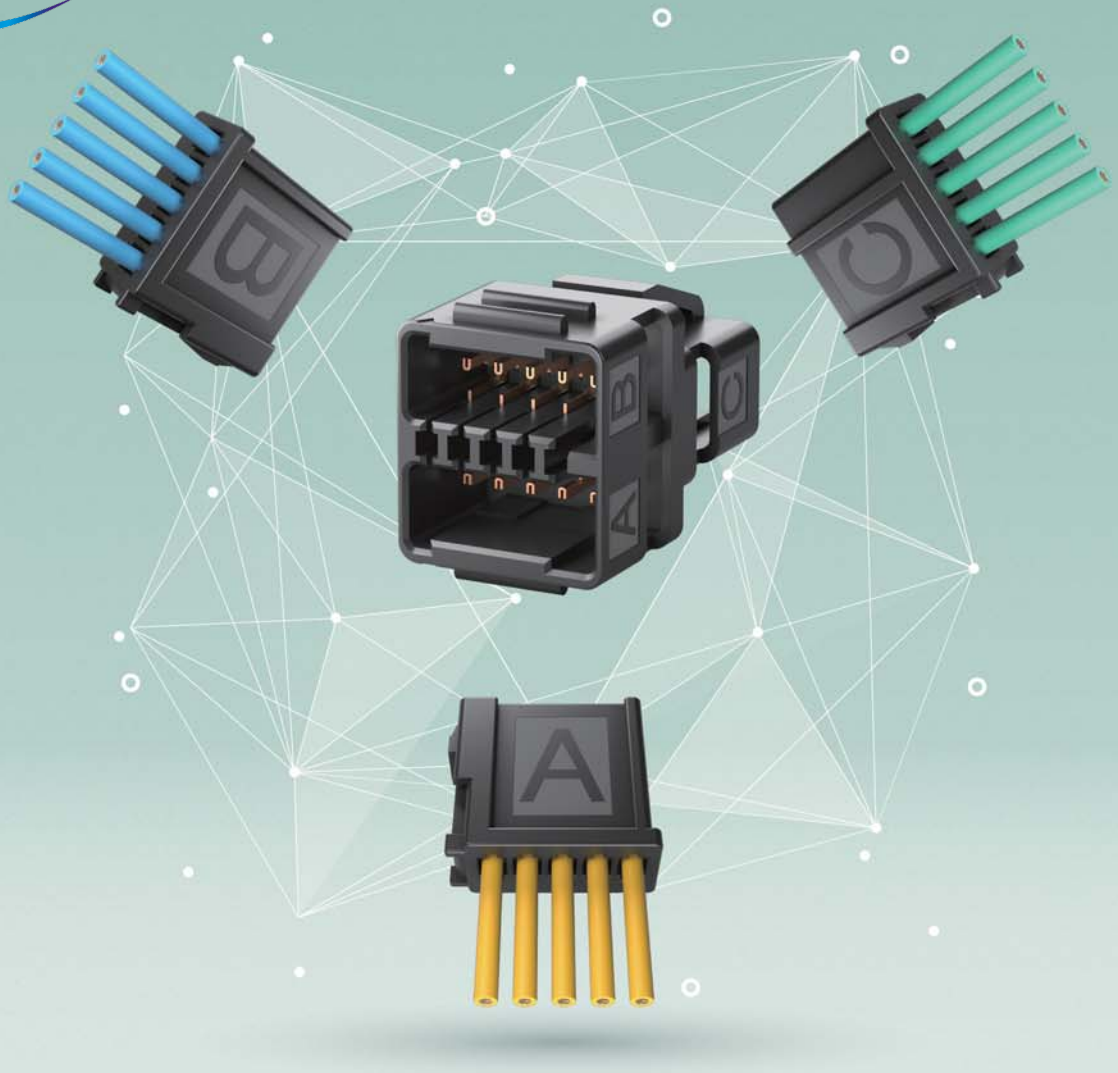
B.C.E. ELECTRONICS

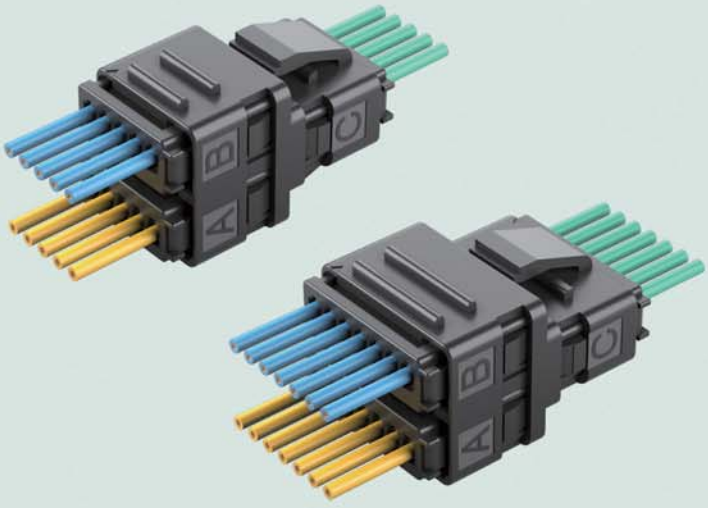
KEL



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

FK SERIES

2.1 mm pitch branch/relay crimp cable connector



B.C.E. ELECTRONICS
Importation & Distribution Electronic Components

