OMRON D-sub Connectors

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

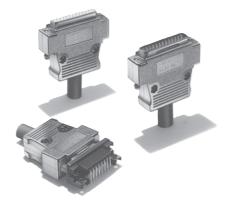
Here, metallization refers to plating over the plastic hood.

• 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

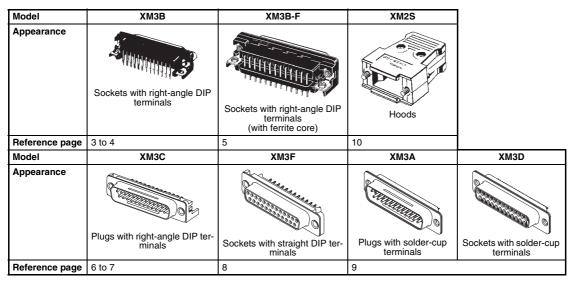
Abbreviation of ElectroStatic Discharge

• 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

XM2/XM3

OMRON

■ 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- Sockets with Solder Cup Terminals: XM3D Sockets with Solder Cup Terminals: XM3F	Plugs with Right-angle DIP Terminals: XM3C models with 37 pins XM3C-3722-	Hoods XM2S
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	ХМЗВ	XM3B-F	XM3C	XM3F	ХМЗА	XM3D	XM2S
Housing		Fiber-glass reinforced PBT resin (UL94V-0)/black		Fiber-glass reinforced PBT resin (UL94V-0)/Milky white		ABS resin/nickel plated		
Mating end		Phosphor bronze/nickel base, gold plated (0.4 $\mu\text{m})$			Bronze/nickel base, gold plated (0.4 μm)	Phosphor bronze/nickel base, gold plated (0.4 µm)		
Contacts	Terminals	Phosphor bronze/r plated (2 μm)	ickel base, tin	Phosphor bronze/r plated (3 μm)	nickel base, tin	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



- 1. Anchor specifications 1: With Anchor 2
 - 5: No anchors

- 2. Anchor screw specifications $1: M2.6 \times 0.45$ 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.

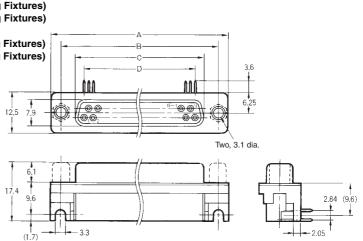
Dimensions

(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)
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)

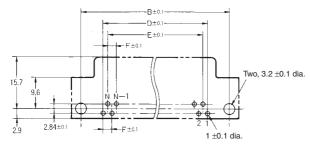




(With anchor 2, Lock Pin, Grounding Fixtures)

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 25and 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	Dimensions (mm)						
contacts	Α	В	С	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	Anchor 2 Tap Hole Grounding Fixture	Anchor 2 Lock Pin Grounding Fixture			
Accessories	XM2Z-0011 Anchor 2 (M	2.6 × 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	s 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	Tap Hole Grounding Fixture	Lock Pin Grounding Fixture			
Accessories	No				
No. of contacts	XM2Z-0061 Tap Hole 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-D22 (No anchors or grounding fixtures) in combination with suitable Anchors and Grounding Fixtures.

2. Two $M3 \times 0.5$ Tap Hole Grounding Fixtures and an $M3 \times 0.5$ 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 accesories.