

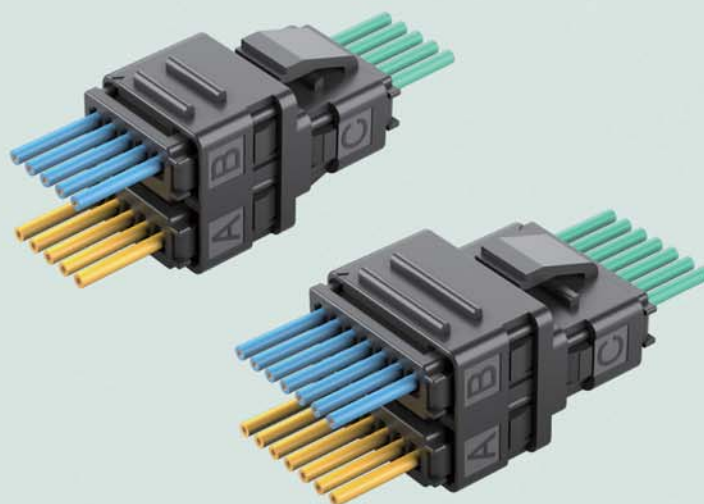


Space-saving, miniaturization, and weight reduction
through branching and relay connections



FK
SERIES

2.1 mm pitch branch/relay
crimp cable connector

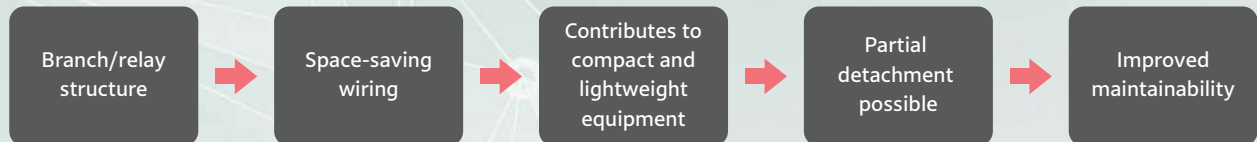




Contributes to space-saving wiring through branching and relay structure

FK series enables internal space-saving wiring with current-splitting relay structure, contributing to equipment miniaturization and weight reduction.

Even if a device fails, the use of branch/relay connectors allows partial removal, improving maintainability.