B.C.E. s.r.l.
Via Regina Pacis, 54/c - 41049 SASSUOLO (MO) Italy
Tel. +39 0536 811.616 r.a. - Fax +39 0536 811.500
www.bce.it - E-mail: bce@bce.it

SYSTEM CERTIFICATION ISO 9001 SGS

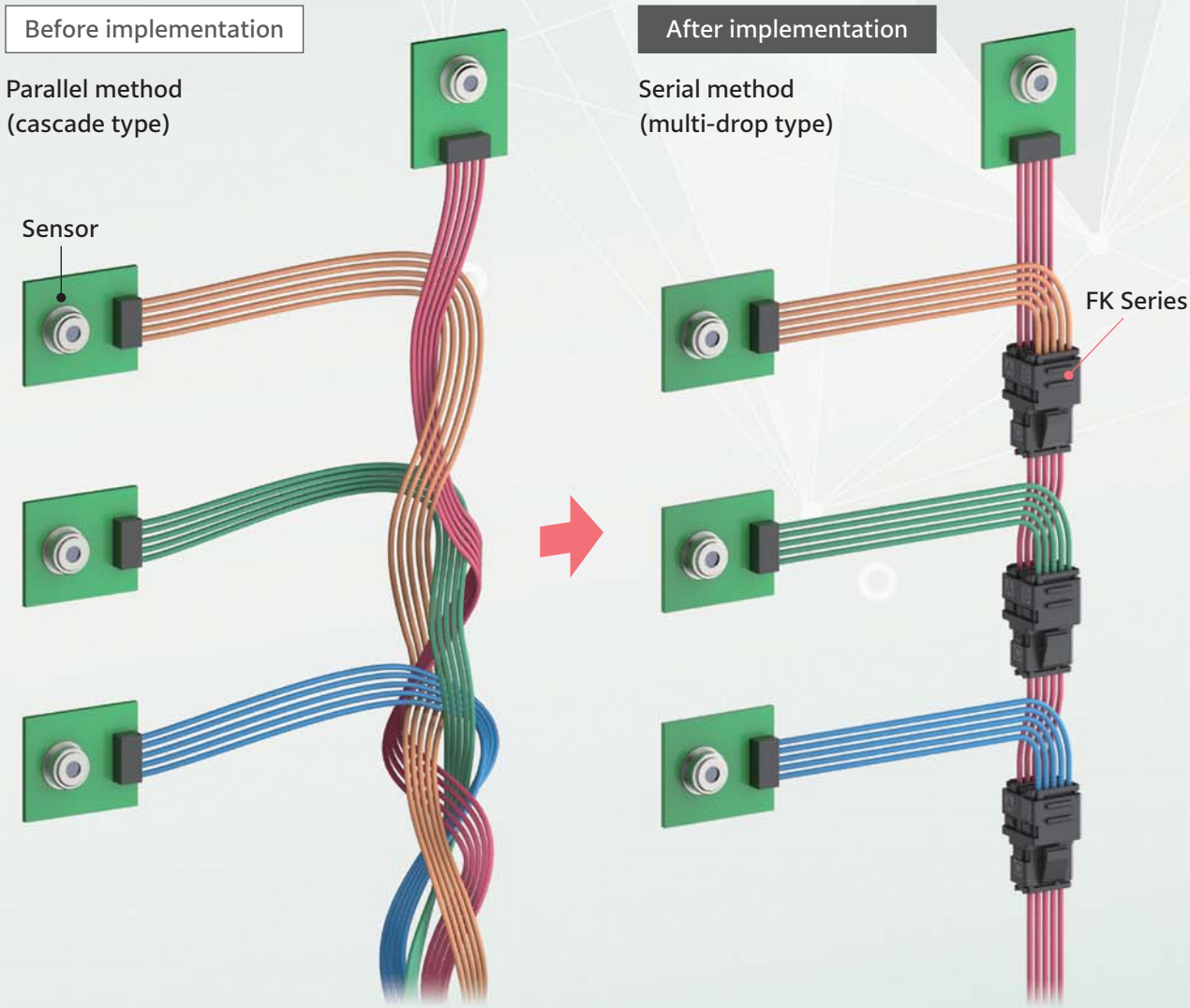
Contributes to space-saving wiring through branching and relay structure

