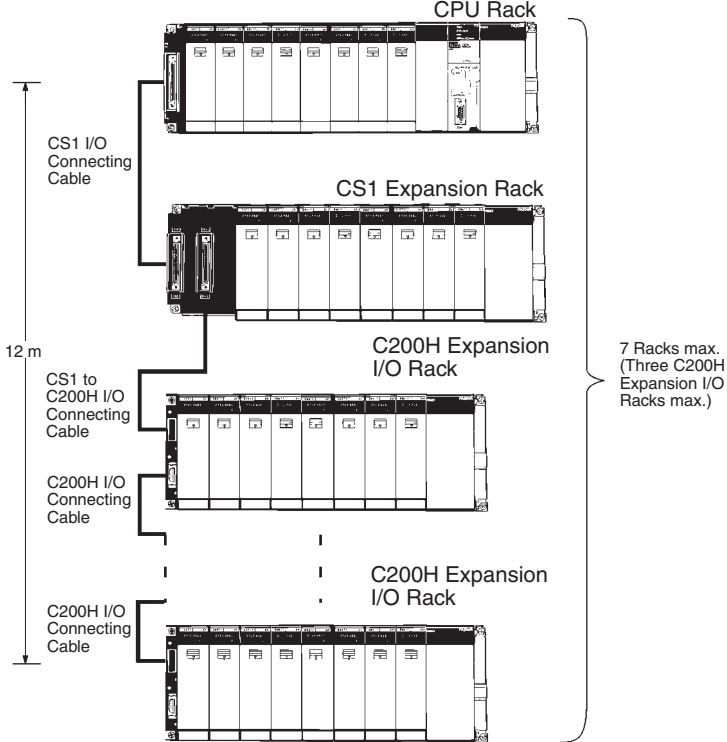
# Expansion Rack Patterns

The following diagrams show the 5 possible patterns of Expansion Racks.

