



Bulkhead Connections for Series B 1326 Cables

Catalog Numbers 1326-CCU-DE, 1326-CCU-EL, 1326-CCUT-DL, 1326-CCUT-EE, 1326-CPB1-DE, 1326-CPB1-EL, 1326-CPB1T-DL, 1326-CPB1T-EE, 1326-CPC1-DE, 1326-CPC1-EL, 1326-CPC1T-DL, 1326-CPC1T-EE

About This Publication

This publication contains installation information for cables that have or connect to bulkhead connectors. This includes cables with bulkhead connectors, push-pull connectors, flying leads, and combinations of these connection types.

The table lists available Series B 1326 bulkhead cables and the cables they obsolete.

This cable replaces	this cable.
1326-CCU-EL- <i>xxx</i>	1326-CCU-E- <i>xxx</i>
1326-CCUT-DL- <i>xxx</i>	1326-CCU-D- <i>xxx</i> , 1326-CCU-DL- <i>xxx</i> , 1326-CCUT-D- <i>xxx</i>
1326-CPB1-EL- <i>xxx</i>	1326-CPB1-E- <i>xxx</i>
1326-CPB1T-DL- <i>xxx</i>	1326-CPB1-D- <i>xxx</i> , 1326-CPB1-DL- <i>xxx</i> , 1326-CPB1T-D- <i>xxx</i>
1326-CPC1-EL- <i>xxx</i>	1326-CPC1-E- <i>xxx</i>
1326-CPC1T-DL- <i>xxx</i>	1326-CPC1-D- <i>xxx</i> , 1326-CPC1-DL- <i>xxx</i> , 1326-CPC1T-D- <i>xxx</i>

Feedback Cable Wiring

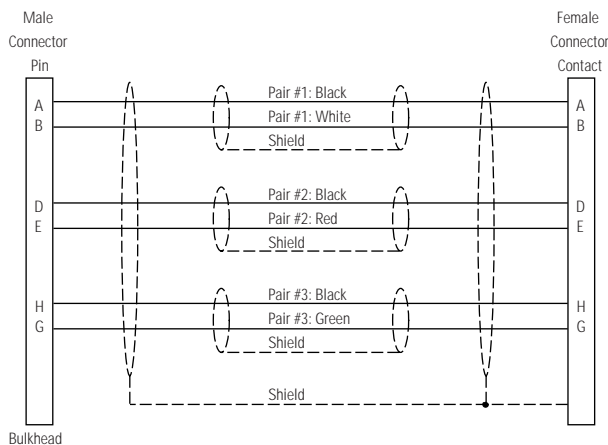
Connector wiring pinouts and diagrams are provided for the 1326-CCU_x-D_x and 1326-CCUT-E_x feedback cables. Refer to page 4 for power cable information, and page 8 for installation instructions.

1326-CCU_x-D_x-xxx Wiring

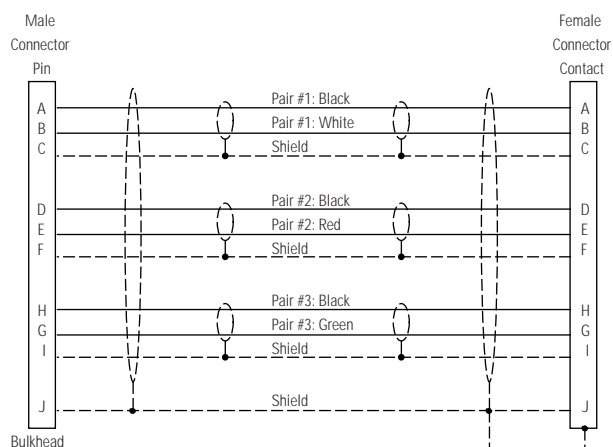
This table provides wiring information for the 1326-CCU_x-D_x-xxx cables.

