

## D-sub Connectors

XM3-L/XM2-L/  
XM4K/XM4L

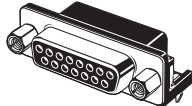
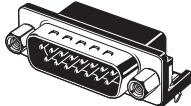
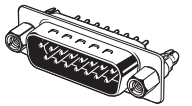
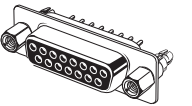
### The D-sub Connector Series Enters a New Era with Lead-free Products.

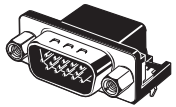
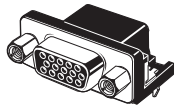
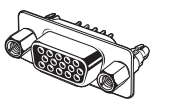
- Determine anchor screw diameters at a glance.
- Greatly simplified anchor combinations.
- Shielded against EMI.
- See the "Standards certification / conformity list" for information on conformity to certification standards.



**RoHS Compliant**

### ■ 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		
Model	XM4K	XM4L	XM4L
Type	Plugs with Right-angle DIP Terminals	Sockets with Right-angle DIP Terminals	Sockets with Straight DIP Terminals
Appearance			

### ■ Ratings and Characteristics

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

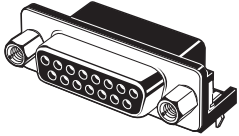
### ■ Materials and Finish

Housing		PBT (UL94 V-0)/black
Contact	Socket	Mating end Terminal Phosphor bronze/nickel base, flash gold plated
	Plug	Mating end Terminal Brass/Nickel base, flash gold plated
Shell		Steel
Anchors		Steel
Grounding Fixture	Straight	Brass/Nickel plated
	Right angle	Brass/Tin plated

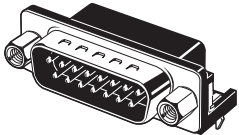
# XM3-L/XM2-L/XM4K/XM4L D-sub Connectors

## ■ Ordering Information

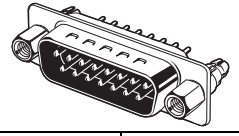
### D-sub Sockets with Right-angle DIP Terminals

<b>Appearance</b>			
<b>Accessories</b>	<b>No anchors</b>	<b>Anchor 2 (XM4Z-0011) M2.6 × 0.45</b>	<b>Anchor 2 (XM4Z-0013) #4-40 UNC</b>
<b>No. of contacts</b>			
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

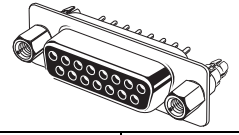
### D-sub Plugs with Right-angle DIP Terminals

<b>Appearance</b>			
<b>Accessories</b>	<b>No anchors</b>	<b>Anchor 2 (XM4Z-0011) M2.6 × 0.45</b>	<b>Anchor 2 (XM4Z-0013) #4-40 UNC</b>
<b>No. of contacts</b>			
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

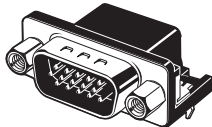
<b>Appearance</b>				
<b>Accessories</b>	<b>No anchors Without ground pins</b>	<b>No anchors</b>	<b>Anchor 2 (XM4Z-1011) M2.6 × 0.45</b>	<b>Anchor 2 (XM4Z-1013) #4- 40 UNC</b>
<b>No. of contacts</b>				
9	XM2E-0940-L	XM2E-0940-502L	XM2E-0940-112L	XM2E-0940-132L
15	XM2E-1540-L	XM2E-1540-502L	XM2E-1540-112L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

### D-sub Sockets with Straight DIP Terminals

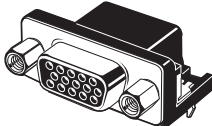
<b>Appearance</b>				
<b>Accessories</b>	<b>No anchors Without ground pins</b>	<b>No anchors</b>	<b>Anchor 2 (XM4Z-1011) M2.6 × 0.45</b>	<b>Anchor 2 (XM4Z-1013) #4- 40 UNC</b>
<b>No. of contacts</b>				
9	XM2F-0940-L	XM2F-0940-502L	XM2F-0940-112L	XM2F-0940-132L
15	XM2F-1540-L	XM2F-1540-502L	XM2F-1540-112L	XM2F-1540-132L
25	XM2F-2540-L	XM2F-2540-502L	XM2F-2540-112L	XM2F-2540-132L