## CPU Rack with CS1 Expansion Racks

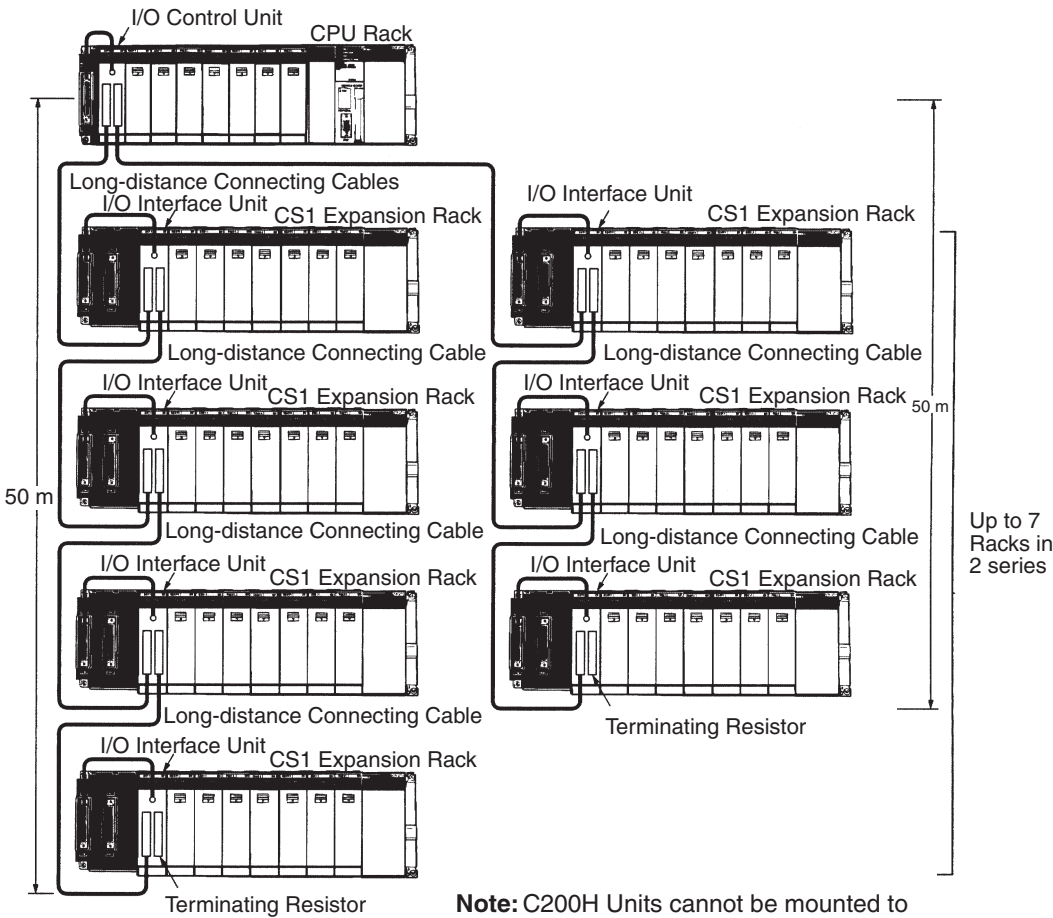


## CPU Rack with CS1 Expansion Racks and C200H Expansion I/O Racks



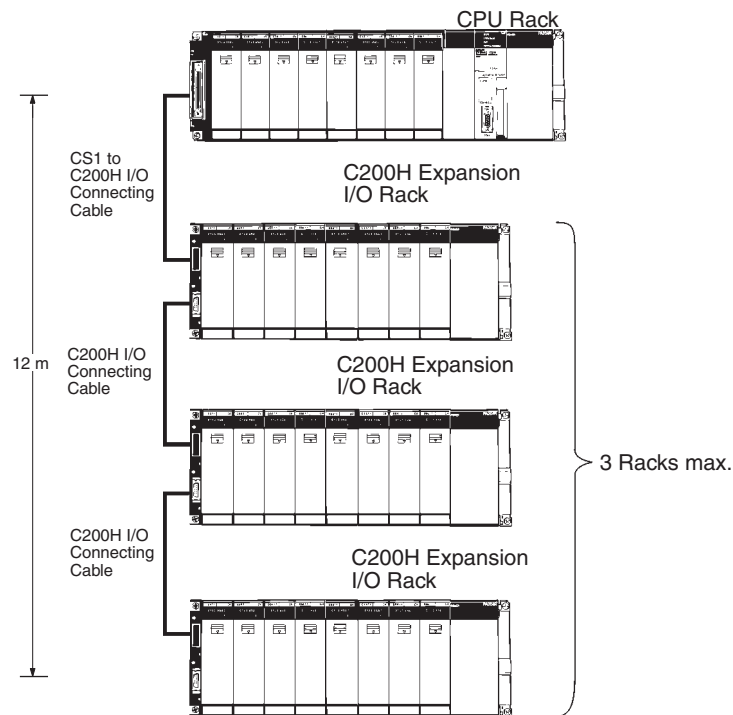
7 Racks max.  
(Three C200H  
Expansion I/O  
Racks max.)

