Cable and Port Specifications

This appendix includes information about the cables and connectors used with the Cisco MDS 9220i Multilayer Fabric Switch.

Caution We strongly recommend that power cable runs and other potential noise sources be located as far away as practical from network cabling that terminates at Cisco equipment. In situations where long parallel cable runs exist, but cannot be separated by at least 3.3 ft. (1 m), we recommend that you shield these potential noise sources. To avoid interference, the source should be shielded by housing it in a grounded metallic conduit.

Cables and Adapters

The Cisco MDS 9220i Switch accessory kit includes the following:

- RJ-45-to-RJ-45 rollover cable
- RJ-45-to-DB-9 female DTE adapter (labeled Terminal)
- RJ-45-to-DB-25 female DTE adapter (labeled Terminal)
- RJ-45-to-DB-25 male DCE adapter (labeled Modem)

Note Additional cables and adapters can be ordered from your customer service representative.

Note If you purchased this product through a Cisco reseller, contact the reseller directly for technical support. If you purchased this product directly from Cisco, contact Cisco Technical Support at http://www.cisco.com/c/en/us/support/index.html.

Console Port

The console port is an asynchronous RS-232 serial port with an RJ-45 connector. You can use the RJ-45-to-RJ-45 rollover cable and the RJ-45-to-DB-9 female adapter or the RJ-45-to-DB-25 female DTE adapter (depending on your computer serial port) to connect the console port to a computer running terminal emulation software.

Console Port Pinouts

The following table lists the pinouts for the console port on the Cisco MDS 9220i switch:

Table 1: Console Port Pinouts

Pin	Signal
1[1]	RTS
2	DTR
3	TxD
4	GND
5	GND
6	RxD
7	DSR
8	CTS

1. Pin 1 is connected internally to pin 8.

Connecting the Console Port to a Computer Using the DB-25 Adapter

You can use the RJ-45-to-RJ-45 rollover cable and the RJ-45-to-DB-25 female DTE adapter (labeled Terminal) to connect the console port to a computer running terminal emulation software. The following table lists the pinouts for the console port, the RJ-45-to-RJ-45 rollover cable, and the RJ-45-to-DB-25 female DTE adapter:

Table 2: Port-Mode Signaling and Pinouts with DB-25 Adapter

Console Port	RJ-45-to-RJ-45 Rollover Cable		RJ-45-to-DB-25 Terminal Adapter	Console Device
Signal	**RJ-45 Pin**	**RJ-45 Pin**	**DB-25 Pin**	**Signal**
RTS	1	8	5	CTS
DTR	2	7	6	DSR
TxD	3	6	3	RxD

Console Port	RJ-45-to-RJ-45 Rollover Cable		RJ-45-to-DB-25 Terminal Adapter	Console Device
GND	4	5	7	GND
GND	5	4	7	GND
RxD	6	3	2	TxD
DSR	7	2	20	DTR
CTS	8	1	4	RTS

Connecting the Console Port to a Computer Using the DB-9 Adapter

You can use the RJ-45-to-RJ-45 rollover cable and RJ-45-to-DB-9 female DTE adapter (labeled Terminal) to connect the console port to a computer running terminal emulation software. The following table lists the pinouts for the console port, the RJ-45-to-RJ-45 rollover cable, and the RJ-45-to-DB-9 female DTE adapter:

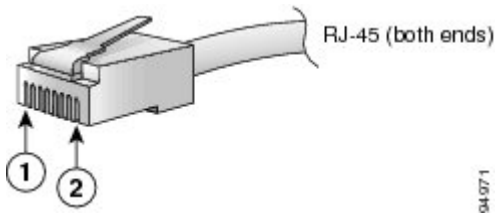
Table 3: Port-Mode Signaling and Pinouts with DB-9 Adapter

Console Port	RJ-45-to-RJ-45 Rollover Cable		RJ-45-to-DB-9 Terminal Adapter	Console Device
Signal	**RJ-45 Pin**	**RJ-45 Pin**	**DB-9 Pin**	**Signal**
RTS	1	8	8	CTS
DTR	2	7	6	DSR
TxD	3	6	2	RxD
GND	4	5	5	GND
GND	5	4	5	GND
RxD	6	3	3	TxD
DSR	7	2	4	DTR
CTS	8	1	7	RTS

MGMT Port

Use a modular, RJ-45, straight-through UTP cable to connect the 10/100/1000 management Ethernet port to external hubs and switches.