Signal	Wire Color	Gauge mm ² (AWG)	1326-CCU-DE Connector Pin	1326-CCUT-DL Connector Pin
Axis_0_R1	Black	0.518 (20)	A	A
Axis_0_R2	White	0.518 (20)	B	B
Shield		0.518 (20)	—	C
Axis_0_S1	Black	0.518 (20)	D	D
Axis_0_S3	Red	0.518 (20)	E	E
Shield		0.518 (20)	—	F
Axis_0_S4	Black	0.518 (20)	H	H
Axis_0_S2	Green	0.518 (20)	G	G
Shield		0.518 (20)	—	I
Overall shield		N/A	Female Shell	J and Shell

1326-CCU-DE-xxx Cable Wiring Diagram



1326-CCUT-DL-xxx Cable Wiring Diagram



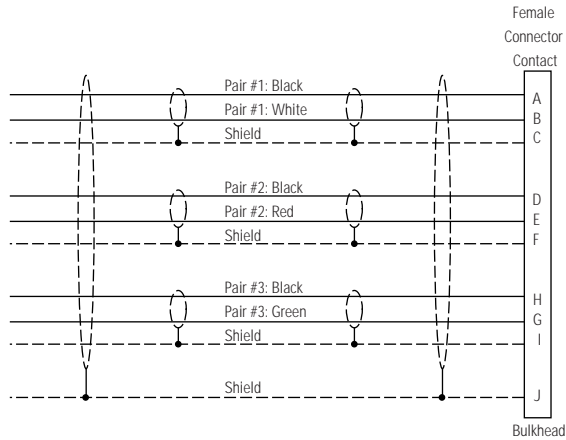
1326-CCUx-Ex-xxx Wiring

This table provides wiring information for the 1326-CCU_x-E_x-xxx cables.

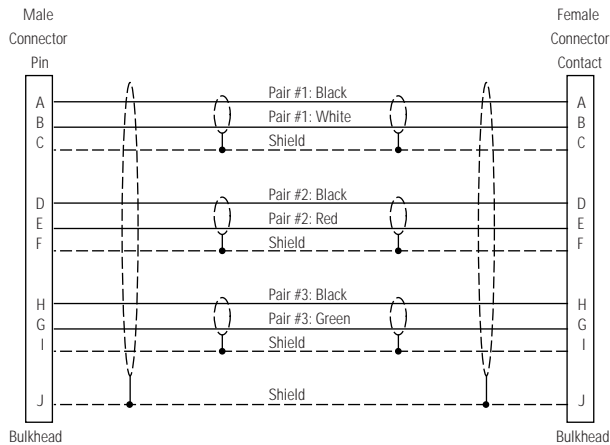
Signal	Wire Color	Gauge mm ² (AWG)	Connector Pin	1326-CCUT-EE Terminal Number	1326-CCUT-EL Connector Pin
Axis_0_R1	Black	0.518 (20)	A	1	A
Axis_0_R2	White	0.518 (20)	B	6	B
Shield		0.518 (20)	C	2	C
Axis_0_S1	Black	0.518 (20)	D	3	D
Axis_0_S3	Red	0.518 (20)	E	8	E
Shield		0.518 (20)	F	7	F
Axis_0_S4	Black	0.518 (20)	H	9	H
Axis_0_S2	Green	0.518 (20)	G	4	G
Shield		0.518 (20)	I	5	I
Overall shield		N/A	J	10	J

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1326-CCU-EL-xxx Cable Wiring Diagram



1326-CCUT-EE-xxx Cable Wiring Diagram



Power Cable Wiring

Connector wiring pinouts and diagrams are provided for the 1326-CPB1x-Dx and 1326-CC1x-Ex power cables. Refer to page 2 for feedback cable information, and page 8 for installation instructions.

ATTENTION



The dc bus capacitors in a drive retain hazardous voltages after input power has been removed. Before beginning work on the output power cable from any drive system, measure the bus voltage at the drive to verify it has reached a safe level or wait the full time interval indicated in the warning label on the front of the drive. Failure to observe this precaution could result in severe bodily injury or loss of life.

IMPORTANT

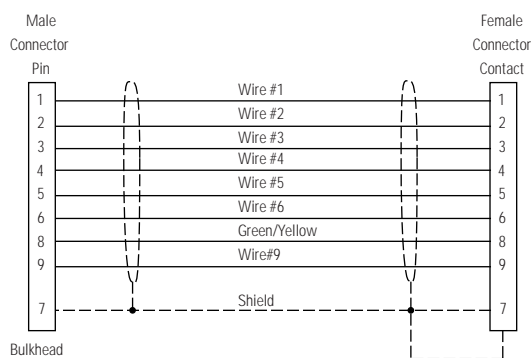
Do not coil a power cable on itself. Heat may buildup in a closely coiled power cable and result in degradation of the cable insulation.