## CPU Rack with CS1 Long-Distance Expansion Racks

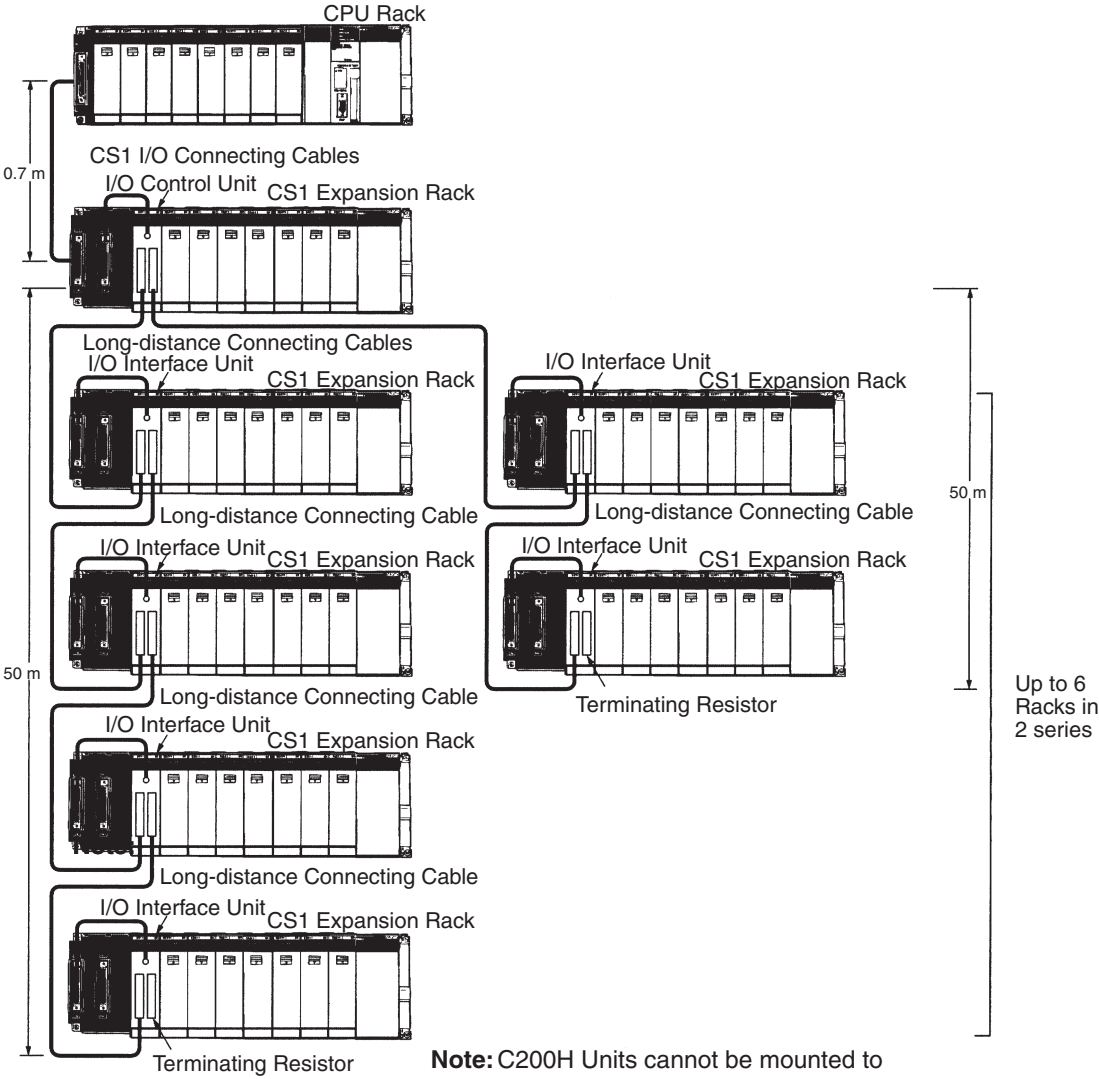


**Note:** C200H Units cannot be mounted to Long-distance Expansion Racks.

CPU Rack with C200H Expansion I/O Racks



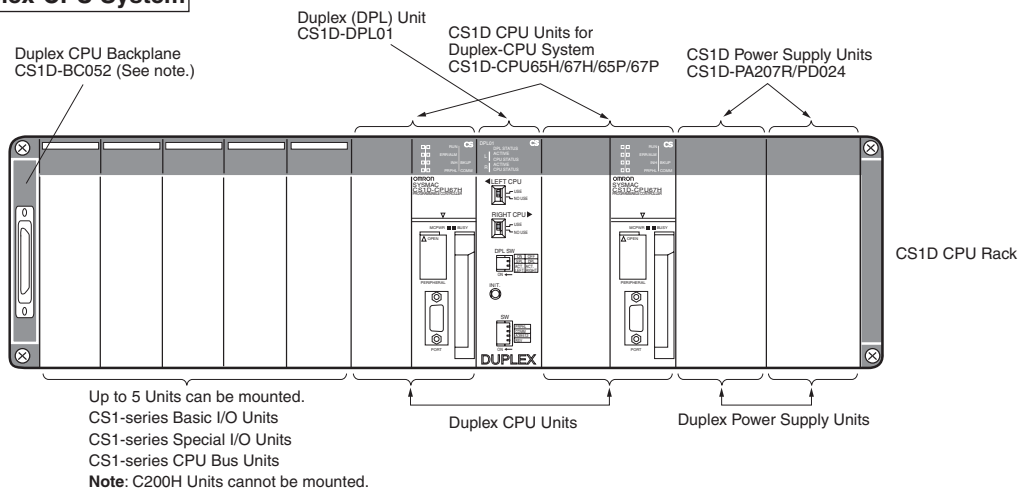
CPU Rack with CS1 Expansion Rack and CS1 Long-Distance Expansion Racks



