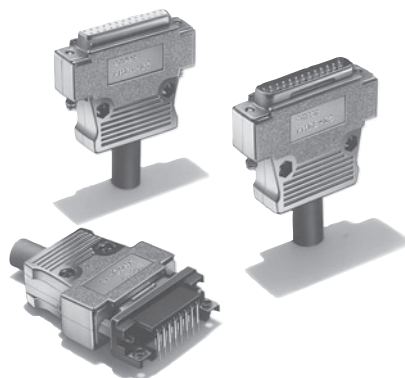


D-sub Connectors

XM2/XM3

D-sub Connectors Are Ideal for Office Automation Interfacing.

- Shielded against EMI.
- Metallized plastic Hood (XM2S) provides excellent noise protection.
- A new line of multi-hole, ferrite-core Connectors (XM3B-F) offers space-saving design and superior noise protection at high frequency.
- Fitted in a rugged, compact metal shell.
- Many kinds of standard Anchors and grounding fixtures available.
- The XM2/XM3 conform to UL standards (No. E103202) (XM2S and some other models are not included)



RoHS Compliant

Terminology

● EMI

Abbreviation of ElectroMagnetic Interference (noise)

● Metallization

Here, metallization refers to plating over the plastic hood.

● Shielded connector

Connector having a structure that can be grounded.

● Beating

A processing technique that ensures the contact amongst the shells by beating a part of the shell.

● ESD

Abbreviation of ElectroStatic Discharge

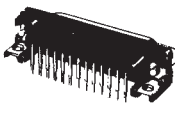
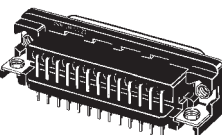
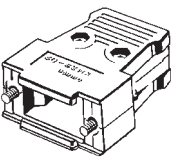
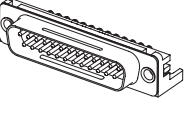
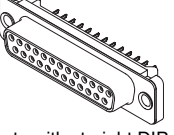

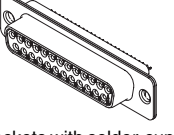
● Grounding structure

Here, grounding structure refers to a structure where an unmetallized hood can be grounded by an grounding plate.

● Shell

Refers to the case covering the connector. Here, the shell refers to the metal parts attached to the mating end.

Connectors

Model	XM3B	XM3B-F	XM2S	
Appearance	 Sockets with right-angle DIP terminals	 Sockets with right-angle DIP terminals (with ferrite core)	 Hoods	
Reference page	3 to 4	5	10	
Model	XM3C	XM3F	XM3A	XM3D
Appearance	 Plugs with right-angle DIP terminals	 Sockets with straight DIP terminals	 Plugs with solder-cup terminals	 Sockets with solder-cup terminals
Reference page	6 to 7	8	9	

■ Ratings and Characteristics

Model	Plugs with Solder Cup Terminals: XM3A Socket with right-angle DIP Terminals: XM3B Socket with right-angle DIP Terminals (with ferrite core): XM3B-F Plugs with Right-angle DIP Terminals: All XM3C models except those with 37 pins XM3C-0922-□□□ XM3C-1522-□□□ XM3C-2522-□□□ Sockets with Solder Cup Terminals: XM3D Sockets with Straight DIP Terminals: XM3F	Plugs with Right-angle DIP Terminals: XM3C models with 37 pins XM3C-3722-□□□	Hoods XM2S
Item			
Rated current	5 A	3 A	
Rated voltage	300 VAC		
Contact resistance	15 mΩ max. (at 20 mVDC, 100 mA max.)		
Insulation resistance	1,000 MΩ min. (at 500 V DC)		
Dielectric strength	1,000 VAC for 1 min (leakage current: 1 mA max.)		---
Total insertion force	Number of pins × 3.33 N max		
Removal force	0.29 N min. (for gauge diameter of 0.99 mm)		
Insertion durability	200 times		
Ambient operating temperature	−55°C to 105°C (with no icing)		−25°C to 85°C
Shield performance	Mounted in panel: 25 dB min. (30 to 900 MHz) Mounted on board: 20 dB min. (30 to 300 MHz)		---