1326-CPB1-DE-xxx, 1326-CPB1T-DL, 1326-CPC1-DE-xxx and 1326-CPC1T-DL Wiring

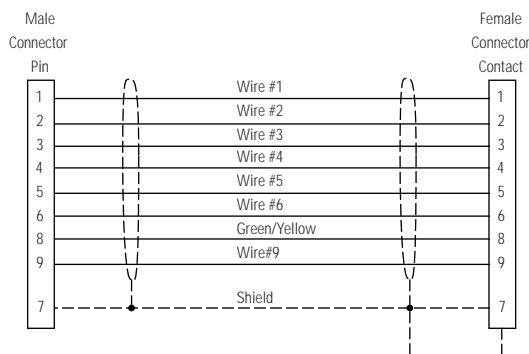
This table provides wiring information for the 1326-CPB1x-Dx-xxx cables.

Wire Number	Signal	Wire Color	1326-CPB1x Gauge mm ² (AWG)	1326-CPC1x Gauge mm ² (AWG)	1326-CPx1-DE Male Connector Pin	1326-CPx1T-DL Female Connector Contact
1	Power	Black	1.29 (16)	2.59 (10)	1	1
2	Power	Black	1.29 (16)	2.59 (10)	2	2
3	Power	Black	1.29 (16)	2.59 (10)	3	3
4	Power	Black	1.29 (16)	1.29 (16)	4	4
5	Power	Black	1.29 (16)	1.29 (16)	5	5
6	Power	Black	1.29 (16)	1.29 (16)	6	6
8	GND	Green/Yellow	1.29 (16)	2.05 (12)	8	8
9	Brake	Black	1.29 (16)	2.05 (12)	9	9
Overall shield		Shield	1.29 (16)	1.29 (16)	7	7
Overall shield		Braid	N/A	N/A	N/A	Connected to shell

1326-CPB1-DE-xxx and 1326-CPC1-DE-xxx Cable Wiring Diagram



1326-CPB1T-DL-xxx and 1326-CPC1T-DL-xxx Cable Wiring Diagram



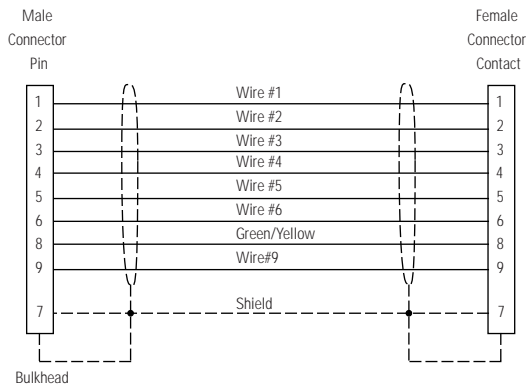
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1326-CPB1x-Ex-xxx and 1326-CPC1x-Ex-xxx Wiring

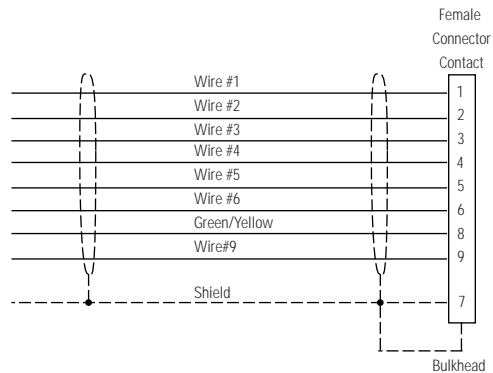
This table provides wiring information for the 1326-CPx1x-Ex-xxx cables.

Wire Number	Signal	Wire Color	Gauge mm ² (AWG) for 1326-CPB1x	Gauge mm ² (AWG) for 1326-CPC1x	1326-CPx1T-EE Female Connector Contact and Male Connector Pin	1326-CPx1-EL Female Connector Contact
1	Power	Black	1.29 (16)	2.59 (10)	U1	1
2	Power	Black	1.29 (16)	2.59 (10)	V1	2
3	Power	Black	1.29 (16)	2.59 (10)	W1	3
4	Brake	Black	1.29 (16)	1.29 (16)	TB1-3	4
5	Thermostat	Black	1.29 (16)	1.29 (16)	TB1-2	5
6	Brake	Black	1.29 (16)	1.29 (16)	TB1-4	6
Overall shield		Shield	1.29 (16)	2.05 (12)	PE3	7
8	GND)	Green/Yellow	1.29 (16)	2.05 (12)	PE2	8
9	Thermostat	Black	1.29 (16)	1.29 (16)	TB1-1	9
Overall shield		Braid	N/A	N/A	Ground stud	Connected to shell

