

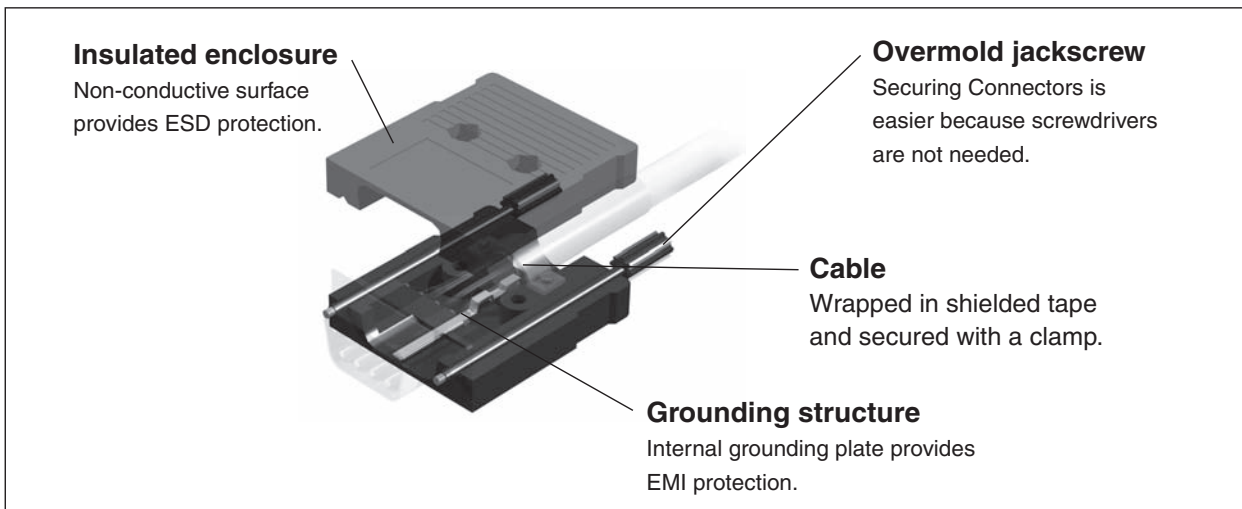
Connector Hood with ESD Protection Simplifies Circuit Design

- Non-conductive surface protects against ESD (static electricity).
- Internal grounding provides EMI protection.
- Screwdrivers eliminated by overmold jackscrews.

RoHS Compliant



■ Structural Diagram (Assembled)



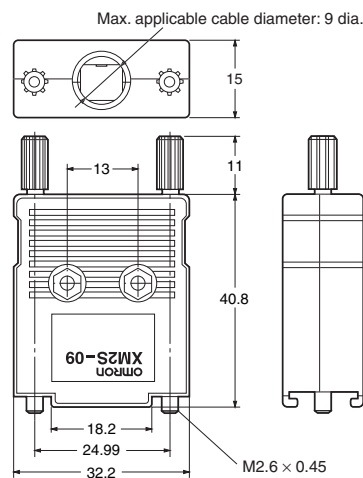
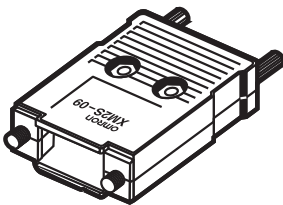
■ Performance, Materials, and Finishes

Ambient operating temperature	- 25 to 85°C (with no condensation or icing)
Cover	ABS (UL94 V-0)/black
Grounding plate	Phosphor bronze/nickel plating
Jackscrew	ABS (UL94 V-0)/black

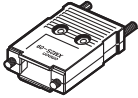
■ Dimensions

(unit: mm)

XM2S-0911-E
D-sub Connector Assembly Hood with ESD Protection



■ Ordering Information

Type	Appearance	No. of contacts	Model
D-sub Connector Assembly Hood with ESD protection		9	XM2S-0911-E

■ Precautions

Correct Use

- Use a torque of 0.25 N·m to secure the cable clamp to the Hood.
- When you tighten the jack screws, hold the hood and make sure that the Connector is connected straight. If the screws are tightened when the Connector is not connected completely, the Connector may be damaged.
- Always use your fingers to tighten the jack screws. If you use pliers or any other tool to tighten the jack screws, the screws may be damaged.