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

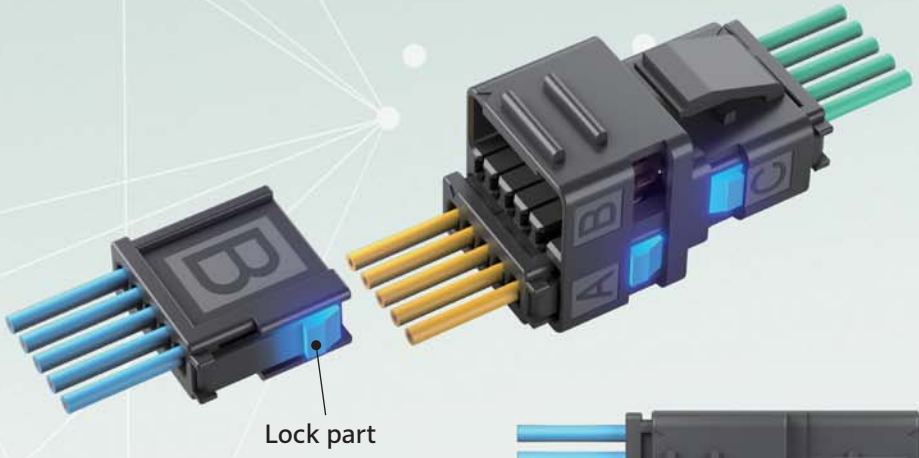
Even if a device fails, the use of branch/relay connectors allows partial removal, improving maintainability.

Branch/relay structure → Space-saving wiring → Contributes to compact and lightweight equipment → Partial detachment possible → Improved maintainability

Application example | Improved maintainability through wiring simplification



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.

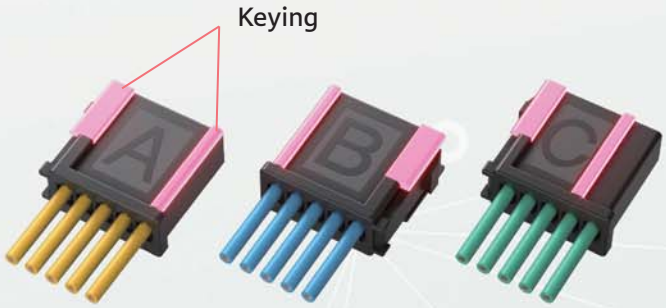
Flat lock surface without irregularities prevents snagging. (top view)

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.



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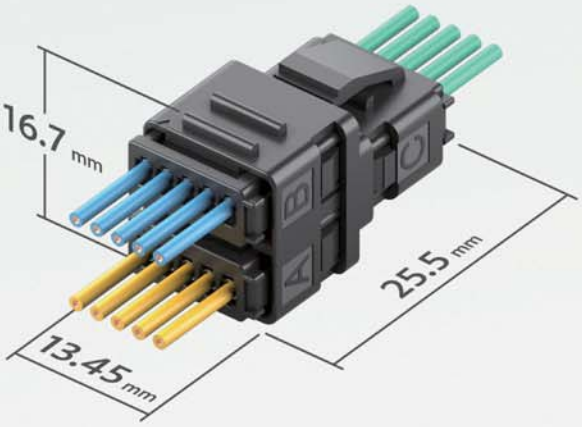
Tel.: 0536 811616 - Fax: 0536 811500 - Web: www.bce.it - E-mail: bce@bce.it

