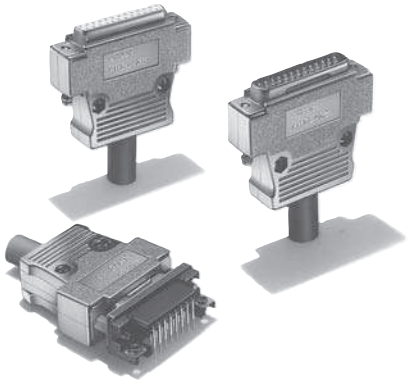
OMRON

D-sub Connectors

XM3

D-sub Connectors Are Ideal for Office Automation Interfacing.



- Shielded against EMI.
- 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 XM3 conform to UL standards (No. E103202)

RoHS Compliant

■ Terminology

● Shielded connector

Connector having a structure that can be grounded.

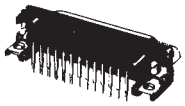
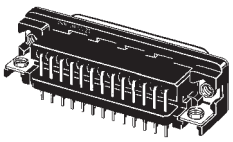
● Beating

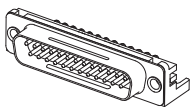
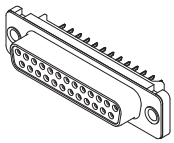
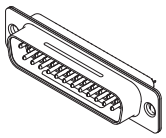
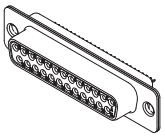
A processing technique that ensures the contact amongst the shells by beating a part of the shell.

● 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
Appearance	 Sockets with right-angle DIP terminals	 Sockets with right-angle DIP terminals (with ferrite core)
Reference page	3 to 4	5

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

Item \ Model	XM3A XM3B XM3B-F All XM3C models except for those with 37 pins XM3D XM3F	XM3C models with 37 pins
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.)	
Insertion durability	200 times	
Ambient operating temperature	–55 to 105°C (with no condensation or icing)	

■ Materials and Finish

Item	Model	XM3B	XM3B-F	XM3C	XM3F	XM3A	XM3D
Housing		PBT (UL94 V-0)/black				PBT (UL94 V-0)/Milky white	
Contacts	Mating end	Phosphor bronze/nickel base, gold plated				Bronze/nickel base, gold plated	Phosphor bronze/nickel base, gold plated
	Terminals	Phosphor bronze/nickel base, tin plated		Phosphor bronze/nickel base, tin plated		Bronze/nickel base, tin plated	Phosphor bronze/nickel base, tin plated
Shell		Steel/nickel plated					

■ 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 4

1. **Number of contacts**
   09: 9 contacts
   15: 15 contacts
   25: 25 contacts
   37: 37 contacts
2. **Anchor specifications**
   1: With Anchor 2
   5: No anchors
3. **Anchor screw specifications**
   1: M2.6 × 0.45 metric screws
   3: #4-40 UNC inch screws
   0: No anchors
4. **Grounding Fixture**
   1: Tap Hole Grounding Fixture
   2: Lock Pin Grounding Fixture

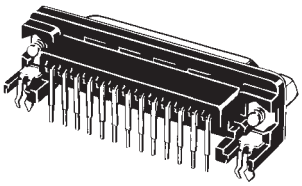
Note: Anchors and Grounding Fixtures are not supplied if 2, 3,and 4 are blank.

■ Dimensions

(unit: mm)

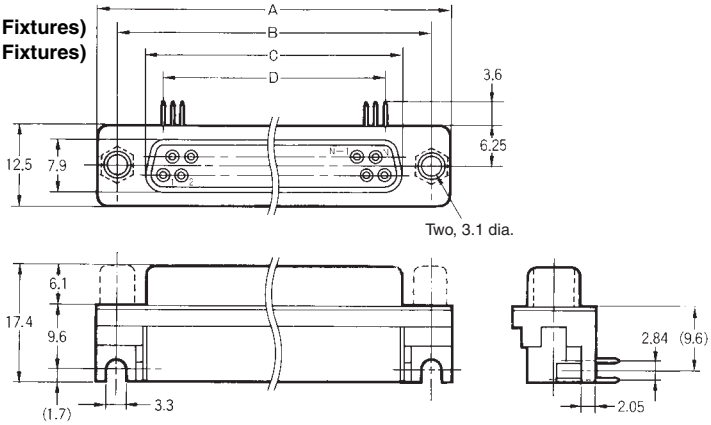
XM3B-□□22 (No anchors, no grounding fixtures)
XM3B-□□22-501 (No anchors, Tap Hole Grounding Fixtures)
XM3B-□□22-111 (With Anchor 2 (See note 1.), Tap Hole Grounding Fixtures)
XM3B-□□22-131 (With Anchor 2 (See note 2.), Tap Hole Grounding Fixtures)
XM3B-□□22-502 (No anchors, Lock Pin Grounding Fixtures)
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)