■ Materials and Finish

Item	Model	XM3B	XM3B-F	XM3C	XM3F	XM3A	XM3D	XM2S
Housing		Fiber-glass reinforced PBT resin (UL94V-0)/black				Fiber-glass reinforced PBT resin (UL94V-0)/Milky white		ABS resin/nickel plated
Contacts	Mating end	Phosphor bronze/nickel base, gold plated (0.4 μm)			Bronze/nickel base, gold plated (0.4 μm)		Phosphor bronze/nickel base, gold plated (0.4 μm)	---
	Terminals	Phosphor bronze/nickel base, tin plated (2 μm)		Phosphor bronze/nickel base, tin plated (3 μm)		Bronze/nickel base, tin plated (3 μm)	Phosphor bronze/nickel base, tin plated (3 μm)	
Shell		Steel/nickel						

■ Applicable Wires

The applicable wires for solder cup terminals are AWG 22 to 28 (solid or stranded).

XM3B Sockets with Right-angle DIP Terminals

Model Number Legend

XM3B- 22-
 1 2 3

1. Anchor specifications

- 1: With Anchor 2
- 5: No anchors

2. Anchor screw specifications

- 1: M2.6 × 0.45 metric screws
- 3: #4-40 UNC inch screws
- 0: No anchors

3. Grounding Fixture

- 1: Tap Hole Grounding Fixture
- 2: Lock Pin Grounding Fixture

Note: Anchors and Grounding Fixtures are not supplied if 1, 2, and 3 are blank.

Dimensions

(unit: mm)

XM3B- 22 (No anchors, no grounding fixtures)

XM3B- 22-501 (No anchors, Tap Hole Grounding Fixtures)

XM3B- 22-111 (With Anchor 2 (See note 1.), Tap Hole Grounding Fixtures)

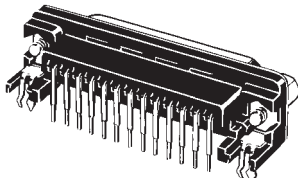
XM3B- 22-131 (With Anchor 2 (See note 2.), Tap Hole Grounding Fixtures)

XM3B- 22-502 (No anchors, Lock Pin Grounding Fixtures)

XM3B- 22-112 (With Anchor 2 (See note 1.), Lock Pin Grounding Fixtures)

XM3B- 22-132 (With Anchor 2 (See note 2.), Lock Pin Grounding Fixtures)

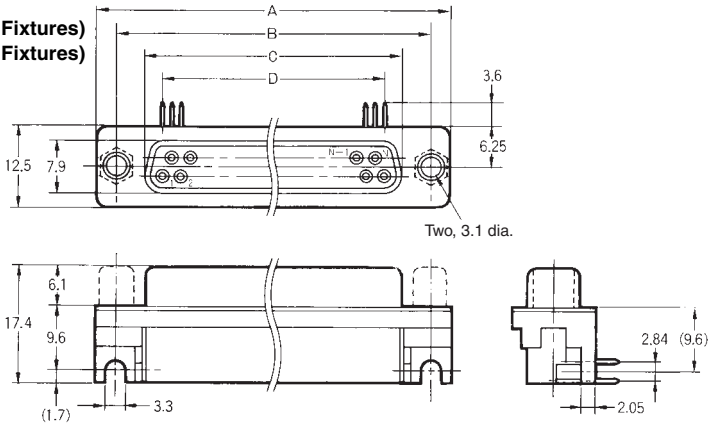
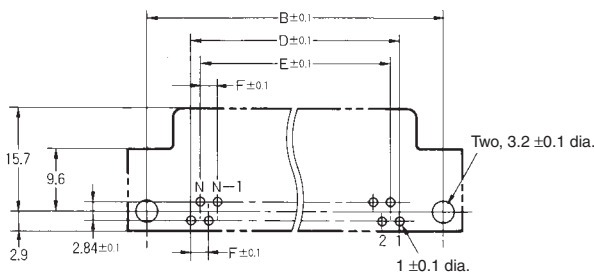
- Note:** 1. Metric screws (M2.6 × 0.45)
 2. Inch screws (#4-40 UNC)



25-contact model shown above.
 (With anchor 2, Lock Pin, Grounding Fixtures)

Note: XM3B Sockets were manufactured in accordance with JIS X 5101. Terminal pitches are a mixed arrangement of 2.77- and 2.74-mm contacts on 25- and 37-contact models as specified in the JIS standard. A pitch of 2.76 mm is recommended for the mounting holes because of the more advanced numerical control available today. This is sufficient to avoid any problems.