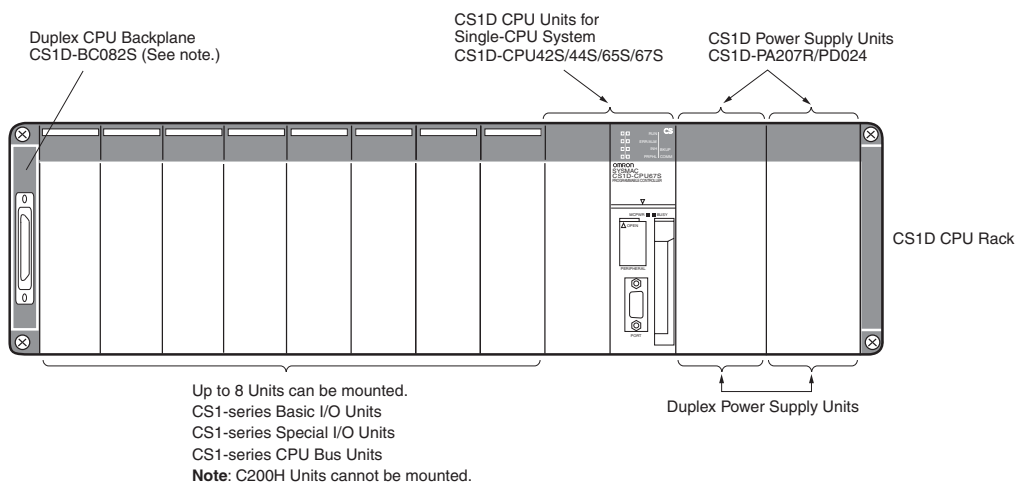
**Note:** C200H Units cannot be mounted to Long-distance Expansion Racks. (They can be mounted to the CS1 Expansion Rack with the I/O Control Unit mounted.)

## System Configuration (Duplex Systems)

### Duplex-CPU System



### Single-CPU System



### CPU Rack

A CPU Rack consists of a Duplex CPU Backplane to which CPU Units, Power Supply Units, a Duplex Unit, CS1-series Basic I/O Units, CS1-series Special I/O Units, and CS1-series CPU Bus Units are mounted. Memory Cards and Inner Boards to mount in the CPU Units are optional. (Inner Board cannot be mounted to the CS1D-CPU□□H/P) The CPU Units, Power Supply Units, Duplex CPU Backplane, and Duplex Unit are all designed specifically for CS1D PLCs.

**Note:** Different Backplanes are used for the CPU Rack and Expansion Racks. Be sure to use the correct Backplane.

### Expansion Racks

An Expansion Rack consists of an Expansion Backplane to which Power Supply Units, CS1-series Basic I/O Units, CS1-series Special I/O Units, and CS1-series CPU Bus Units are mounted.

The Power Supply Units and Expansion Backplane are designed specifically for CS1D PLCs.

CS1-series Expansion Backplanes and C200H Backplanes cannot be connected.

### Long-distance Expansion Racks

A Long-distance Expansion Rack consists of an Expansion Backplane to which an I/O Interface Unit, CS1-series Basic I/O Units, CS1-series Special I/O Units, and CS1-series CPU Bus Units are mounted. An I/O Control Unit is used to connect to the Long-distance Expansion Racks. Using Long-distance Expansion Rack increases the normal limit of 12 m for the Rack to 50 m.

### CS1D PLCs

With a CS1D Duplex-CPU System, two CPU Units can be mounted to the CPU Rack for Duplex Mode operation (Duplex Mode), or just one CPU Unit can be mounted for Simplex Mode operation. In either case, a Duplex Unit is required.

With a CS1D Single-CPU System, just one CPU Unit is mounted and a Duplex Unit is not required.