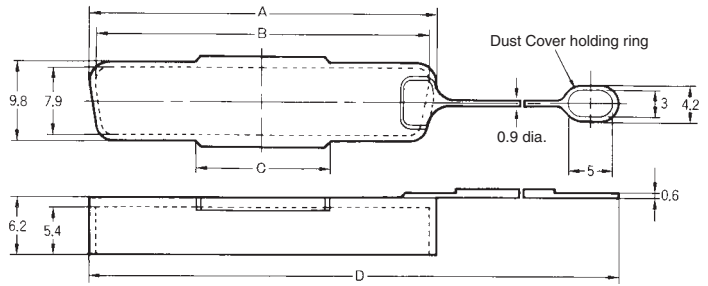
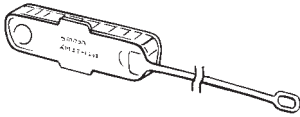
■ Accessories (Sold Separately)

(unit: mm)

Dust Covers For XM3B/D/F Sockets

With retaining ring

- XM2T-0901 (9 contacts)
- XM2T-1501 (15 contacts)
- XM2T-2501 (25 contacts)
- XM2T-3701 (37 contacts)



Ratings and Specifications

Operating temperature	- 25 to 85°C (with no condensation or icing)
Material	PA

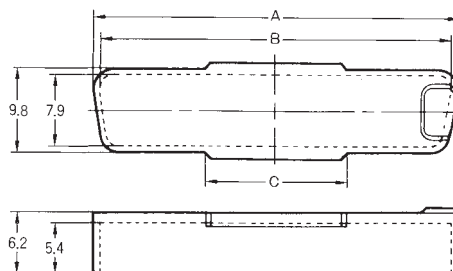
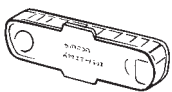
Dimensions

No. of contacts	Dimensions				Model
	A	B	C	D	
9	17.7	16.3	8	68	XM2T-0901
15	26.1	24.7	10	77	XM2T-1501
25	39.8	38.4	15	120	XM2T-2501
37	56.2	54.8	18	135	XM2T-3701

Dust Covers For XM3B/D/F Sockets

Without retaining ring

- XM2T-0901-0 (9 contacts)
- XM2T-1501-0 (15 contacts)
- XM2T-2501-0 (25 contacts)
- XM2T-3701-0 (37 contacts)

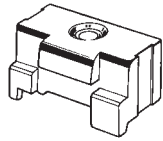


Dimensions

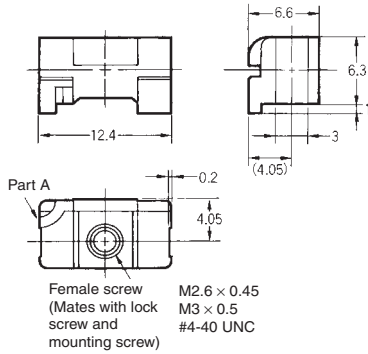
No. of contacts	Dimensions			Model
	A	B	C	
9	17.7	16.3	8	XM2T-0901-0
15	26.1	24.7	10	XM2T-1501-0
25	39.8	38.4	15	XM2T-2701-0
37	56.2	54.8	18	XM2T-3701-0

Anchor 1 (Rectangular)

XM2Z-0001
(M2.6 × 0.45 metric screws)
XM2Z-0002
(M3.0 × 0.5 metric screws)
XM2Z-0003
(#4-40 UNC inch screws)



Materials and Finish
 Zinc die-cast/nickel plated

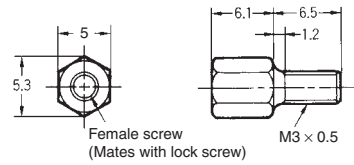


Note: If you use a Dust Cover with a holding ring, secure the holding ring at part A.

Model
XM2Z-0001
XM2Z-0002
XM2Z-0003

Anchor 2 (Hexagonal)

XM2Z-0011
(M2.6 × 0.45 metric screws)
XM2Z-0012
(M3.0 × 0.5 metric screws)
XM2Z-0013
(#4-40 UNC inch screws)

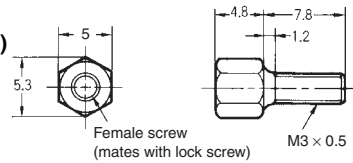


Materials and Finish
 Iron/nickel plated

Model
XM2Z-0011
XM2Z-0012
XM2Z-0013

Anchor 3 (Hexagonal)