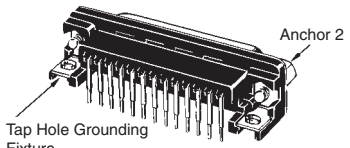
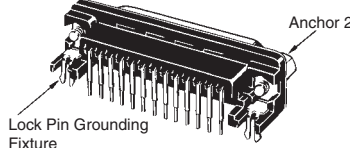
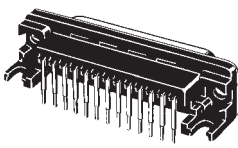
Mounting holes (t = 1.6 mm, bottom view)

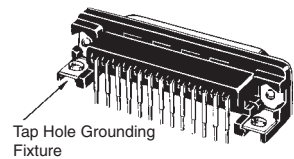
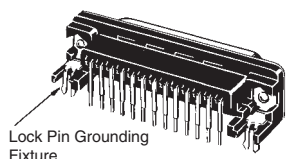


Dimensions

No. of contacts	Dimensions (mm)					
	A	B	C	D	E	F
9	30.8	24.99	16.30	10.96	8.22	2.74
15	39.1	33.32	24.65	19.18	16.44	2.74
25	53.0	47.04	38.35	33.12	30.36	2.76
37	69.3	63.50	54.80	49.68	46.92	2.76

■ Ordering Information

	Anchor 2 and Tap Hole Grounding Fixtures	Anchor 2 and Lock Pin Grounding Fixtures	No anchors or grounding fixtures (See note 1.)
Appearance			
Accessories	XM2Z-0011 Anchor 2 (M2.6 × 0.45 metric screws)		---
No. of contacts	XM2Z-0061 Tap Hole Grounding Fixtures	XM2Z-0062 Lock Pin Grounding Fixtures	---
9	XM3B-0922-111	XM3B-0922-112	XM3B-0922
15	XM3B-1522-111	XM3B-1522-112	XM3B-1522
25	XM3B-2522-111	XM3B-2522-112	XM3B-2522
37	XM3B-3722-111	XM3B-3722-112	XM3B-3722
Accessories	XM2Z-0013 Anchor 2 (#4-40 UNC inch screws)		
No. of contacts	XM2Z-0061 Tap Hole Grounding Fixtures	XM2Z-0062 Lock Pin Grounding Fixtures	
9	XM3B-0922-131	XM3B-0922-132	
15	XM3B-1522-131	XM3B-1522-132	
25	XM3B-2522-131	XM3B-2522-132	
37	XM3B-3722-131	XM3B-3722-132	

	No anchors, with Tap Hole Grounding Fixtures	No anchors, with Lock Pin Grounding Fixtures
Appearance		
Accessories	No anchors	
No. of contacts	XM2Z-0061 Tap Hole Grounding Fixtures	XM2Z-0062 Lock Pin Grounding Fixtures
9	XM3B-0922-501	XM3B-0922-502
15	XM3B-1522-501	XM3B-1522-502
25	XM3B-2522-501	XM3B-2522-502
37	XM3B-3722-501	XM3B-3722-502

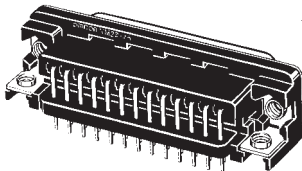
- Note:** 1. Use the XM3B-□□22 (No anchors or grounding fixtures) in combination with suitable Anchors and Grounding Fixtures.
2. Two M3 × 0.5 Tap Hole Grounding Fixtures and an M3 × 0.5 Lock Pin Grounding Fixture for the Anchor side are provided.
3. Contact your OMRON representative for other anchor and grounding fixture specifications. See Accessories (Sold Separately) of XM2/ XM3 for details on accessories.

