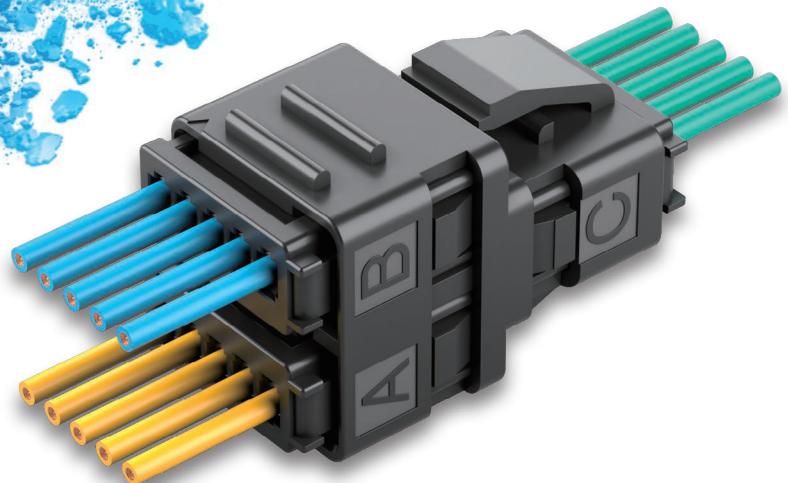


# KEL 2026 HEADLINERS

A trusted partner around the world



B.C.E. S.r.l. - Via Regina Pacis, 54/c - Sassuolo (MO) - I 41049 - Italy  
Tel.: 0536 811616 - Fax: 0536 811500 - Web: [www.bce.it](http://www.bce.it) - E-mail: [bce@bce.it](mailto:bce@bce.it)

E



# Creating connections that go beyond

Enriching society through connector technology

*Connecting to the future*

Since its establishment in 1962, KEL Corporation has developed highly reliable and high-quality products as a specialized manufacturer of industrial connectors, which have been used in various fields, such as industrial, automotive, medical, imaging, and communication equipment.

For further development, we embrace our management vision of "A connector manufacturer contributing to a world" as a long-term management plan.

In order to increase global recognition and develop attractive new products, we value communication with customers and a challenging spirit, and aim to be a company that constantly creates new value.

We will contribute to the realization of a prosperous and comfortable society by giving due consideration to the environment, society, and governance while building a global corporate structure.

## ■ Company Profile

Company Name: KEL Corporation

Establishment: July 23, 1962

Capital: 1,617 million yen

Business details: Design, manufacture, and sale of connectors, harnesses, and racks

President and Representative Director of KEL Corporation

**Akira Kasuga**

## ESG Initiatives

### Sustainable Vision

E Environment

S Society/Workforce

G Business/Organization

**KEL Corporation will "contribute to an abundant, sustainable society with connector technology."**

## ENVIRONMENT

Climate action, including resource recycling and nature conservation



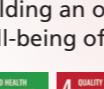
Climate action



Recycling/nature conservation



SDG 12: Responsible Consumption and Production



SDG 14: Life Below Water

Diverse workforce/well-being

## GOVERNANCE

Strengthening governance to increase quality, safety, and customer satisfaction



Governance



SDG 12: Responsible Consumption and Production



SDG 16: Peace, Justice and Strong Institutions



SDG 12: Responsible Consumption and Production

Communication with stakeholders

## SOCIAL

Building an organization that ensures the well-being of its diverse workforce



SDG 3: Good Health and Well-being

Diverse workforce/well-being



SDG 4: Quality Education

SDG 4: Quality Education



SDG 5: Gender Equality

SDG 5: Gender Equality



SDG 8: Decent Work and Economic Growth

SDG 8: Decent Work and Economic Growth



SDG 10: Reduced Inequalities

SDG 10: Reduced Inequalities



SDG 11: Sustainable Cities and Communities

SDG 11: Sustainable Cities and Communities



SDG 17: Partnerships for the Goals

SDG 17: Partnerships for the Goals

Safe and comfortable local communities

Making products to support lives globally

P1 Message from the President

KEL's Efforts

P2 KEL's Efforts

ESG Initiatives  
Production Sites  
Harness & Rack Business  
Products Under Development and New Products

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Automotive Equipment  
Medical Equipment  
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Crimp Cable Connector  
Half Pitch Connector  
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Product Details

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Variation Chart  
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Site List

# Production Sites

## Yamanashi Factory



The Yamanashi Factory supplies high-mix low-volume connectors and system racks and flexibly supports new products from start-up to mass production. We improve the production environment through separation of flow lines and installation of clean rooms and pursue the improvement of productivity and quality.

## Minami-Alps Factory



The Minami Alps Factory is a specialized production site for parts processing. The factory has a component processing line for contact plating and insulators (plastic molded parts) and has established an integrated production system from parts to assembly.

## Nagano Factory



The Nagano Factory is equipped with a fully automatic assembly line of its own design, and can handle a wide range of mass-produced products, including half-pitch connectors. The factory also supplies harness products, and is a site that combines mass production capabilities with a flexible production system.

## Overseas production site (KEL Connector (Zhuhai) Co., Ltd.)



We aim to expand our business through local production and sales of products for the Chinese market. We plan to introduce automatic connector production and operate with a small number of people. We also aim to improve performance by shifting our products to local production.

## CLOSE UP Yamanashi Factory

### ■ Main Products



DT-FS Series



DT-S Series



DUS Series



GC / GD Series



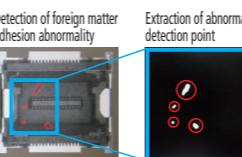
Rack



## Introduction of AI inspection machines



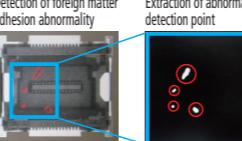
### ■ Schematic diagram of defect detection



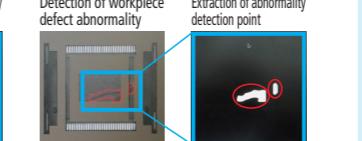
Detection of foreign matter adhesion abnormality



Extraction of abnormality detection point



Detection of workpiece defect abnormality



Extraction of abnormality detection point



### Clean room

The Yamanashi Factory has a Class 100,000 clean area to prevent adhesion of foreign matter. High-quality manufacturing is achieved through production in clean rooms.

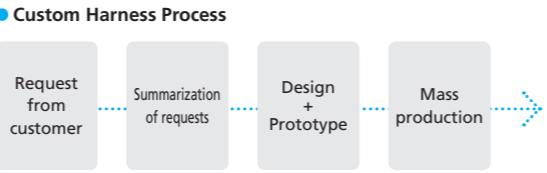


### IATF16949

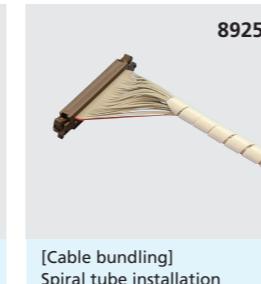
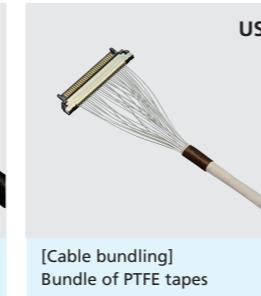
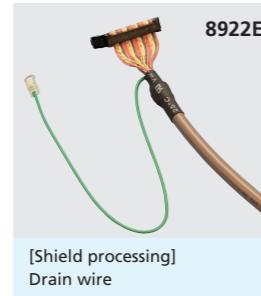
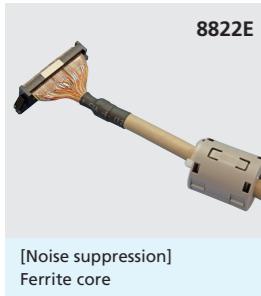
In 2018 we acquired an international quality management system certification for the automotive industry [IATF16949]. We have established a quality system that allows our customers to hire us with confidence.

## Harness Business

KEL assembles cable connectors and cable in accordance with customer requirements and provides harness products. Harness specialists support the overall harness design, and KEL handles the procurement and management of cables and other materials. In addition, KEL guarantees the quality of the harness, so you can use it with confidence.



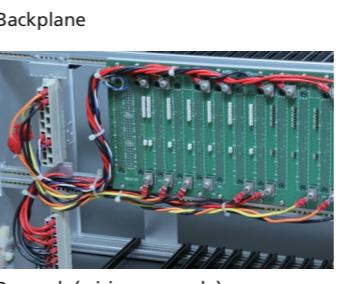
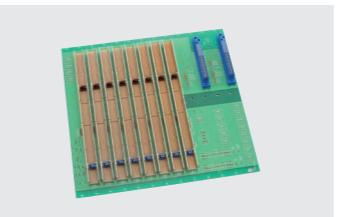
### ■ Example of special-order harness



## Rack Business



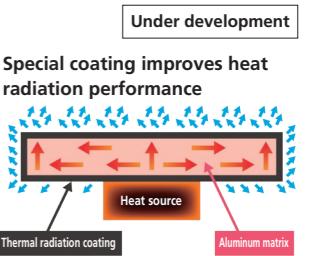
### ■ Customized rack example



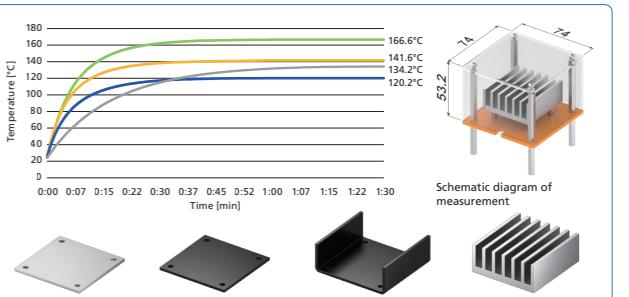
KEL is not only a connector manufacturer, but also a manufacturer of racks, which are industrial computers. We develop custom racks that combine various optional units and accessories, focusing on standard bus racks such as PCI and VME. We have more than 40 years' experience in manufacturing rack products, and take a consistent approach to design, development, manufacturing, and evaluation. We can make use of this know-how to provide flexible special-order services.

### ■ Heat path plate

A coating developed by our company improves heat dissipation. Heat diffuses from the heat source through the heat conductive layer, and is radiated heat by the excellent heat radiation of the heat radiation coating to suppress temperature rise of the heat source.



