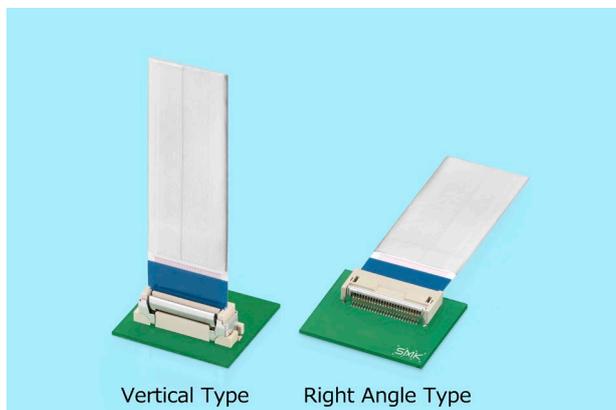


SMK Develops FPC/FFC Connector Designed for Robotic Assembly Featuring Easy Mating in One Action



SMK Corporation has developed 0.5mm pitch one action FPC/FFC connector "EA-51 Series" suited for automated FPC/FFC insertion by robots.

In recent years, in order to make up global labor shortage and to reduce production costs, the latest trend of manufacturing processes has accelerated to shift toward factory automation and the demand for connectors compatible with robotic assembly has been increasing today.

Unlike the conventional FPC connector required to follow three assembly steps (1. Open the cover 2. Insert FPC/FFC 3. Close the cover), EA-51 enables user to complete FPC/FFC assembly by insertion only (No need to open and close the cover). This feature is ideal for automated assembly line by robots, contributing to shorten tact time.

Also there are two "windows" on top of the connector surface for users to check the condition of FPC/FFC insertion visually or by image inspection machines, making it easier to detect assembly failure due to the incomplete insertion (Right angle type only). And the lever for unlocking FPC/FFC made of stainless provides excellent rigidity to prevent connector itself getting deformed or broken as even if assembled FPC/FFC is forcibly pulled out.

SMK will continue to develop the new products contributing to the automation of manufacturing processes.



【Applications】

TVs, PCs, gaming consoles, set-top boxes (STB), digital video recorders (DVR)

Published Date	March 17th, 2020	
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Product Name	0.5mm Pitch One Action FPC/FFC Connector "EA-51 Series" Part Number: CFPC5XX-0101F (Right Angle Type) CFPC7XX-0101F (Vertical Type)	
Features	<ol style="list-style-type: none"> 1) One action FPC/FFC lock system suitable for robotic assembly contributes to automation of the manufacturing process. 2) Able to check the condition of FPC/FFC insertion through windows at the top of the connector. (Right angle type only) 3) Since the lever is made of SUS with high rigidity, when the FPC/FFC is pulled out by force, even if the FPC/FFC is broken, the connector itself will not be deformed or broken. 4) Compatible with FPC, FFC, and shielded FPC (Applicable thickness: Signal 0.3±0.05 / Ground 0.5±0.05) 	
Major Specifications	Pitch	0.5mm
	Contact	One-sided
	Number of Pins	Right Angle Type: 20, 25, 30 Vertical Type: 25
	Rating	50V AC/DC, 0.4A
	Contact Resistance	40mΩ maximum
	Insulation Resistance	500V DC (1 minute) / 50MΩ
	Withstanding Voltage	500V AC (1 minute)
	Operating Temperature Range	-20°C to +80°C (Including internal temperature rise) *After reflow



Major Specifications		Right Angle Type	Vertical Type
	External Dimensions	W 13.7mm (20Pin), 16.2mm (25Pin), 18.7mm (30Pin) D 6.75mm H 3.2mm	W 18.6mm (25Pin) D 5.0mm H 6.35mm
	Mounting Area	92.47mm ² (20Pin), 109.35mm ² (25Pin), 126.22mm ² (30Pin)	93mm ² (25pin)
	Packaging	Reel	
	Operating Life	30 cycles	
Start Taking Orders From	Started		
Goes Into Mass Production From	Started		
Production Capacity	1,000,000 units per month		
Sample Price	100 yen per unit		
Inquiry	For more information, please contact CS Division		