Figure 1: RJ-45 Interface Cable Connector



1. Pin	2. Pin
1	8

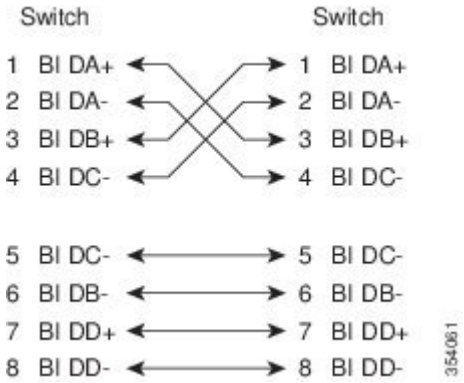
The following table lists the connector pinouts and signal names for a 10/100/1000BASE-T management port (MDI) cable.

Table 4: 10/100/1000 BASE-T Management Port Cable Pinout

Pin	Signal
1	BI DA+
2	BI DA-
3	BI DB+
4	BI DC+
5	BI DC-
6	BI DB-
7	BI DD+
8	BI DD-

The following figure shows a schematic representation of the 10/100/1000 BASE-T cable:

Figure 2: Twisted-Pair 10/100/1000 BASE-T Cable



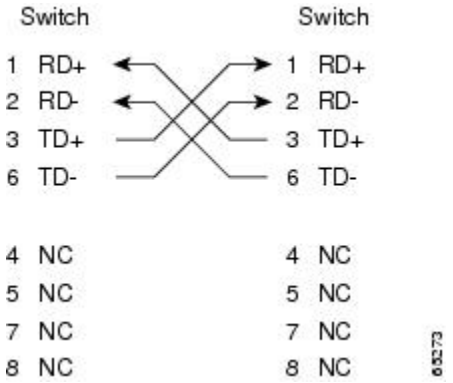
The following table lists the connector pinouts and signal names for a 10/100 BASE-T management port (MDI) cable:

Table 5: 10/100 BASE-T Management Port Cable Pinout

Pin	Signal
1	TD+
2	TD-
3	RD+
4	RD-
5	Not used
6	Not used
7	Not used
8	Not used

The following figure shows a schematic of the 10/100 BASE-T cable:

Figure 3: Twisted-Pair 10/100 BASE-T Cable Schematic



Supported AC Power Cords and Plugs

Each switch AC power supply unit requires one power cord. Cisco approved cords may be ordered with the product. Standard power cords with a country specific plug can be used with wall outlets. Jumper power cords can be used with cabinet outlets. The user may also source their own power cords for the product, as long as they meet the power cord specifications for this product.

Note

- Only standard power cords and jumper power cords provided with the switch are supported.
- If you do not order a power cord with the system, you are responsible for selecting the appropriate power cord for the product. Using a non-compatible power cord with this product may result in electrical safety hazard. Orders delivered to Argentina, Brazil, and Japan must have the appropriate power cord explicitly ordered at the time of purchase of the system.

Supported Power Cords and Plugs

Cisco standard power cords for the Cisco MDS 9220i switch have an IEC C15 connector on the outlet end of the cord and a country specific plug on the inlet end of the cord.

The following table lists the supported power cords and power plugs for the Cisco MDS 9220i switch:

Table 6: Supported Power Cords and Power Plugs for the Cisco MDS 9220i Switch

Description	Length		Power Cord Reference Illustration
	Feet	Meters	
CAB-9K10A-AR Power cord 250 VAC 10 A, IRAM 2073 plug Argentina	8.2	2.5	Figure 4: CAB-9K10A-AR, on page 8
CAB-9K10A-AU Power cord, 250 VAC 10 A, 3112 plug Australia	8.2	2.5	Figure 5: CAB-9K10A-AU, on page 8
CAB-250V-10A-BR Power cord 250 VAC 10 A Brazil	7	2.1	Figure 6: CAB-250V-10A-BR, on page 8
CAB-9K10A-CH Power cord, 250 VAC 10 A, GB1002 plug China	8.2	2.5	Figure 7: CAB-9K10A-CH, on page 8
CAB-9K10A-EU Power cord, 250 VAC 10 A, CEE 7/7 plug Europe	8.2	2.5	Figure 8: CAB-9K10A-EU, on page 9
CAB-250V-10A-ID Power cord 250 VAC 10 A India	8	2.4	Figure 9: CAB-250V-10A-ID, on page 9

