# OMRON USB Connectors

# XM7

# New, Compact, USB-Compliant Interface Connectors.

- Enables hot swapping so equipment can remain ON.
- Superior bend resistance during Connector insertion and removal.
- A-type Sockets connect to personal computers and USB hubs. B-type Sockets connect to a modem, scanner, mouse, or other personal computer peripheral devices.

### **RoHS Compliant**



#### ■ Terminology ● USB

Abbreviation of Universal Serial Bus. One of the specifications for connecting a PC and peripheral equipment.

The numbers in USB 1.1 and USB 2.0 indicate the version.

The USB data transmission speed is determined by each version.

USB specification	Mode	Data transmission speed
USB 1.1	Low-Speed	1.5 Mbps
	Full-Speed	12 Mbps
	Low-Speed	1.5 Mbps
USB 2.0	Full-Speed	12 Mbps
	High-Speed	480 Mbps

# Ordering Information

### Sockets

Type Item	Single-row A-type Sockets	Single-row A-type Sockets	Double-row A-type Sockets	B Sockets
Appearance	With straight DIP kinked terminals	With right-angle DIP kinked terminals	With right-angle DIP kinked terminals	With right-angle DIP kinked terminals
Model	XM7A-0441	XM7A-0442	XM7A-0442-A	XM7B-0442

# ■ Ratings and Characteristics

Rated current	1 A
Rated voltage	30 VAC
Contact resistance	30 m $\Omega$ max. (at 20 mV, 100 mA max. (excluding cable conductor resistance))
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	750 VAC for 1 min (leakage current: 0.5 mA max.)
Total insertion force	35.3 N max.
Total removal force	10 N min.
Insertion durability	1,500 times
Ambient operating tem- perature	Operating: – 40 to 60°C (with no icing)

# Materials and Finish

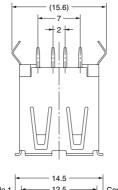
Classification		Sockets	
Item	Туре	A-type Sockets	B-type Sockets
Housing		Fiber-glass reinforced PBT resin (UL94V-0)/ black	Fiber-glass reinforced PBT resin (UL94V-0)/ white
Contacts	Mating end	Phosphor bronze/nickel base, gold plating	
	Terminals	Phosphor bronze/nickel base, tin alloy plated	
Shell		Copper alloy/tin plated	

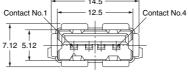
## Dimensions

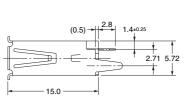
#### XM7A-0441

#### Single-row A-type Sockets









Mounting holes (t = 1.6 mm, bottom view)

Contact No.4

2.71±0.1

-2 5±0.1

- 13.14±0.1 -

-3.07±0.1

2.0±0.1 7.0±0.1

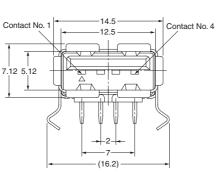
Contact No.1

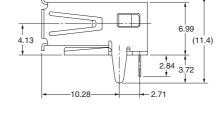
Two, 2.3±0.08 dia

Four, 0.92±0.08 dia.

#### XM7A-0442 Single-row A-type Sockets







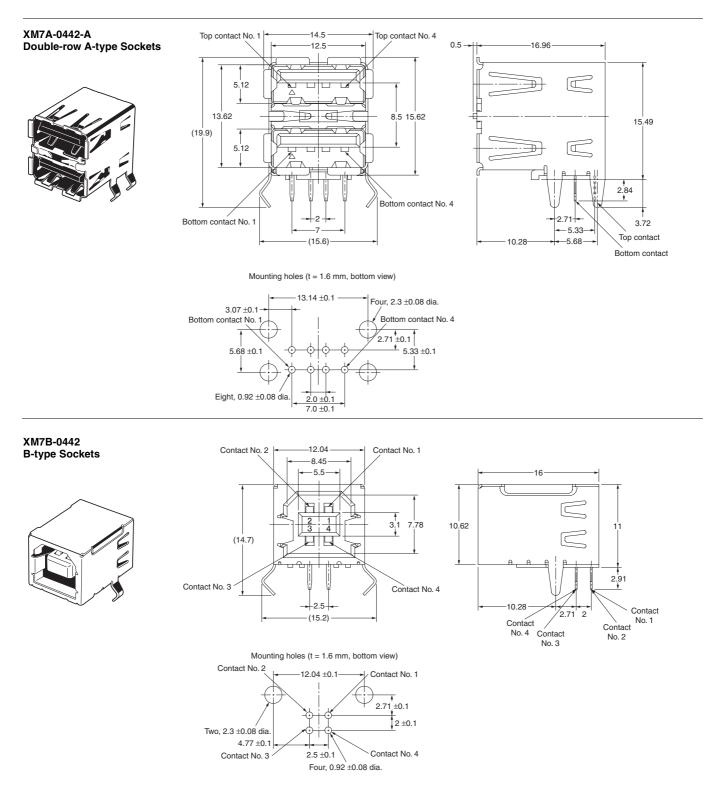
14.0

> <u>2.0 ±0.1</u> 7.0 ±0.1

Four, 0.92 ±0.08 dia

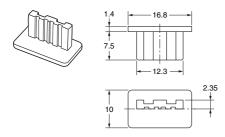
2.5 ±0.1

# OMRON

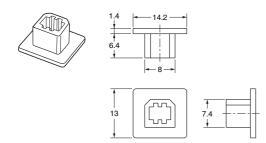


# ■ Accesories (sold separately)

Dust cover (For XM7A single-row sockets) XM7Z-0001 (A type)



### Dust cover (For XM7B sockets) XM7Z-0002 (B type)



# Ambient operating 40 to 60%C

Characteristics/Material

temperature	$-401000^{\circ}$ C
Material	Polyethylene resin

Model	Applicable connector
XM7Z-0001	XM7A (Single row)
XM7Z-0002	XM7B

Note: Dust covers cannot be used for double-row sockets.

Precautions

### Soldering

Automated Soldering Conditions (Jet Flow)

1. Soldering temperature: 250 ±5°C

2. Continuous soldering time: Within 5 s

 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

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