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

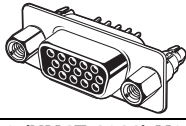
**High-density D-sub Plugs with Right-angle DIP Terminals**

Appearance			
Accessories	No anchors	Anchor 2 (XM4Z-0011) M2.6 × 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 × 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 Straight DIP Terminals**







Appearance			
Accessories	No anchors	Anchor 2 (XM4Z-1011) M2.6 × 0.45	Anchor 2 (XM4Z-1013) #4-40 UNC
No. of contacts			
15	XM4L-1541-502	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 × 0.45	M3 × 0.5	#4-40 UNC	M2.6 × 0.45	M3 × 0.5	#4-40 UNC
Model	XM4Z-0011	XM4Z-0012	XM4Z-0013	XM4Z-1011	XM4Z-1012	XM4Z-1013

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

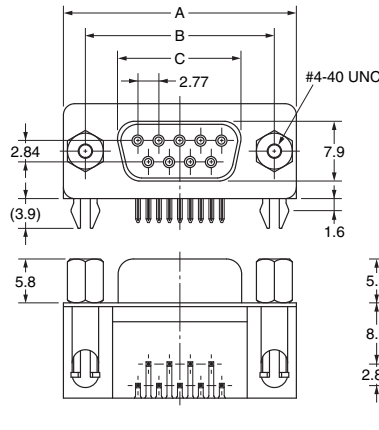
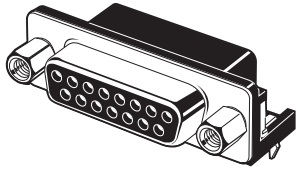
Type	For right-angle DIP terminals			For straight DIP terminals		
Appearance						
Lock screw	M2.6 × 0.45	M3 × 0.5	#4-40 UNC	M2.6 × 0.45	M3 × 0.5	#4-40 UNC
Model	XM4Z-0021	XM4Z-0022	XM4Z-0023	XM4Z-1021	XM4Z-1022	XM4Z-1023

■ Dimensions

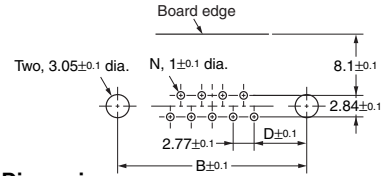
(unit: mm)

**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)

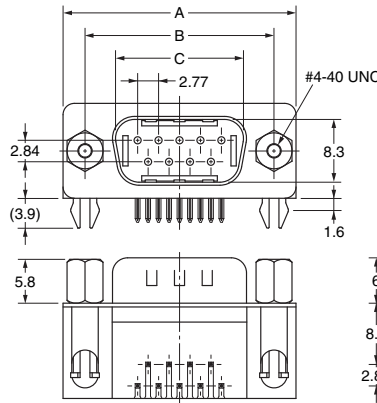
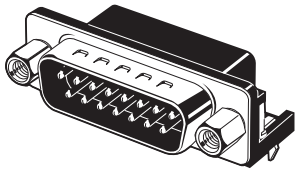


Dimensions

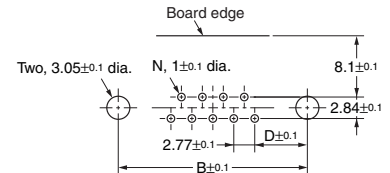
No. of contacts (N)	A	B	C	D
9	30.8	24.99	16.33	6.96
15	39.1	33.32	24.66	6.96
25	53.0	47.04	38.38	6.91

**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)

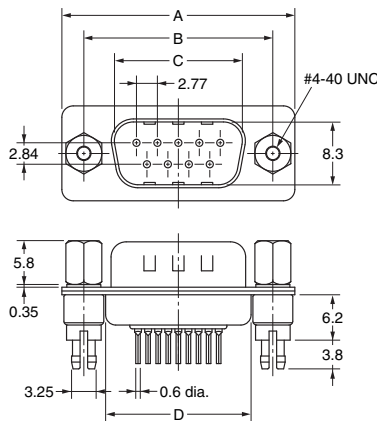
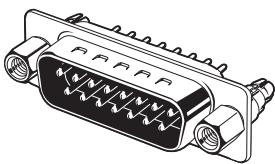


Dimensions

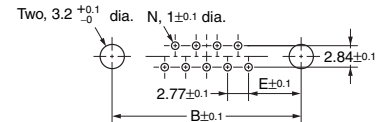
No. of contacts (N)	A	B	C	D
9	30.8	24.99	16.92	6.96
15	39.1	33.32	25.25	6.96
25	53.0	47.04	38.96	6.91