1326-CPB1T-EE-xxx and 1326-CPC1T-EE-xxx Cable Wiring Diagram



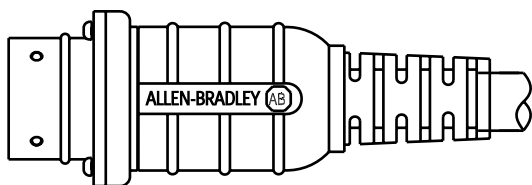
1326-CPB1-EL-xxx and 1326-CPC1-EL-xxx Cable Wiring Diagram



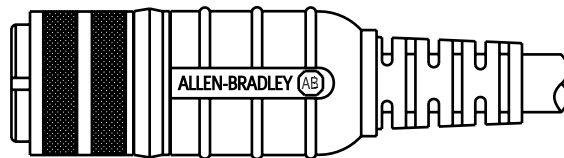
Cable Connector Pinouts

The diagrams show the cable pin locations for female or male connectors.

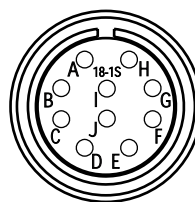
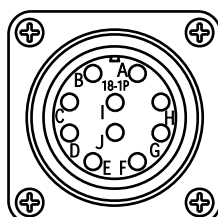
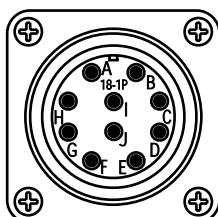
Bulkhead Connector Pinouts



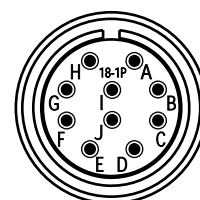
Male Bulkhead



Female Bulkhead

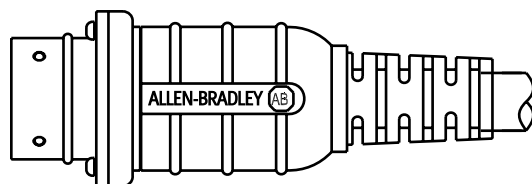


Female Push-pull

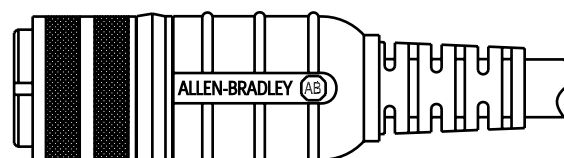


Male Push-pull

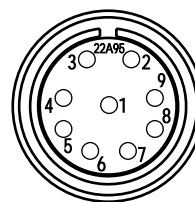
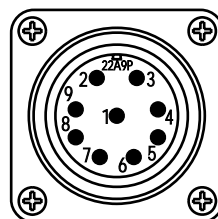
Push-pull Connector Pinouts



Male Bulkhead



Female Push-pull



Cable Bend Radius

The table and diagram depict the minimum bend radius (BR) for cables. Bend radius is the tightest (minimum) curvature allowed without potential damage to the cable.

Motor Power Cable Catalog Number	BR, Approx mm (in.) ⁽¹⁾	Bend Radius Diagram
1326-CCUx-Dx-xxx and 1326-CCUx-Ex-xxx	101.6 (4.0)	
1326-CPB1x-Dx-xxx and 1326-CPB1x-Ex-xxx	104.1 (4.1)	
1326-CPC1x-Dx-xxx, and 1326-CPC1x-Ex-xxx	160.2 (6.3)	

⁽¹⁾ Bend radius (BR) is the specified minimum bend radius for cable assemblies. For non-flex cables, BR is a one-time flex application. Flex cables have a much higher BR to withstand flex applications. The BR for user-fabricated cables may vary.