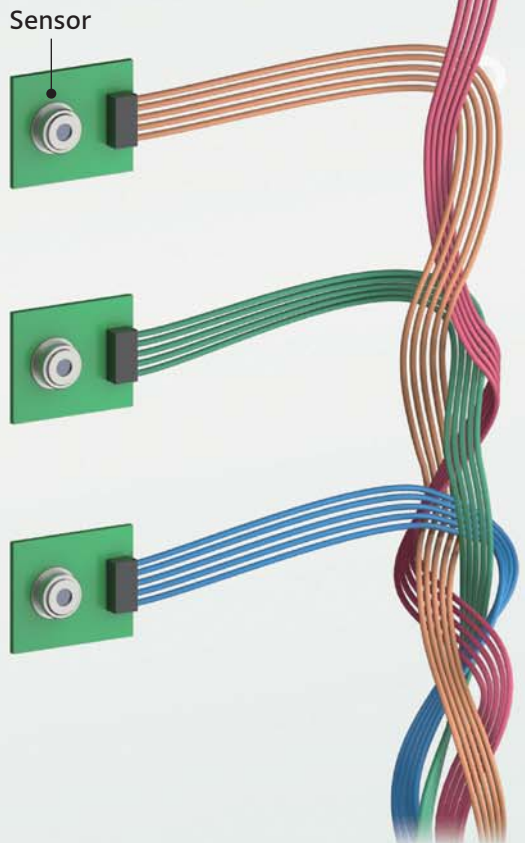


Application example

Improved maintainability through wiring simplification

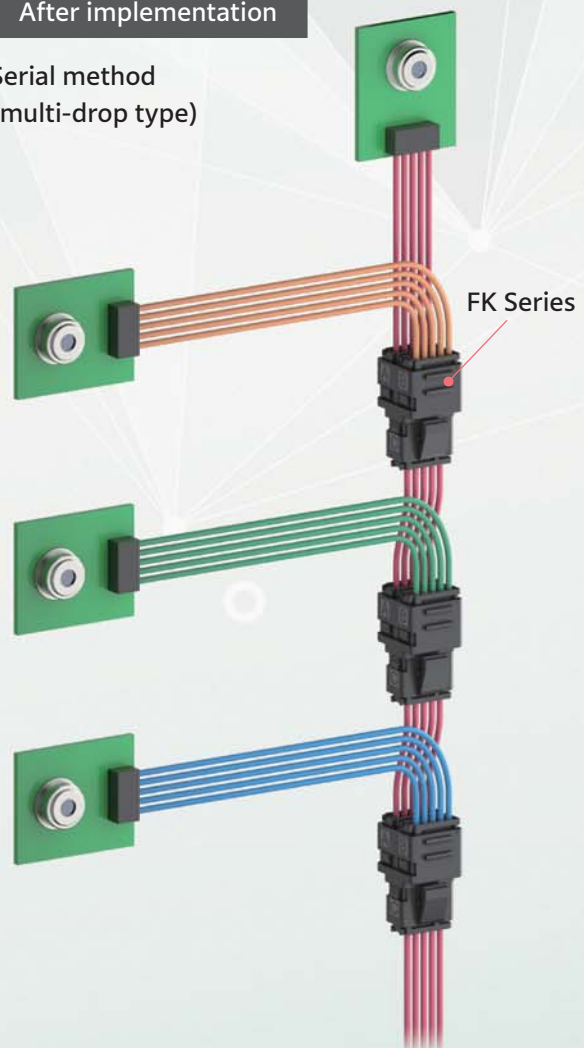
Before implementation

Parallel method
(cascade type)



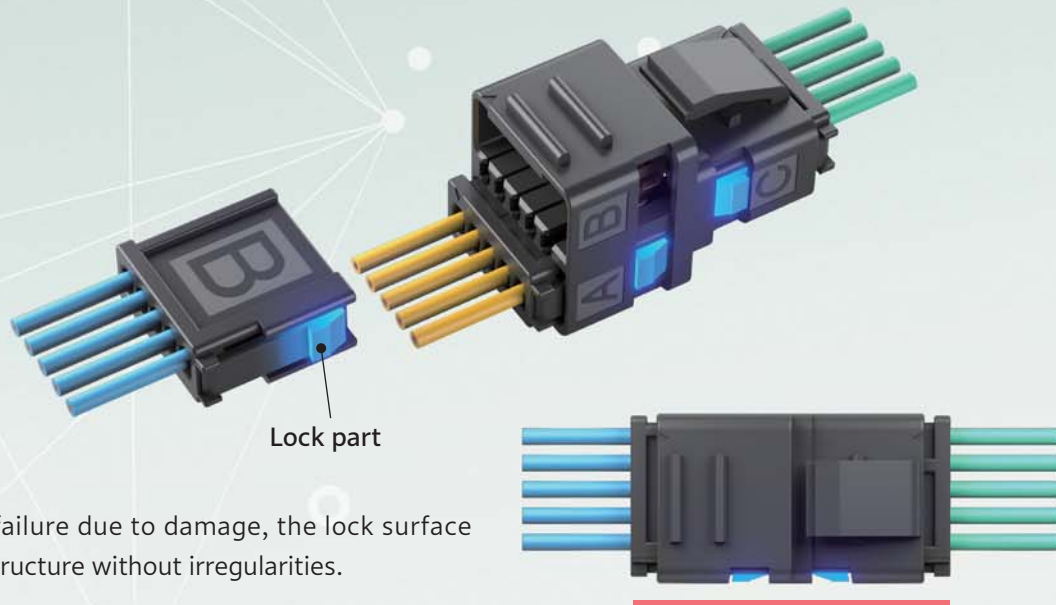
After implementation

Serial method
(multi-drop type)





Structure to prevent lock damage



To prevent failure due to damage, the lock surface uses a flat structure without irregularities.

FK series prevents contact or snagging with other wiring during cable routing before/after mating or during maintenance.

