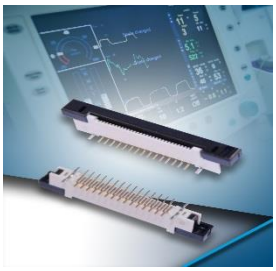
KYOCERA Connector Products Corporation

AVX A KYOCERA GROUP COMPANY

Secure Locking Series FPC/FFC Connectors



SPECIFICATIONS

Series	Pitch (mm)	Height (mm)	Op. Temp. Range (℃)	Connector Style	Rated Current (mA)	FPC/FFC Thickness	Pins
6251*	0.5	5.45	-40 to 105	Vertical	400	0.3	8-80
6288*	0.5	2	-40 to 105	Right Angle	400	0.3	10-64
6801*	0.5	5.5	-40 to 105	Vertical	400	0.3	30-50
6809	0.5	0.93	-40 to 85	Right Angle	500	0.3	4-40
6844	0.3	0.95	-40 to 85	Right Angle	200	0.2	11-61
6866	0.2	0.95	-40 to 85	Right Angle	200	0.2	21-61

- All Secure Locking Series Connectors listed are RoHS compliant
- The 6801, 6809 and 6844 Series are Halogen free
- Contact Material: Copper Alloy
- Packaging: Tape and Reel
- Rated Voltages: 50 V
- Withstanding Voltages: 200 Vrms/min
- * Manufactured in factories with ***ISO/TS 16949 CERTIFICATION***, which is the international standard for quality management systems in the automotive industry

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http://www.avx.com/products/connectors/automotive/kyocera-automotive/fpcffc/

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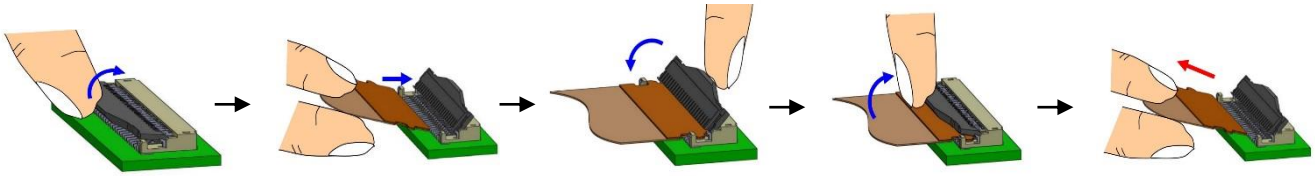
◊ Typical FFC/FPC Insertion and Removal Process of a Right Angle Type Secure Lock Connector ◊



APPLICATION & MARKETS

Secure Lock Connectors were designed to counteract external forces acting on components that transmit data between circuits or devices as a result of the product's function or environment. They are ideal for in-vehicle units like car-navigation system units, GPS units, high resolution displays, car audio products, and medical or industrial equipment. These connectors ensure reliable communication to peripheral devices that may be exposed to unavoidable vibrations, jolts, or pushing/pulling forces.

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PRODUCT OPTIONS

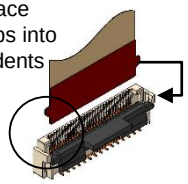
- All of the featured connectors come with gold plating on the contacts and on the tails where they touch the PCB. However, the 6801 is also available in a Tin-Copper mix for the surfaces.
- Metal tabs come standard on all models except for the 6251. They add reinforcement to the board and are a Tin-Copper mix.
- The FPC/FFC interlocking design for the 6809 is a notch type, while the other connectors are designed for tabbed cables. The actuators close over the tabs of the cable to create the securing mechanism.
- Because of the small pitch and layout of the pins, the 6844 and 6866 series connectors require FPC's to complete a circuit. The other models having a larger pitch size of 0.5 mm can be used with either a Flexible Flat Cable or a Flexible Printed Circuit.

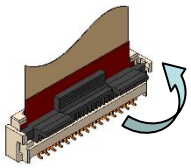
Key Selling Features / Benefits

The main benefit of a secure locking connector is the amount of force it can withstand before catastrophic failure. For example, the 6288 Series initially withstood ~33 N before releasing it's connection to the FPC, on the tenth iteration it could still hold up to ~22 N of force (equivalent to holding up 5 lbs.) Designed into each connector is a mechanical clicking function that can be both heard and felt when the actuator has fully locked into place, giving the user affirmation of a secure connection.

6251 Series

Place tabs into indents

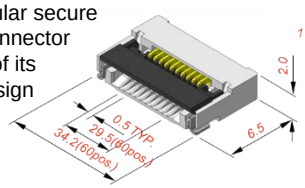




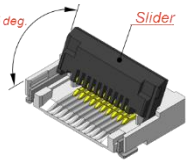
Rotate Actuator up to Lock

6288 Series

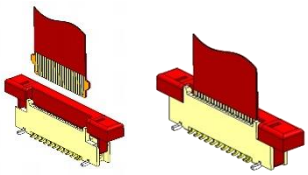
Most popular secure locking connector because of its simple design



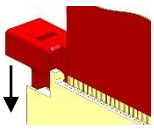
Actuator



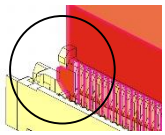
6801 Series



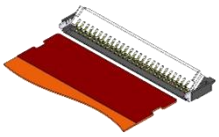
Push Slider Down to Lock Connector



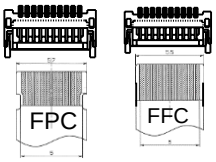
Sliding actuator has been hidden to show the position of the tabs. The slider will wedge against the cable when pushed down and force the tabs to seat on the "hooks" of the connector.



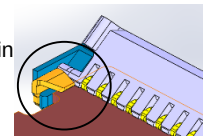
6809 Series



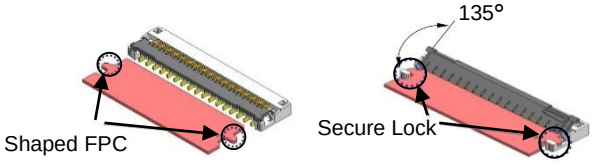
The 6809 is unique because there are options to use either a notched FPC or regular FFC. It has the additional feature of having a break away system that opens the actuator when the tension is high enough, preserving the connector and limiting cable deformation.



Cable retention tabs reduce strain on the actuator when forces are applied to the cable normal to the mounting surface.

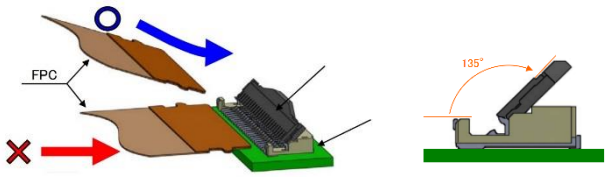


6844 Series



With a profile height of 0.95mm, the 6844 is ideal for very small applications where space on a PCB is a high priority.

6866 Series



It is important to note that tabbed cables should be inserted at a slight angle as depicted here. The opening angle has been increased to 135° to allow ease of insertion.