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

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



Mounting holes (t = 1.6 mm, bottom view)



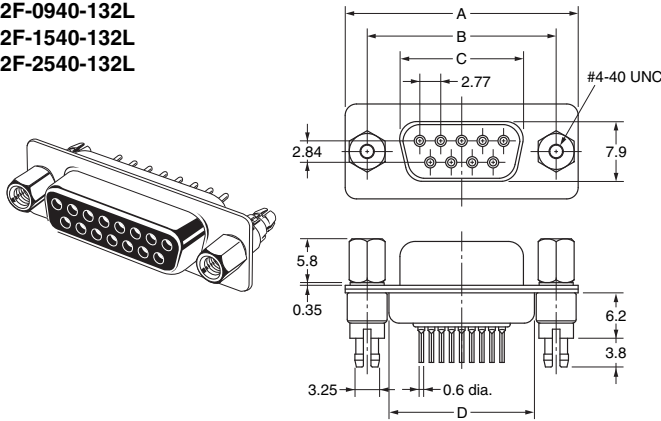
Dimensions

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

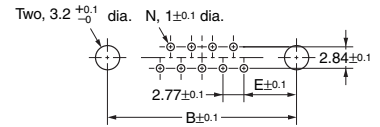
### D-sub Sockets with Straight DIP Terminals

(unit: mm)

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



Mounting holes (t = 1.6 mm, bottom view)

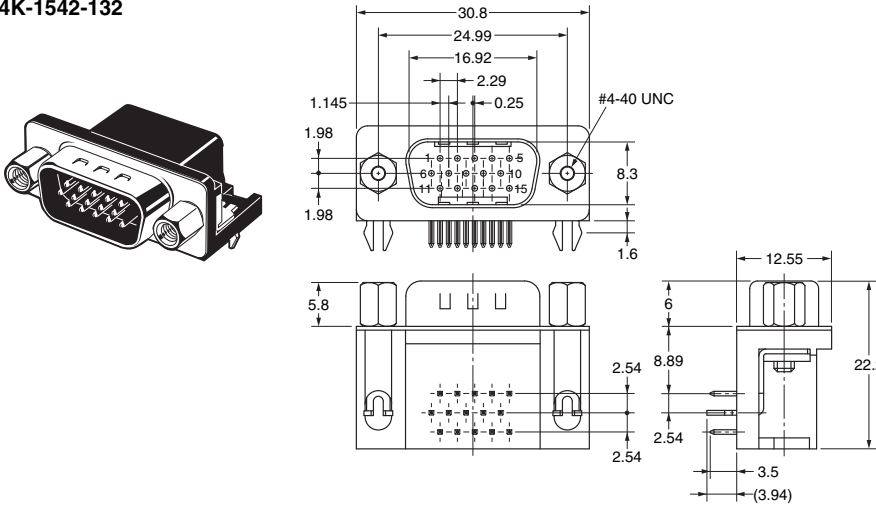


Dimensions

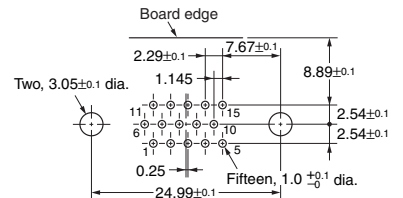
No. of contacts (N)	A	B	C	D	E
9	30.8	24.99	16.33	19.23	6.96
15	39.1	33.32	24.66	27.56	6.96
25	53.0	47.04	38.38	41.28	6.91