Flat lock surface without irregularities prevents snagging.
(top view)

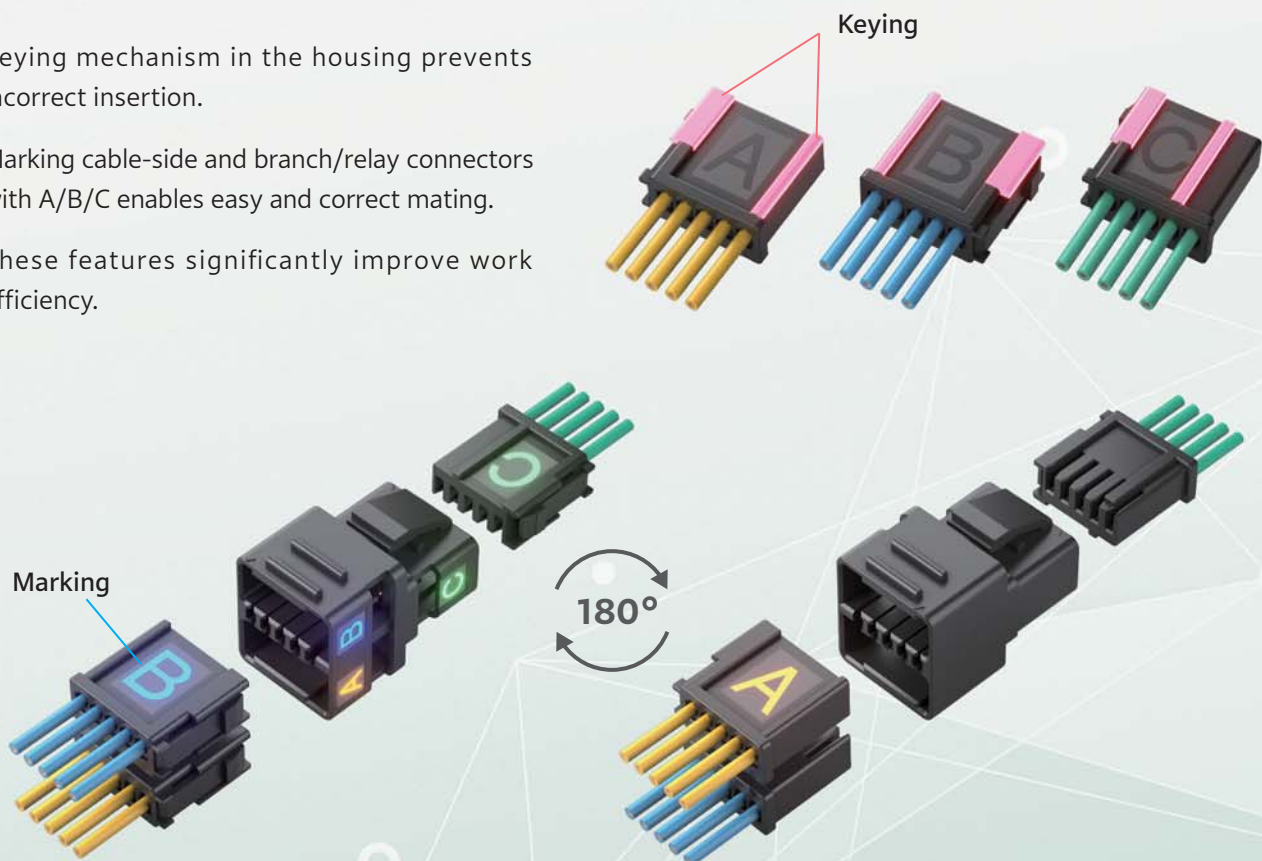


Prevents misinsertion and improves work efficiency with keying mechanism and marking

Keying mechanism in the housing prevents incorrect insertion.

Marking cable-side and branch/relay connectors with A/B/C enables easy and correct mating.

These features significantly improve work efficiency.





