

# Omron XF2M Series Product Overview





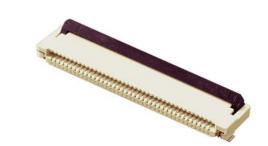




### **XF2M** features



- High-reliability backlock structure
- Superior work efficiency
- 0.5 mm pitch, 2 mm height
- Dual contact
- Applicable for FPC thickness of 0.3 mm



#### ■ Ratings and Specifications

| Rated current                 | 0.5A AC/DC                                   |  |
|-------------------------------|--|--|
| Rated voltage                 | 50V AC/DC                                    |  |
| Contact resistance            | 50mΩ max (at 20mVDC max, 100mA max)          |  |
| Insulation resistance         | 100MΩ min. (at 250V DC)                      |  |
| Withstand voltage             | 250V AC for 1 min (leakage current: 1mA max) |  |
| Insertion tolerance           | 20 times                                     |  |
| Ambient operating temperature | -30 to 85°C (with no icing or condensation)  |  |

#### **■** Materials and Finish

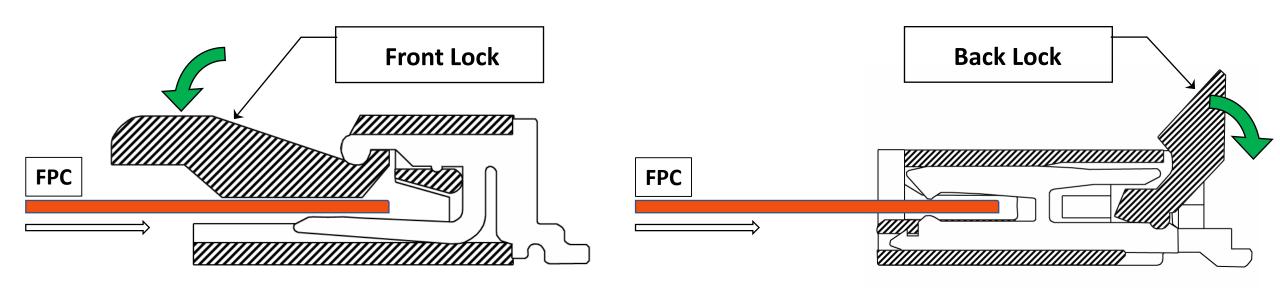
| Housing                                   | LCP resin (UL94V-0)/natural                |  |  |
|---|--|--|--|
| Slider                                    | LCP resin (UL94V-0)/black                  |  |  |
| Contacts                                  | Spring copper alloy/nickel substrate (2µm) |  |  |
|   | Gold-plated contacts (1.5µm)               |  |  |
| Hold-down Copper alloy/tin-plated (1.5μm) |  |  |  |

## **Key Features - Backlock**



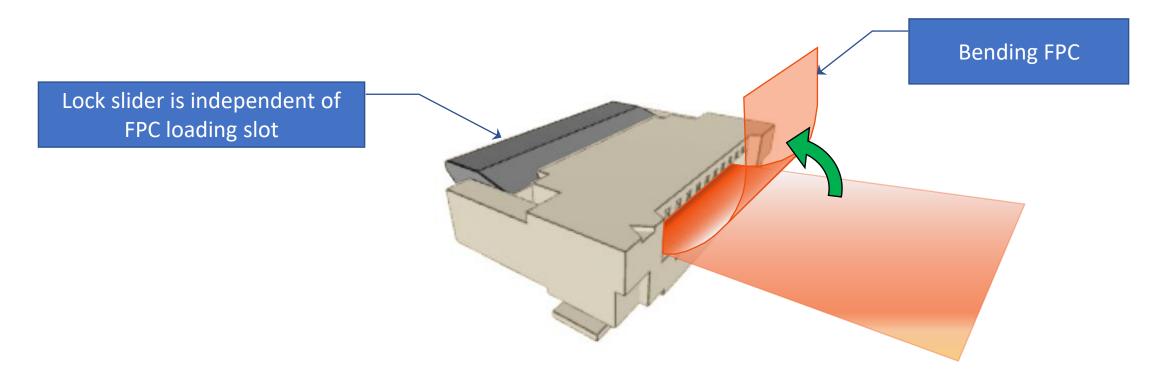
The lock is located on the opposite side of FPC insert direction







