# OMRON



## **Small Interface Connectors That Conform to USB Standards**

- Compliant with the USB 2.0 standard.
- Insertion durability of 1,500 times.
- USB A-type sockets for mounting on personal computers and USB hubs. USB B-type sockets for mounting on printers, scanners, mouses, and other peripheral devices for computers.
- · See the "Standards certification / conformity list" for information on conformity to certification standards.

**RoHS Compliant** 



#### Model Number Legend

### XM7□-04 4 □-□

2 3 4 5 1

1 Type A: A-type socket

#### **3 Plating Specification** 4: Gold plating

B: B-type socket

**4 Terminal Shape** 

2 No. of Contacts 04: 4 contacts

- 1: Straight DIP terminals
- 2: Right-angle DIP terminals

#### 5 Special Specification (A-type Sockets Only) Blank : Single socket

: Double stacked sockets Α

#### Ordering Information Sackata

| Item T                                | Гуре | Single A-type Socket   | Single A-type Socket      | Double Stacked A-type Sockets | Single B-type Socket      |
|---------------------------------------|------|------------------------|---------------------------|-------------------------------|---------------------------|
| Appearance                            |      | Straight DIP Terminals | Right-angle DIP Terminals | Right-angle DIP Terminals     | Right-angle DIP Terminals |
| Model                                 |      | XM7A-0441              | XM7A-0442                 | XM7A-0442-A                   | XM7B-0442                 |
| Minimum ordering<br>quantity (pieces) |      | 120                    | 150                       | 120                           | 150                       |

| Rated current                 | 1 A  |
|-------------------------------|--|
| Rated voltage                 | 30 VAC   |
| Contact resistance            | 30 mΩ max. (at 20 mV, 100 mA max.)               |
| Insulation resistance         | 1,000 MΩ min. (at 500 VDC)                       |
| Dielectric strength           | 750 VAC for 1 min (leakage current: 0.5 mA max.) |
| Insertion durability          | 1,500 times                                      |
| Ambient operating temperature | -40 to 60°C (with no icing or condensation)      |

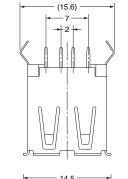
### ■Materials and Finish

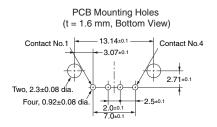
| Housing  |            | PBT<br>A-type Sockets: Black<br>B-type Sockets: White |
|----------|------------|---|
| Contacts | Mating end | Copper alloy/gold plating                             |
|          | Terminals  | Copper alloy/tin alloy plating                        |
| Shell    |            | Copper alloy/tin plating                              |

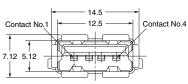
#### ■Dimensions

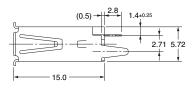
XM7A-0441 Single A-type Socket







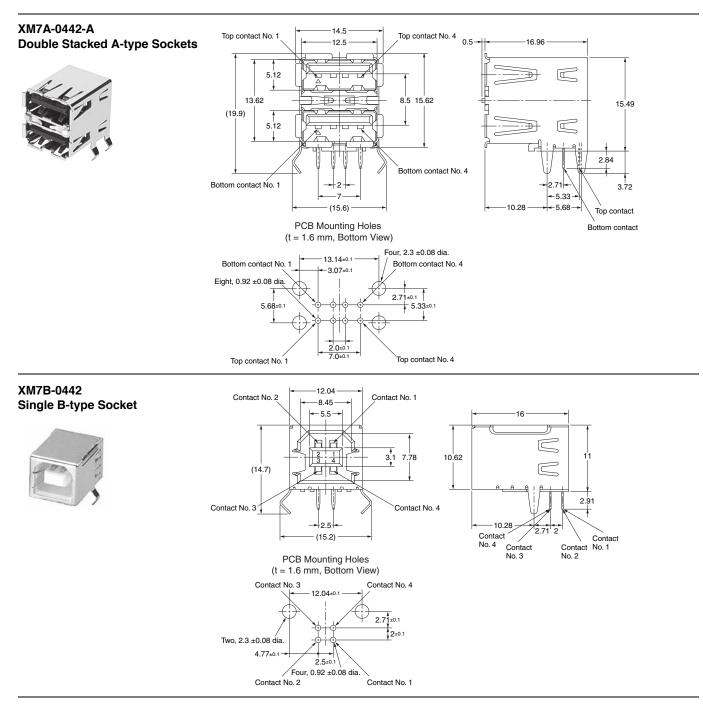




#### 14.5 XM7A-0442 Contact No. 1 Contact No. 4 12.5 14.0 Single A-type Socket 7.12 5.12 Ð -11 6.99 . . 13 (11.4) ł $\overline{\Lambda}$ ŧ 2.84 3.72 -2-10.28 -2.71 - 7 (16.2) PCB Mounting Holes (t = 1.6 mm, Bottom View) 13.14±0.1 Contact No. 4 Contact No. 1 -3.07±0.1 2.71±0.1 Two, 2.3 ±0.08 dia. Four, 0.92 ±0.08 dia. 2.5±0.1

2.0±0. 7.0±0. (Unit: mm)

2



#### Precautions

#### **Precautions for Correct Use**

#### Automatic Soldering

## Reference Information: Automated Soldering Conditions (Jet Flow)

(1) Soldering temperature: 250 ±5°C

(2) Continuous soldering time:  $5 \pm 1$  s max.

#### Terminal Shapes

The terminals will deform if they are subjected to an excessive load, which will in turn reduce solderability when mounting. Do not drop the Connectors or handle them carelessly. Do not connect anything when the Connectors are not mounted to a board. Doing so may deform the terminals.

#### Application Precautions

- Do not connect the connectors in the wrong direction. Doing so will damage the connectors.
- Confirm that there is no excessive misalignment or inclination in the mating contact portion between the plug and socket before mating the Connector. Make sure that the Connector is mated all the way to the back. If the Connector is not mated all the way to the back, contact reliability may be lost.
- Do not apply an extreme load during Connector insertion or removal. The Connector may be damaged, and contact failure may result. Twist the plug and socket as little as possible when mating the Connector. Not doing so may deform the terminals or housing or crack the housing.
- Do not insert a foreign object, such as tweezers, into the Connector mating contact portion. Doing so may cause the plating to peel off or deform the terminals.

#### Precautions for Board Mounting

Be careful of the amount of board warping. If the board is excessively warped, soldering faults may occur.

#### Storage

Do not store the Connectors in locations subject to dust or high humidity. Do not store the Connectors in locations close to sources of gasses such ammonia gas or sulfide gas.

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

OMRON Corporation Electronic and Mechanical Components Company

#### **Regional Contact**

Americas https://www.components.omron.com/ Asia-Pacific https://ecb.omron.com.sg/ Korea

https://www.omron-ecb.co.kr/

Europe http://components.omron.eu/ China https://www.ecb.omron.com.cn/ Japan https://www.omron.co.jp/ecb/

© OMRON Corporation 2013-2021 All Rights Reserved. In the interest of product improvement, specifications are subject to change without notice.