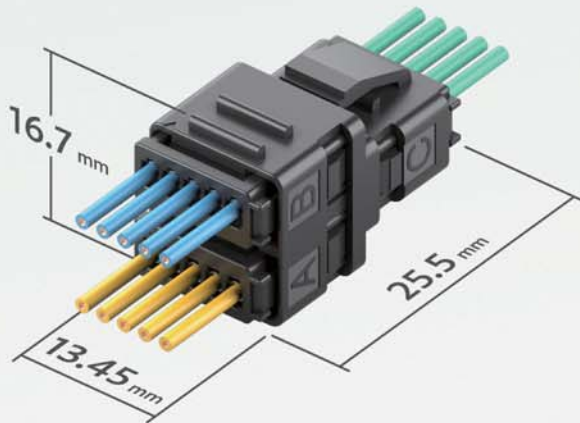
Dimensions and pin count variations

Available 5 and 7 pin variations

5 pin: w 25.5 mm × d 13.45 mm × h 16.7 mm

7 pin: w 25.5 mm × d 17.65 mm × h 16.7 mm, with a compact design

5 pin



7 pin

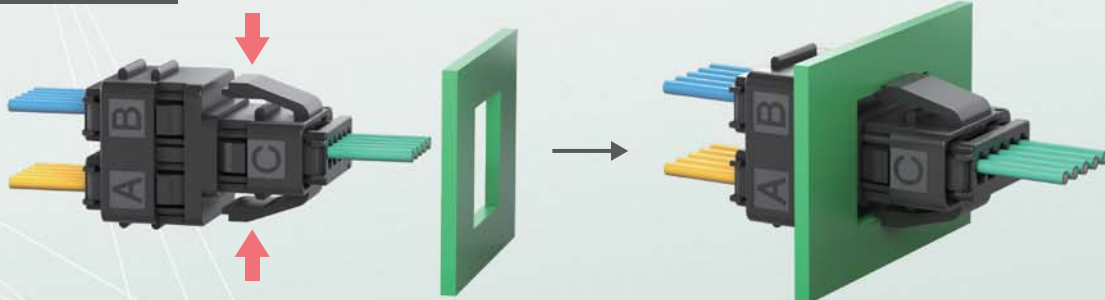


Fixing method

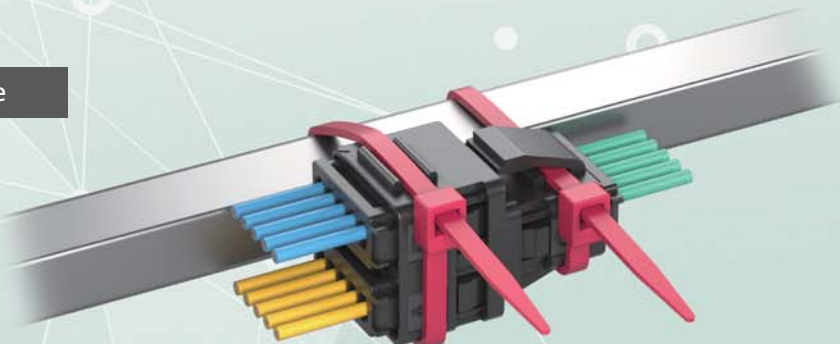
Connector can be fixed in place using panel mount or cable ties.

Suitable panel thickness: 0.8–1.5 mm; recommended cable tie width: 2.5 mm

Panel mount



Cable tie





Application

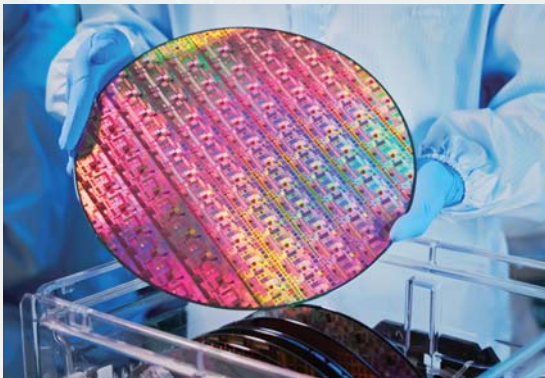
FK series is Ideal connector for complex wiring applications such as manipulators and semiconductor manufacturing equipment that use many sensors.