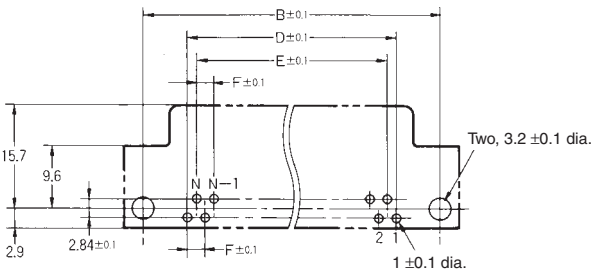


25-contact model shown above.
(With anchor 2, Lock Pin, Grounding Fixtures)

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.



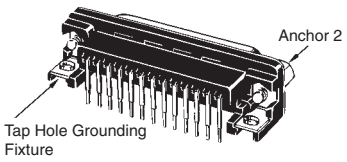
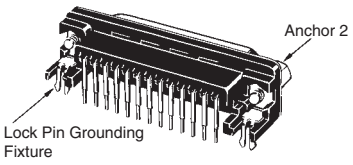
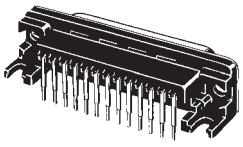
Mounting holes (t = 1.6 mm, bottom view)



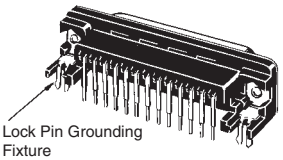
Dimensions

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

Appearance	Anchor 2 and Tap Hole Grounding Fixtures	Anchor 2 and Lock Pin Grounding Fixtures	No anchors or grounding fixtures (See note 1.)
			
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

Appearance	No anchors, with Tap Hole Grounding Fixtures	No anchors, with Lock Pin Grounding Fixtures
		
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.

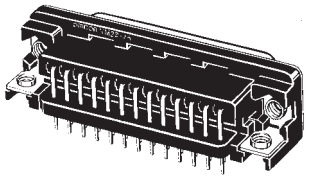
3. For other models with Anchors or Grounding Fixtures, contact your OMRON representative. For accessories, refer to *Accessories (Sold Separately)* in the XM2/XM3 datasheet.

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

■ Dimensions

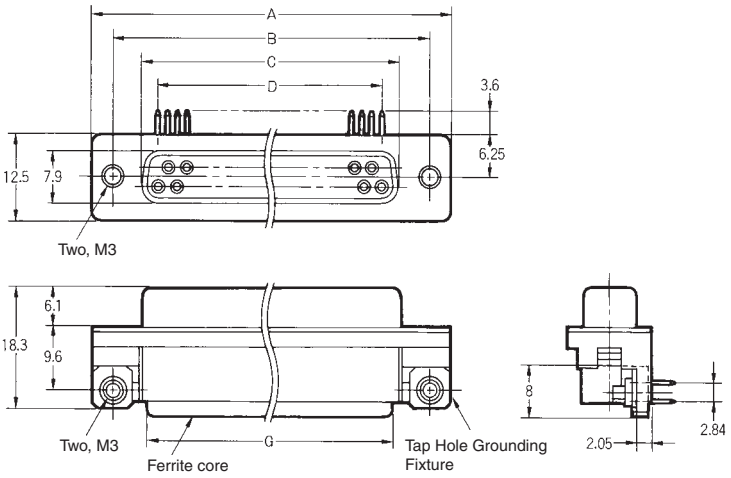
(unit: mm)

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

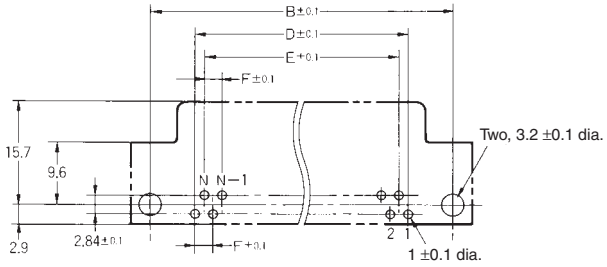


25-contact model shown above.
(With Tap Hole Grounding Fixtures)

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.



