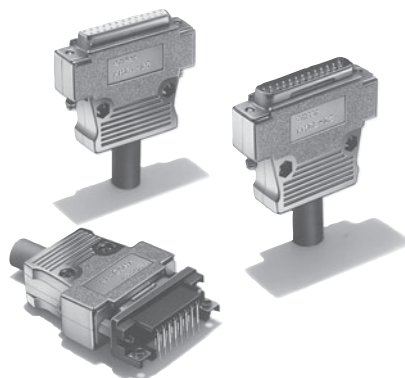


## D-sub Connectors

## 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

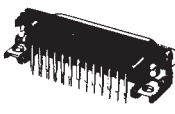
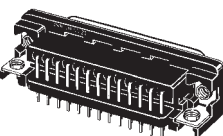
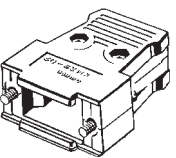
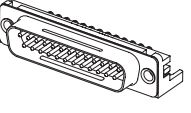
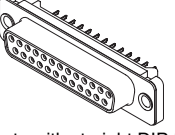
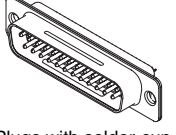
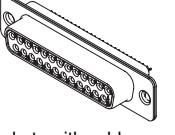
##### ● Grounding structure

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

## ■ Ratings and Characteristics

|                               |                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                 |               |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------|---------------|
| Model                         | Plugs with Solder Cup Terminals: XM3A<br>Socket with right-angle DIP Terminals: XM3B<br>Socket with right-angle DIP Terminals (with ferrite core): XM3B-F<br>Plugs with Right-angle DIP Terminals: All XM3C models except those with 37 pins<br>XM3C-0922-□□□<br>XM3C-1522-□□□<br>XM3C-2522-□□□<br>Sockets with Solder Cup Terminals: XM3D<br>Sockets with Straight DIP Terminals: XM3F |  | Plugs with Right-angle DIP Terminals: XM3C models with 37 pins<br>XM3C-3722-□□□ | Hoods<br>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)<br>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

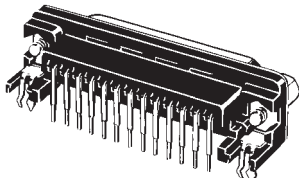
**Note:** Anchors and Grounding Fixtures are not supplied if 1, 2, and 3 are blank.

## 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)

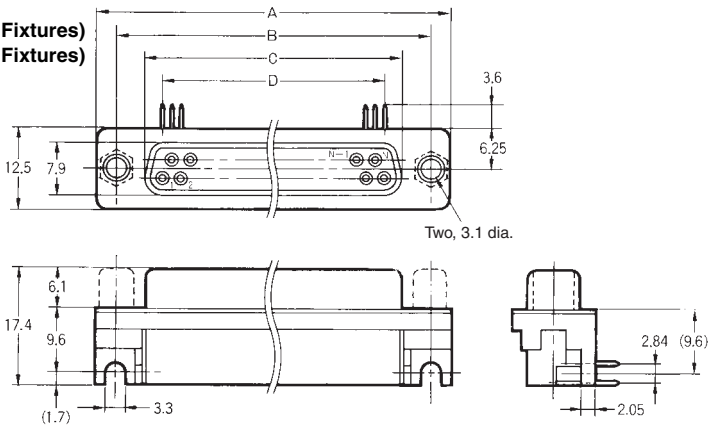
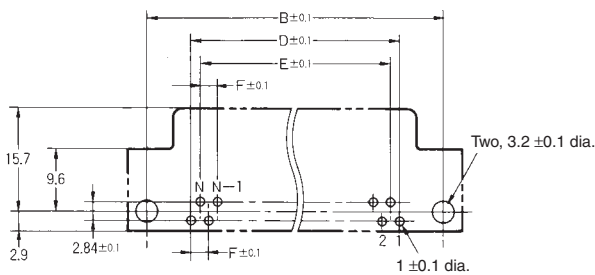
- Note:** 1. Metric screws (M2.6 × 0.45)  
2. Inch screws (#4-40 UNC)



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.