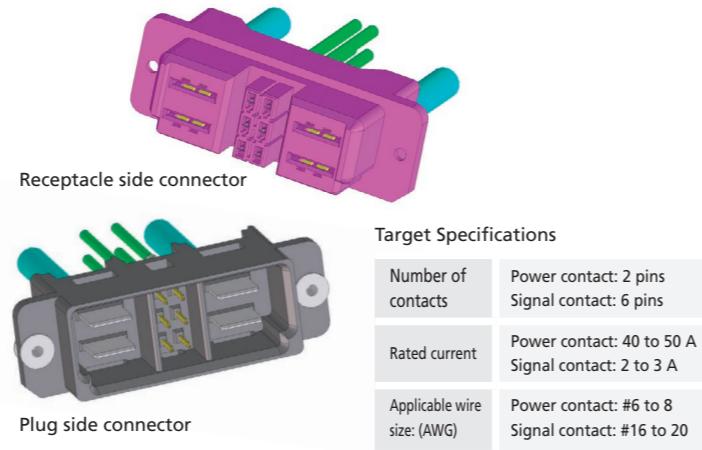
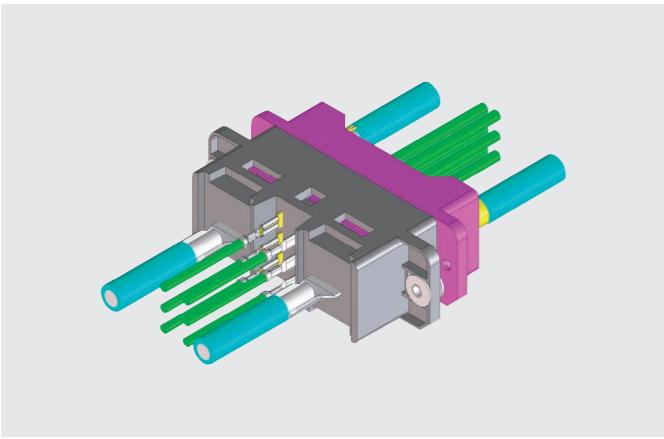
### ■ Thermal comparison graph by process



## Product Under Development

## High Current Battery Connector

## FG SERIES



## Application



Power Receiving and Distributing Equipment



Renewable energy



Inverter

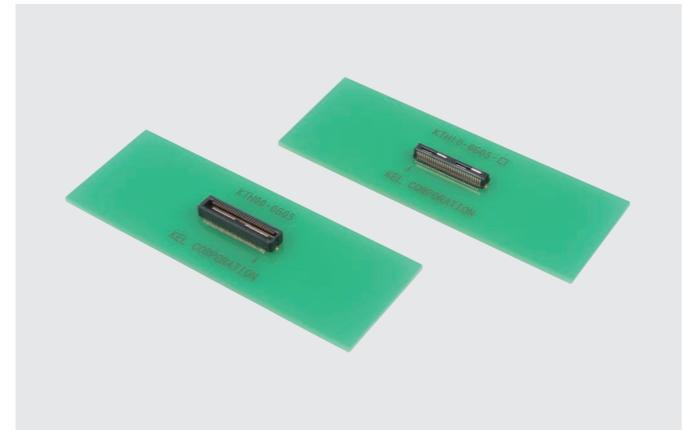


Relay vehicle

## Product Under Development

## Heat Path Connector

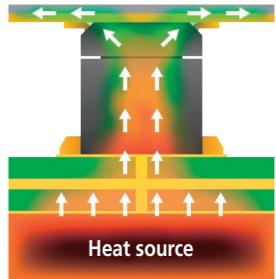
## KTH SERIES



## Target Specifications

## Radiating path

In addition to conducting electricity, heat travels through the connector to be dissipated efficiently.



## Application

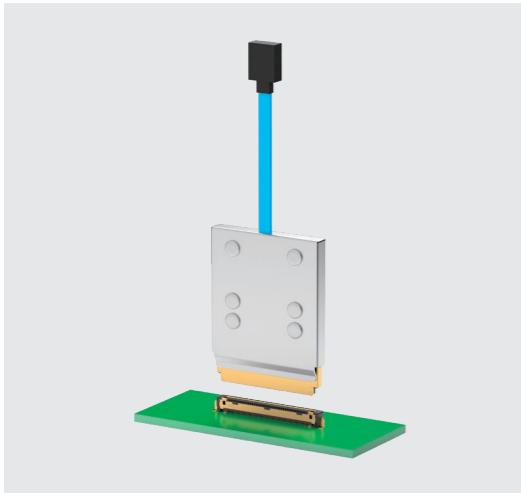
It can be used even when the device is too small to place heat radiation parts, or when it is difficult to place heat radiation parts due to the function of the device.



## Product Under Development

## Optical Active Connector

## TSL-AOC SERIES



*Transmission rate*  
**128 Gbps\***  
 (32Gbps/1ch×4ch)

*Long-distance transmission*  
**30 m\***

\*Target specification



We conduct R&D on photoelectric conversion connectors for the telecommunications market.

We aim to realize high-speed transmission of 128 Gbps and long-distance transmission of up to 30 meters by applying the technologies we have developed for micro coaxial cable connectors.

With this, we are engaged in providing new solutions that enable high-speed and long-distance transmission.

## Product Under Development

## 2.0 mm Pitch Waterproof/Dustproof Drawer Connector

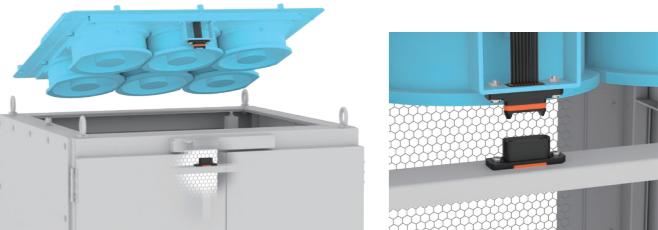
Waterproof

## FWSA SERIES



## Improved maintainability

- Suitable for environments that are affected by weather or dust, such as outdoor fan units.
- It reduces the maintenance burden and contributes to stable system operation and long-term reliability.



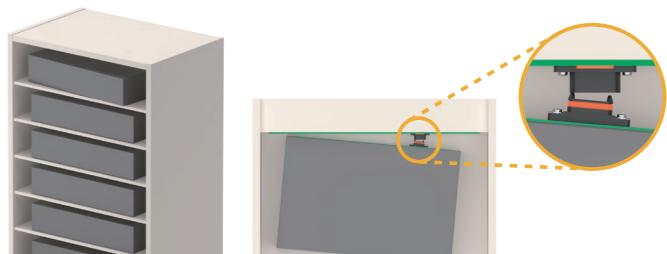
## Drawer structure

- The screw fixing part moves to absorb the maximum  $\pm 1.0$  mm in the XY direction.
- The guiding structure enables to absorb misalignment up to  $\pm 1.5$  mm.

## Waterproof and dustproof

- Realize high waterproof and dust resistance equivalent to IP67.

## Smooth connection in environments prone to misalignment



## Product Under Development

## High-Speed Transmission Floating Connector Equivalent to PCIe5.0

## JG SERIES



Equivalent to  
**PCIe5.0**

**80A** 10A per pin × 8

**Floating**  
**±1.2 mm**

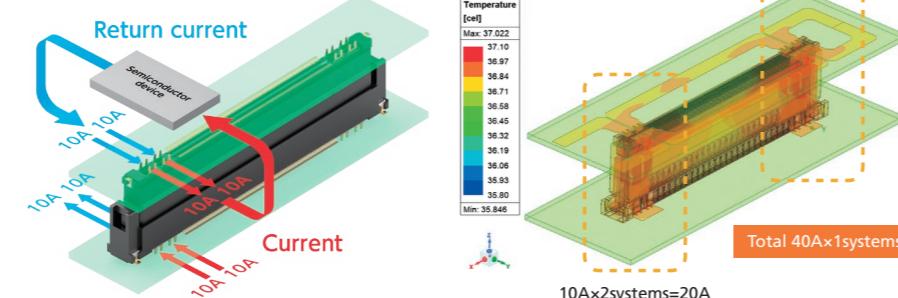
**MAX**  
**240 pins**

**125°C**  
High heat resistance

## Target Specifications

Pitch	0.5mm
Number of contacts	40 to 240 pins
Stack height	10, 15, 20, 25, 30, 35mm *Vertical and horizontal connection is under consideration
Floating amount	±1.0 mm (10 to 20 mm) in XY direction ±1.2 mm (20 to 35 mm) in Z direction
Operating temperature range	-40°C to +125°C (including temperature rise due to energization)
Remarks	Power terminals, Selectable with/without shell

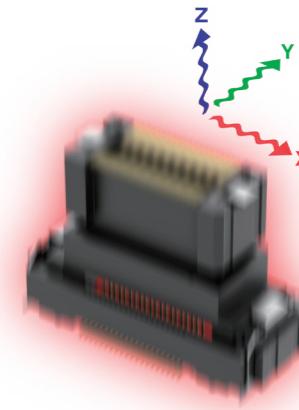
Equipped with 10A × 4 channels to the maximum



## Product Under Development

## Vibration Resistant, 140°C High Heat-Resistant Floating Connector

## JF SERIES



**Heat resistant at 140°C**

**Vibration resistant**  
(X, Y, and Z directions)

## Target Specifications

Pitch	0.5mm
Number of contacts	10 to 80 pins
Stack height	15-20mm
Floating amount	±1.0 mm in X and Y directions
Operating temperature range	-40°C to +140°C
Contact point	2-point contact

## Application



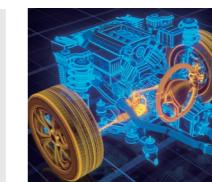
On-board charger



Inverter



DC/DC converter



Electric power steering

As this is a product under development, the specifications and shape may change without notice.

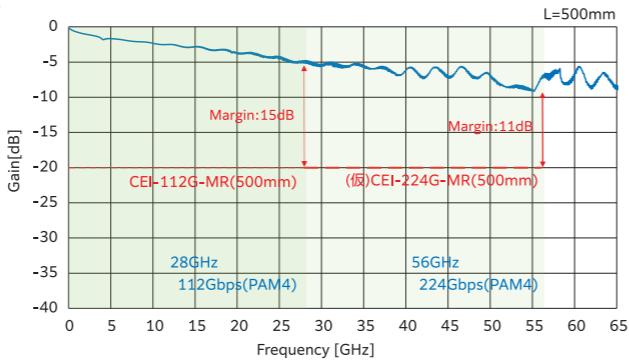
## Product Under Development

## 224 Gbps (PAM4) Differential Transmission Cable Connector

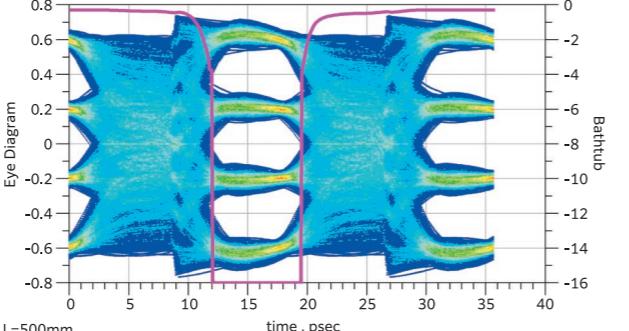
## HSP SERIES



## Insertion Loss



## 112Gbps PAM4 EQ(CTLE+DFE)



In order to contribute to the realization of next-generation networks in the 6G era, KEL has successfully developed a connector for 224 Gbps (PAM4), which is currently the world's highest level of transmission characteristics, by combining its accumulated expertise in high-speed transmission.

This product, which envisions optical networks 10 years in the future, demonstrates our advanced high-speed transmission technology.

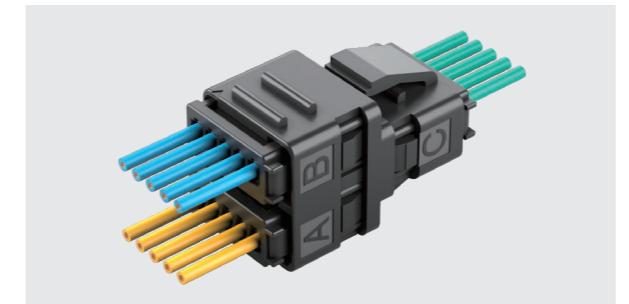
## New Product

## 2.1 mm Pitch Crimp Cable Connector, Branching and Relay Type

## FK SERIES



UL1977 \*UL cUL File No. E509060

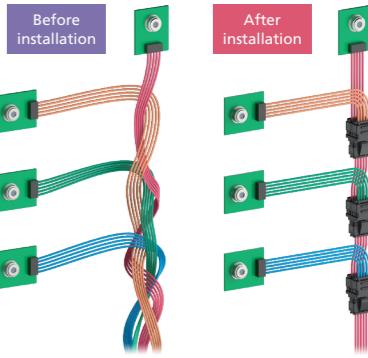


## Specifications

Performance	
Rated current	Standard rated current: 2.5 to 5.5 A UL Rated current: 2.5 to 5.0 A
Rated voltage	Standard Rated Voltage: AC/DC 250 V UL Rated voltage: AC/DC 30 V
Contact resistance	20 mΩ or less
Dielectric withstand voltage	1000 V AC for 5 minutes
Insulation resistance	1,000MΩ min. at 500V DC
Operating temperature range	-55°C to +105°C
Applicable cable	AWG#22/24/26/28 (Outer diameter of cable coating: φ0.8 to 1.7mm) Discrete wire cable

## Contribute to wire-saving through branch and relay

- Reduced wiring in the chassis contributes to miniaturization and weight reduction of equipment.
- In addition, even if a malfunction occurs inside the device, it can be partially removed, which can lead to improved maintainability.