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

XM4K-1542-132

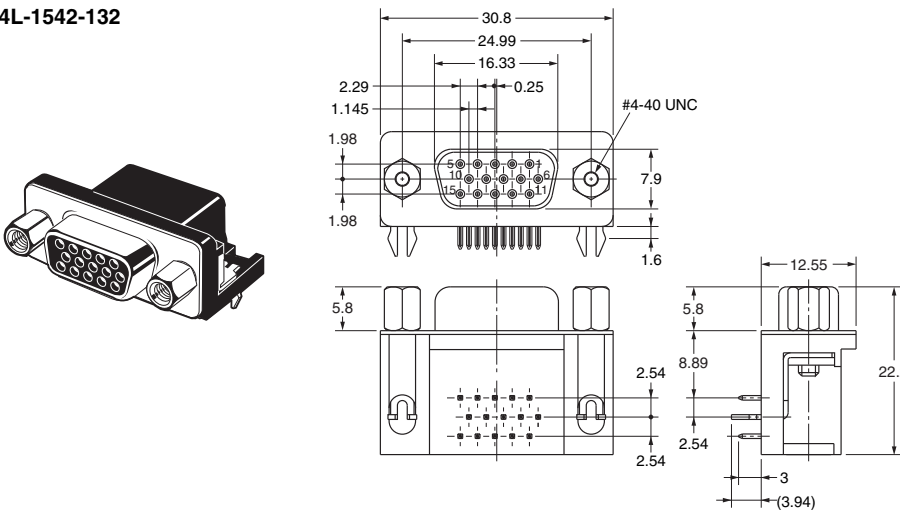


Mounting holes (t = 1.6 mm, bottom view)

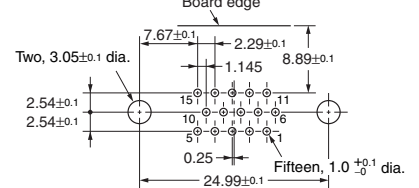


### High-density D-sub Sockets with Right-angle DIP Terminals

XM4L-1542-132



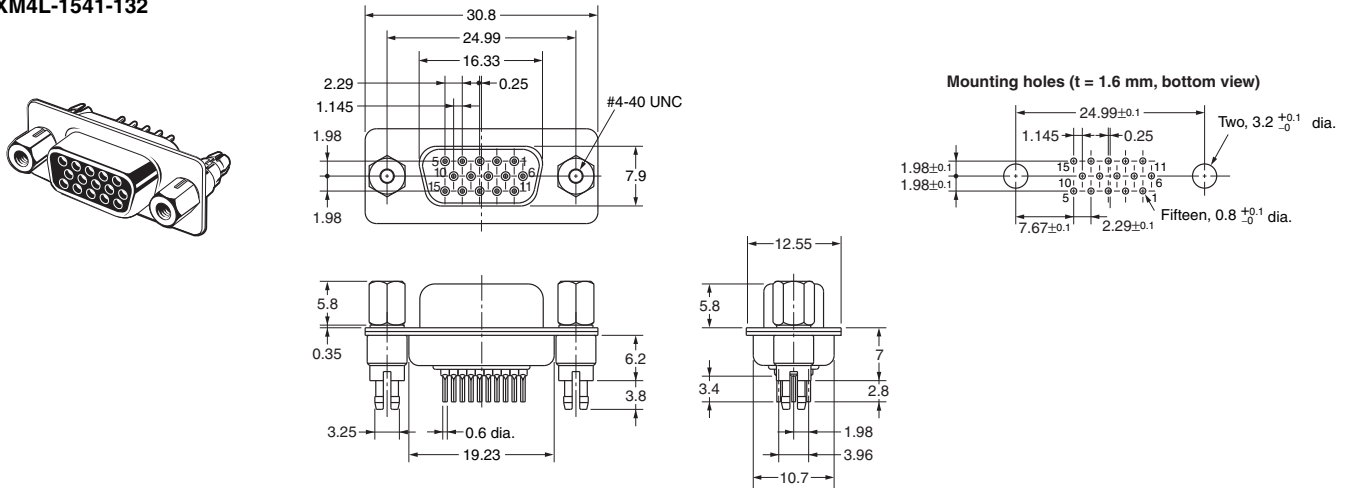
Mounting holes (t = 1.6 mm, bottom view)



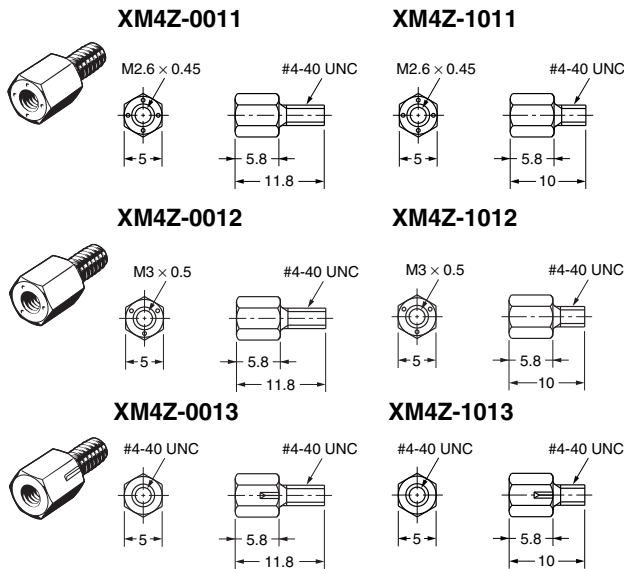
High-density D-sub Sockets with Straight DIP Terminals