XM3B-F Sockets with Right-angle DIP Terminals and Ferrite Cores

■ Dimensions

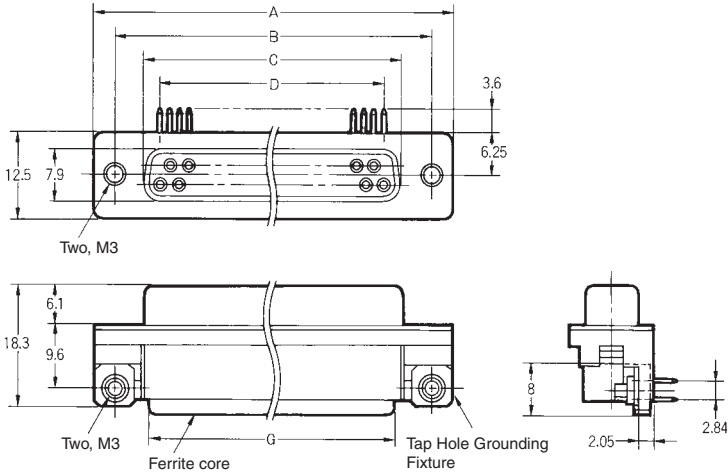
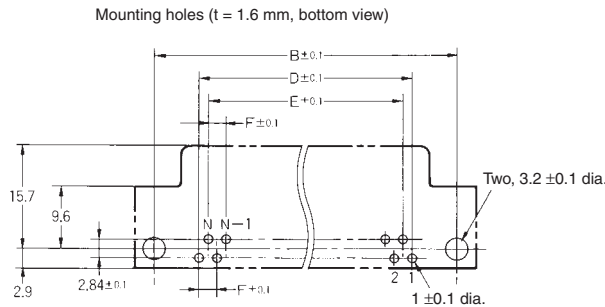
(unit: mm)

Sockets with Right-angle DIP Terminals
XM3B-□□22-501F
 (With Tap Hole Grounding Fixtures)



25-contact model shown above.
 (With Tap Hole Grounding Fixtures)

Note: XM3B Sockets were manufactured in accordance with JIS X 5101. Terminal pitches are a mixed arrangement of 2.77- and 2.74-mm contacts on 25- and 37-contact models as specified in the JIS standard. A pitch of 2.76 mm is recommended for the mounting holes because of the more advanced numerical control available today. This is sufficient to avoid any problems.



Dimensions

No. of contacts	Dimensions (mm)						
	A	B	C	D	E	F	G
9	30.8	24.99	16.30	10.96	8.22	2.74	14.3
15	39.1	33.32	24.65	19.18	16.44	2.74	22.0
25	53.0	47.04	38.35	33.12	30.36	2.76	36.5
37	69.3	63.50	54.80	49.68	46.92	2.76	53.3

■ Ordering Information

Appearance	Tap Hole Grounding Fixtures
	 Tap Hole Grounding Fixture
Accessories	XM2Z-0061 Tap Hole Grounding Fixtures
No. of contacts	
9	XM3B-0922-501F
15	XM3B-1522-501F
25	XM3B-2522-501F
37	XM3B-3722-501F

XM3C Plugs with Right-angle DIP Terminals

Model Number Legend

XM3C-□□22-□□□
1 2 3

1. Anchor specifications

- 1: With Anchor 2
- 5: No anchors

2. Anchor screw specifications

- 1: M2.6 × 0.45 metric screws
- 3: Inch screws
- 0: No anchors

3. Grounding Fixture

- 1: Tap Hole Grounding Fixture
- 2: Lock Pin Grounding Fixture

Note: Anchors and Grounding Fixtures are not supplied if 1, 2, and 3 are blank.

Dimensions

(unit: mm)

DIP Terminals

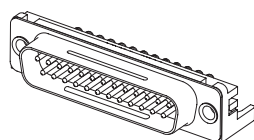
XM3C-□□22 (No Anchors or Grounding Fixtures)

XM3C-□□22-501 (No Anchors, with Tap Hole Grounding Fixtures)

XM3C-□□22-502 (No Anchors, with Lock Pin Grounding Fixtures)

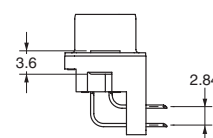
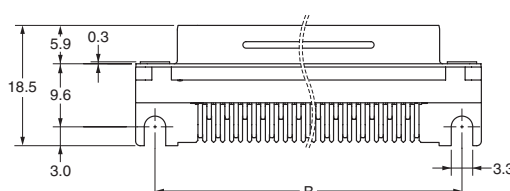
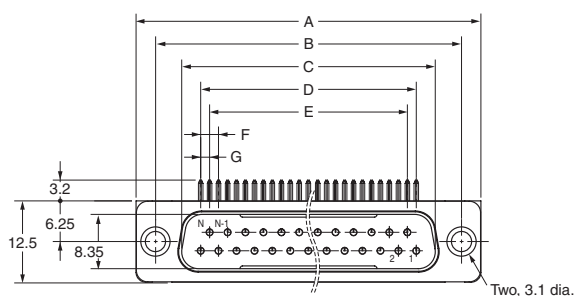
XM3C-□□22-111 (With Anchor 2 and Tap Hole Grounding Fixtures)

