

Y-Lock V4 - The perfect board-to-cable solution for battery and cell contacting systems

The Y-Lock Pullforce connector system from Yamaichi has been known on the market for 15 years as a reliable and process-safe solution for non-ZIF board-to-cable systems. Version 4 is now also the perfect product for battery applications.

The Y-Lock V4 continues to offer the advantages of its predecessor series and complements them with new features that fulfil the special requirements of battery applications.

Blind contacting and locking of FFC or FPC

A proven feature of the Y-Lock series and the V4 is the one-push locking mechanism. The flexible flat cable (FFC) or the flexible printed circuit board (FPC) is inserted into the connector using the pre-assembled stiffener. The V4 has a double locking function, firstly via two lateral locking hooks and secondly via a central locking mechanism on the long side of the insulator. The design of the side hooks also ensures the blind-mating function. The cable side is disassembled as before by simply pulling the cable.

Protection against contact and twisting

The stiffener also fulfils other functions: For example, the twopart stiffener design ensures that the pads of the FFC/FPC are protected against contact, so that the cable can also be handled safely during servicing. This feature also ensures that the plug cannot be inserted at an angle or upside down, thus preventing

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short circuits caused by incorrect insertion of the cable side. This ensures 10 mating cycles.

CPA - Connector Position Assurance

Yamaichi offers the mechanical CPA (Connector Position Assurance) as an option. This means that the stiffener can be permanently locked to the connector by the additional plastic part. The connection can then only be released after the CPA has been unlocked.

Low overall height 4.5 mm

To ensure the greatest possible flexibility, the Y-Lock V4 series is available with gold or tin plating. This allows the possibilities of FPC suppliers to be catered for. The V4 is currently available in the 90° version and, with a complete height of 4.5mm, has a design that is perfectly adapted to the tight installation spaces in battery applications. Y-Lock V4 is available with different contact spacings: 1.0mm, 1.2mm, 1.8mm and 2mm in order to fulfil the various requirements for clearance and creepage distances.

The system fulfils the requirements of LV214.

About Yamaichi Electronics

Yamaichi Electronics is a leading manufacturer of test & burn-in sockets, connectors and test contacts. The company develops and manufactures high-quality and reliable contacting solutions for customers in various markets such as automotive, medical, industrial automation, semiconductor, data networking, measurement & test, mobile computing and embedded computer-on-modules. Yamaichi is also a specialist in tailor-made solutions according to individual customer requirements.

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