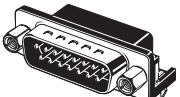
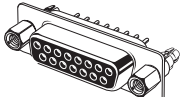


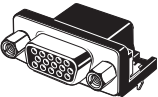
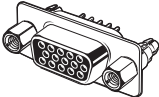
## The D-sub Connector Series Enters a New Era with Lead-free Products.

- Determine anchor screw diameters at a glance.
- Greatly simplified anchor combinations.
- Shielded against EMI.
- EMI/RFI shielded hoods available.



## ■ Connectors

| Classification | D-sub Connectors                                                                  |                                                                                   |                                                                                   |                                                                                    |
|----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Model          | XM3B-L                                                                            | XM2C-L                                                                            | XM2E-L                                                                            | XM2F-L                                                                             |
| Type           | Sockets with Right-angle DIP Terminals                                            | Plugs with Right-angle DIP Terminals                                              | Plugs with Straight DIP Terminals                                                 | Sockets with Straight DIP Terminals                                                |
| Appearance     |  |  |  |  |

| Classification | High-density D-sub Connectors                                                     |                                                                                   |                                                                                   | Anchors                                                                            |
|----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Model          | XM4K                                                                              | XM4L                                                                              | XM4L                                                                              | XM4Z                                                                               |
| Type           | Plugs with Right-angle DIP Terminals                                              | Sockets with Right-angle DIP Terminals                                            | Sockets with Straight DIP Terminals                                               | Anchor 2 or 3                                                                      |
| Appearance     |  |  |  |  |

## ■ Ratings and Characteristics

|                       |                                                  |
|-----------------------|--------------------------------------------------|
| Rated current         | 3 A (at 20°C)                                    |
| Rated voltage         | 300 VAC                                          |
| Contact resistance    | 20 mΩ max. (at 20 mV, 100 mA max.)               |
| Insulation resistance | 1,000 MΩ min. (at 500 VDC for 1 min)             |
| Withstand voltage     | 1,000 VAC for 1 min (leakage current: 1 mA max.) |
| Insertion durability  | 100 times                                        |
| Operating temperature | - 25 to 105°C (with no icing at low temperature) |

## ■ Materials

|                            |                                                  |
|----------------------------|--------------------------------------------------|
| Housing                    | Fiber-glass reinforced PBT resin (UL94V-0)/black |
| Socket contact             | Phosphor bronze                                  |
| Plug contact               | Brass                                            |
| Shell                      | Steel                                            |
| Anchors                    | Brass                                            |
| Lock Pin Grounding Fixture | Brass                                            |

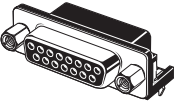
## D-Sub Connectors - XM3-L/XM2-L/XM4K/XM4L

### ■ Finish

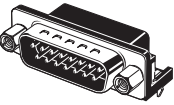
|                   |             |                                |
|-------------------|-------------|--------------------------------|
| Contact           | Mating end  | Nickel base, flash gold plated |
|                   | Terminal    | Nickel base, flash gold plated |
| Shell             |             | Nickel plated                  |
| Anchors           |             | Nickel plated                  |
| Grounding Fixture | Straight    | Nickel plated                  |
|                   | Right angle | Tin plated                     |

### ■ Ordering Information

#### D-sub Sockets with Right-angle DIP Terminals

|                 |                                                                                   |                                  |                                |
|-----------------|-----------------------------------------------------------------------------------|----------------------------------|--------------------------------|
| Appearance      |  |                                  |                                |
| Accessories     | No anchors                                                                        | Anchor 2 (XM4Z-0011) M2.6 x 0.45 | Anchor 2 (XM4Z-0013) #4-40 UNC |
| No. of contacts |                                                                                   |                                  |                                |
| 9               | XM3B-0942-502L                                                                    | XM3B-0942-112L                   | XM3B-0942-132L                 |
| 15              | XM3B-1542-502L                                                                    | XM3B-1542-112L                   | XM3B-1542-132L                 |
| 25              | XM3B-2542-502L                                                                    | XM3B-2542-112L                   | XM3B-2542-132L                 |