Description	Length		Power Cord Reference Illustration
	Feet	Meters	
CAB-9K10A-ISR Power cord, 250 VAC 10 A, SI16S3 plug Israel	8.2	2.5	Figure 10: CAB-9K10A-ISR, on page 9
CAB-9K10A-IT Power cord, 250 VAC 10 A, CEI 23-16/VII plug Italy	8.2	2.5	Figure 11: CAB-9K10A-IT, on page 10
CAB-9K10A-KOR Power cord, 125 VAC 13 A, KSC8305 plug Korea	8.2	2.5	Figure 12: CAB-9K10A-KOR, on page 10
CAB-9K12A-NA Power cord, 125 VAC 13 A, NEMA 5-15 plug North America	8.2	2.5	Figure 13: CAB-9K12A-NA, on page 10
CAB-9K10A-SA Power cord, 250 VAC 10 A, SABS 164/1 plug South Africa	5.12	1.82	Figure 14: CAB-9K10A-SA, on page 11
CAB-9K10A-SW Power cord, 250 VAC 10 A, MP232 plug SWITZ	8.2	2.5	Figure 15: CAB-9K10A-SW, on page 11
CAB-9K10A-TWN Power cord, 125 VAC 15 A, CNS10917-2 Taiwan	8.2	2.5	Figure 16: CAB-9K10A-TWN, on page 11
CAB-9K10A-UK Power cord, 250 VAC 10 A, BS1363 plug United Kingdom	8.2	2.5	Figure 17: CAB-9K10A-UK, on page 12