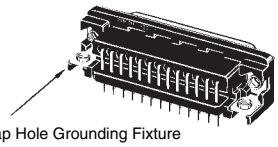
Mounting holes (t = 1.6 mm, bottom view)



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

	Tap Hole Grounding Fixtures
Appearance	 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 4

1. Number of contacts
09: 9 contacts
15: 15 contacts
25: 25 contacts
37: 37 contacts

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

3. Anchor screw specifications
1: M2.6 × 0.45 metric screws
3: Inch screws
0: No anchors

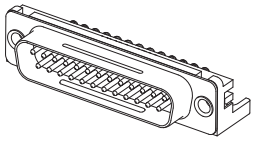
4. Grounding Fixture
1: Tap Hole Grounding Fixture
2: Lock Pin Grounding Fixture

Note: Anchors and Grounding Fixtures are not supplied if 2, 3, and 4 are blank.

■ Dimensions

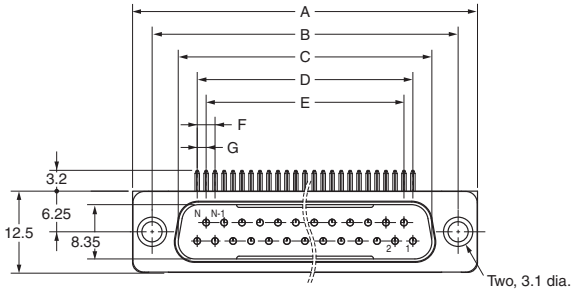
(unit: mm)

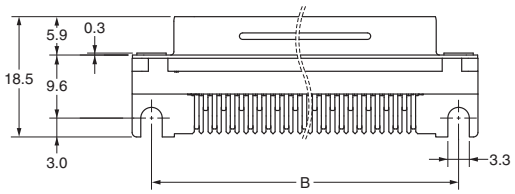
DIP Terminals
XM3C-□□22 (No Anchors or Grounding Fixtures)
XM3C-□□22-501 (No Anchors, with Tap Hole Grounding Fixtures)
XM3C-□□22-502 (No Anchors, with Lock Pin Grounding Fixtures)
XM3C-□□22-111 (With Anchor 2 and Tap Hole Grounding Fixtures)
XM3C-□□22-112 (With Anchor 2 and Lock Pin Grounding Fixtures)

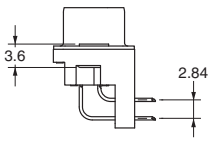


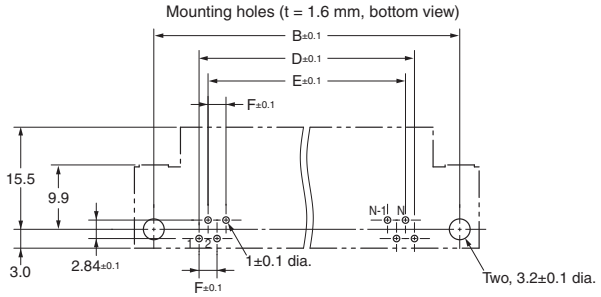
25-contact model shown above.
(No Anchor or Grounding Fixtures)

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.





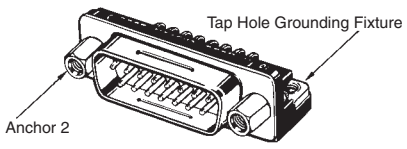
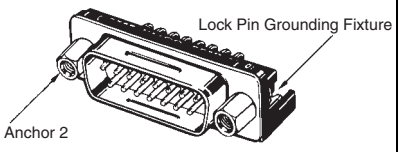
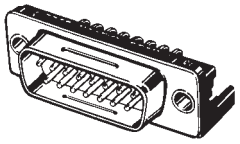


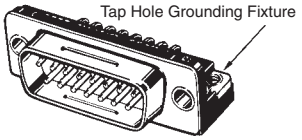
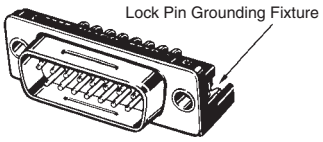


Dimensions

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

Appearance	Anchor 2 and Tap Hole Grounding Fixtures	Anchor 2 and Lock Pin Grounding Fixtures	No anchors or Grounding Fixtures
			