## Simultaneous prevention of incorrect insertion and improvement of workability

- Keying and marking on the 3 types of housings make it possible to mate without mistakes.



## New Product

## 0.4 mm Pitch Micro Coaxial Cable Connector

## ASLS SERIES



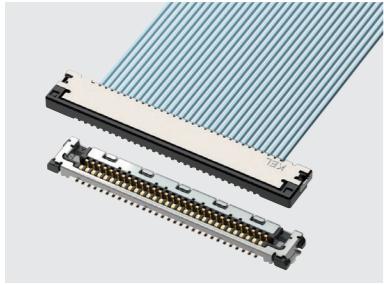
Space-saving



Non-magnetic



High heat resistance



## Specifications

Performance	
Rated current	0.25 A per contact
Contact resistance	100 mΩ or less
Dielectric withstand voltage	200 VAC for 1 minute
Insulation resistance	100 MΩ or more at 250 VDC
Operating temperature range	-40°C to +105°C
Applicable cable	#42 AWG Micro coaxial cable

## ASLS Number of Contacts List

Number of contacts	30 pins	40 pins	50 pins	60 pins
ASLS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Under development

## Locking structure and 2-point contact structure

## Contact lock

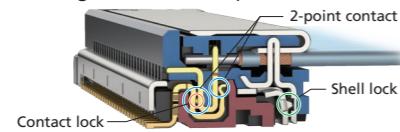
- Great click feel
- Enhancement of downward bending strength

## Shell lock

- Great click feel
- Enhancement of upward bending strength

## 2-point contact structure with high contact reliability

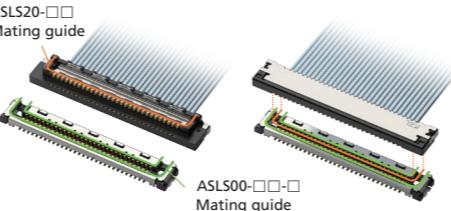
By providing two contact points, the reliability of electric signal transfer is improved.



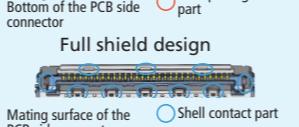
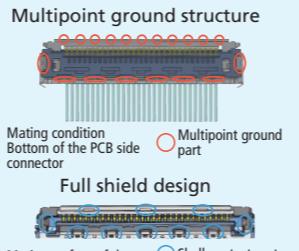
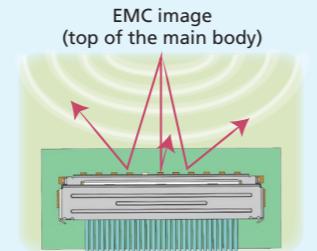
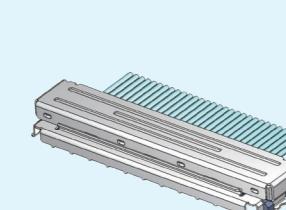
## Mating guide structure

## Improvement of mating workability

The easy-to-mate shape improves work efficiency by guiding to the proper mating position.



## Product Under Development ASLS EM SERIES EMC measures enhancement products



Shell contact part

## New Product

## 0.4 mm Pitch Floating Connector

## DUS SERIES

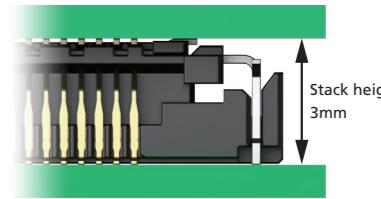


125°C



16G bps

Supports a low profile with a stack height of 3 mm



## DUS Series Variation List

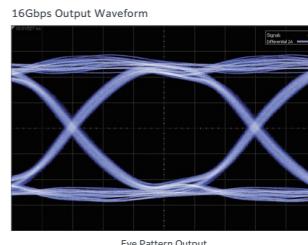
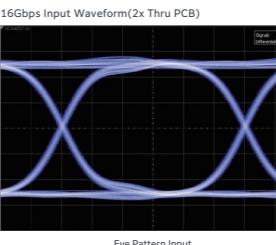
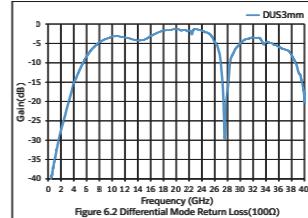
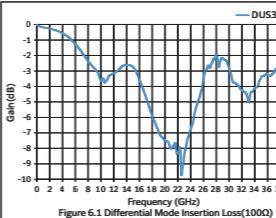
Connection	Floating amount (X and Y directions)	Stack height	40 pins	80 pins	100 pins	120 pins	140 pins	160 pins	180 pins	200 pins
Stacked mating	±0.4mm	3mm	<input type="radio"/>							

## Specifications

Performance	
Rated current	0.4 A per contact (Simultaneous energization shall not exceed 60 pins.)
Contact resistance	80 mΩ or less
Dielectric withstand voltage	200 V AC for 1 minute
Insulation resistance	100 MΩ or more at 250 V DC
Operating temperature range	-40°C to +125°C

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## Transmission characteristics



## New Product

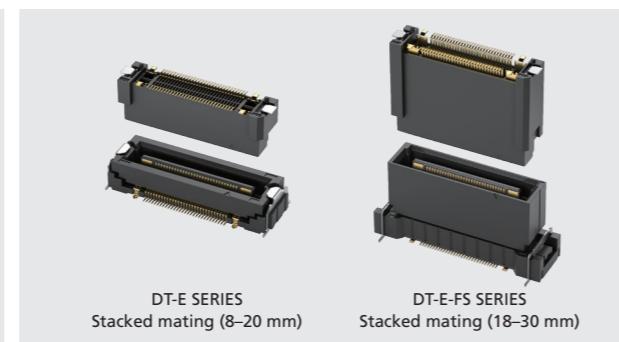
## 0.5 mm Pitch Floating Connector with Power Contacts / High Stack Type

## DT-E / DT-E-FS SERIES



Power contact (4 pins)

Connection variation



## Specifications

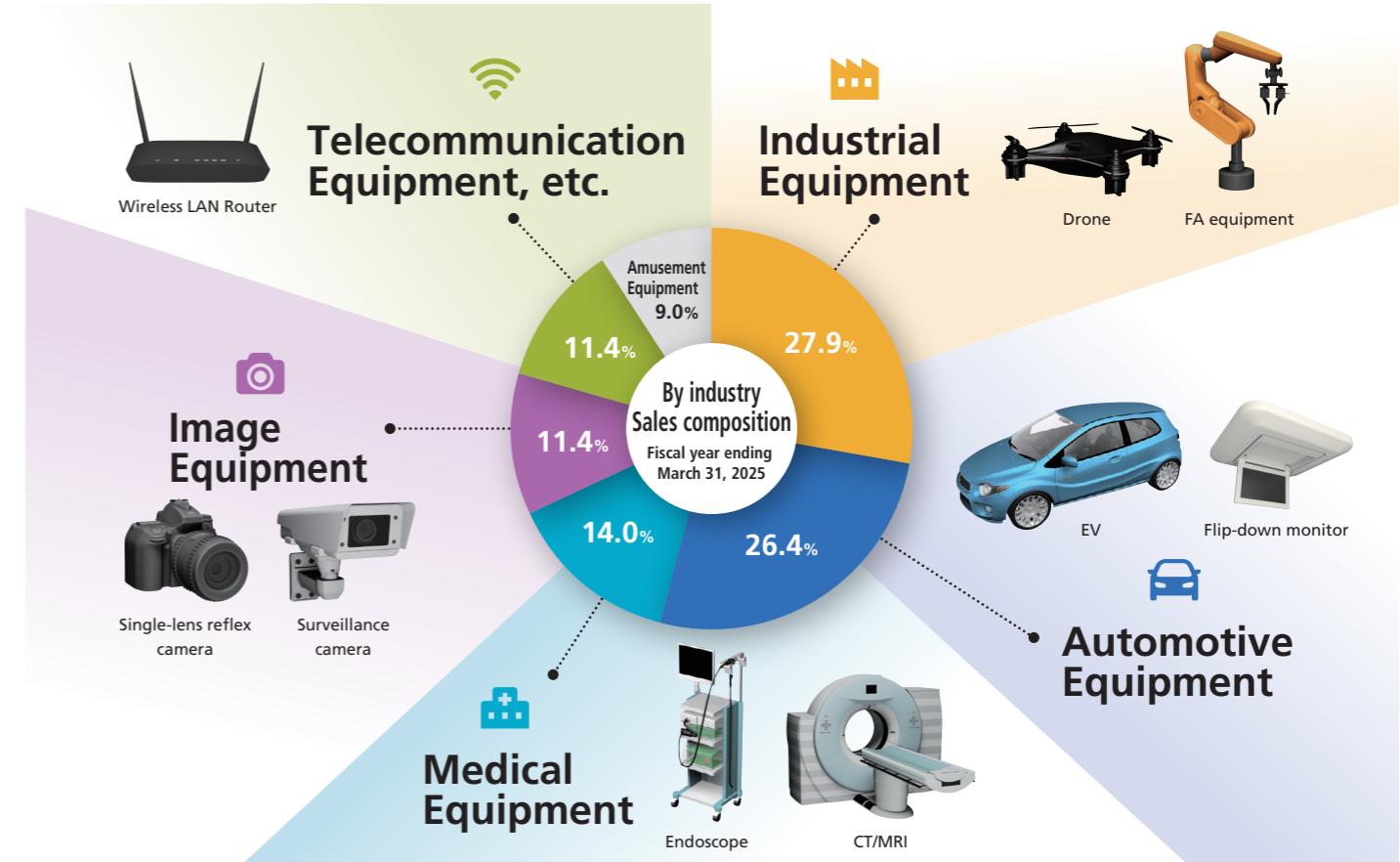
	Performance
Rated current	0.4 A per contact (signal contact) (Simultaneous energization shall not exceed 100 pins.) 6.0 A per contact (power contact)
Contact resistance	80 mΩ or less (signal contact) 20 mΩ or less (power contact)
Dielectric withstand voltage	200 V AC for 1 minute
Insulation resistance	100 MΩ or more at 250 V DC
Operating temperature range	-40°C to +105°C

## DT-E / DT-E-FS Series Variation List

Connection	Floating amount (X and Y directions)	Stack height	30 pins	40 pins	60 pins	80 pins	100 pins	120 pins	140 pins
Stacked mating	±0.7mm	8mm	○	○	○	○	○	○	○
	±0.7mm	10mm	○	○	○	○	○	○	○
	±0.7mm	15mm	○	○	○	○	○	○	○
	±0.7mm	20mm	○	○	○	○	○	○	○
	±1.2mm	18mm	○	○	○	○	○	○	○
	±1.2mm	20mm	○	○	○	○	○	○	○
	±1.2mm	25mm	○	○	○	○	○	○	○
	±1.2mm	30mm	○	○	○	○	○	○	○

## Market introduction

Sales for fiscal year ending March 31, 2025: 11,871 million yen (consolidated)

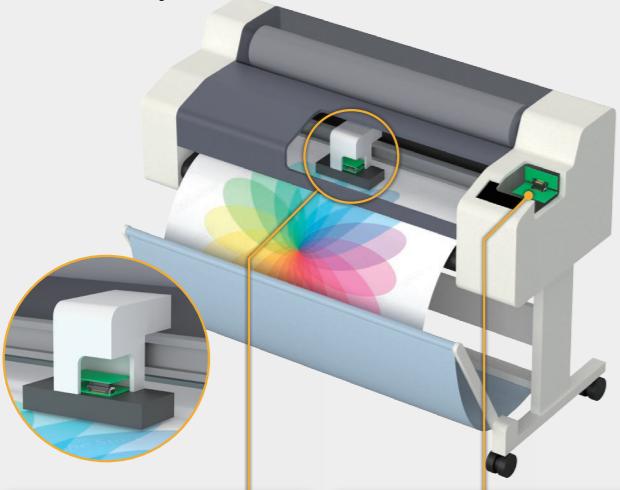


# Industrial Equipment



Our products contribute to infrastructure equipment that supports modern people's lives.

