

## New Product Information

Coming  
Soon

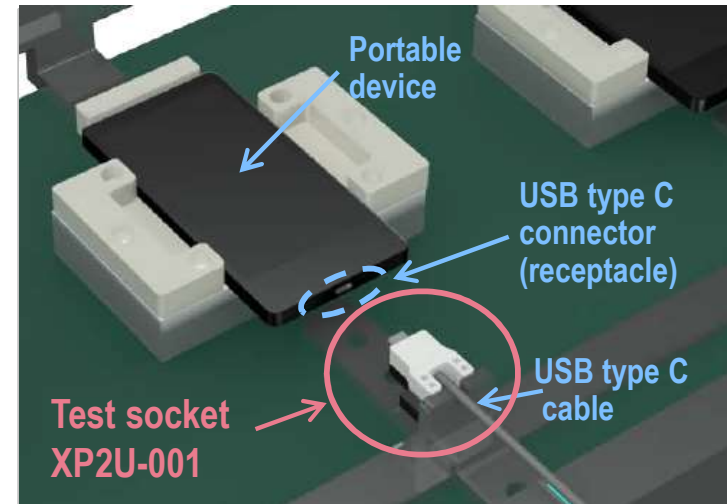
# Long-Life Test Socket for USB Type C Connector Mounted Devices

**XP2U-001**

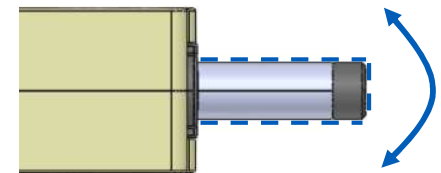
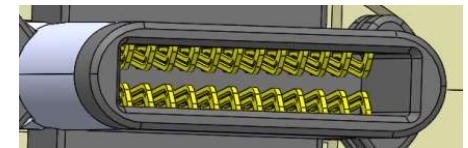


## ■ What's New?

XP2U-001 is a **long-life test socket** mainly for portable devices.



- Specially developed for **in-line testing fixtures** of device production lines, based on customer's requirements.
- Available with **USB 3.1 type C** connector.
- Adopts our **special electroforming contact pins** and **unique floating head structure**.



**OMRON**

## ■ Advantages for customers

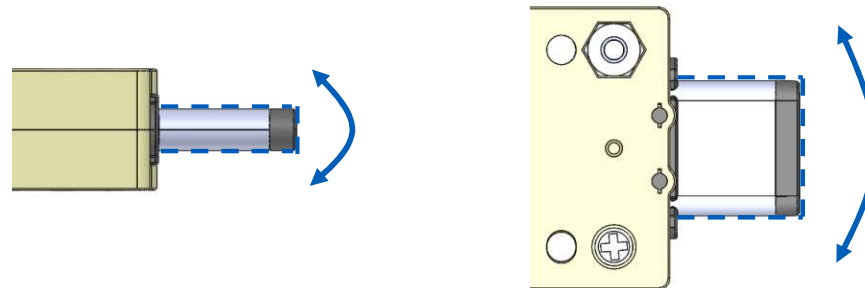
### 1. Minimal maintenance with a high durability socket.

High durability: 20 times\* stronger than conventional sockets

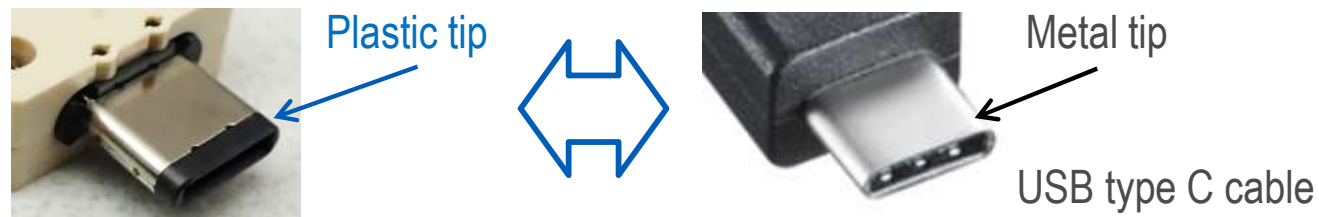
\*Based on Omron evaluation as of June 2019

### 2. Suppress machine stops in the electrical testing process.

The floating head structure allows an insertion error of testing mechanism.



### 3. Hard to damage test products by the plastic tip and the floating head.



## ■ Performance overview

XP2U-001 has superior performance in 3 main requirements of customers such as high durability, no damage to test products, and low insertion force.