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Figure 4: CAB-9K10A-AR

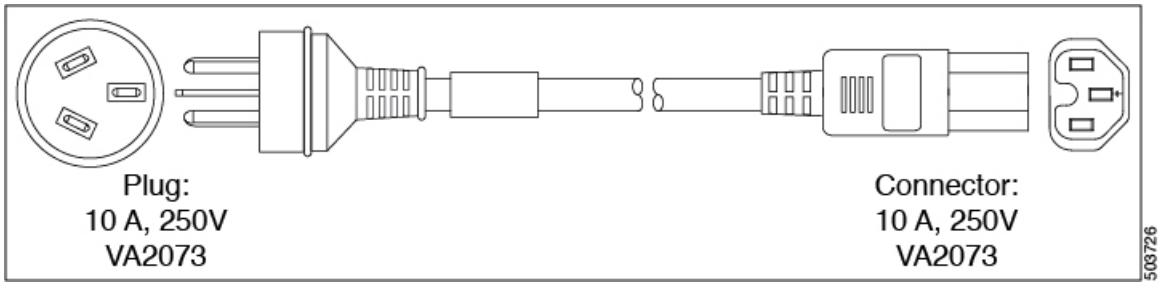

Figure 5: CAB-9K10A-AU

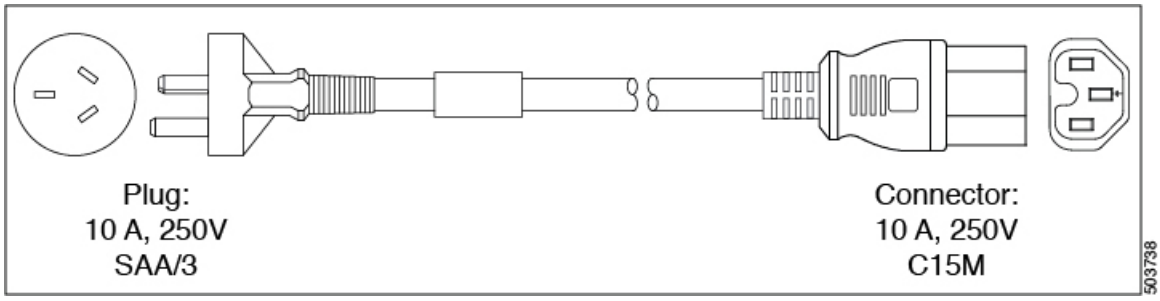

Figure 6: CAB-250V-10A-BR

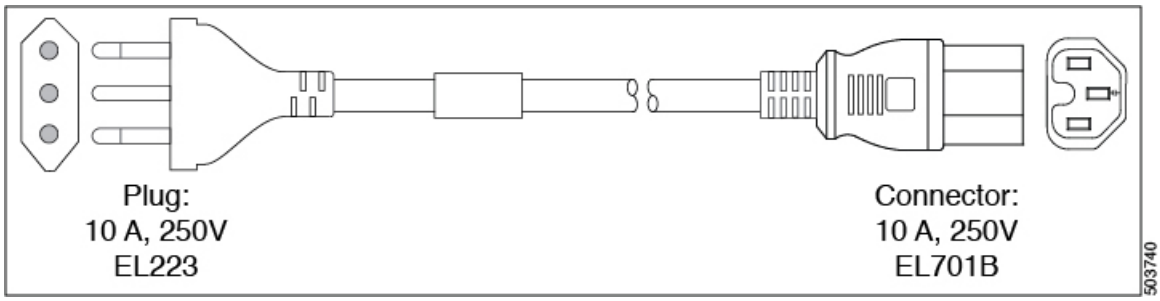

Figure 7: CAB-9K10A-CH

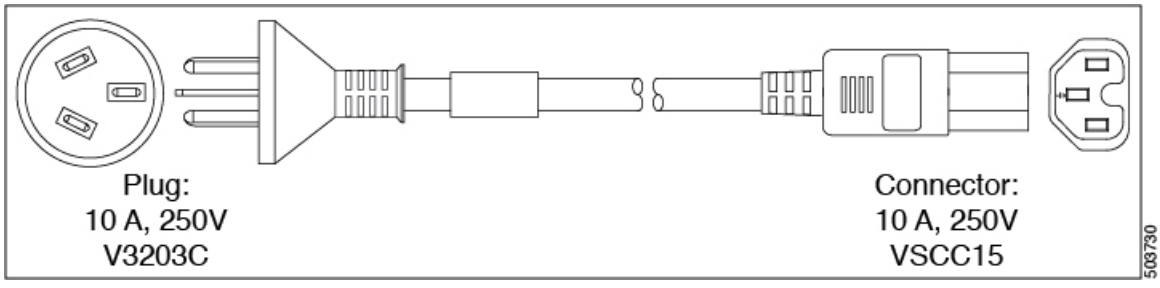

Figure 8: CAB-9K10A-EU