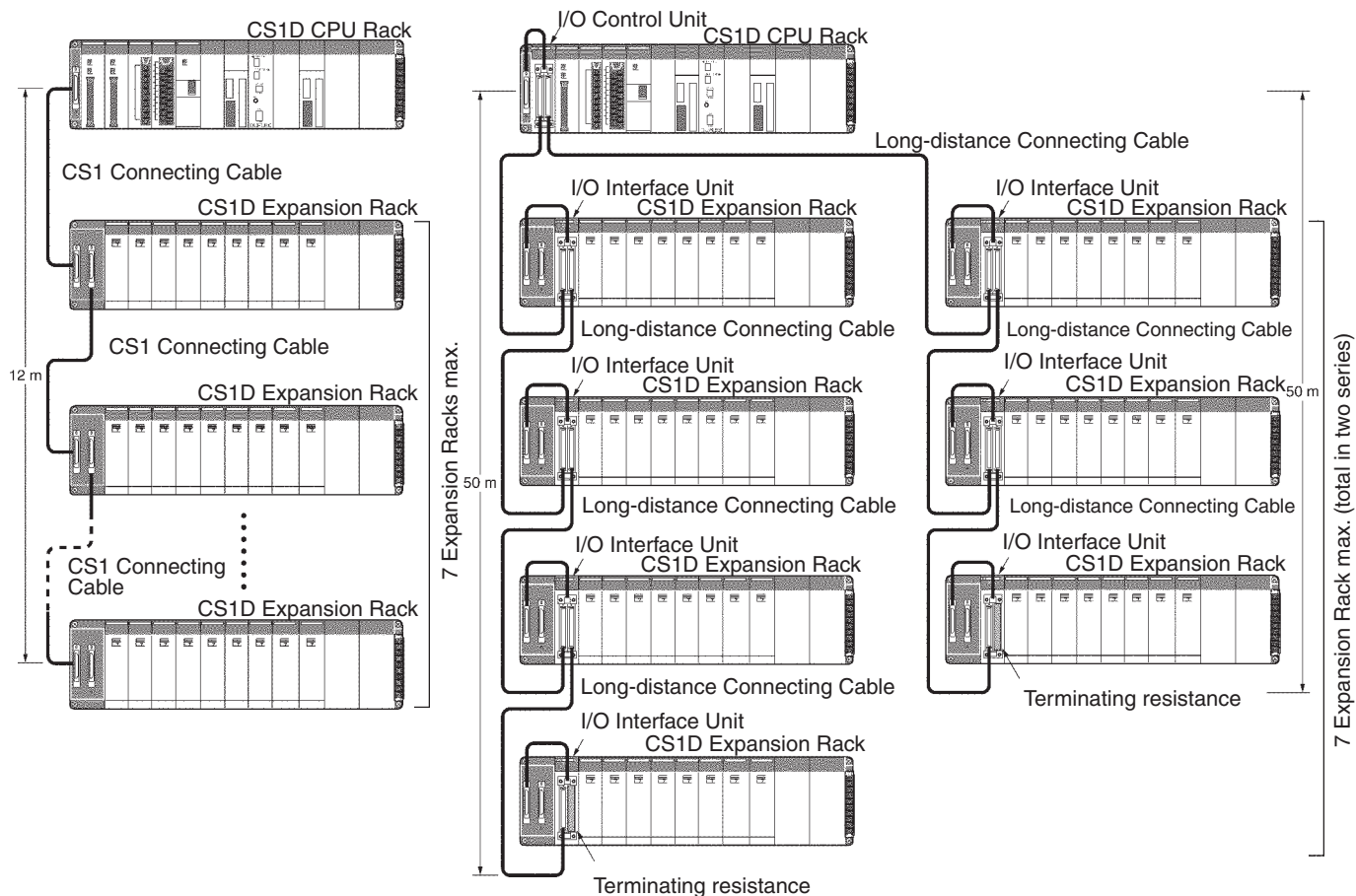
Also, two Power Supply Units can be mounted to any Rack to increase redundancy. (Racks can also be operated with only one Power Supply Unit.) With any of these combinations, there are no further restrictions if the system configuration, e.g., the same number of Expansion Racks can be used as with the other CS1-series PLCs.

**Note:** C200H Basic I/O Units, C200H Special I/O Units, and C200H CPU Bus Units cannot be mounted on any Rack.

## Expansion Patterns for CS1D PLCs

### CS1D CPU Rack + CS1D Expansion Rack

### CS1D CPU Rack + CS1D Long-distance Expansion Racks



Name	Model	Specifications	Cable Length
Long-distance Connecting Cables	CV500-CN312	For Long-distance Expansion Racks Connects the I/O Control Unit to I/O Interface Units or connects one I/O Interface Unit to the next I/O Interface Unit.	0.3 m
	CV500-CN612		0.6 m
	CV500-CN122		1 m
	CV500-CN222		2 m
	CV500-CN322		3 m
	CV500-CN522		5 m
	CV500-CN132		10 m
	CV500-CN232		20 m
	CV500-CN332		30 m
	CV500-CN432		40 m
	CV500-CN532		50 m
CS1-C200H I/O Connecting Cables	CS1W-CN311	Connects C200H Expansion I/O Backplanes to CPU Backplanes or CS1 Expansion I/O Backplanes.	0.3 m
	CS1W-CN711		0.7 m
	CS1W-CN221		2 m
	CS1W-CN321		3 m
	CS1W-CN521		5 m
	CS1W-CN131		10 m
C200H I/O Connecting Cables	CS1W-CN131-B2	Connects C200H Expansion I/O Backplanes to other C200H Expansion I/O Backplanes.	12 m
	C200H-CN311		0.3 m
	C200H-CN711		0.7 m
	C200H-CN221		2 m
	C200H-CN521		5 m
	C200H-CN131		10 m