

SmartCard Connectors



L04 Series Low Profile SmartCard Connectors



Description

The FCI L04 Series connector is a rugged card connector with 8 contacts on 2.54 mm (0.100") centerlines. Total body thickness with attached cover comes with an option of two heights of 6.5 mm & 9 mm. This connector uses <<sliding>> contact technology, which are suitable for home applications and friendly environment. It is designed for easy mounting on the PCB through hole. The built-in retaining clips pre-aligns & fix the connector to the board during handling and soldering, which again protect the solder tails against shock and vibration. With the option of plating specifications, the designer has the choice between cost & application. The designer can design their products for metering, as well as for stand-alone application.

Target Applications

- Set-Top Box
- Card Reader
- Electric meter / water meter

Target Markets

- Consumer: Home applications
- Data
- Security

Available in Asia/Pacific only

Features

- Compliance on the electrical connection according to ISO 7816
- 30% GF UL-94V-0 high temperature
- Thermoplastic material to withstand IR reflow

Benefits

- Low cost version.
- Offers an efficient mechanical solution against vandalism, thanks to the spoon shape contacts.
- Space saving due to the low profile height.
- Normally closed wiping technology blade switch card detection.
- Extended locating board locks allow easy locating and mounting onto PCB. Thus, improving greater yield in production by the pre-alignment of contacts prior to board engagement. This feature also allows strain relief upon repeated assembly.
- Rigid terminal allows the connector to withstand mechanical shock and vibration
- High temperature material allows the connector to withstand infrared and vapor-phase reflow soldering temperatures
- Rugged design suitable for end products that need to meet drop test requirements
- Wipe blade type design limit switches have superior qualities compared to other designs in terms of reliability. This design sweeps away oxide or dirt upon applied force. This always produces a clean and reliable contact area.



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Technical Features

Materials

- Contacts: Copper Alloy
- Plating: Au over Ni
- Solder tails: SnPb (60/40)
bare edge allowed
- Housing: Thermoplastic UL94VO

Mechanical Performance

- Contact force: 0.2 N - 0.6 N
- Durability: 100,000 cycles
- Insertion force: 8 N (typical value)
- Withdrawal force: 4.3 N (typical value)

Operating Environment

- Storage temperature:
-40°C to 85°C
- Operating temperature:
-20°C to 70°C

Electrical Performance

- Insulation resistance: 100 M
- Dielectric withstand: 1000 Vrms
- Current carrying: Min 10 μ A,
Max 1 A
- Contact resistance: 100 m

Switch

- Contact closed resistance:
100 m
- Open contact voltage proof:
300 Vrms

Packaging

- 50 pieces per tray
- 500 pieces per box

Products Range

Part Number	Total Height + Cover Plating	Packaging
7434L0425F01	9.0mm 2um over Nickel under plate	Tray
7434L0422F01	9.0mm 0.4um Au over Nickel under plate	Tray
52436-25f	6.5mm 2um Au over Nickel under plate	Tray
52436-22f	6.5mm 0.4um Au over Nickel under plate	Tray