XM2Z-0021
(M2.6 × 0.45 metric screws)
XM2Z-0022
(M3.0 × 0.5 metric screws)
XM2Z-0023
(#4-40 UNC inch screws)



Materials and Finish
 Iron/nickel plated

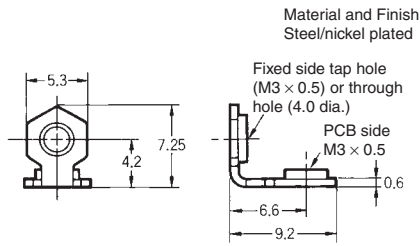
Model
XM2Z-0021
XM2Z-0022
XM2Z-0023

Note: Anchor 3 is used for panel mounting Connectors. Applicable panel thickness is 0.6 to 1.3 mm.

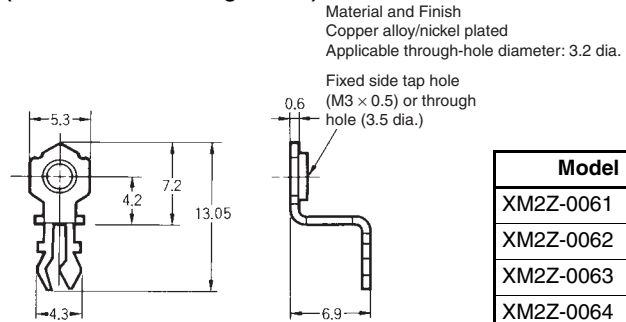
- Note:**
- 2 anchors are necessary per connector.
 - Attachment to the XM3K/L is not possible.

■ Accessories (Sold Separately)

**Grounding Fixtures for XM3B
Tap Hole Grounding Fixtures**
XM2Z-0061
(With fixed-side tap holes)
XM2Z-0063
(With fixed-side through holes)



Lock Pin Grounding Fixtures (for XM3B)
XM2Z-0062
(With fixed-side tap holes)
XM2Z-0064
(With fixed-side through holes)



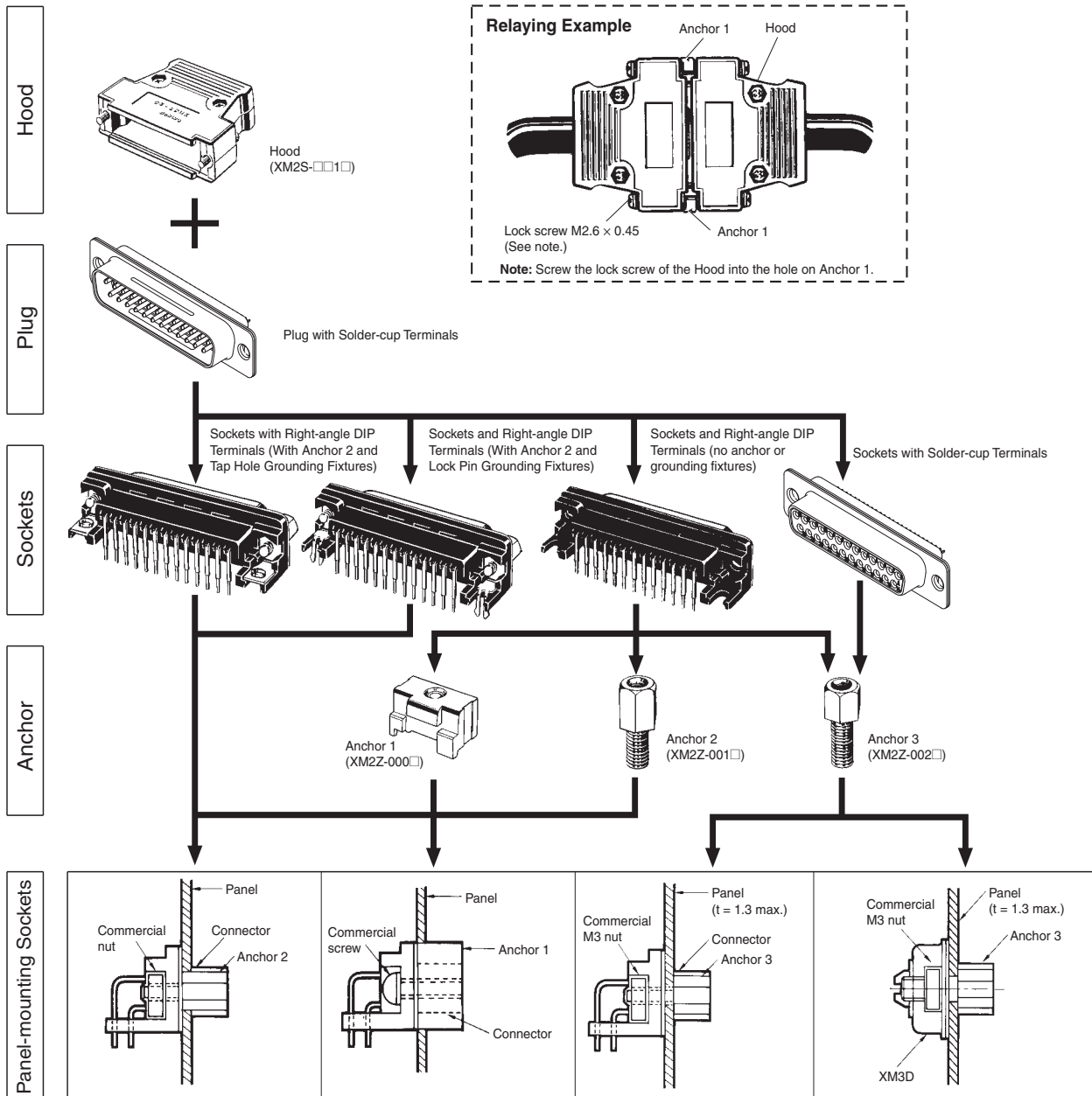
Model
XM2Z-0061
XM2Z-0062
XM2Z-0063
XM2Z-0064