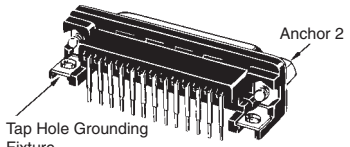
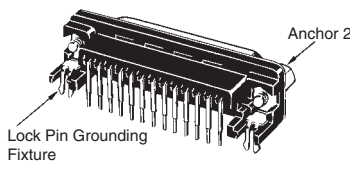
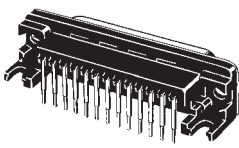
Mounting holes (t = 1.6 mm, bottom view)



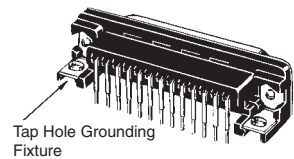
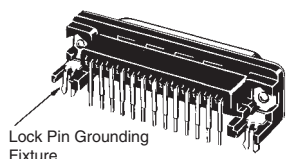
## Dimensions

| 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<br>Tap Hole Grounding Fixtures                                       | Anchor 2 and<br>Lock Pin Grounding Fixtures                                        | No anchors or<br>grounding fixtures<br>(See note 1.)                                |
|------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Appearance</b>      |  |  |  |
| <b>Accessories</b>     | <b>XM2Z-0011 Anchor 2 (M2.6 × 0.45 metric screws)</b>                             |                                                                                    | ---                                                                                 |
| <b>No. of contacts</b> | <b>XM2Z-0061<br/>Tap Hole Grounding Fixtures</b>                                  | <b>XM2Z-0062<br/>Lock Pin Grounding Fixtures</b>                                   | ---                                                                                 |
| 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                                                                           |
| <b>Accessories</b>     | <b>XM2Z-0013 Anchor 2 (#4-40 UNC inch screws)</b>                                 |                                                                                    |                                                                                     |
| <b>No. of contacts</b> | <b>XM2Z-0061<br/>Tap Hole Grounding Fixtures</b>                                  | <b>XM2Z-0062<br/>Lock Pin Grounding Fixtures</b>                                   |                                                                                     |
| 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<br>Tap Hole Grounding Fixtures                                     | No anchors, with<br>Lock Pin Grounding Fixtures                                      |
|------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Appearance</b>      |  |  |
| <b>Accessories</b>     | <b>No anchors</b>                                                                   |                                                                                      |
| <b>No. of contacts</b> | <b>XM2Z-0061<br/>Tap Hole Grounding Fixtures</b>                                    | <b>XM2Z-0062<br/>Lock Pin Grounding Fixtures</b>                                     |
| 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                                                                        |

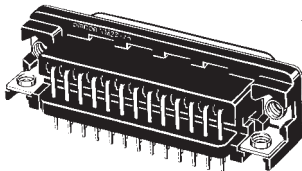
- Note:** 1. Use the XM3B-□□22 (No anchors or grounding fixtures) in combination with suitable Anchors and Grounding Fixtures.  
 2. Two M3 × 0.5 Tap Hole Grounding Fixtures and an M3 × 0.5 Lock Pin Grounding Fixture for the Anchor side are provided.  
 3. Contact your OMRON representative for other 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

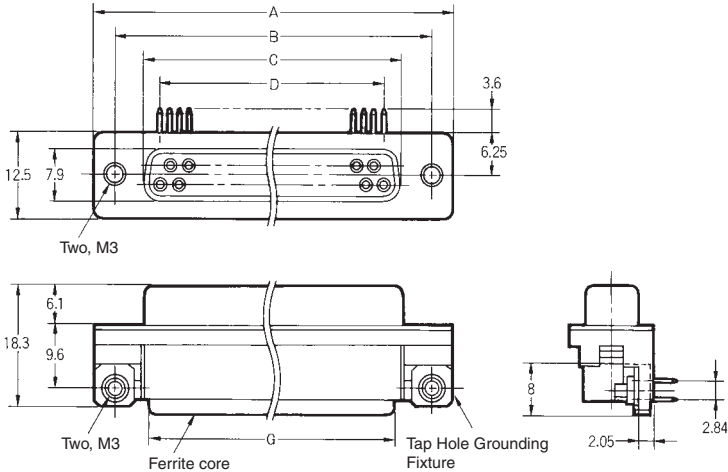
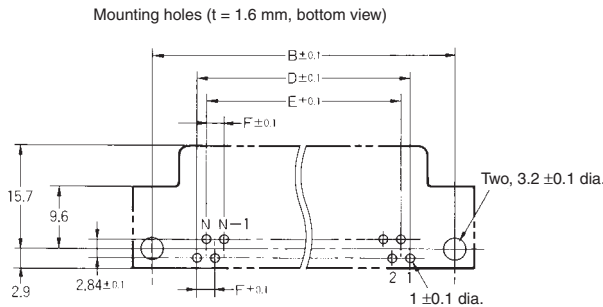
(unit: mm)

**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                     |
|-----------------|-------------------------------------------------|
|                 | <br>Tap Hole Grounding Fixture                  |
| Accessories     | <b>XM2Z-0061</b><br>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

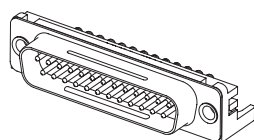
XM3C-□□22 (No Anchors or Grounding Fixtures)