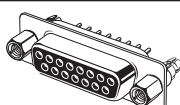
#### D-sub Plugs with Right-angle DIP Terminals

|                 |                                                                                   |                                  |                                |
|-----------------|-----------------------------------------------------------------------------------|----------------------------------|--------------------------------|
| Appearance      |  |                                  |                                |
| Accessories     | No anchors                                                                        | Anchor 2 (XM4Z-0011) M2.6 x 0.45 | Anchor 2 (XM4Z-0013) #4-40 UNC |
| No. of contacts |                                                                                   |                                  |                                |
| 9               | XM2C-0942-502L                                                                    | XM2C-0942-112L                   | XM2C-0942-132L                 |
| 15              | XM2C-1542-502L                                                                    | XM2C-1542-112L                   | XM2C-1542-132L                 |
| 25              | XM2C-2542-502L                                                                    | XM2C-2542-112L                   | XM2C-2542-132L                 |

#### D-sub Plugs with Straight DIP Terminals

|                 |                                                                                    |                |                                  |                                |
|-----------------|------------------------------------------------------------------------------------|----------------|----------------------------------|--------------------------------|
| Appearance      |  |                |                                  |                                |
| Accessories     | Without ground pins                                                                | No anchors     | Anchor 2 (XM4Z-1011) M2.6 x 0.45 | Anchor 2 (XM4Z-1013) #4-40 UNC |
| No. of contacts |                                                                                    |                |                                  |                                |
| 9               | XM2E-0940-L                                                                        | XM2E-0940-502L | XM2E-0940-112L                   | XM2E-0940-132L                 |
| 15              | XM2E-1540-L                                                                        | XM2E-1540-502L | XM2E-1540-112L                   | XM2E-1540-132L                 |
| 25              | XM2E-2540-L                                                                        | XM2E-2540-502L | XM2E-2540-112L                   | XM2E-2540-132L                 |

#### D-sub Plugs with Straight DIP Terminals

|                 |                                                                                     |                |                                  |                                |
|-----------------|-------------------------------------------------------------------------------------|----------------|----------------------------------|--------------------------------|
| Appearance      |  |                |                                  |                                |
| Accessories     | Without ground pins                                                                 | No anchors     | Anchor 2 (XM4Z-1011) M2.6 x 0.45 | Anchor 2 (XM4Z-1013) #4-40 UNC |
| No. of contacts |                                                                                     |                |                                  |                                |
| 9               | XM2E-0940-L                                                                         | XM2E-0940-502L | XM2E-0940-112L                   | XM2E-0940-132L                 |
| 15              | XM2E-1540-L                                                                         | XM2E-1540-502L | XM2E-1540-112L                   | XM2E-1540-132L                 |
| 25              | XM2E-2540-L                                                                         | XM2E-2540-502L | XM2E-2540-112L                   | XM2E-2540-132L                 |

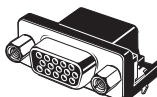
**Note:** For other models with Anchors, contact your OMRON representative.

## D-Sub Connectors - XM3-L/XM2-L/XM4K/XM4L

### High-density D-sub Plugs with Right-angle DIP Terminals

|                 |                                                                                   |                                  |                                |
|-----------------|-----------------------------------------------------------------------------------|----------------------------------|--------------------------------|
| Appearance      |  |                                  |                                |
| Accessories     | No anchors                                                                        | Anchor 2 (XM4Z-0011) M2.6 x 0.45 | Anchor 2 (XM4Z-0013) #4-40 UNC |
| No. of contacts |                                                                                   |                                  |                                |
| 15              | XM4K-1542-502                                                                     | XM4K-1542-112                    | XM4K-1542-132                  |

### High-density D-sub Sockets with Right-angle DIP Terminals

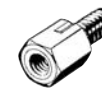
|                 |                                                                                   |                                  |                                |
|-----------------|-----------------------------------------------------------------------------------|----------------------------------|--------------------------------|
| Appearance      |  |                                  |                                |
| Accessories     | No anchors                                                                        | Anchor 2 (XM4Z-0011) M2.6 x 0.45 | Anchor 2 (XM4Z-0013) #4-40 UNC |
| No. of contacts |                                                                                   |                                  |                                |
| 15              | XM4L-1542-502                                                                     | XM4L-1542-112                    | XM4L-1542-132                  |