Installing Push-pull and Bulkhead Connectors

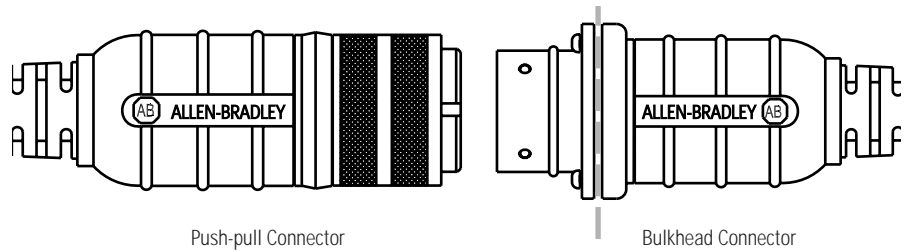
The 1326-*xxx*T-D-*xxx* connector has male pins at one end and female contacts on the other end.

WARNING



All series B cable connectors are treated with a black, highly-conductive, cobalt coating. Do not scrape this coating.

Guidelines for Connecting Cables with Push-pull and Bulkhead Connectors

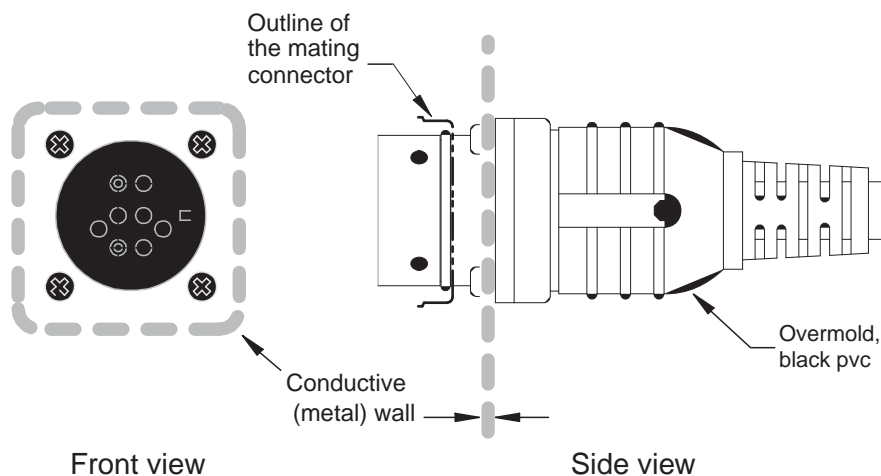


These guidelines apply to push-pull and bulkhead cable connections.

- A push-pull connector can connect only to a bulkhead connector or a 460V-1326Ax motor.
- A bulkhead connector can connect only to a push-pull connector.
- One connector must have male pins and the connector it mates with must have female contacts.
- Cables designated with the L option can connect to cables or motors without this option, but the resulting connection does not provide the L option.
- The length of a cable run cannot exceed 90 m (295 ft.).

Installing Bulkhead Connector Assemblies

The diagram shows the bulkhead connector. The side view shows the fastening screws for the bulkhead connector protruding from its flange, and passing through the conductive metal cabinet. The front view shows the orientation of the pins and fastening screws on the bulkhead connector



Required Tools

You will need these tools to install a bulkhead connection:

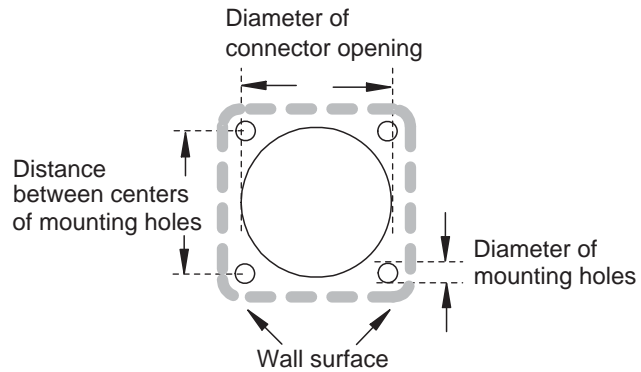
- Phillips screwdriver
- Drill and drill bits

Mounting Dimensions

The table provides hole dimensions for the five mounting holes.