## Production printer



DT



DT



## Plant factory



FW



FWS



Productivity improvements through high-performance semiconductors and automation are essential elements of industrial and technological innovation.  
We will contribute to the promotion of sustainable industrialization through manufacturing.



## Drone



DT

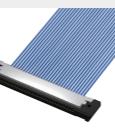


XSLS



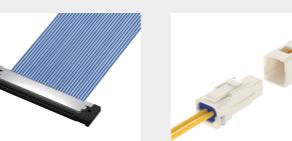
• Signal processing board to RF board

USLS



• Main board to image processing board

FWS



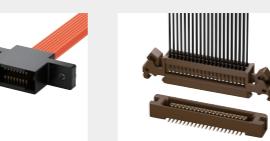
• Main board to sensor board

FAS



• Main body to motor

8929E



• Main body to bill unit

DU



• Main board to tester board

## ATM



DY



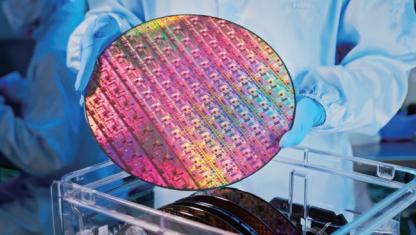
• Main body to bill unit

FA



• Main body to bill unit

## Semiconductor manufacturing equipment



DT



• Internal connection of the main body

DY



• Internal connection of the main body

Application

Application



# Automotive Equipment

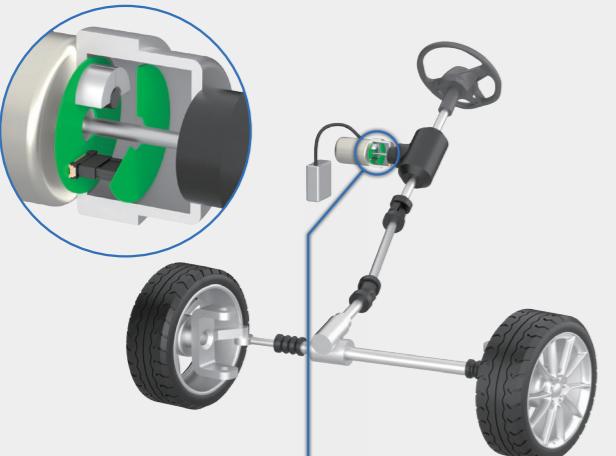


Adoption in EVs contributes to environmental protection  
by utilizing clean energy and reducing CO<sub>2</sub> emissions.



Application

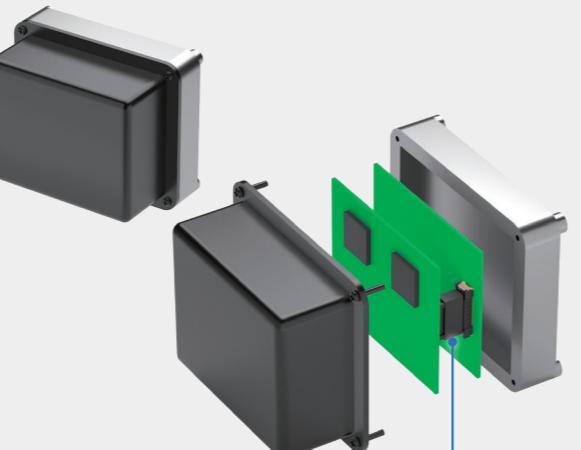
## Electric power steering (EPS)



DT-FS



## Millimeter wave radar



DT12/13



## Integrated ECU



JG Product under development



• Main board to ADAS board

DT



• Main board to AUDIO board

FAS



• Inner panel part

## EV



DT



• Battery management system

DT-FS



• On-board charger

DW



• Car navigation system

## Drive recorder



DT-S



• External connection of the main body

DY



• Main board to CPU board

USL



• Front camera board to room camera board

Application

21

22



# Medical Equipment

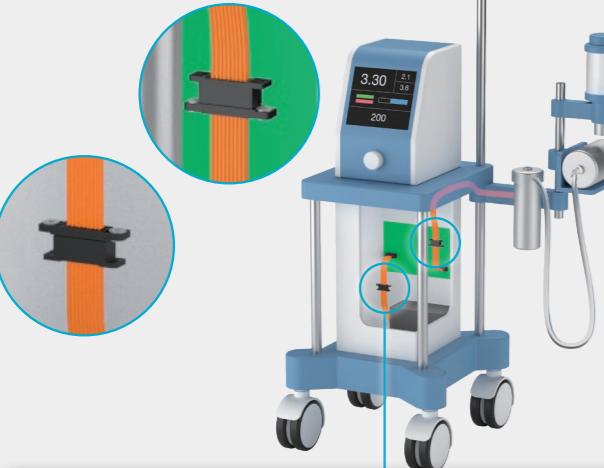


The improved performance of the equipment enables precise diagnosis and contributes to the provision of high-quality medical services.



Application

Heart-lung machine



FA



Infusion pump



SSL



Ultrasonic diagnostic apparatus



DT



• Analog receiving board to image processing board

DY



• Analog receiving board to image processing board

XSL



• Probe board to I/F board

USLS



• Probe board to I/F board

CT/MRI



8929E



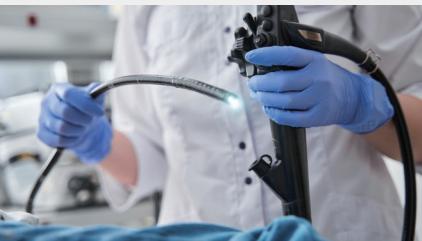
• Analog receiving board to control board

8822E



• Detection board to control board

Endoscope



DT



• Main board to image processing board

DY



• Main board to image processing board

XSL



• Scope board to I/F board

USLS



• Scope board to I/F board



# Image Equipment



Advances in photography equipment have enriched people's lives and contributed to the creation of safe, secure, and livable communities.



Application

## Professional camera



## Surveillance camera



## Projector



DT



• Main board to I/F board

DW



• Main board to I/F board

DY



• Main board to I/F board

SSL



• Main board to image processing board

## Single-lens reflex camera



DU



• Main board to power supply board

DUS



• Main board to power supply board

XSLS



• Main board to liquid crystal monitor

USLS



• Main board to sensor board

## Smart glass



XSLS



• Main board to FPC  
• Main board to I/F board

Application



# Telecommunication Equipment



With the development of communication infrastructure, the construction of communication networks in public places and over a wide area will facilitate access to various information.

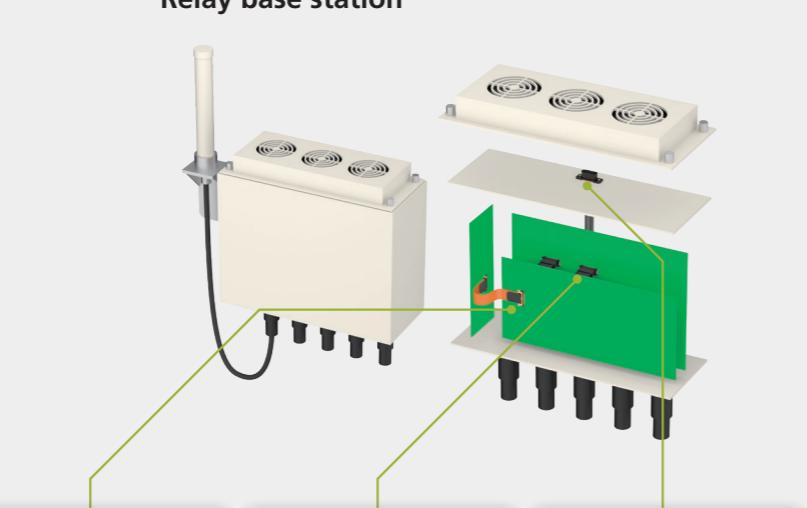


Application

## Wireless LAN Router



## Relay base station



## Wireless LAN Router

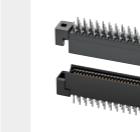


DT



• Main board to I/O board

8800



• Main board to I/O board

8832E-FS



• Main board to I/O board

## Relay base station



DT-E



• Main board to antenna board

TSL



• Main board to output board

FA



• Internal connection of the main body

8929E



• Main board to sub-board

## PBX



DY



• Main board to sub-board

8900



• Main board to sub-board

8900MS



• Main board to sub-board

Application

# Interview with Engineer —JG Series—

## Q01 | Please tell us about the background of the JG series. Why did you need to develop a new series?

It has become clear that high-speed transmission equivalent to PCIe5.0 will be expected in the automotive equipment. We figured that we needed a product that could anticipate the future and started development of the JG series.

## Q02 | What are your target applications and industries?

We assumed that an integrated ECU of in-vehicle equipment and a car computer can be a target. In the next generation of in-vehicle infotainment, connectors that can stably exchange large volumes of data are essential, and we believe that our technology can contribute to both reliability and high speed.

## Q03 | What are the particular points of the design?

The main point is to achieve high-speed transmission equivalent to PCIe5.0. We take on challenge that further focuses on the existing high-speed transmission design technologies and achieves higher performance.

## Q04 | What have you learned or realized through this development?

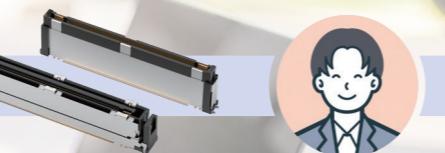
Things that were particularly significant were the strong realization of the necessity of standardization and division of labor. We also realized once again the importance of conducting advance development through marketing based on an accurate understanding of market trends.

## Q05 | Could you give a few words to the customers who are considering using the JG series?

We have a system in place to respond to various measurements, evaluations, and analyses. We can work with the customer from the initial stage of development, so please feel free to consult us.

## Q06 | Lastly, please tell us about the technological areas and product directions you would like to pursue in the future.

We will continue to take on challenges in the fields of high-speed transmission and high power. There are always technical barriers, but the JG series is the first step to overcome, and we want to develop it further in the future.



# Case Study: Case Study of Installing FA / FAS Series to ATMs — What our connectors can do

## Case Study: ATM

### Issues

- It is indispensable to conduct regular periodic maintenance of the internal bill transport unit.

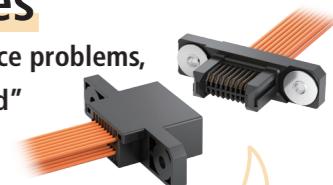
### Concerns

- Connector contact failure due to repeated attachment and detachment
- Since the inside is narrow, which makes it difficult to check the connector, attachment and detachment work is difficult and takes time.



## The FA / FAS Series

solves the design and maintenance problems, "narrow, invisible, and misaligned" from the structural aspect.



- Mating guide function with guiding mechanism enables smooth connection even in invisible places.
- Floating mechanism absorbs mating error.
- Effective mating length is sufficiently ensured to secure contact reliability and long-term stability.
- Two-point contact ensures connection reliability.
- Insertion and withdrawal durability: Up to 7,000 times depending on specifications and combination.

## Effect of adopting FA / FAS series

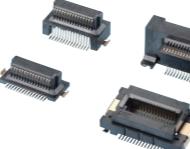
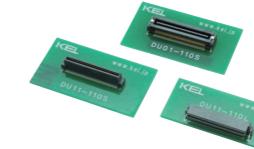
- Troubles due to contact failure were significantly reduced.
- Load on installation and removal by workers was reduced and maintenance time was shortened.
- High evaluation from field workers  
Maintenance personnel "Even though we can't see the location, we can rely on it with confidence."