XM3C-□□22-112 (With Anchor 2 and Lock Pin Grounding Fixtures)



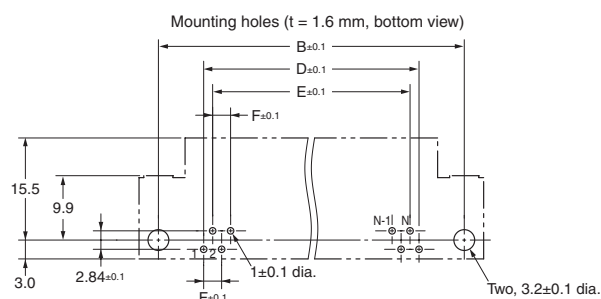
25-contact model shown above.
(No Anchor or Grounding Fixtures)

Note: XM3C Terminals were manufactured in accordance with JIS X 5101. Terminal pitches are a mixed arrangement of 2.77- and 2.74-mm contacts on 25- and 37-contact models as specified in the JIS standard. A pitch of 2.76 mm is recommended for the mounting holes because of the more advanced numerical control available today. This is sufficient to avoid any problems.

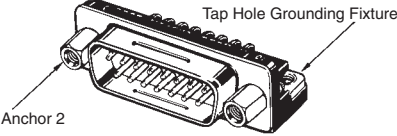
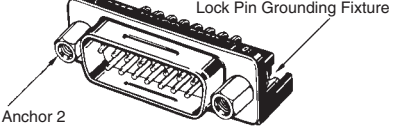
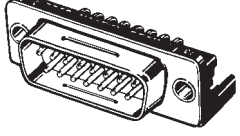


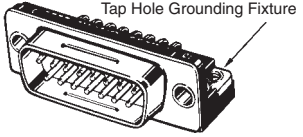
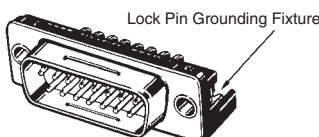
Dimensions

No. of contacts	A	B	C	D	E	F	G
9	30.8	24.99	16.91	10.96	8.22	2.74	1.37
15	39.1	33.32	25.25	19.18	16.44	2.74	1.37
25	53.0	47.04	38.96	33.12	30.36	2.76	1.38
37	69.3	63.50	55.42	49.68	46.92	2.76	1.38



■ Ordering Information

	Anchor 2 and Tap Hole Grounding Fixtures	Anchor 2 and Lock Pin Grounding Fixtures	No anchors or Grounding Fixtures
Appearance			
Accessories	XM2Z-0011 Anchor 2 (M2.6 × 0.45 metric screws)		---
No. of contacts	Tap Hole Grounding Fixtures	Lock Pin Grounding Fixtures	---
9	XM3C-0922-111	XM3C-0922-112	XM3C-0922
15	XM3C-1522-111	XM3C-1522-112	XM3C-1522
25	XM3C-2522-111	XM3C-2522-112	XM3C-2522
37	XM3C-3722-111	XM3C-3722-112	XM3C-3722

	No anchors, with Tap Hole Grounding Fixtures	No anchors, with Lock Pin Grounding Fixtures
Appearance		
Accessories	No anchors	
No. of contacts	Tap Hole Grounding Fixtures	Lock Pin Grounding Fixtures
9	XM3C-0922-501	XM3C-0922-502
15	XM3C-1522-501	XM3C-1522-502
25	XM3C-2522-501	XM3C-2522-502
37	XM3C-3722-501	XM3C-3722-502

Note: The XM3C-□□22-111/-112 with Anchor 2 (M2.6 × 0.45) and Grounding Fixtures as well as the XM3C-□□22-501/-502 with Grounding Fixtures and no Anchor are available as standard models. Two M3 × 0.5 Tap Hole Grounding Fixtures and an M3 × 0.5 Lock Pin Grounding Fixture for the Anchor side are provided.
Contact your OMRON representative for other anchor and grounding fixture specifications. See Accessories (Sold Separately) of XM2/XM3 for details on accessories.