■ Anchors and Grounding Fixtures

Anchor 2 and 3	Anchor 1	Without Anchor
<p>Note: Use Grounding Fixtures XM2Z-0061 or XM2Z-0062.</p>	<p>Note: 1. Use a 6-mm screw that mates with the male screw on Anchor 1. 2. Use Grounding Fixtures XM2Z-0063 or XM2Z-0064.</p>	<p>Note: Always use a screw without an Anchor. A Grounding Fixture (fixed-side tap) can be used in place of the hexagonal nut.</p>

Note: 1. Anchor 2 and the following Grounding Fixtures are available: XM3B-□□22-11 and XM3B-□□22-112. Contact your OMRON representative for other anchor and grounding fixture specifications.
2. 2 anchors are necessary per connector.

Combination Examples



Panel mounting procedure	Not secured to the panel		Secured to the panel																			
	Anchor 2	Anchor 1	Anchor 3 or M3 screws																			
Applicable anchors	Anchor 2	Anchor 1	Anchor 3 or M3 screws																			
Panel dimensions																						
	Two, R3.2 Four, R2.5		Four, R1																			
	<table border="1"> <thead> <tr> <th>No. of contacts</th> <th>A (mm)</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>31.0</td> </tr> <tr> <td>15</td> <td>39.4</td> </tr> <tr> <td>25</td> <td>53.3</td> </tr> <tr> <td>37</td> <td>69.6</td> </tr> </tbody> </table>	No. of contacts	A (mm)	9	31.0	15	39.4	25	53.3	37	69.6	<table border="1"> <thead> <tr> <th>No. of contacts</th> <th>A (mm)</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>34.1</td> </tr> <tr> <td>15</td> <td>42.4</td> </tr> <tr> <td>25</td> <td>56.1</td> </tr> <tr> <td>37</td> <td>72.6</td> </tr> </tbody> </table>	No. of contacts	A (mm)	9	34.1	15	42.4	25	56.1	37	72.6
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9	24.99	20.5																				
15	33.32	28.8																				
25	47.04	42.5																				
37	63.50	59.1																				

Note: 1. Two Anchors are required per Connector.
 2. Applicable panel thickness is 1.3 mm max.

Combination of hexagonal anchors for each connector (in post installation)

Type	Model	Without panel insertion	With panel insertion	Commercially available nut
Dip L type socket	XM3B-□□22	XM2Z-001□	XM2Z-002□	Necessary
	XM3B-□□22-501□			Not necessary
	XM3B-□□22-502			
Dip L type plug	XM3C-□□22	XM2Z-001□	XM2Z-002□	Necessary
	XM3C-□□22-501			Not necessary
	XM3C-□□22-502			
Dip straight socket	XM3F-□□20	XM2Z-001□	XM2Z-002□	Necessary

■ Precautions

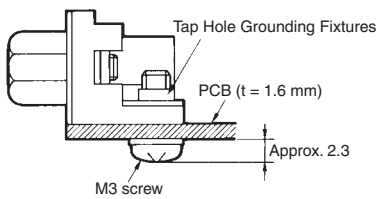
Correct Use

Grounding

To ground, create copper foil around the Connector Attachment hole on the board, assemble the Connector and Grounding Fixtures, and dip in solder as shown below.