### High-density D-sub Sockets with Right-angle DIP Terminals

|                 |                                                                                   |                                  |                                |
|-----------------|-----------------------------------------------------------------------------------|----------------------------------|--------------------------------|
| Appearance      |  |                                  |                                |
| Accessories     | No anchors                                                                        | Anchor 2 (XM4Z-0011) M2.6 x 0.45 | Anchor 2 (XM4Z-0013) #4-40 UNC |
| No. of contacts |                                                                                   |                                  |                                |
| 15              | XM4L-1541-501                                                                     | XM4L-1541-112                    | XM4L-1541-132                  |

**Note:** For other models with Anchors, contact your OMRON representative.

### Anchor 2 (Screw Head Length: 5.8 mm)

| Type       | For right-angle DIP terminals                                                       |                                                                                     |                                                                                     | For straight DIP terminals                                                          |                                                                                     |                                                                                      |
|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Appearance |  |  |  |  |  |  |
| Lock screw | M2.6 x 0.45                                                                         | M3 x 0.5                                                                            | #4-40 UNC                                                                           | M2.6 x 0.45                                                                         | M3 x 0.5                                                                            | #4-40 UNC                                                                            |
| Model      | XM4Z-0021                                                                           | XM4Z-0022                                                                           | XM4Z-0023                                                                           | XM4Z-1021                                                                           | XM4Z-1022                                                                           | XM4Z-1023                                                                            |

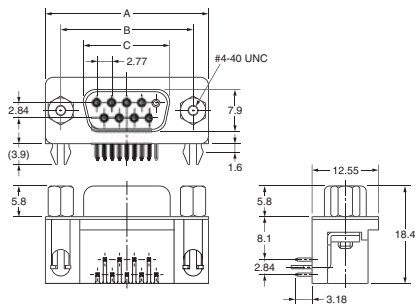
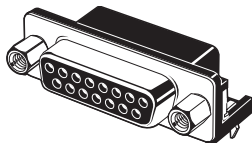
### Anchor 3 (Screw Head Length: 4.8 mm)

| Type       | For right-angle DIP terminals                                                       |                                                                                     |                                                                                     | For straight DIP terminals                                                          |                                                                                     |                                                                                      |
|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Appearance |  |  |  |  |  |  |
| Lock screw | M2.6 x 0.45                                                                         | M3 x 0.5                                                                            | #4-40 UNC                                                                           | M2.6 x 0.45                                                                         | M3 x 0.5                                                                            | #4-40 UNC                                                                            |
| Model      | XM4Z-0021                                                                           | XM4Z-0022                                                                           | XM4Z-0023                                                                           | XM4Z-1021                                                                           | XM4Z-1022                                                                           | XM4Z-1023                                                                            |

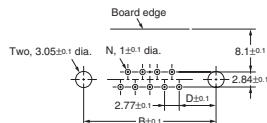
## ■ Dimensions

### D-sub Sockets with Right-angle DIP Terminals

XM3B-0942-132L  
XM3B-1542-132L  
XM3B-2542-132L



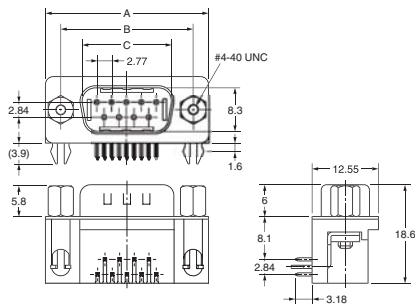
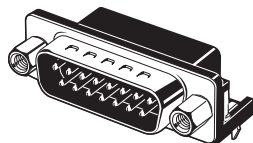
Mounting holes ( $t = 1.6$  mm, bottom view)



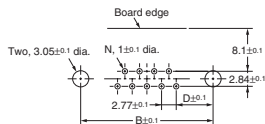
| No. of contacts (N) | A    | B     | C     | D    |
|---------------------|------|-------|-------|------|
| 9                   | 30.8 | 24.99 | 16.33 | 6.96 |
| 15                  | 39.1 | 33.32 | 24.66 | 6.96 |
| 25                  | 53.0 | 47.04 | 38.38 | 6.91 |