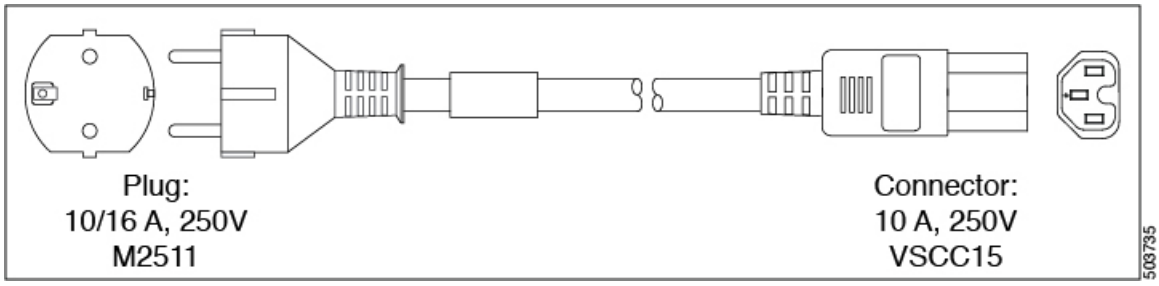

Figure 9: CAB-250V-10A-ID

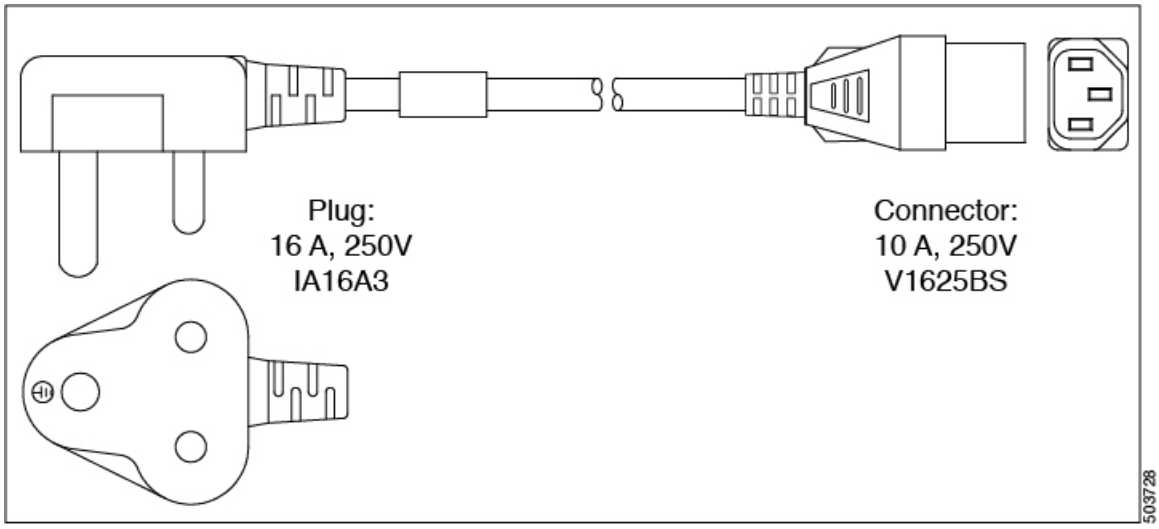

Figure 10: CAB-9K10A-ISR

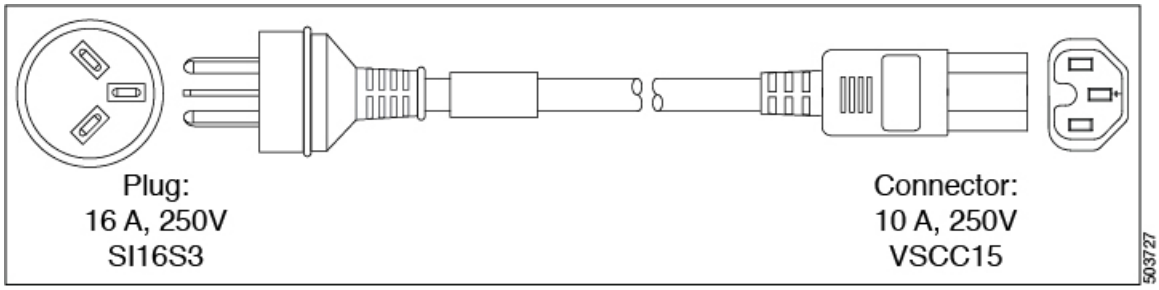

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Figure 11: CAB-9K10A-IT

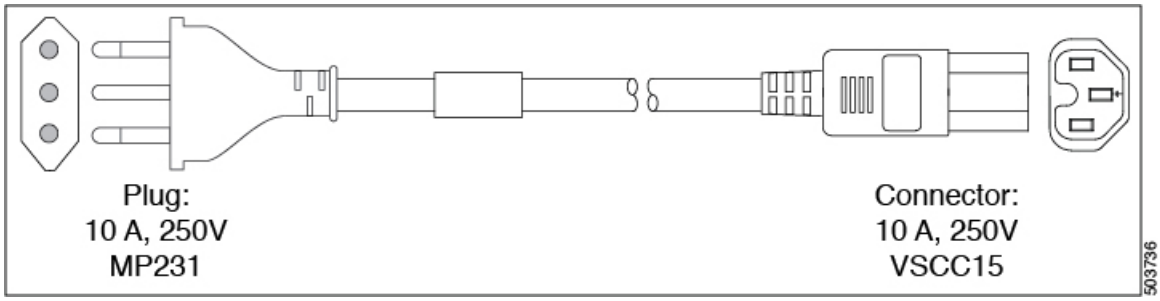


Figure 12: CAB-9K10A-KOR

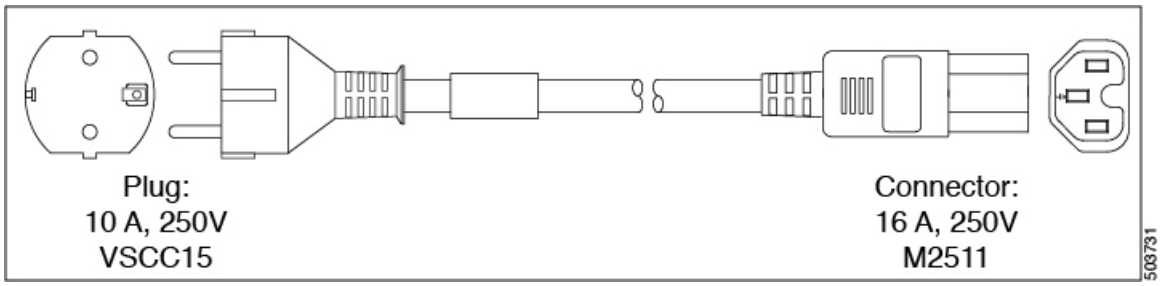


Figure 13: CAB-9K12A-NA