XM3F Sockets with Straight DIP Terminals

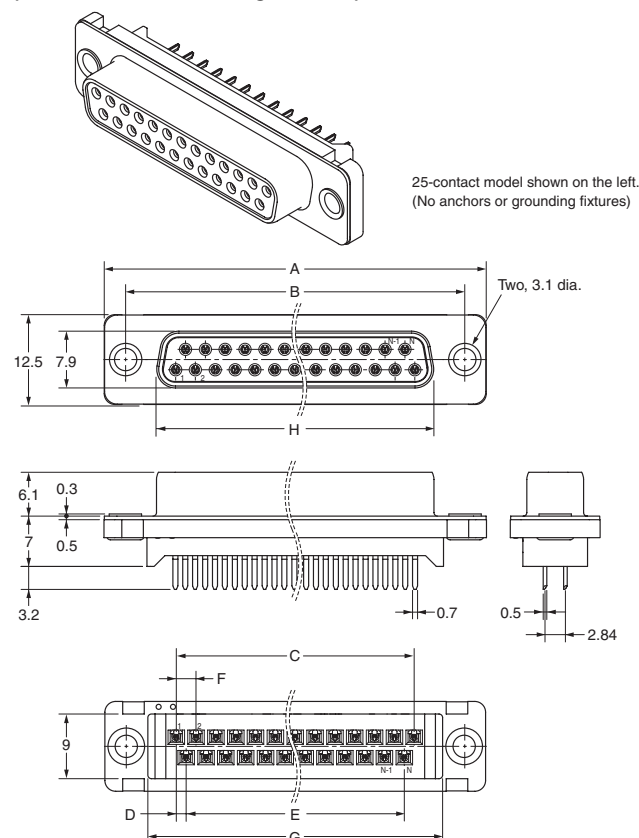
■ Dimensions

(unit: mm)

Straight DIP Terminals

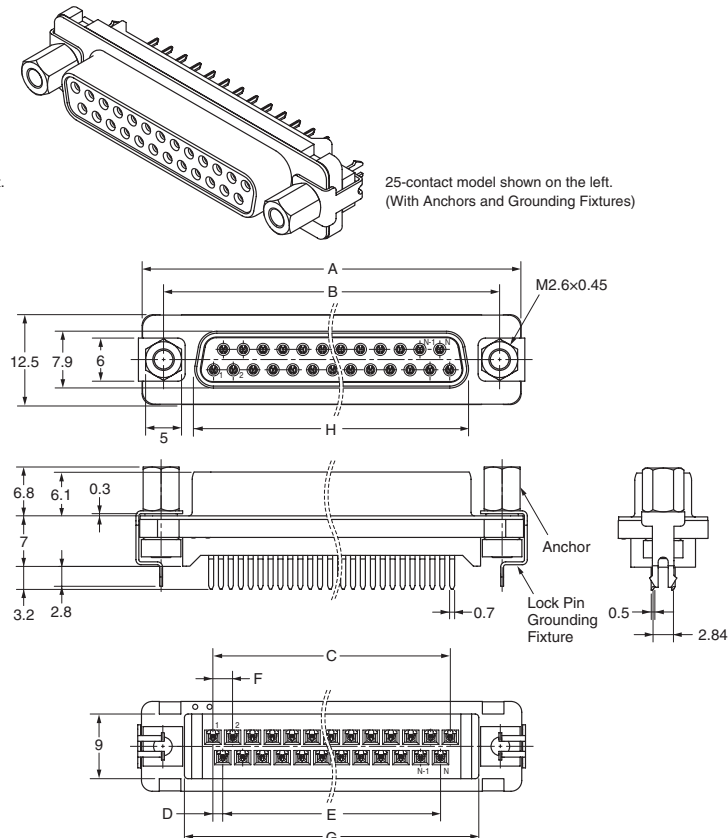
XM3F-□□20

(No Anchor or Grounding Fixtures)



XM3F-□□20-112

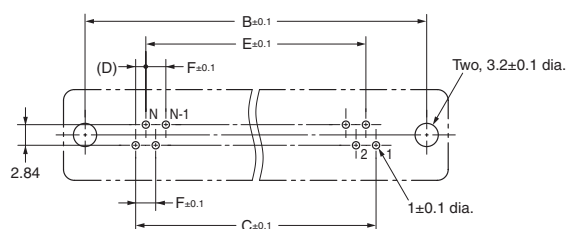
(With Anchor and Lock Pin Grounding Fixtures)