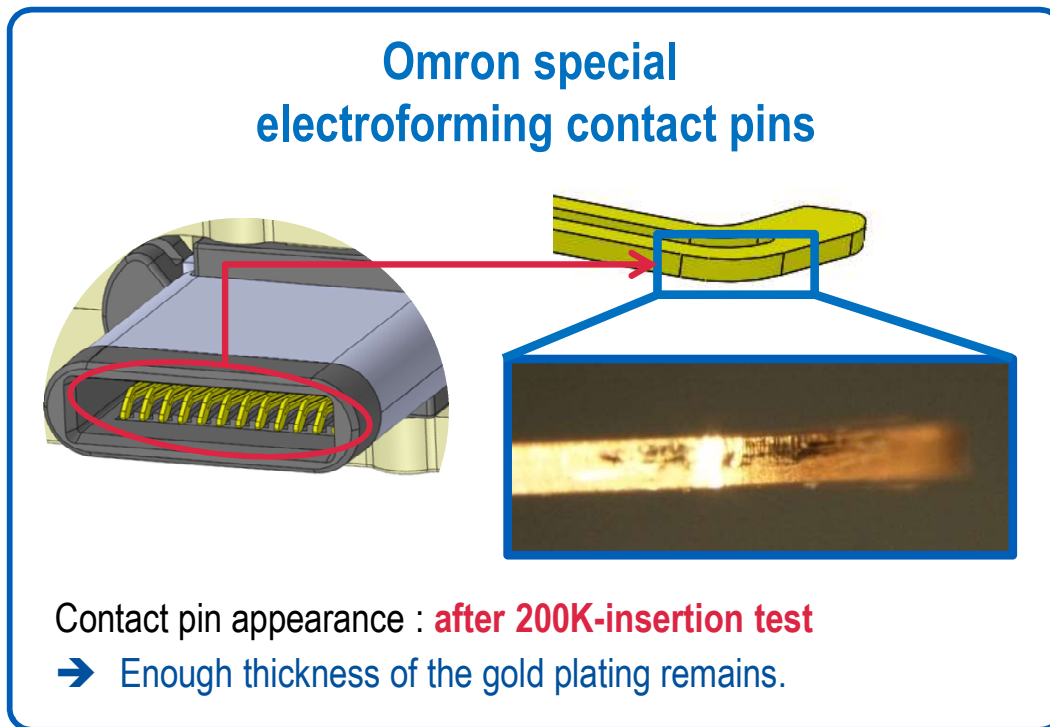
### Performance comparison with other sockets

Customer requirements	Conventional test sockets	General USB cable	<b>XP2U-001</b>
High durability Number of insertions and removals	3k to 10K	3K * The specification sheet specifies 10k min.	<b>200K or more</b>
Damage to test products	Low possibility * Plastic tip	High possibility * Metal tip	<b>Avoidable</b> * Plastic tip / floating head
Insertion force	Low * Non-lock structure	High * Lock structure	<b>Very low</b> * Special electroforming contact pins / Non-lock

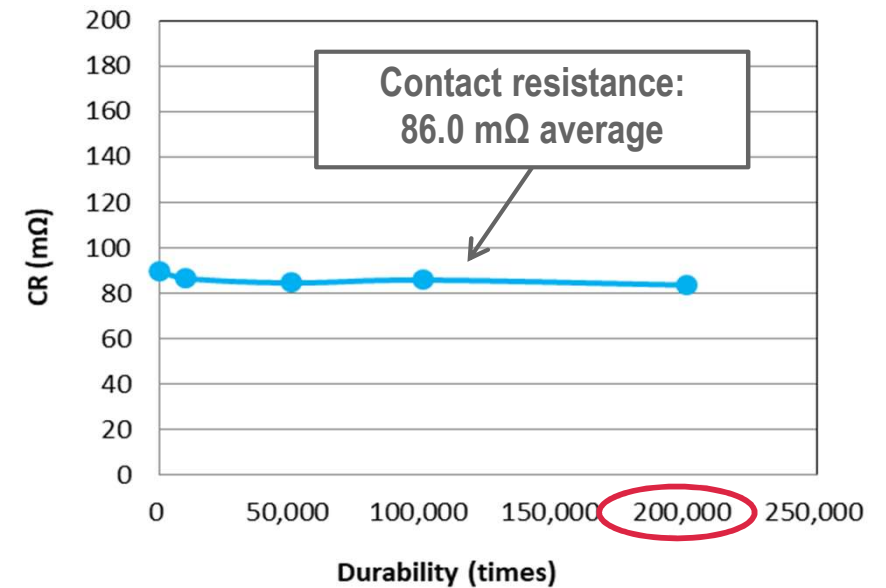
# ■ Performance details

## (1) High durability

The high durability performance of XP2U-001 is achieved by an adoption of our special electroforming contact pins which are made of highly solid material and have superior spring characteristics.