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

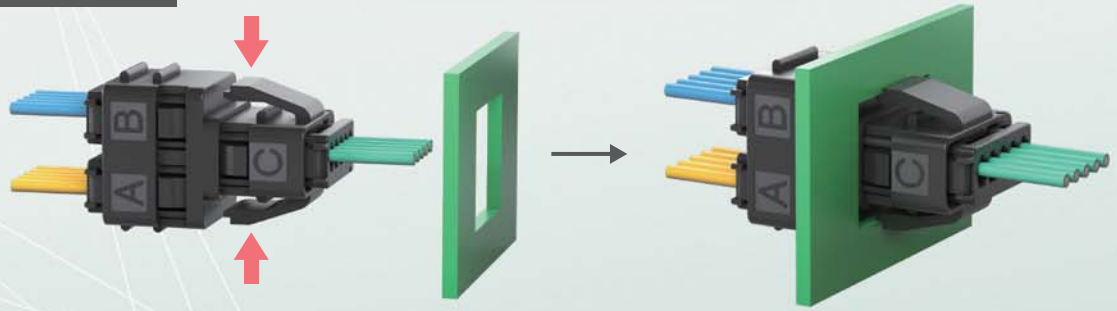


7 pin

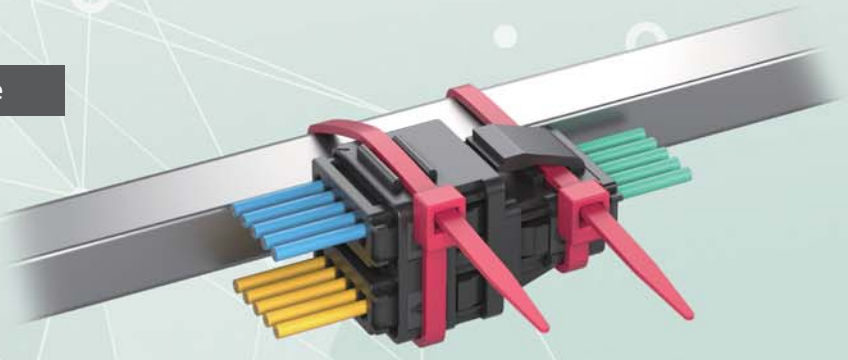
Fixing method

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



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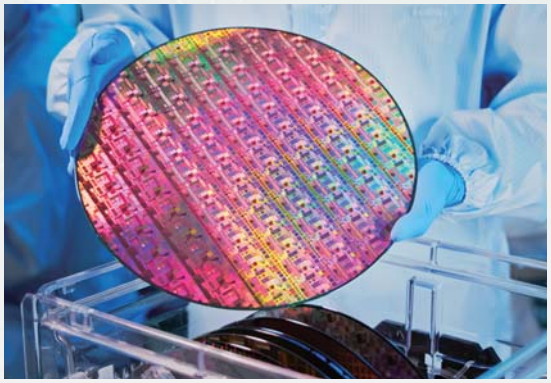
Application

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

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Order Code

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

* Housing only. Contacts are sold separately.

Specifications

Material and plating	
Insulator material	Glass-filled PBT (UL94V-0), Black
Contact material	Copper alloy
Contact plating	(Contact area)Gold over nickel (Crimping area)Nickel

Electrical characteristics	
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 resistance	20mΩ max.
Dielectric withstanding voltage	1,000V AC for 5 minute
Insulation resistance	1,000MΩ min. at 500V DC
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

Part number	Crimp contact	Applicable cable size
CH-20	#696	AWG#22/24/26/28

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

Crimping Machine

Applicator	Crimp contact	Crimping machine	Manufacturer
EFX075900K-UP	#696	LPC220S	Japan Automatic Machine Co., Ltd.

* Outer diameter of cable coating: ø0.8 to 1.7mm
* A crimping machine and applicator can be purchased from Japan Automatic Machine Co., Ltd.

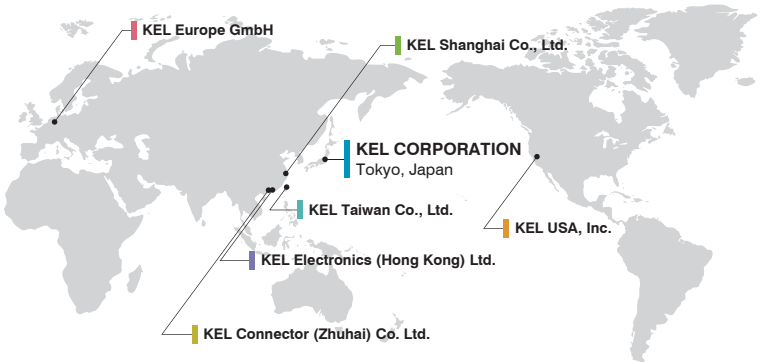
KEL Company Profile

Trade Name: KEL CORPORATION
Established : July 23, 1962
Total Capital: 1,617 Million Yen
President : Akira Kasuga
Head Office Address : 6-17-7 Nagayama, Tama, 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



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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/

* Please note that the contents of the catalog may change without notice.

PFNo.FK-E-202506-00A-K/T