# Floating Connector

Equipment to adopt |  Industrial Equipment  Automotive Equipment  Medical Equipment  Image Equipment  Telecommunication Equipment

Connection format |  Board to Board  Board to Cable  Cable to Cable

Series name	DT-E / DT-E-FS	DT / DT-FS	DT12/13	DT-S			DY / DY03/04	DUS	DU	DW
Product appearance										
Equipment to adopt	   	    	   	   			    	   	   	   
Pitch (mm)	0.5	0.5	0.5	0.5			0.5	0.4	0.4	0.635
Number of contacts	30–140 DT-FS: 30–140	DT: 30–240 DT-FS: 30–140	60	30, 40, 100			DY: 30–140 DY03/04: 50–140	40–200	80–200	40–60
Rated current (A)/PIN <sup>*1</sup>	Signal contact: 0.4 Power contact: 6.0	DT: 0.4 DT-FS: 0.5	0.4 <sup>*2</sup>	0.4			DY: 0.4 (when mating straight type) 0.3 (when mating right-angle type) DY03/04: 0.4	0.4	DU: 0.4 DU12: 0.35	0.5
Floating amount (mm) [X and Y directions]	DT-E: ±0.7 DT-E-FS: ±1.2	DT: ±0.5 DT-FS: ±1.0	±1.0 <sup>*2</sup>	±0.5			±0.5	±0.4	±0.4	±0.7
Operating temperature range (°C)	-40 to +105	-40 to +105	-40 to +125	-40 to +105			DY: -40 to +85 DY03/04: -40 to +105	-40 to +125	DU: -40 to +85 DU12: -40 to +105	-40 to +105
Remarks	With power contacts SATA standard equivalent (DT) 8 Gbps equivalent (DT-E) 8 Gbps equivalent (DT-FS) Effective mating length: 1.5 mm Multipole support (DT)	SATA standard equivalent (DT) 8 Gbps equivalent (DT-FS) Effective mating length: 1.5 mm	High heat resistant type Effective mating length: 1.5 mm	Type with shell (ESD/EMC measures) SATA standard equivalent Effective mating length: 1.5 mm			High heat resistant type (DY03/04) Effective mating length: 1.25 mm	High heat resistant type Effective mating length: 0.8 mm Low profile type (stack height: 3 mm) Multipole support	Effective mating length: 1.2 mm <sup>*3</sup> Multipole support	Effective mating length: 1.4 mm
Product details	P.42	P.42	P.42	P.42			P.44	P.44	P.44	P.44

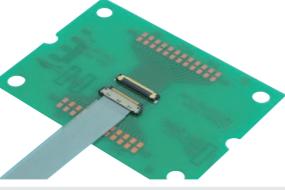
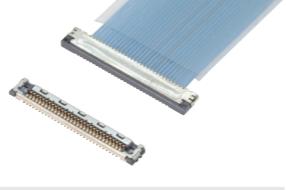
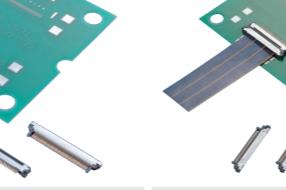
\*1 Depending on the number of contacts and mating method, the rated current may be more than the listed current capacity. Please contact our sales representative for details. Please note that the number of contacts for simultaneous energization is limited.

\*2 When mated with "DT0□-□□□FS-10-T" on the receptacle side.

\*3 For connectors with a stack

# Micro Coaxial Cable Connector

Equipment to adopt |  Industrial Equipment  Automotive Equipment  Medical Equipment  Image Equipment  Telecommunication Equipment For   Connection format   

Series name	XSLS	XSL	ASLS	USLS		USL	SSL	TSL	TSL-NM2
Product appearance									
Equipment to adopt	    	    	    	    		    	    	    	    
Product List	Equipment to adopt	Pitch (mm)	Number of contacts	Rated current (A/PIN)	Applicable wire size (AWG) (micro coaxial cable)	Cable joining method	Mating height (mm)	Operating temperature range (°C)	Remarks
Product List	    	0.25	0.25	0.4	0.4	0.4	0.5	0.55	0.55
	    	48	30, 40, 50	20, 30, 34, 40	20, 30, 40	20, 30, 40	10, 20, 30, 40	31	31
	    	30, 40, 52	30, 40, 50	20, 30, 34, 40	#42 *For 34 pins: #40/42/44/46	#42	0.3	AWG#30: 1.0 AWG#32: 0.9 AWG#36: 0.6	AWG#30: 1.0 AWG#32: 0.9 AWG#36: 0.6
	    	0.25	0.25	0.25	#42 *For 34 pins: #40/42/44/46	#42	0.3	AWG#30: 1.0 AWG#32: 0.9 AWG#36: 0.6	AWG#30: 1.0 AWG#32: 0.9 AWG#36: 0.6
	    	0.25	0.25	0.25	#42 *For 34 pins: #40/42/44/46	#42	0.3	#30/32/36	#30/32/36
	    	0.5	0.5	0.5	#40	#40	3.25	Soldering	Soldering
	    	0.55	0.55	0.55	#30/32/36	#30/32/36	2.17	Soldering	Soldering
	    	0.55	0.55	0.55	#30/32/36	#30/32/36	2.17	40~+85	40~+85
	Effective mating length: 0.31 mm Space saving by stacked mating	Effective mating length: 0.51 mm	Non-magnetic type Locking mechanism Guide structure Effective mating length: 0.27 mm	Effective mating length: 0.35 mm Space saving by stacked mating	Effective mating length: 0.5 mm	Effective mating length: 0.5 mm PCB side: straight, right angle	High-speed differential transmission (up to 32 Gbps) Locking mechanism PCB side: straight, right angle Effective mating length: 0.5 mm	High-speed differential transmission (up to 32 Gbps) Non-magnetic type Locking mechanism Effective mating length: 0.5 mm	High-speed differential transmission (up to 32 Gbps) Non-magnetic type Locking mechanism Effective mating length: 0.5 mm
Product details	P.48	P.48	P.46	P.46	P.46	P.46	P.46	P.48	P.48

# Crimp Cable Connector

Equipment to adopt |  Industrial Equipment  Automotive Equipment  Medical Equipment  Image Equipment  Telecommunication Equipment  Waterproof

Connection format |  Board to Board  Board to Cable  Cable to Cable

Series name	FJC	FA	FAS	FTC		FTCS	FK	FW	FWS	8929E
Product appearance										
Equipment to adopt	    	    	    	    		    	    	    	    	 
Pitch (mm)	0.75	2.5	1.5	5.08		2.5	2.1	5.0	2.0	1.27
Number of contacts <sup>*1</sup>	30	4-40	4-40	6, 10, 12, 20		6, 12, 16, 20	5, 7	2, 3, 4	2, 3, 4, 6, 8	30-68
Rated current (A/PIN) <sup>*2</sup>	1.0	3.0	1.5-3.0	7.0-12.0 <sup>*4</sup>		2.0-6.5 <sup>*5</sup>	2.5-5.5	7.0-10.0	3.0	1.0
Applicable wire size (AWG) (discrete cable)	#28/30 (cable coating outer diameter: $\phi 0.5$ -0.6mm)	#22/24/26/28 (cable coating outer diameter: $\phi 0.88$ -1.70mm)	#24/26/28 (cable coating outer diameter: $\phi 0.88$ -1.14mm)	#14/16/18/20 (cable coating outer diameter: $\phi 1.8$ -3.4mm)		#18/20/22/24/26/28 (cable coating outer diameter: $\phi 0.88$ -2.03mm)	#22/24/26/28 (cable coating outer diameter: $\phi 0.8$ -1.7mm)	#16/18/20/22 (0.3-1.25sq) (cable coating outer diameter: $\phi 1.5$ -3.1mm)	#22/24/26/28 (0.08-0.3sq) (cable coating outer diameter: $\phi 1.0$ -1.7mm)	#26/28/30 (cable coating outer diameter: $\phi 1.0$ mm or less)
Mating durability (times)	100	Max. 7000 <sup>*3</sup>	Max. 7000 <sup>*3</sup>	100, 500 <sup>*3</sup>		100, 500 <sup>*3</sup>	50	50	50	500
Operating temperature range (°C)	-40 to +85	-40 to +85	-40 to +85	-55 to +105		-55 to +105	-55 to +105	-55 to +105	-55 to +105	-40 to +85
Remarks	Locking mechanism Low profile type (mating height: 4.2 mm)	Drawer mechanism Cable relay type available The relay type supports hot swapping.	Drawer mechanism Cable relay type available The relay type supports hot swapping.	Two cables can be crimped. Current transfer between connectors is possible (no terminal block required). Cable relay type available		Two cables can be crimped. Current transfer between connectors is possible (no terminal block required). Cable relay type available	Branch and relay type Pinching two point contact Keying mechanism improves workability	Waterproof (IP67) Locking mechanism Reliable design with 3-point contact Branch-and-relay type available	Waterproof (IP67) Locking mechanism Reliable design with 4-point contact Branch-and-relay type available	Locking mechanism PCB side connector is connectable to a board-to-board connector.
Product details	P.52	P.50	P.50	P.50		P.50	P.52	P.52	P.52	—

\*1 The number of contacts and types will be added sequentially, so please contact us.

\*2 The applicable range of the rated current depends on the cable size and the number of energized contacts. Consult our sales representative in advance.

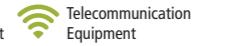
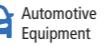
\*3 The mating durability varies depending on the combination of mating and contacts. Consult our sales representative in advance.

\*4 Rated current when all contacts are energized using 20 pins.

\*5 Rated current when all contacts are energized using 20 pins.

## Half Pitch Connector

Equipment to adopt



Connection format

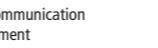
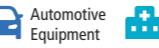
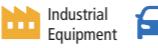
Board to Board  
Board to Cable  
Cable to Cable

Series name	8800	8832E-FS	8806/8807	8822E/8822	8825E			8900	8900MS	8903N-FS	8925E
Product appearance											
Equipment to adopt											
Pitch (mm)	1.27	1.27	1.27	1.27	1.27			1.27	1.27	1.27	1.27
Number of contacts	20-100	20-100	120-200	[8822E]20-100 [8822]20-68	20-100			20-120	20-120	40-100	20-100
Rated current (A)/PIN <sup>*1</sup>	0.8-1.0 (power contact: 2.0)	0.5	0.5	1.0	0.8-1.0			0.5	0.5	0.5	0.5
Applicable wire size (AWG) (flat cable)	—	—	—	#28	#30			—	—	—	#30
Cable joining method	—	—	—	IDC	IDC			—	—	—	IDC
Operating temperature range (°C)	-55 to +85	-55 to +85	-55 to +85	-55 to +85	-55 to +85			-55 to +85	-55 to +85	-55 to +85	-55 to +85
Remarks	Board to board Connector with power contacts available Horizontal, vertical, stacked	Board to board High stack support (stack height: 20-30 mm)	Board to board Multipole support Horizontal, vertical, stacked	Board to cable Locking mechanism Joins #28 AWG flat cables with two layers by IDC.	Board to cable Locking mechanism Daisy chain support			Board to board Horizontal, vertical, stacked Low profile type (stack height: 7-12 mm)	Board to board SMT support product Low profile type (stack height: 7-8 mm)	Board to board High stack support (stack height: 20-32 mm)	Board to cable Locking mechanism Daisy chain support Low profile type (mating height: 11.8 mm)
Product details	P.54	P.54	P.54	P.54	P.54			P.56	P.56	P.56	P.56

\*1 Depending on the number of contacts, mating method, pin assignment, etc., the rated current may be more than the listed current capacity. Please consult with our sales representative.

## Battery Connector

Equipment to adopt



Series name

GC

GD

GF

Product appearance



Equipment to adopt



Pitch (mm)

5.0

3.0

2.0

Number of contacts

3, 4, 5, 6, 8, 10

4, 5, 6, 8, 10

GF0□ / GF1□: 8  
GF2□ / GF31: 8, 10

Rated current (A)/PIN<sup>\*1</sup>

GC: DC5.0 (2 contacts, max.)