### D-sub Plugs with Right-angle DIP Terminals

XM2C-0942-132L  
XM2C-1542-132L  
XM2C-2542-132L



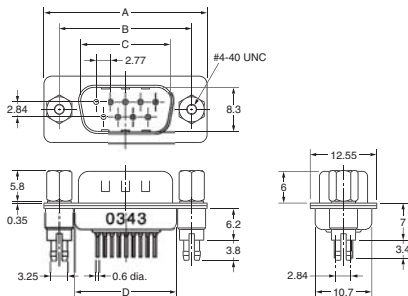
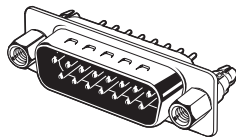
Mounting holes ( $t = 1.6$  mm, bottom view)



| No. of contacts (N) | A    | B     | C     | D    |
|---------------------|------|-------|-------|------|
| 9                   | 30.8 | 24.99 | 16.92 | 6.96 |
| 15                  | 39.1 | 33.32 | 25.25 | 6.96 |
| 25                  | 53.0 | 47.04 | 38.96 | 6.91 |

### D-sub Plugs with Straight DIP Terminals

XM2E-0940-132L  
XM2E-1540-132L  
XM2E-2540-132L



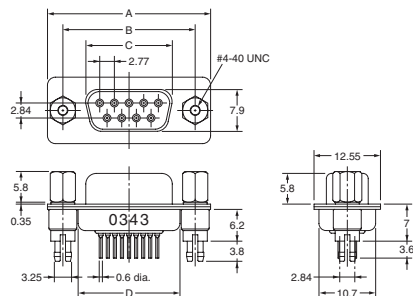
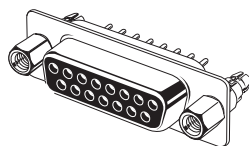
Mounting holes ( $t = 1.6$  mm, bottom view)



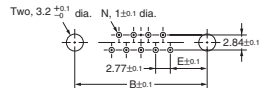
| No. of contacts (N) | A    | B     | C     | D     | E    |
|---------------------|------|-------|-------|-------|------|
| 9                   | 30.8 | 24.99 | 16.92 | 19.23 | 6.96 |
| 15                  | 39.1 | 33.32 | 25.25 | 27.56 | 6.96 |
| 25                  | 53.0 | 47.04 | 38.96 | 41.28 | 6.91 |

## D-sub Sockets with Straight DIP Terminals

XM2F-0940-132L  
XM2F-1540-132L  
XM2F-2540-132L



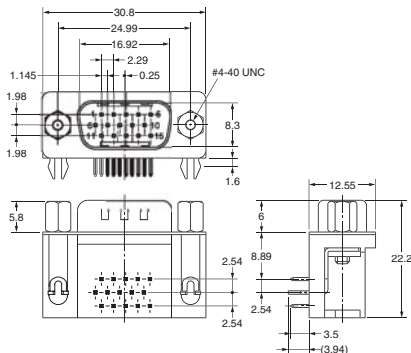
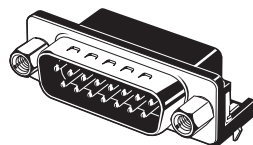
Mounting holes ( $t = 1.6$  mm, bottom view)



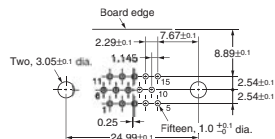
| No. of contacts (N) | A    | B     | C     | D     | E    |
|---------------------|------|-------|-------|-------|------|
| 9                   | 30.8 | 24.99 | 16.33 | 19.23 | 6.96 |
| 15                  | 39.1 | 33.32 | 24.66 | 27.56 | 6.96 |
| 25                  | 53.0 | 47.04 | 38.38 | 41.28 | 6.91 |

## High-density D-sub Plugs with Right-angle DIP Terminals

XM4K-1542-132

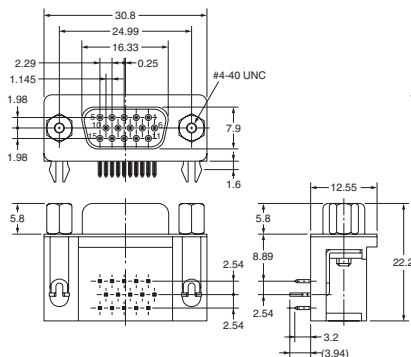
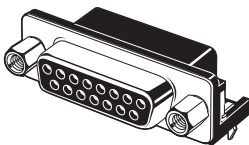