Manipulator



Mounter



Semiconductor manufacturing equipment



Large printing machine



Rated current

Standard Rated current

Unit: A (per contact)

Number of contacts	Receptacle	Plug	AWG#22	AWG#24	AWG#26	AWG#28
5 pin	FK01-05-□	FK11-05	5.5	4.5	4.0	3.0
7 pin	FK01-07-□	FK11-07	5.0	4.0	3.5	2.5

Rated current for UL UL1977 * UL cUL File No. E509060

Unit: A (per contact)

Receptacle	Plug	AWG#22	AWG#24	AWG#26	AWG#28
FK01-□□-□	FK11-□□	5.0	4.0	3.5	2.5

Order Code

FK01-□□-□* ① ② ③	① [Type] ② [Number of contacts] ③ [Housing type]	FK01: Receptacle (Cable side connector) 05: 5 pin 07: 7 pin A, B, C * To prevent misinsertion
FK11-□□ ① ②	① [Type] ② [Number of contacts]	FK11: Plug (Cable-branch / relay connector) 05: 5 pin 07: 7 pin
#696 ①	① [Contact name]	#696: Crimp contact for FK01 series

* Housing only. Contacts are sold separately.

Specifications

Material and plating		Electrical characteristics	
Insulator material	Glass-filled PBT (UL94V-0), Black	Rated current	See page 4 [Standard Rated current] [Rated current for UL]
		Standard Rated voltage	AC/DC 250V
		Rated voltage for UL UL1977 * UL cUL File No. E509060	AC/DC 30V
Contact material	Copper alloy	Contact resistance	20mΩ max.
		Dielectric withstanding voltage	1,000V AC for 5 minute
		Insulation resistance	1,000MΩ min. at 500V DC
Contact plating	(Contact area)Gold over nickel (Crimping area)Nickel	Operating temperature	-55°C to +105°C
		Durability of insertion and withdrawal	50 times
		Applicable cable	AWG#22/24/26/28 (Outer diameter of cable coating: ø0.8 to 1.7mm)* Discrete wire cable

* The assembly tool that can be used varies depending on the outer diameter of the cable coating.

Assembly Tool

Hand tool			Crimping Machine			
Part number	Crimp contact	Applicable cable size	Applicator	Crimp contact	Crimping machine	Manufacturer
CH-20	#696	AWG#22/24/26/28	EFX075900K-UP	#696	LPC220S	Japan Automatic Machine Co., Ltd.

* Outer diameter of cable coating: ø1.1 to 1.7mm

* Outer diameter of cable coating: ø0.8 to 1.7mm

* A crimping machine and applicator can be purchased from Japan Automatic Machine Co., Ltd.

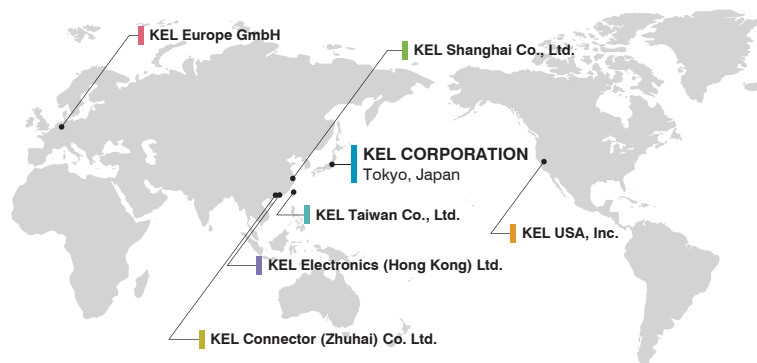
KEL Company Profile

Trade Name: KEL CORPORATION
 Established : July 23, 1962
 Total Capital: 1,617 Million Yen
 President : Akira Kasuga
 Head Office : 6-17-7 Nagayama, Tama,
 Address Tokyo 206-0025, Japan
 URL : www.kel.jp

Factories

- Yamanashi Factory (Nishi-Yatsushiro, Yamanashi)
- Nagano Factory (Kita-azumi, Nagano)
- Minami-Alps Factory (Minami-Alps, Yamanashi)

Global Network



KEL Europe GmbH

KEL USA, Inc.

KEL Shanghai Co., Ltd.

KEL Electronics (Hong Kong) Ltd.

KEL Connector (Zhuhai) Co. Ltd.

KEL Taiwan Co., Ltd.

www.kel.jp

KEL provides the products from a connector to a rack.

KEL CORPORATION

More Information
<https://www.kel.jp/>