GD: DC5.0 (2 contacts at both ends only)

When GF0□ and GF1□ are mated:  
7 (2 contacts), 0.5 (other contacts)  
When GF2□ and GF31□ are mated:  
5 (2 contacts), 0.5 (other contacts)

Product type

One-piece

One-piece

Two-piece

Operating temperature range (°C)

-55 to +85

-55 to +85

-55 to +85

Remarks

DIP type  
Standard type  
Reverse type  
Mating cycle: 10,000 times<sup>\*2</sup>

DIP type  
Standard type  
Reverse type  
Mating cycle: 5,000 times<sup>\*3</sup>

DIP type, SMT type  
Low profile type available  
Mating cycle: 5,000 times  
Supports horizontal and vertical mating

Product details

P.57

P.57

P.57

\*1 The rated current varies depending on the number of energized contacts and contact parts. Consult our sales representative in advance.

\*2 Replace the mating electrode after 1,000 times. The mating electrode must be nickel-plated.

\*3 Replace the mating electrode after 1,000 times. The mating electrode must be gold-plated.

## memo

Product List

## Floating Connector

# Floating power to absorb misalignment and create trust

Floating connector provides secure connections and expand connectivity possibilities into the future.

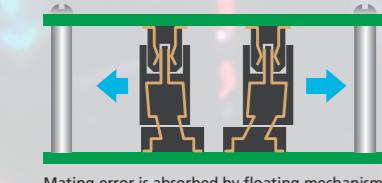
### Connector absorbs misalignment during mounting and mating

The main body can move in X and Y directions to absorb mounting and mating misalignment.



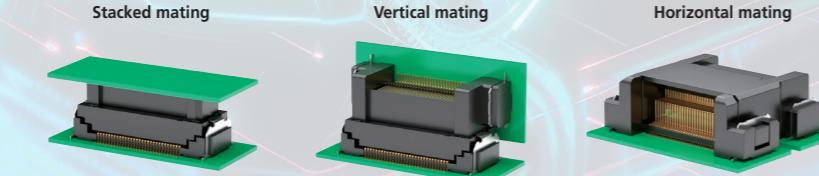
### More freedom in design by mounting multiple connectors

The floating structure reduces the load during assembly. The degree of freedom in design and assembly is increased.



### Mating method suitable for board configuration is selectable

#### DT SERIES mating method



### Extensive lineup of products that can be selected according to usage



## DT / DT-FS SERIES

0.5 mm Pitch Floating Connector / High Stack Type



For more information on DT:



For more information on DT-FS:



Pitch	Connection	Number of contacts	Upper temperature limit
0.5 mm	BtoB	30-240	105 °C
Mounting method	Floating amount	Stack height	
SMT	±0.5 mm	±1.0 mm	8-30 mm
Effective mating length	Transmission		
1.5 mm	SATA equivalent	8G bps	

Mating method	Stacked
Stacked	
Vertical	
Horizontal	

## DT-E / DT-E-FS SERIES

0.5 mm Pitch Floating Connector with Power Contacts / High Stack Type



For more information on DT-E:



For more information on DT-E-FS:



Pitch	Connection	Number of contacts	Upper temperature limit
0.5 mm	BtoB	30-140	105 °C
Mounting method	Floating amount	Stack height	
SMT	±0.7 mm	±1.2 mm	8-30 mm
Effective mating length	Transmission	Other features	
1.5 mm	SATA equivalent	8G bps	Power contacts

## DT12/13 SERIES

0.5 mm Pitch Floating Connector, High Heat Resistant Type



For more information



Pitch	Connection	Number of contacts	Upper temperature limit
0.5 mm	BtoB	60	125 °C
Mounting method	Floating amount	Stack height	
SMT	±1.0 mm	18 mm	
Effective mating length	Transmission	Other features	
1.5 mm	SATA equivalent	8G bps	ESD EMC

## DT-S SERIES

0.5 mm Pitch Floating Connector with Shell



For more information



Pitch	Connection	Number of contacts	Upper temperature limit
0.5 mm	BtoB	30/40/100	105 °C
Mounting method	Floating amount	Stack height	
SMT	±0.5 mm	10 mm	
Effective mating length	Transmission	Other features	
1.5 mm	SATA equivalent	8G bps	ESD EMC

**Floating Connector**

# Reliable connection by floating technology

Floating is reliable connection technology that works in various equipment.

**Adopted in many devices including the automotive equipment**

Supports a wide range of stack heights from 5 mm to 14 mm

Supports overseas production and OUT-OUT supply

**DY SERIES**  
0.5 mm pitch  
Floating amount:  $\pm 0.5$  mm in X and Y directions

**DW SERIES**  
0.635 mm pitch  
Floating amount:  $\pm 0.7$  mm in X and Y directions

**Supporting the needs for 3 mm stack height, 200 pins, and low profile x multipole**

The DUS series supports a low stack height of 3 mm and a wide range of contacts from a minimum of 40 pins to a maximum of 200 pins.

MAX200pin  
125°C  
16G bps  
±0.4mm  
Stack height 3mm  
Floating amount:  $\pm 0.4$  mm

**B.C.E. S.r.l. - Via Regina Pacis, 54/c - Sassuolo (MO) - I 41049 - Italy**  
Tel.: 0536 811616 - Fax: 0536 811500 - Web: [www.bce.it](http://www.bce.it) - E-mail: [bce@bce.it](mailto:bce@bce.it)

Product Details  
Floating Connector

**DY / DY03/04 SERIES**  
0.5 mm Pitch Floating Connector, High Heat Resistant Type

**DW SERIES**  
0.635 mm Pitch Floating Connector

**DU SERIES**  
0.4 mm Pitch Floating Connector

**DUS SERIES**  
0.4 mm Pitch Floating Connector, High Heat Resistant, High Speed Transmission, and Low Profile Type

For more information on DY:   
For more information on DY03/04:   
For more information on DUS: 

**DY / DY03/04 SERIES** Product Details

**DW SERIES** Product Details

**DU SERIES** Product Details

**DUS SERIES** Product Details

# Maximum performance in limited space

## Micro Coaxial Cable Connector combining miniaturization and high performance.

### Ideal for equipment requiring resistance to bending and twisting

Suitable for wiring inside devices with moving parts such as surveillance cameras.



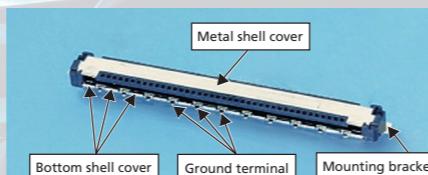
### Harness assembly and custom-made processing are also supported.

We provide harness products by collectively managing parts procurement, assembly, and quality.



### Noise-resistant design

Metal shell cover and multipoint ground provide excellent noise resistance.

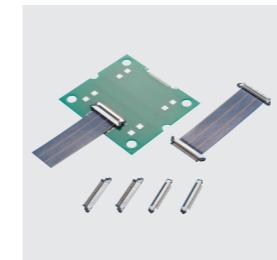


## SSL SERIES

0.5 mm Pitch Micro Coaxial Cable Connector



For more information



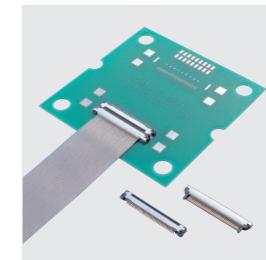
Pitch	0.5 mm	Connection	BtoC	Number of contacts	10/20/30/40	Upper temperature limit	85 °C
Mounting method	SMT	Mating height	1.4 mm	Applicable cable	AWG #40		
Cable connection	IDC	Effective mating length	0.5 mm				
				PCB side: right angle	Cable: horizontal		
				PCB side: straight	Cable: vertical		

## USL SERIES

0.4 mm Pitch Micro Coaxial Cable Connector



For more information



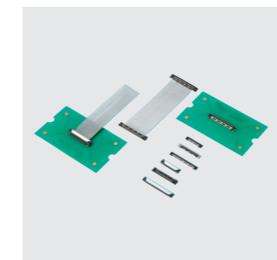
Pitch	0.4 mm	Connection	BtoC	Number of contacts	20/30/40	Upper temperature limit	85 °C
Mounting method	SMT	Mating height	1.0 mm	Applicable cable	AWG #42		
Cable connection	IDC	Effective mating length	0.5 mm				
				PCB side: right angle	Cable: horizontal		
				PCB side: straight	Cable: vertical		

## USLS SERIES

0.4 mm Pitch Micro Coaxial Cable Connector, Stacked Mating Type



For more information



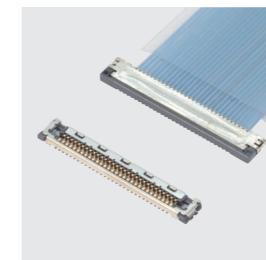
Pitch	0.4 mm	Connection	BtoC	Number of contacts	20/30/34/40	Upper temperature limit	85 °C
Mounting method	SMT	Mating height	1.65 mm	Applicable cable	AWG #40/42/44/46		
Cable connection	IDC	Effective mating length	0.35 mm				
				PCB side: straight	Cable: horizontal		
				PCB side: straight	Cable: horizontal		

## ASLS SERIES

0.4 mm Pitch Micro Coaxial Cable Connector, Stacked Mating Type



For more information



Pitch	0.4 mm	Connection	BtoC	Number of contacts	30/40/50	Upper temperature limit	105 °C
Mounting method	SMT	Mating height	1.65 mm	Applicable cable	AWG #42		
Cable connection	IDC	Effective mating length	0.27 mm				
				PCB side: straight	Cable: horizontal		
				PCB side: straight	Cable: horizontal		
				PCB side: straight	Cable: horizontal		

Product Details Micro Coaxial Cable Connector

**Micro Coaxial Cable Connector**

**Maximum performance in limited space**

**Micro Coaxial Cable Connector combining miniaturization and high performance.**

**Ideal for equipment requiring resistance to bending and twisting**

Suitable for wiring inside devices with moving parts such as surveillance cameras.

**Harness assembly and custom-made processing are also supported.**

We provide harness products by collectively managing parts procurement, assembly, and quality.

**SSL SERIES**

**USL SERIES**

**USLS SERIES**

**ASLS SERIES**

B.C.E. S.r.l. - Via Regina Pacis, 54/c - Sassuolo (MO) - I 41049 - Italy  
Tel.: 0536 811616 - Fax: 0536 811500 - Web: www.bce.it - E-mail: bce@bce.it

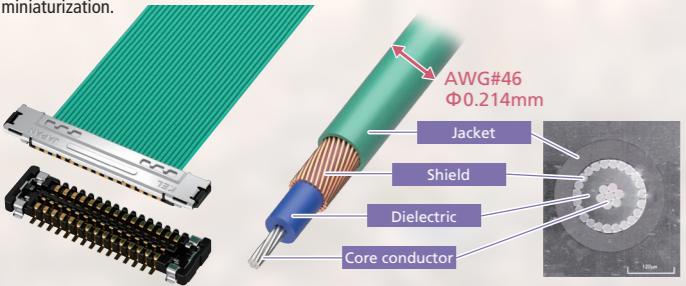
# Ultra-compact, high-speed transmission

Micro coaxial cable connector  
supporting next-generation technologies.



## 0.25 mm pitch contributes to further miniaturization.

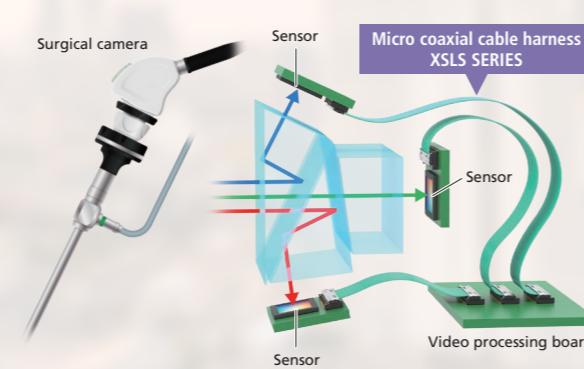
The 0.25 mm pitch XSL and XSLs series contribute to devices that require further miniaturization.