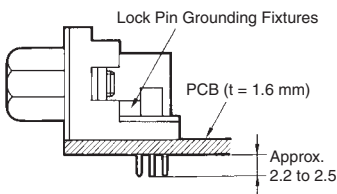
Tap Hole Grounding Fixtures

Insert the Connector into the PCB, tighten the screws, and then dip-solder the Connector terminals to the board.



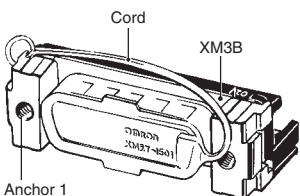
Lock Pin Grounding Fixtures

Insert the connector into the PCB and then simultaneously dip-solder the Connector terminals and lock pin to the board.

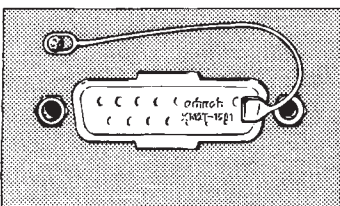


Attaching the Dust Cover

- To attach the cord to the Connector, use Anchor 1 and secure it as shown below.



- To attach the cord to a panel, drill an M3 hole in the panel and secure the cord to it with an M3 screw. If the cord is not required, cut it off. Use commercially available M3 screw.



Tightening Clamp Screws

Use the following torques when tightening cable clamp to hoods.

Terminal Screw Tightening Torque (N·m)

9 contacts	15 contacts	25 contacts	37 contacts
0.25	0.44	0.49	

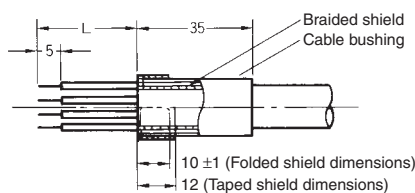
Mating

Do not connect the Connectors in the wrong direction, otherwise it may be damaged.

Shielded Cable Preparation

Refer to the following diagram when soldering shielded cable to the Connector when using a Hood.

No. of contacts	L (mm)
9	25
15	35
25	40
37	45



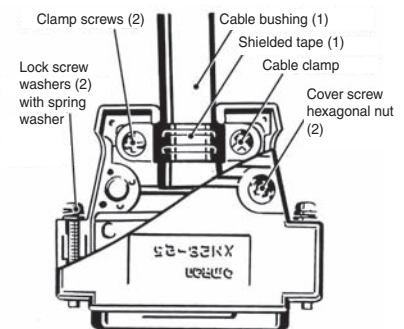
1. Fold the unravelled braided shield back over the cable bushing.
2. Wrap tape around the folded shield.

Tightening Torque of Anchor and Grounding Fixture

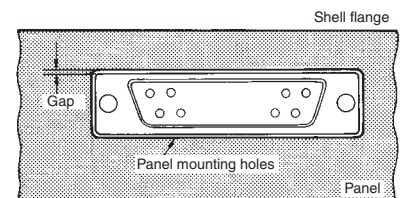
If the anchor is secured to the Connector or the grounding fixture is secured with a screw, be sure to tighten it to a torque of 0.49 N·m. Use a suitable size of tool.

Shield Effects

- When connecting the braided cable shield to a Connector Hood, use the cable clamp to clamp all the braids at once through the shielded tape.
- Mate the lock screw washer and spring washer outside the Connector when assembling the Hood.



- Keep the shell flange of the Connector as far away from the metal panel as possible to maximize the shield effect with a Connector mounted to the panel.
- The ground wire for the Connector will fall into the shell (external metal covering) with Solder-cup Terminals, so connect the ground wire to the panel or to ground on the board.



XM3A/XM3D Connector Insertion and Removal

- Grasp the Connector or the Hood Cover when inserting and removing the Connector. Never try to remove the Connector by pulling the cable.

Soldering

Automated Soldering Conditions (Jet Flow) (XM3B, XM3C, and XM3F)

1. Soldering temperature: 250 ±5°C
2. Continuous soldering time: Within 5±1 s

- Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
- Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

Note: Do not use this document to operate the Unit.