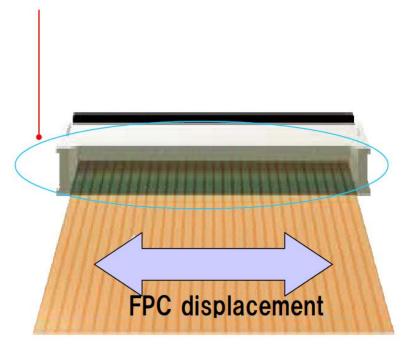
Strong against bending FPC



The slider will not open accidentally if the FPC is bending



FPC loading slot has four-sided walls

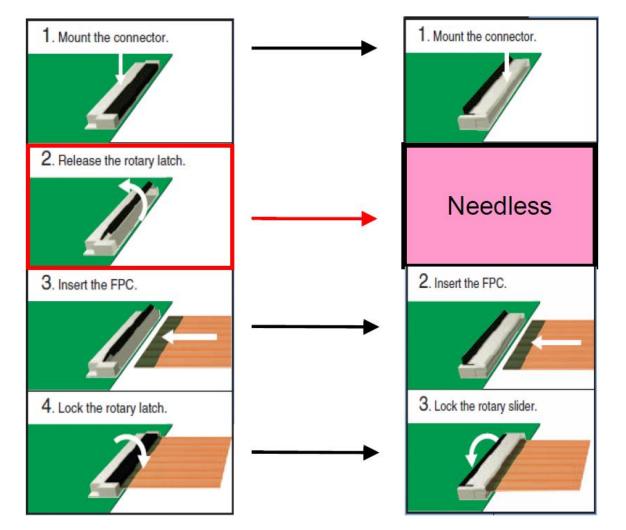


The four walls allows precise insertion and prevents FPC displacement



Product delivered with an open lock stage

Front lock assembly steps: 4 Back lock assembly steps: 3

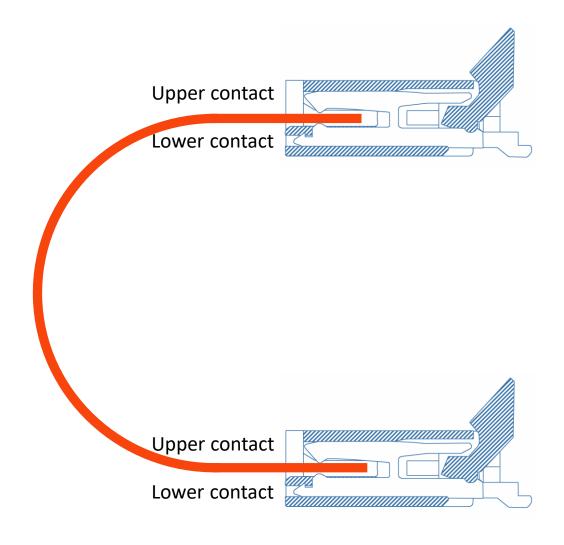




Open lock reduces the number of steps necessary for assembly, reducing production time!



- Double sided contacts
  - No need to exclude upper or lower contact due to accidental lock opening



# **Competitor comparison**



|                       | OMRON<br>XF2M        | FCI<br>6284 OPU            | HIROSE<br>FH12            | MOLEX 54104 Upper 51296 Lower     |  |
|-----------------------|----------------------|----------------------------|---------------------------|-----------------------------------|--|
| Pitch                 | 0.5mm                |                            |                           |                                   |  |
| FPC Thickness         | 0.3mm                |                            |                           |                                   |  |
| Height                | 2mm                  |                            |                           |                                   |  |
| Number of<br>Contacts | 10-60                | Upper 32-57<br>Lower 40-57 | Upper 10-50<br>Lower 6-53 | Upper 30-50<br>Lower 8-50         |  |
| Contact type          | Double-sided contact | Upper or Lower             | Upper or Lower            | Upper or Lower                    |  |
| Lock<br>Mechanism     | Rotary Backlock      | Slide Lock                 | Rotary Front lock         | Upper Slide<br>Lower Rotary Front |  |