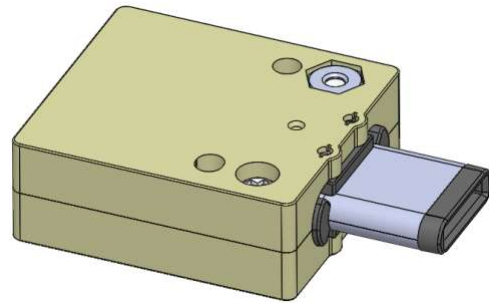
Insertion and removal test results



# ■ Performance details

## (2) No damage to test products

Prevention of product damages is achieved by two distinct special structures. One is a plastic tip instead of the metal tip of general USB connector cables. The other is our specially designed floating head mechanism.

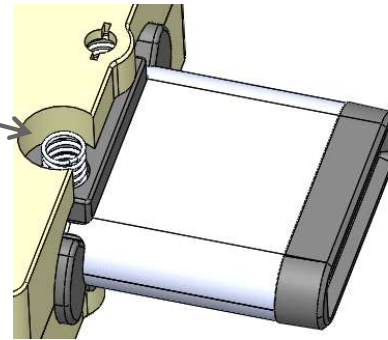


### Adoption of a plastic tip

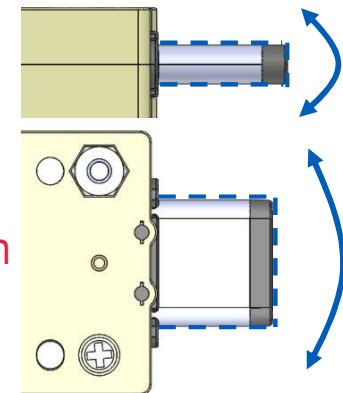


### Omron special floating head mechanism

Coil spring



Movable range:  
approx. 1 degree  
in X,Y direction.



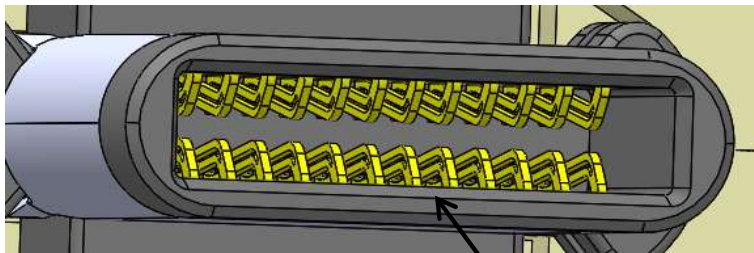
This floating head structure also allows insertion errors in automatic testing process to prevent machine stops.

## ■ Performance details

### (3) Low insertion force

The insertion force of XP2U-001 is 5 to 7 times less than that of a general USB cable. This low insertion force can significantly reduce the burden of workers in manual testing lines.

#### Omron special electroforming contact pins



**Non-lock structure**

Our special electroforming contact pins for XP2U-001 have distinct shapes to create superior spring characteristics.


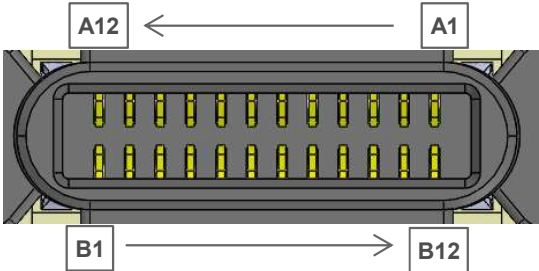
This design provides low insertion force without sacrificing contact reliability.

#### Insertion force test results

Unit: N

	General USB cable	<b>XP2U-001</b>
Average	11.7	<b>1.6</b>
Max.	11.9	<b>2.1</b>
Min.	11.1	<b>1.3</b>

## ■ Main product specifications

Type	XP2U-001	
Appearance / Outline dimensions		Body size: 19.3 mm* X 17.2 mm X 7 mm *except connector
Rated current	<ul style="list-style-type: none"> <li>Terminal # A1,A4,A9,A12,B1,B4,B9,B12: 1.25 A max.</li> <li>The other terminal: 0.25A max.</li> </ul>	
Rated voltage	20 VAC/VDC max.	
Ambient operating temperature	5 to 40 degrees C	





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Electronic and Mechanical Components Company

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