Mounting holes ( $t = 1.6$  mm, bottom view)

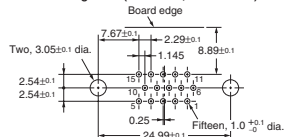


## High-density D-sub Sockets with Right-angle DIP Terminals

XM4L-1542-132



Mounting holes ( $t = 1.6$  mm, bottom view)





## XM2S Hood Covers

### ■ Dimensions

9-contact Hoods

XM2S-0911

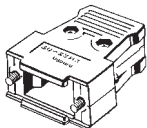
(M2.6 x 0.45 metric screws)

XM2S-0912

(M3 x 0.5 metric screws)

XM2S-0913

(#4-40 UNC inch screws)



15-, 25- and 37-contact Hoods

XM2S-@@11

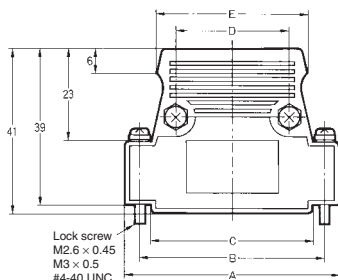
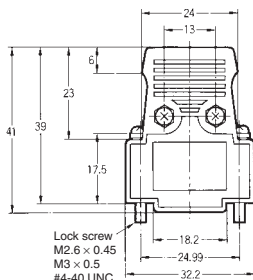
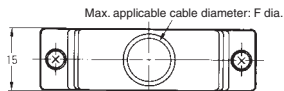
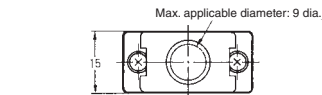
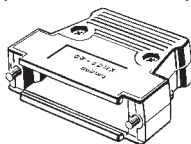
(M2.6 x 0.45 metric screws )

XM2S-@@12

(M3 x 0.5 metric screws )

XM2S-@@13

(#4-40 UNC inch screws)



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

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

### ■ Dimensions

| 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<br>Anchors<br><br>No. of contacts | Lock screw | M2.6 x 0.45 metric screws | M3 x 0.5 metric screws | #4-40 UNC inch screws |
|----------------------------------------------|------------|---------------------------|------------------------|-----------------------|
|                                              | Anchor 1   | XM2Z-0001                 | XM2Z-0002              | XM2Z-0003             |
|                                              | Anchor 2   | XM2Z-0011                 | XM2Z-0012              | XM2Z-0013             |
|                                              | 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:** 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)

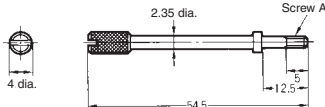
XM2Z-0071 (M2.6 x 0.45 metric screws)

XM2Z-0072 (M3 x 0.5 metric screws )

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



Materials and Finish  
Brass/nickel plated



### ■ Dimensions

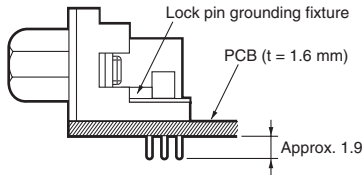
| Model     | A           |
|-----------|-------------|
| XM2Z-0071 | M2.6 x 0.45 |
| XM2Z-0072 | M3 x 0.5    |
| XM2Z-0073 | #4-40 UNC   |

## ■ Precautions

### Correct Use

#### • Grounding (Lock Pin Grounding Fixture)

- To ground, provide copper foil around the Connector Attachment hole on the board, assemble the connector and grounding fixture, and dip in solder as shown below.
- Insert the connector into the PCB and then simultaneously dip-solder the connector terminals and lock pin to the board.



#### • Soldering

##### Automated Soldering Conditions (Jet Flow)

1. Soldering temperature:  $250 \pm 5^{\circ}\text{C}$
2. Continuous soldering time: Within 5's

#### • Tightening Torque of Anchor and Grounding Fixture

If the anchor is secured to the connector, be sure to tighten it to a torque of 0.49 N·m.