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

Appearance	No anchors, with Tap Hole Grounding Fixtures	No anchors, with Lock Pin Grounding Fixtures
		
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

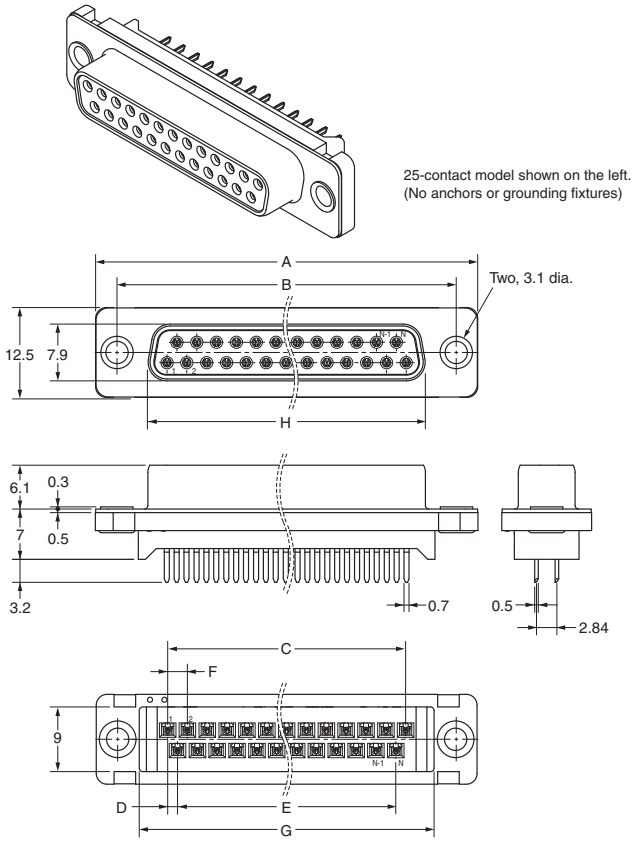
Note: The XM3C-□□22-111/-112 with Anchor 2 (M2.6 × 0.45) and Grounding Fixtures as well as the XM3C-□□22-501/-502 with Grounding Fixtures and no Anchor are available as standard models. Two M3 × 0.5 Tap Hole Grounding Fixtures and an M3 × 0.5 Lock Pin Grounding Fixture for the Anchor side are provided.
Contact your OMRON representative for other anchor and grounding fixture specifications. See Accessories (Sold Separately) of XM2/XM3 for details on accesories.
Tap Hole Grounding Fixtures and Lock Pin Grounding Fixtures are not sold separately.

XM3F Sockets with Straight DIP Terminals

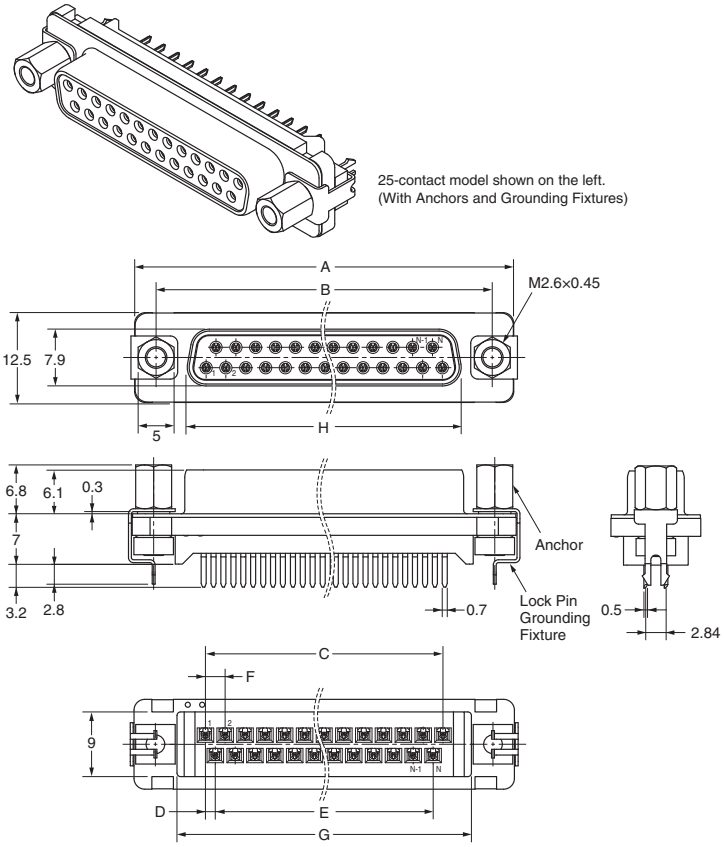
■ Dimensions

(unit: mm)