Dimensions

No. of contacts	A	B	C	D	E	F	G	H
9	30.7	24.99	10.98	1.37	8.22	2.74	19.00	16.33
15	39.0	33.32	19.20	1.37	16.44	2.74	27.12	24.66
25	52.9	47.04	33.12	1.38	30.36	2.76	41.04	38.38
37	69.2	63.50	49.68	1.38	46.92	2.76	57.60	54.84

Mounting holes (t = 1.6 mm, bottom view)



■ Ordering Information

Appearance	No anchors or Grounding Fixtures	Anchors and Lock Pin Grounding Fixtures
No. of contacts		
9	XM3F-0920	XM3F-0920-112
15	XM3F-1520	XM3F-1520-112
25	XM3F-2520	XM3F-2520-112
37	XM3F-3720	XM3F-3720-112

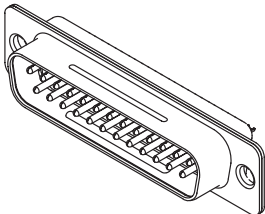
XM3A Plugs with Solder-cup Terminals

XM3D Sockets with Solder-cup Terminals

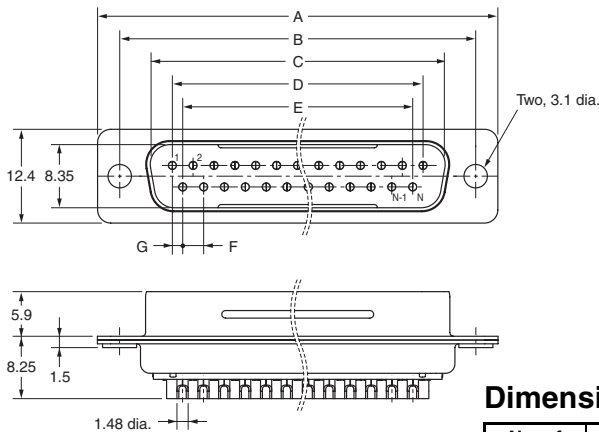
■ Dimensions

(unit: mm)

XM3A-□□21 Plugs/Solder-cup Terminals



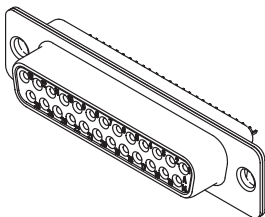
Note: 25-contact model shown above.



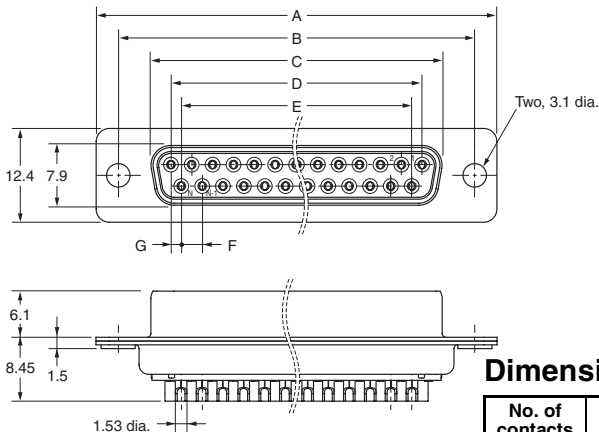
Dimensions (XM3A)

No. of contacts	A	B	C	D	E	F	G
9	30.7	24.99	16.91	10.96	8.22	2.74	1.37
15	39.0	33.32	25.25	19.18	16.44	2.74	1.37
25	52.9	47.04	38.96	33.12	30.36	2.76	1.38
37	69.2	63.50	55.42	49.68	46.92	2.76	1.38

XM3D-□□21 Sockets, Solder-cup Terminals



Note: 25-contact model shown above.



Dimensions (XM3D)

No. of contacts	A	B	C	D	E	F	G
9	30.7	24.99	16.33	10.96	8.22	2.74	1.37
15	39.0	33.32	24.66	19.18	16.44	2.74	1.37
25	52.9	47.04	38.38	33.12	30.36	2.76	1.38
37	69.2	63.50	54.84	49.68	46.92	2.76	1.38

■ Ordering Information

Appearance	Plugs	Sockets
No. of contacts		
9	XM3A-0921	XM3D-0921
15	XM3A-1521	XM3D-1521
25	XM3A-2521	XM3D-2521
37	XM3A-3721	XM3D-3721

XM2S Hood Covers

■ Dimensions

(unit: mm)