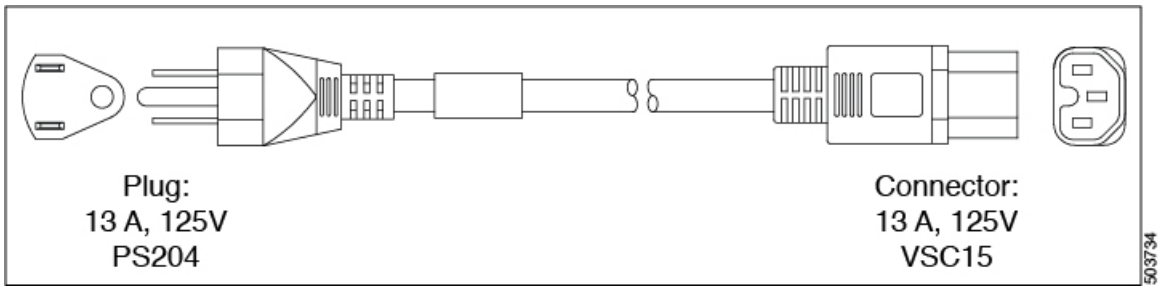


Figure 14: CAB-9K10A-SA

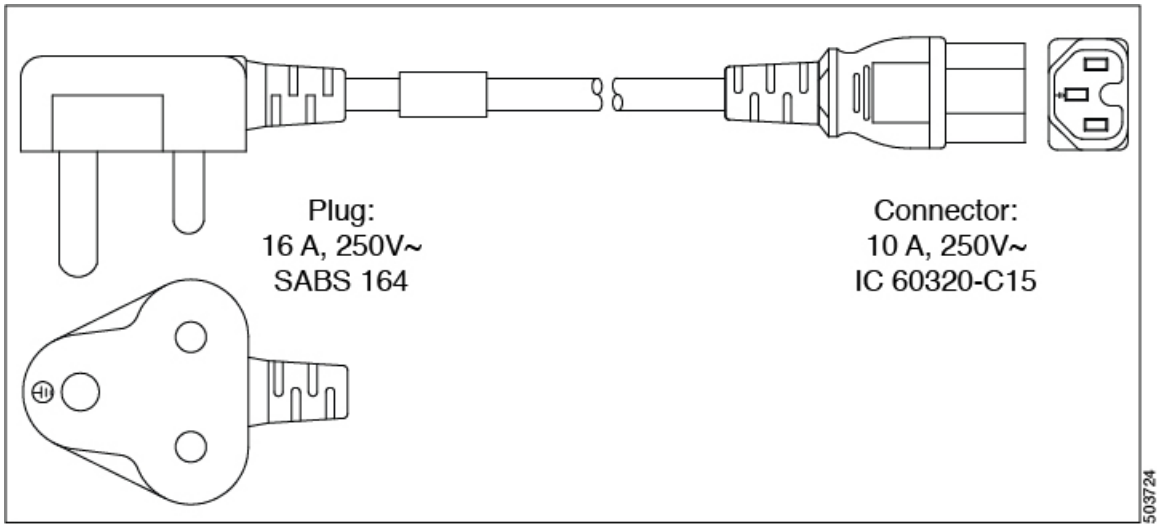


Figure 15: CAB-9K10A-SW

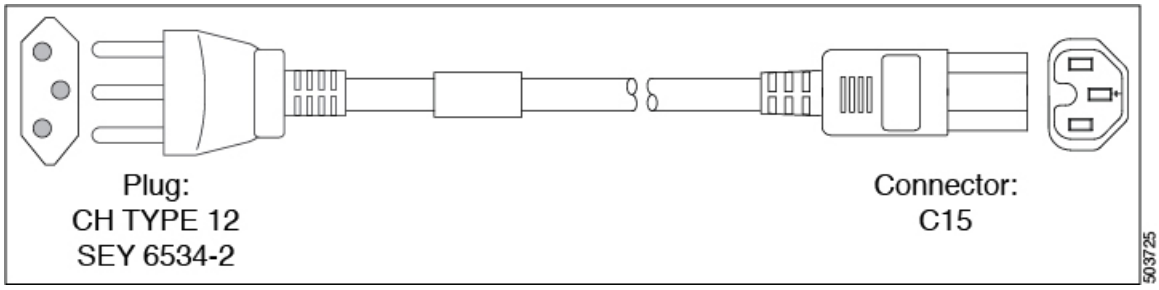


Figure 16: CAB-9K10A-TWN

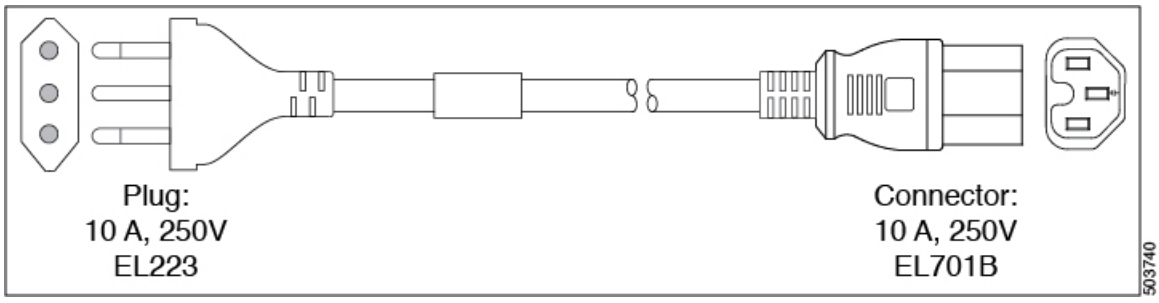
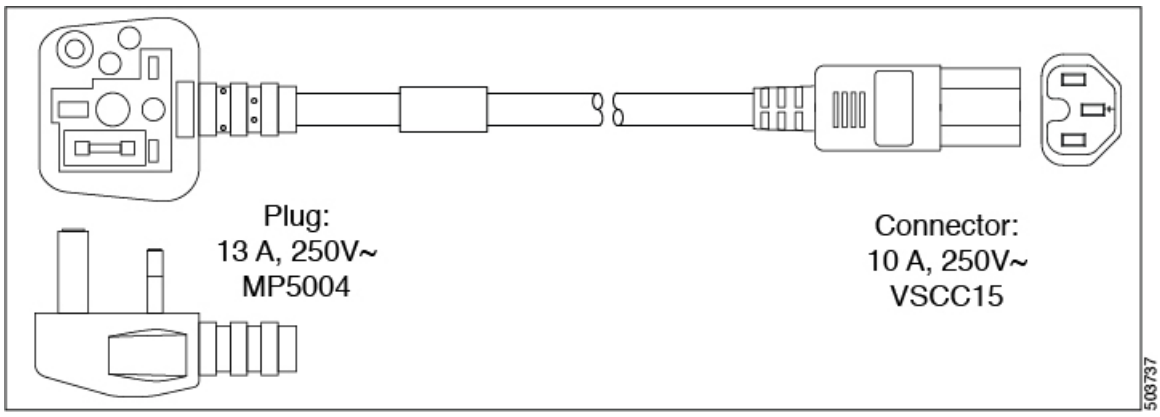


Figure 17: CAB-9K10A-UK



AC Jumper Power Cord

The following figure shows the C14 and C15 connectors on the optional AC jumper power cord for the Cisco MDS 9220i switch. The C15 connector connects into the C14 inlet on the Cisco MDS 9220i switch power supply, while the C14 connector connects into the C13 receptacle of a power distribution unit for a cabinet.

Figure 18: Connectors on Jumper Power Cord for Cisco MDS 9220i Switch