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

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

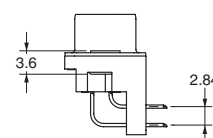
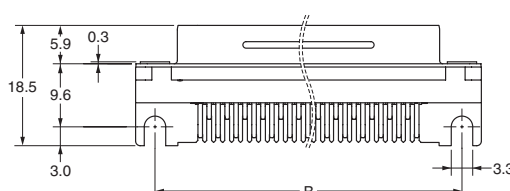
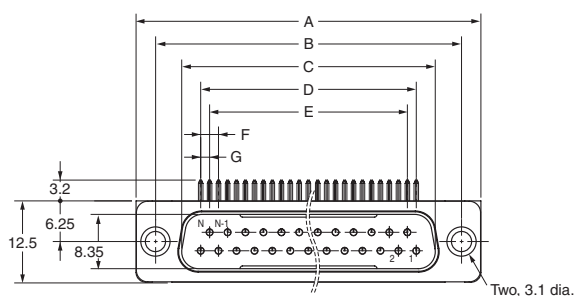
XM3C-□□22-111 (With Anchor 2 and Tap Hole Grounding Fixtures)

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



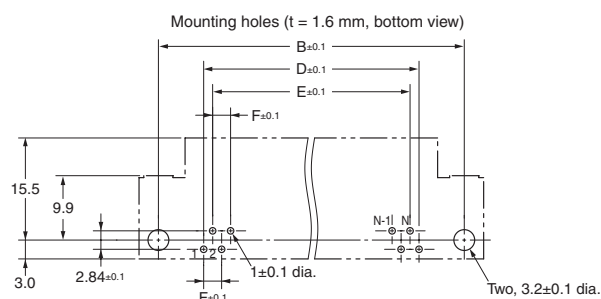
25-contact model shown above.  
(No Anchor or Grounding Fixtures)

**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.

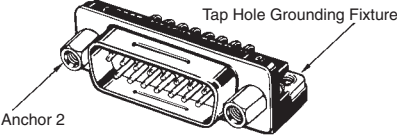
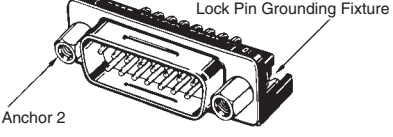
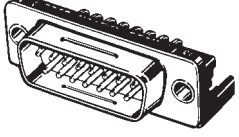


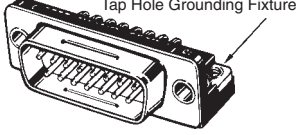
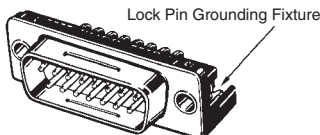
### Dimensions

| 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

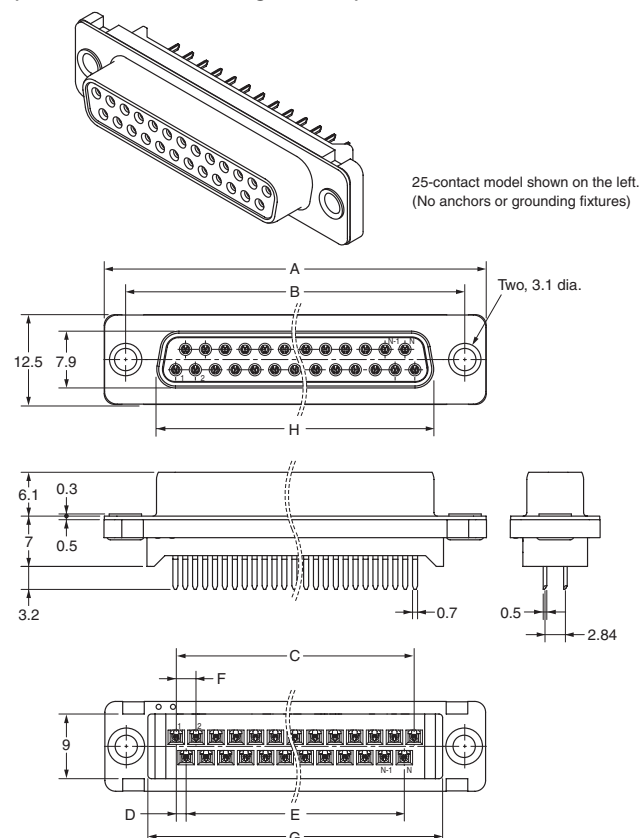
## ■ Dimensions

(unit: mm)