9-contact Hoods

XM2S-0911

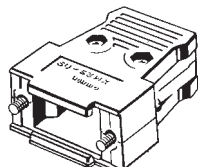
(M2.6 × 0.45 metric screws)

XM2S-0912

(M3 × 0.5 metric screws)

XM2S-0913

(#4-40 UNC inch screws)



15-, 25- and 37-contact Hoods

XM2S-□□11

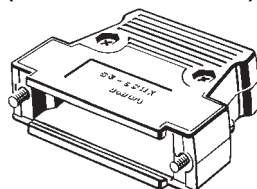
(M2.6 × 0.45 metric screws)

XM2S-□□12

(M3 × 0.5 metric screws)

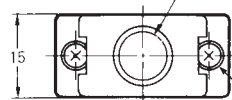
XM2S-□□13

(#4-40 UNC inch screws)



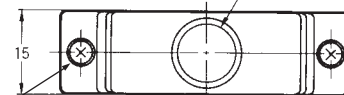
9-contact Hoods

Max. applicable diameter: 9 dia.

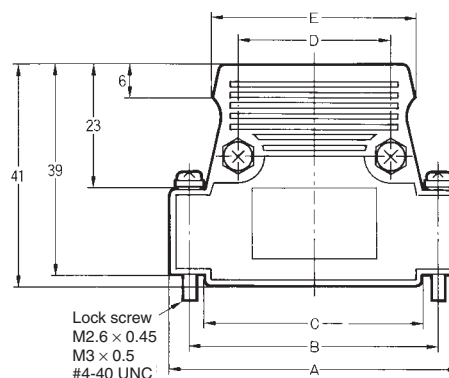
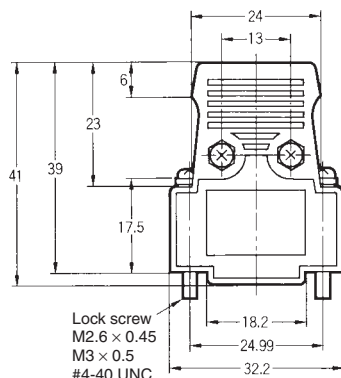


15-, 25- and 37-contact Hoods

Max. applicable cable diameter: F dia.



Dot (screw head)



Lock screw
M2.6 × 0.45
M3 × 0.5
#4-40 UNC

Lock screw
M2.6 × 0.45
M3 × 0.5
#4-40 UNC

Dimensions

Dot shape		
No dot	1 dot	2 dots

No. of contacts	A	B	C	D	E	F
15	40.5	33.32	26.5	19	30	10
25	54.0	47.04	40	29	38	11
37	70.5	63.50	57	42	50	13

■ Ordering Information

Applicable Anchors	Lock screw	M2.6 × 0.45 metric screws (No dot)	M3 × 0.5 metric screws (1 dot)	#4-40 UNC inch screws (2 dots)
	Anchor 1	XM2Z-0001	XM2Z-0002	XM2Z-0003
	Anchor 2	XM2Z-0011	XM2Z-0012	XM2Z-0013
No. of contacts	Anchor 3	XM2Z-0021	XM2Z-0022	XM2Z-0023
9		XM2S-0911	XM2S-0912	XM2S-0913
15		XM2S-1511	XM2S-1512	XM2S-1513
25		XM2S-2511	XM2S-2512	XM2S-2513
37		XM2S-3711	XM2S-3712	XM2S-3713

Note: Lock screws are attached to the Hood. Select D-sub Connectors with Anchors or Grounding Fixtures that fit the lock screw of the Hood.

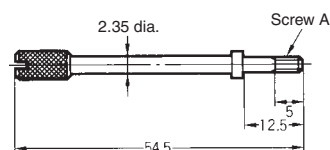
■ Accessories (Sold Separately)

Anchor 5 (For Jackscrews and XM2S Hood)

XM2Z-0071 (M2.6 × 0.45 metric screws)

XM2Z-0072 (M3 × 0.5 metric screws)

XM2Z-0073 (#4-40 UNC inch screws)



Materials and Finish
Brass/nickel plated

Dimensions

Model	A	Groove	Groove shape
XM2Z-0071	M2.6 × 0.45	None	
XM2Z-0072	M3 × 0.5	1	
XM2Z-0073	#4-40 UNC	2	

- 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.

OMRON Corporation

ELECTRONIC AND MECHANICAL COMPONENTS COMPANY

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