XSLS SERIES

Internal structure of micro coaxial cable

## Adoption example

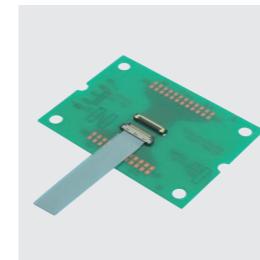


## XSL SERIES

0.25 mm Pitch Micro Coaxial Cable Connector



For more information



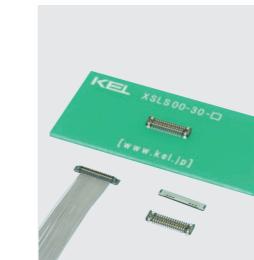
Pitch	0.25 mm	Connection	BtoC	Number of contacts	48	Upper temperature limit	85 °C	Mating method
Mounting method	SMT	Mating height	1.0 mm	Applicable cable	AWG #44/46			PCB side: right angle Cable: horizontal
Cable connection	Soldering	Effective mating length	0.51 mm					

## XSLS SERIES

0.25 mm Pitch Micro Coaxial Cable Connector, Stacked Mating Type



For more information



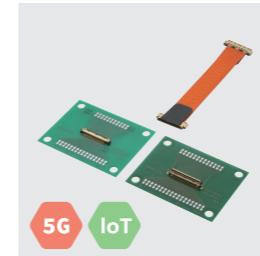
Pitch	0.25 mm	Connection	BtoC	Number of contacts	30/40/52	Upper temperature limit	85 °C	Mating method
Mounting method	SMT	Mating height	1.44 mm	Applicable cable	AWG #44/46			PCB side: straight Cable: horizontal
Cable connection	Soldering	Effective mating length	0.31 mm					

## TSL SERIES

0.55 mm Pitch High-Performance Coaxial Harness



For more information



Pitch	0.55 mm	Connection	BtoC	Number of contacts	31	Upper temperature limit	85 °C	Mating method
Mounting method	SMT	Mating height	3.25 mm	Applicable cable	AWG #30/32/36			PCB side: right angle Cable: horizontal
Cable connection	Soldering	Effective mating length	0.5 mm					
								Other features Locking mechanism
								PCB side: straight Cable: vertical

## TSL-NM2 SERIES

0.55 mm pitch High-Performance Coaxial Harness / Non-Magnetic Type



For more information



Pitch	0.55 mm	Connection	BtoC	Number of contacts	31	Upper temperature limit	85 °C	Mating method
Mounting method	SMT	Mating height	2.17 mm	Applicable cable	AWG #30/32/36			PCB side: right angle Cable: horizontal
Cable connection	Soldering	Effective mating length	0.5 mm					
								Other features Locking mechanism
								Other features Non-magnetic

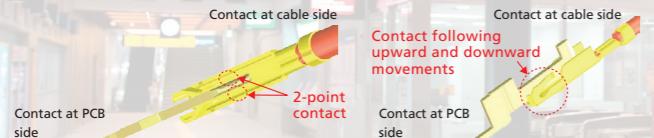
# Enabling efficient assembly and high reliability

Crimp cable connector with easy and reliable connection.

## Pinching 2-point contact excellent in contact reliability

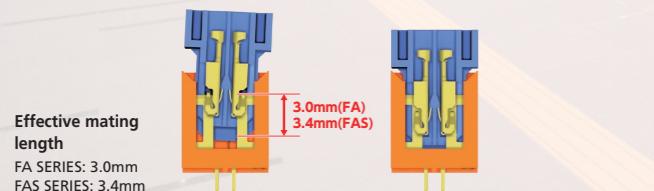
The pinching 2-point contact improves contact reliability and prevents instantaneous disconnection by enabling the contacts to follow movement.

FA / FAS / FTC / FTCS / FK SERIES



## Effective mating length for improving contact reliability

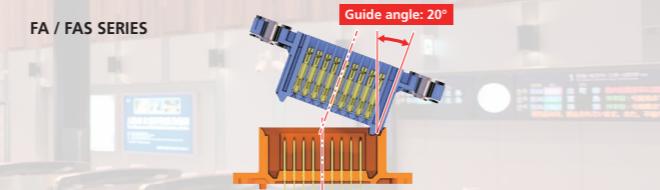
Although the structure is easy to insert and remove, the long effective mating length provides high contact reliability.



## Supports guide angles up to 20° for smooth mating

Since contacts are contacted after the connector aligns straight, deformation and buckling of the contacts are prevented.

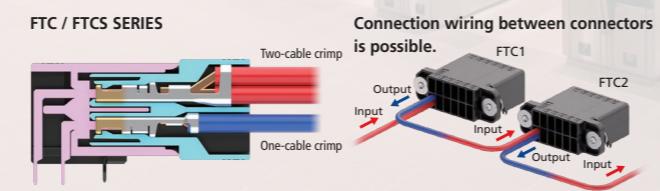
FA / FAS SERIES



## One-cable crimping or two-cable crimping can be selected.

Either one-cable crimping or two-cable crimping can be used to insert the contact into the desired location.

FTC / FTCS SERIES



## FA SERIES

2.5 mm Pitch Crimp Cable Connector, Drawer Type



For more information



Pitch	Connection	Number of contacts
2.5 mm	BtoC	4-40
	CtoC	
	Upper temperature limit	
	85 °C	
	Applicable cable	AWG #22/24/26/28
	Cable connection	
	Crimping	3.0 mm
		Drawer
		Hot swap
	Mating method	PCB side: straight Cable: vertical
		Cable relay

## FAS SERIES

1.5 mm Pitch Crimp Cable Connector, Drawer Type



For more information



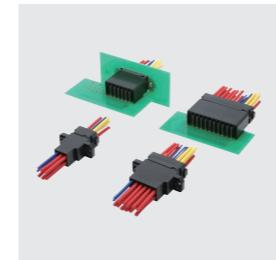
Pitch	Connection	Number of contacts
1.5 mm	BtoC	4-40
	CtoC	
	Upper temperature limit	
	85 °C	
	Applicable cable	AWG #24/26/28
	Cable connection	
	Crimping	3.4 mm
		Drawer
		Hot swap
	Mating method	PCB side: right angle Cable: horizontal
		Cable relay

## FTC SERIES

5.08 mm Pitch Crimp Cable Connector, Two Cable Crimpable Type



For more information



Pitch	Connection	Number of contacts
5.08 mm	BtoC	6/10/12/20
	CtoC	
	Upper temperature limit	
	105 °C	
	Applicable cable	AWG #14/16/18/20
	Cable connection	
	Crimping	3.0 mm
		Drawer
		Two-cable crimp
	Mating method	PCB side: right angle Cable: horizontal
		Cable relay

## FTCS SERIES

2.5 mm Pitch Crimp Cable Connector, Two Cable Crimpable Type



For more information



Pitch	Connection	Number of contacts
2.5 mm	BtoC	6/12/16/20
	CtoC	
	Upper temperature limit	
	105 °C	
	Applicable cable	AWG #18/20/22/24/26/28
	Cable connection	
	Crimping	1.1 mm
		Locking mechanism
		Two-cable crimp
	Mating method	PCB side: right angle Cable: horizontal
		Cable relay

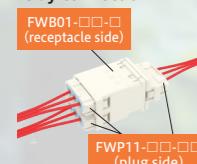
# Waterproof connector for diverse connection needs

Branch-and-relay connector reduces the number of parts and facilitates wiring.

## Flexible design with branch-and-relay type

Branch and relay connections reduce the number of parts and reduce wiring.

FW SERIES branch and relay connection



FWS SERIES branch and relay connection



FK SERIES branch and relay connection



## Robust locking structure with click feel

When locked, it has a click feel, which facilitates secure mating.

FW SERIES



Lock: insert



Unlock: removal



FWS SERIES



Lock: insert

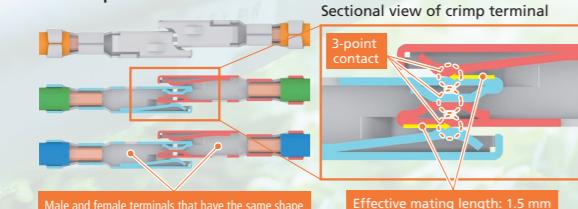


Unlock: removal

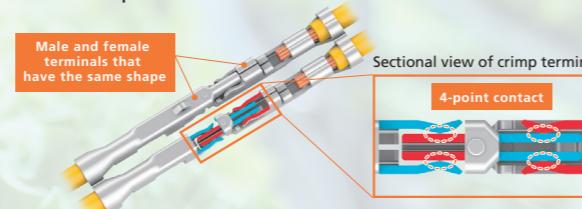


## Multipoint contact for stable connection

FW SERIES 3-point contact



FWS SERIES 4-point contact

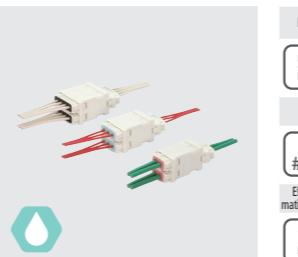


## FW SERIES

5.0 mm Pitch Crimp Cable Connector, IP67 Support Waterproof Type



For more information



Pitch

Connection

Number of contacts

Upper temperature limit

Mating method

Cable relay

Cable branch and relay

5.0 mm

CtoC

2/3/4

105 °C

Applicable cable

Cable connection

Other features

Crimping

Effective mating length

1.5 mm

Waterproof

IP67

Other features

Locking mechanism

Branch and relay

## FK SERIES

2.1 mm Pitch Crimp Cable Connector, Branching and Relay Type



For more information



Pitch

Connection

Number of contacts

Upper temperature limit

Mating method

Cable branch and relay

2.1 mm

CtoC

5/7

105 °C

Applicable cable

Cable connection

Other features

Crimping

Effective mating length

0.7 mm

Locking mechanism

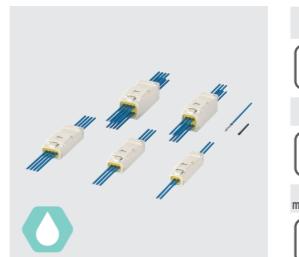
Branch and relay

## FWS SERIES

2.0 mm Pitch Crimp Cable Connector, IP67 Support Waterproof Type



For more information



Pitch

Connection

Number of contacts

Upper temperature limit

Mating method

Cable relay

Cable branch and relay

2.0 mm

CtoC

2/3/4/6/8

105 °C

Applicable cable

Cable connection

Other features

Crimping

Effective mating length

0.8 mm

Waterproof

IP67

Other features

Locking mechanism

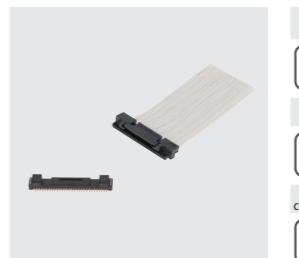
Branch and relay

## FJC SERIES

0.75 mm Pitch Crimp Cable Connector



For more information



Pitch

Connection

Number of contacts

Upper temperature limit

Mating method

PCB side: right angle

Cable: horizontal

0.75 mm

BtoC

30

85 °C

Applicable cable

Mounting method

4.2 mm

SMT

Cable connection

Other features

0.576 mm

Crimping

Effective mating length

0.576 mm

Locking mechanism

## Product Details



# KEL's half pitch connector: reliable connection for supporting industrial equipment

## Rugged, reliable 88 series

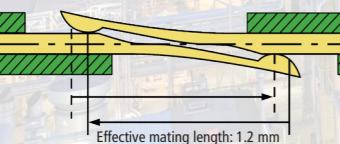
### Vertical 2-point contact straight beam system

Independent 2-point contact maintains constant contact pressure to improve contact reliability.