Straight DIP Terminals
XM3F-□□20
(No Anchor or Grounding Fixtures)



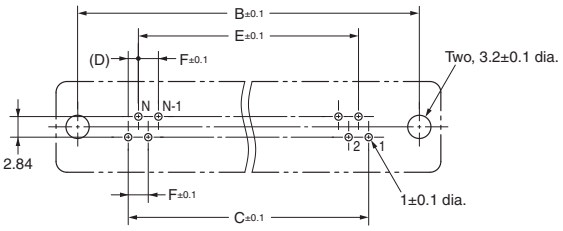
XM3F-□□20-112
(With Anchor and Lock Pin Grounding Fixtures)



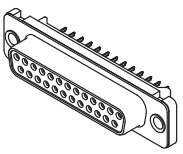
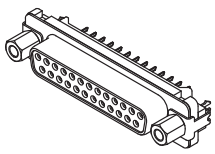
Dimensions

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

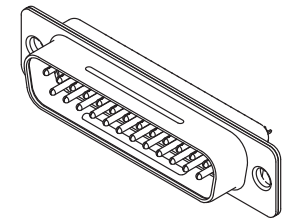
Appearance / No. of contacts	No anchors or Grounding Fixtures	Anchors and Lock Pin Grounding Fixtures
		
9	XM3F-0920	XM3F-0920-112
15	XM3F-1520	XM3F-1520-112
25	XM3F-2520	XM3F-2520-112
37	XM3F-3720	XM3F-3720-112

XM3A Plugs with Solder-cup Terminals
XM3D Sockets with Solder-cup Terminals

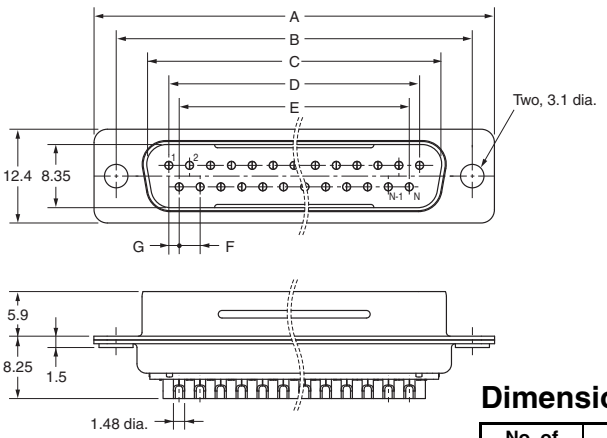
■ Dimensions

(unit: mm)

XM3A-□□21
Plugs/Solder-cup Terminals



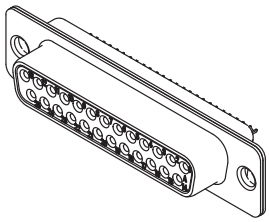
Note: 25-contact model shown above.



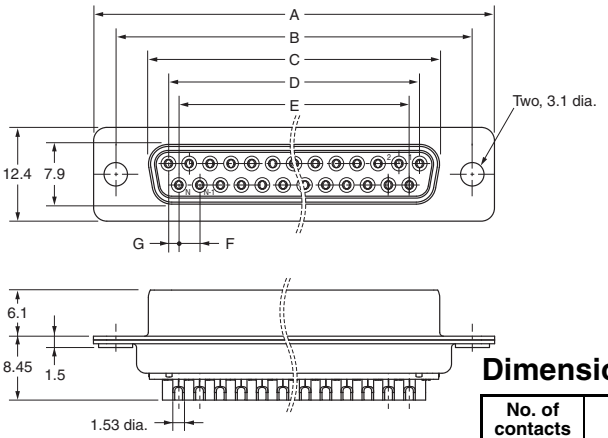
Dimensions (XM3A)

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



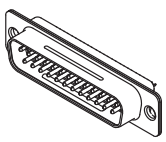
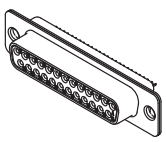
Note: 25-contact model shown above.



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

OMRON

- 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
Contact: www.omron.com/ecb

Cat. No. G057-E1-02
1014(0412)(O)