### Straight DIP Terminals

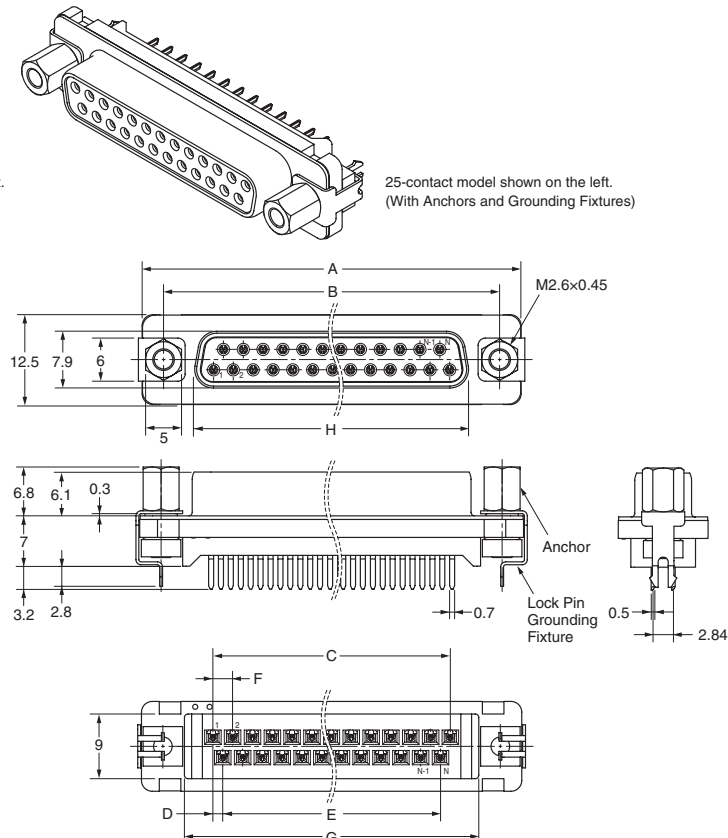
XM3F-□□20

(No Anchor or Grounding Fixtures)



XM3F-□□20-112

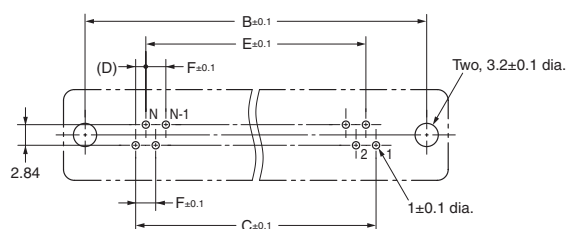
(With Anchor and Lock Pin Grounding Fixtures)



### 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                           |



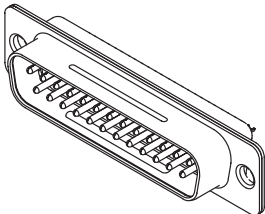
# XM3A Plugs with Solder-cup Terminals

# XM3D Sockets with Solder-cup Terminals

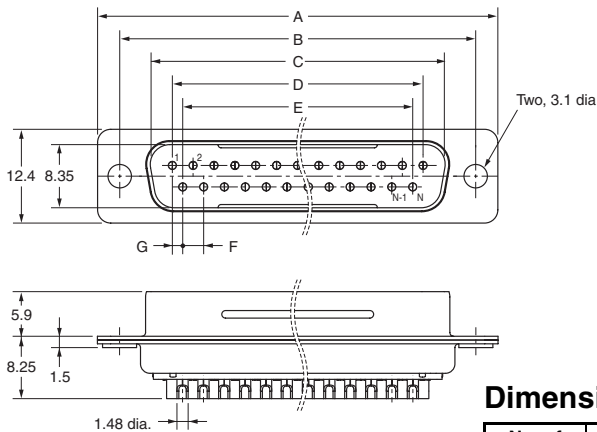
## ■ Dimensions

(unit: mm)

XM3A-□□21  
Plugs/Solder-cup Terminals



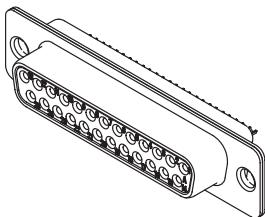
Note: 25-contact model shown above.



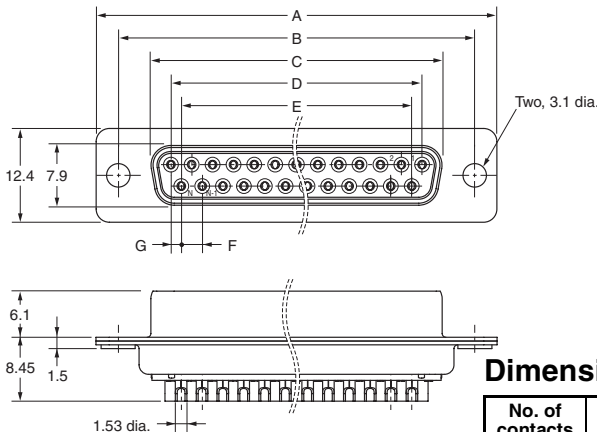
Dimensions (XM3A)

| 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 |