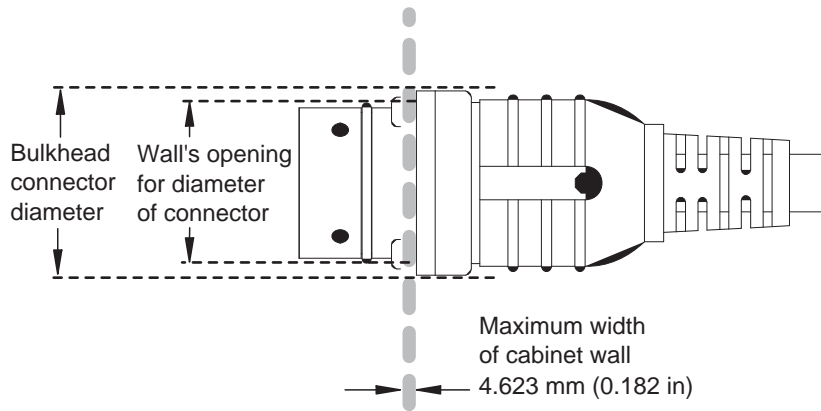
1326 Cable	Screw Description	Diameter of Mounting Holes, Approx. mm (in.)	Distance Between Centers of Mounting Holes, Approx. mm (in.)	Diameter of Connector, Approx. mm (in.)	Diameter of Connector Opening, Approx. mm (in.)
1326-CCU-DE-xxx	4/40 3/8 in.	3.353 (0.132)	26.975 (1.062)	28.575 (1.125)	30.163 (1.188)
1326-CCU _x -E _x -xxx	4/40 3/8 in.	3.353 (0.132)	26.975 (1.062)	28.575 (1.125)	30.163 (1.188)
1326-CPB1-DE-xxx	4/40 3/8 in.	3.353 (0.132)	31.75 (1.25)	34.925 (1.375)	36.513 (1.438)
1326-CPB1 _x -E _x -xxx	4/40 3/8 in.	3.353 (0.132)	31.75 (1.25)	34.925 (1.375)	36.513 (1.438)
1326-CPC1-DE-xxx	6/32 3/8 in.	3.810 (0.150)	39.675 (1.562)	43.637 (1.718)	45.225 (1.781)
1326-CPC1 _x -E _x -xxx	6/32 3/8 in.	3.810 (0.150)	39.675 (1.562)	43.637 (1.718)	45.225 (1.781)

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IMPORTANT

You do not need to attach the bulkhead cables to a cabinet wall, but you do need to follow the information in Guidelines for Connecting Cables with Push-pull and Bulkhead Connectors on page 8.



Installing a Bulkhead Connector through a Cabinet Wall

The recommended connection method will result in a connector seal at the cabinet wall equivalent to an IP65 rating.

Follow these steps to prepare a cabinet wall for mounting the bulkhead connector.

1. Locate the area of the cabinet wall where you will mount the bulkhead connector.

ATTENTION

To avoid a shock hazard, remove power to the motor controller and motor before installing or removing cables. Failure to do this can cause personal injury.

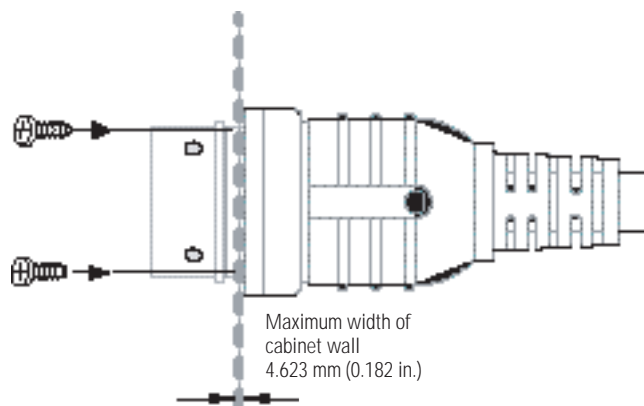
The power rail must be mounted with the connectors in an upright or vertical orientation to the panel. This provides proper cooling of the modules. Do not mount modules if the power rail is not within 3° of vertical.

2. Mark the places where the four mounting holes and the center connector opening, a total of five holes, will be located.
3. Drill the four mounting holes and the large center opening.
4. Scrape any paint from the inside surface of the cabinet wall where the bulkhead flange of the 1326-CPB1-EL-**xxx** or 1326-CPC1-EL-**xxx** cables will make contact.

IMPORTANT

A metal-to-metal connection is required for CE compliance.

5. Remove the viton seal from the face of the connector for 1326-CCU**x**-E**x**-**xxx**, 1326-CPB1**x**-E**x**-**xxx**, and 1326-CPC1**x**-E**x**-**xxx** cables to provide clearance for the cabinet wall.
6. Attach the bulkhead connector through the wall, as shown.



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