(unit: mm)

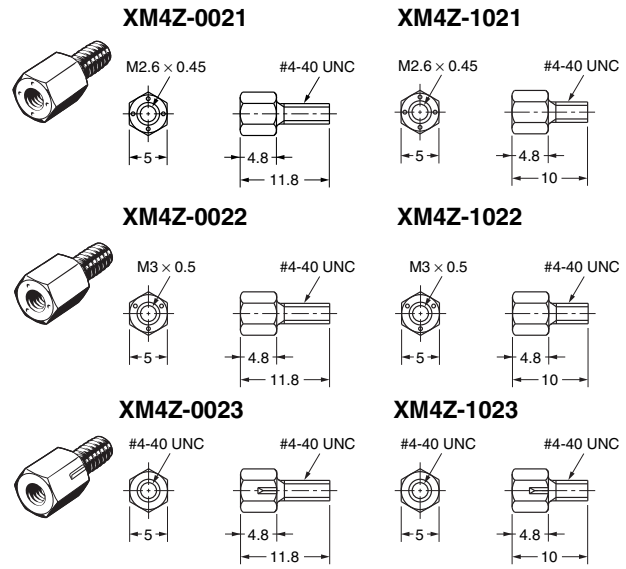
XM4L-1541-132



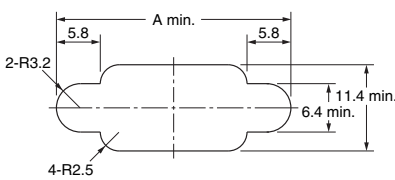
Anchor 2



Anchor 3



Dimensions: Not Panel Mounted (Using Anchor 2)



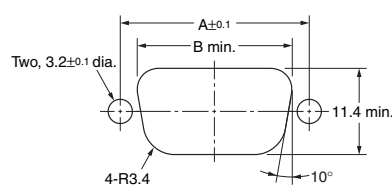
Dimensions

No. of contacts (N)	A
9 (See note.)	31.0
15	39.4
25	53.3

- Note:** 1. Two Anchors are required per Connector.  
 2. Applicable panel thickness is less than 1.2 mm.

**Note:** The XM4K and XM4L use 9-contact dimensions.

Dimensions: Panel Mounted (Using Anchor 3 or M3 Screws)



Dimensions

No. of contacts (N)	A	B
9 (See note.)	24.99	20.5
15	33.32	28.8
25	47.04	42.5

- Note:** 1. Two Anchors are required per Connector.  
 2. Applicable panel thickness is less than 1.2 mm.

**Note:** The XM4K and XM4L use 9-contact dimensions.

**Note:** 2 anchors are necessary per connector.

**Combination of hexagonal anchors for each connector (in post installation)**

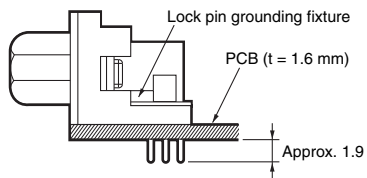
Type	Model	Without panel insertion	With panel insertion	Commercially available nut
DIP Right-angle socket	XM4L-1542-502	XM4Z-001□	XM4Z-002□	Not necessary
	XM3B-□□42-502L			
DIP Right-angle plug	XM4K-1542-502	XM4Z-001□	XM4Z-002□	Not necessary
	XM2C-□□42-502L			
DIP straight socket	XM4L-1541-502	XM4Z-101□	XM4Z-102□	Not necessary
	XM2F-□□40-L			Necessary
	XM2F-□□40-502L			Not necessary
DIP straight plug	XM2E-□□40-L	XM4Z-101□	XM4Z-102□	Necessary
	XM2E-□□40-502L			Not necessary

## ■ 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  $5 \pm 1$  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.

Also, use a proper size tool to do this work.

#### ● Mating

Do not connect the Connectors in the wrong direction, otherwise it may be damaged.

Please check each region's Terms & Conditions by region website.

## OMRON Corporation

Electronic and Mechanical Components Company

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