### Self-cleaning structure preventing conduction failure

Contact points move each other, which removes film and dirt to prevent conduction failure.

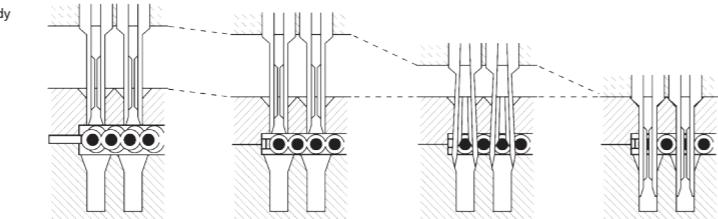


### Highly reliable and unique IDC method

IDC connection mechanism

#### 8825E SERIES

Insulator body



Stage1  
Hold the cable from both sides with the holding force of cover 1 and the contact.

Stage2  
As pressure is applied, the cable is adjusted to the pitch of cover 1 and cover 2 and aligned.

Stage3  
With further pressure applied, cover 1 loses its holding force with the tip of the contact, and the contact is guided to the cable conductor while being moved and press-fitted.

Stage4  
When the connecting operation is completed, cover 1 and the contact are completely press-fitted to the predetermined position. In addition, the contact tip spread by cover 2 is displaced to form a gas tight termination.

## 8800 SERIES

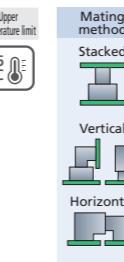
1.27 mm Pitch Connector



For more information  
[QR code](#)



Pitch	Connection	Number of contacts	Upper temperature limit
1.27 mm	BtoB	20-100	85 °C
Mounting method	Stack height	Other features	
DIP	14.1 mm	Power contacts	



## 8832E-FS SERIES

1.27 mm Pitch Connector, High Stack Type



For more information  
[QR code](#)



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
1.27 mm	BtoB	20-100	85 °C	Stacked
Mounting method	Stack height	Other features		Vertical
DIP	20-30 mm			Horizontal



## 8806/8807 SERIES

1.27 mm Pitch Connector, Multipole Type



For more information  
[QR code](#)



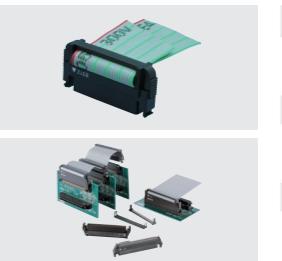
Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
1.27 mm	BtoB	120-200	85 °C	Stacked
Mounting method	Stack height	Other features		Vertical
DIP	17.1 mm			Horizontal

## 8822E/8822 SERIES 8825E SERIES

1.27 mm Pitch Connector, Flat Cable Support



For more information on  
[QR code](#)  
8822E/8822



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
1.27 mm	BtoC	20-100	85 °C	PCB side: straight Cable: horizontal
Mounting method	Applicable cable	Other features		Cable connection
DIP	AWG #28/30			PCB side: right angle Cable: vertical
				Other features
				Locking mechanism



For more information on  
[QR code](#)  
8825E



# Provide high reliability with rich variations

89 series connectors offer reliability and design versatility with flexible variations.

Various connection variations that can be selected depending on the application

Board to board



8900 SERIES

DIP type

Board to cable



8900MS SERIES

SMT type

8903N-FS SERIES

High stack type

8925E SERIES

Cable IDC connection type

8929E SERIES

Cable crimping connection type

Eject lock mechanism that can be inserted and removed with one hand

Can be operated with one hand, and the operability of insertion and removal is greatly improved.

8925E/8929E SERIES



Contact-following single-point contact system

Both plug and receptacle contacts are provided with followability to ensure high contact reliability while maintaining single-point contact. Achieved about half the size of the 88 series.

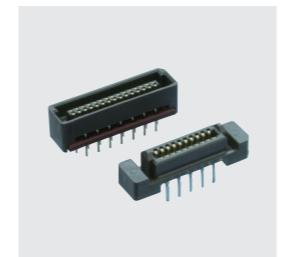


## 8900 SERIES

1.27 mm Pitch Connector, Low Profile Type



For more information



Pitch	Connection	Number of contacts	Upper temperature limit
1.27 mm	BtoB	20-120	85 °C
Mounting method	Stack height		

Mating method
Stacked
Vertical

Horizontal

## 8900MS SERIES

1.27 mm Pitch Connector, Low Profile Type, SMT Support Product



For more information



Pitch	Connection	Number of contacts	Upper temperature limit
1.27 mm	BtoB	20-120	85 °C
Mounting method	Stack height		

Mating method
Stacked
Vertical

Horizontal

Supported when mated with 8900 series

## 8903N-FS SERIES

1.27 mm Pitch Connector, High Stack Type



For more information



Pitch	Connection	Number of contacts	Upper temperature limit
1.27 mm	BtoB	40-100	85 °C
Mounting method	Stack height		

Mating method
Stacked

## 8925E SERIES

1.27 mm Pitch Connector, Low Profile Type, Flat Cable Support



For more information



Pitch	Connection	Number of contacts	Upper temperature limit
1.27 mm	BtoC	20-100	85 °C
Mounting method	Applicable cable		

Mating method
PCB side: straight
Cable: horizontal

Other features

Locking mechanism

# Quality delivered by KEL with peace of mind for battery connection

## GC / GD SERIES

- Contact structure with self-cleaning mechanism
- Guaranteed mating cycle: 10,000 times for GC, 5,000 times for GD

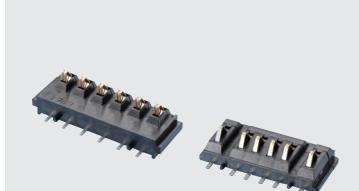
**\*There are certain conditions for the specifications of the mating electrode.**

## GF SERIES

- Guarantees mating cycle of 5,000 times
- Supports hot swapping

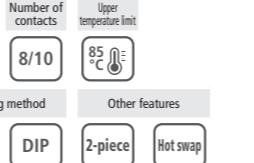
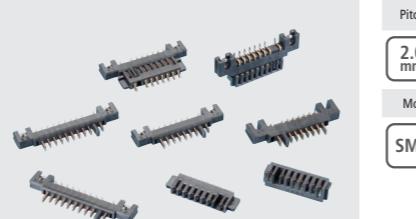
## GC / GD SERIES

## 5.0 mm Pitch/3.0 mm Pitch One-Piece Battery Connector



## GF SERIES

## 2.0 mm Pitch Two-Piece Battery Connector



## Product Launch Timeline

Floating Connector | Micro Coaxial Cable Connector | Crimp Cable Connector | Half Pitch Connector | Battery Connector

1962

8800 Series 1984		USLS Series 2005		XSL Series 2009		DT12/13 Series 2023		DUS Series 2023	
8900 Series 1990		DY Series 2005		FA Series 2010		DT-E / DT-E-FS Series 2023		ASLS Series 2023	
8900MS Series 1991		USL Series 2004		DW Series 2011		FWS Series 2021		FTCS Series 2023	
8822E/8822 Series 1992		8903N-FS Series 2003		XSL Series 2011		TSL Series 2020		FJC Series 2024	
8832E-FS Series 1993		SSL Series 2002		8929E Series 2014		DT-FS Series 2020		TSL-NM2 Series 2025	
GC Series 1994		GF Series 2001		DT Series 2015		DT-S Series 2019		FK Series 2025	
8925E Series 1995		8825E Series 1998		FAS Series 2015		FW Series 2018			
GD Series 1997		8806/8807 Series 1998		DU Series 2017		FTC Series 2017			

2026

<b>Product under development</b>				
FG Series				
KTH Series				
TSL-AOC Series				
FWSA Series				
JG Series				
JF Series				
HSP Series				

## Positioning Map (temperature and pitch)

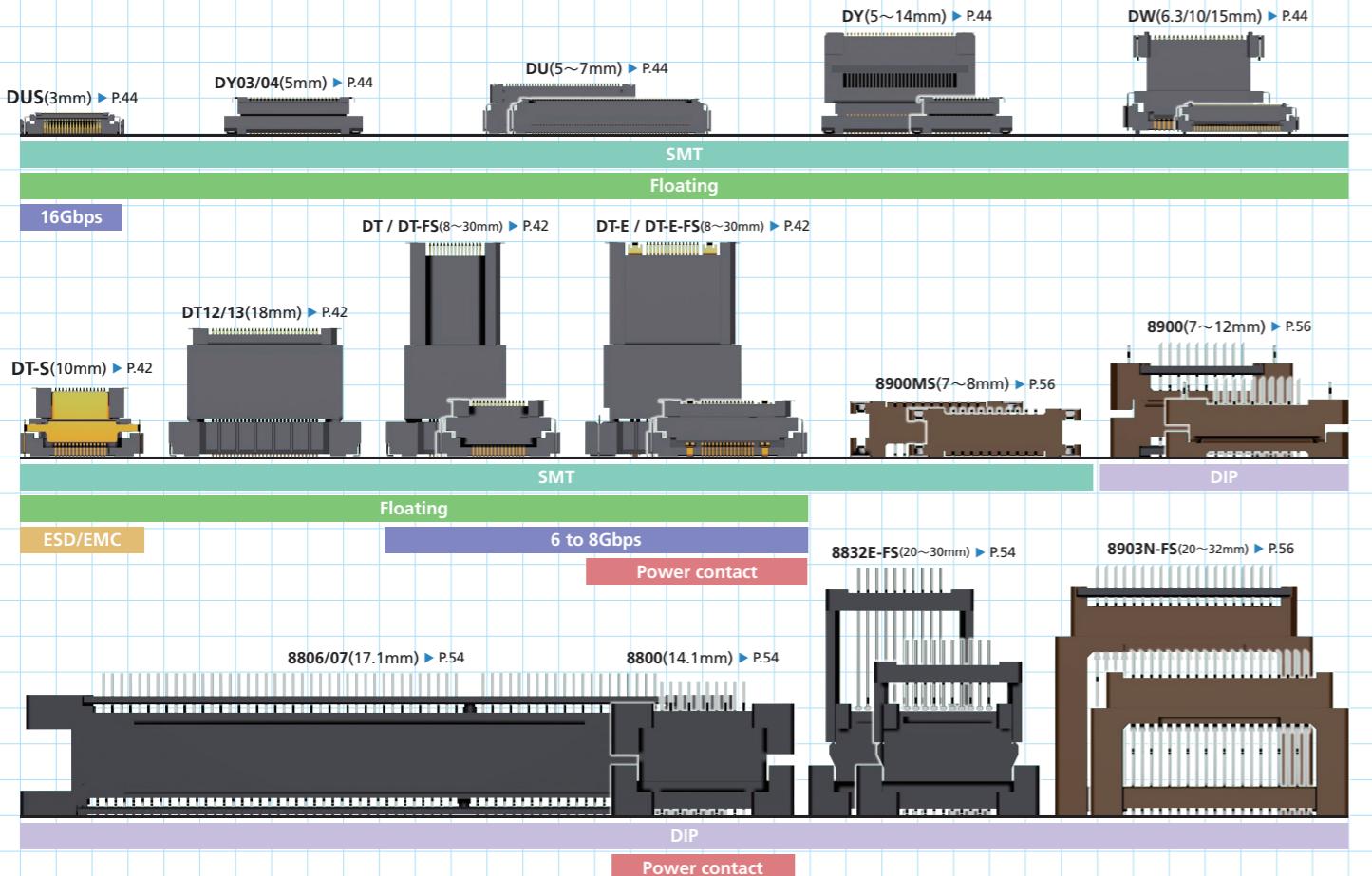
Product under development | Floating Connector | Micro Coaxial Cable Connector

Temperature	0.25mm	0.4mm	0.5mm	0.55mm	0.635mm
140°C					
125°C					
105°C					
85°C					
Pitch	0.25mm	0.4mm	0.5mm	0.55mm	0.635mm

Information

Information

## ■ Stack Connection Lineup \*In( )=Stack height

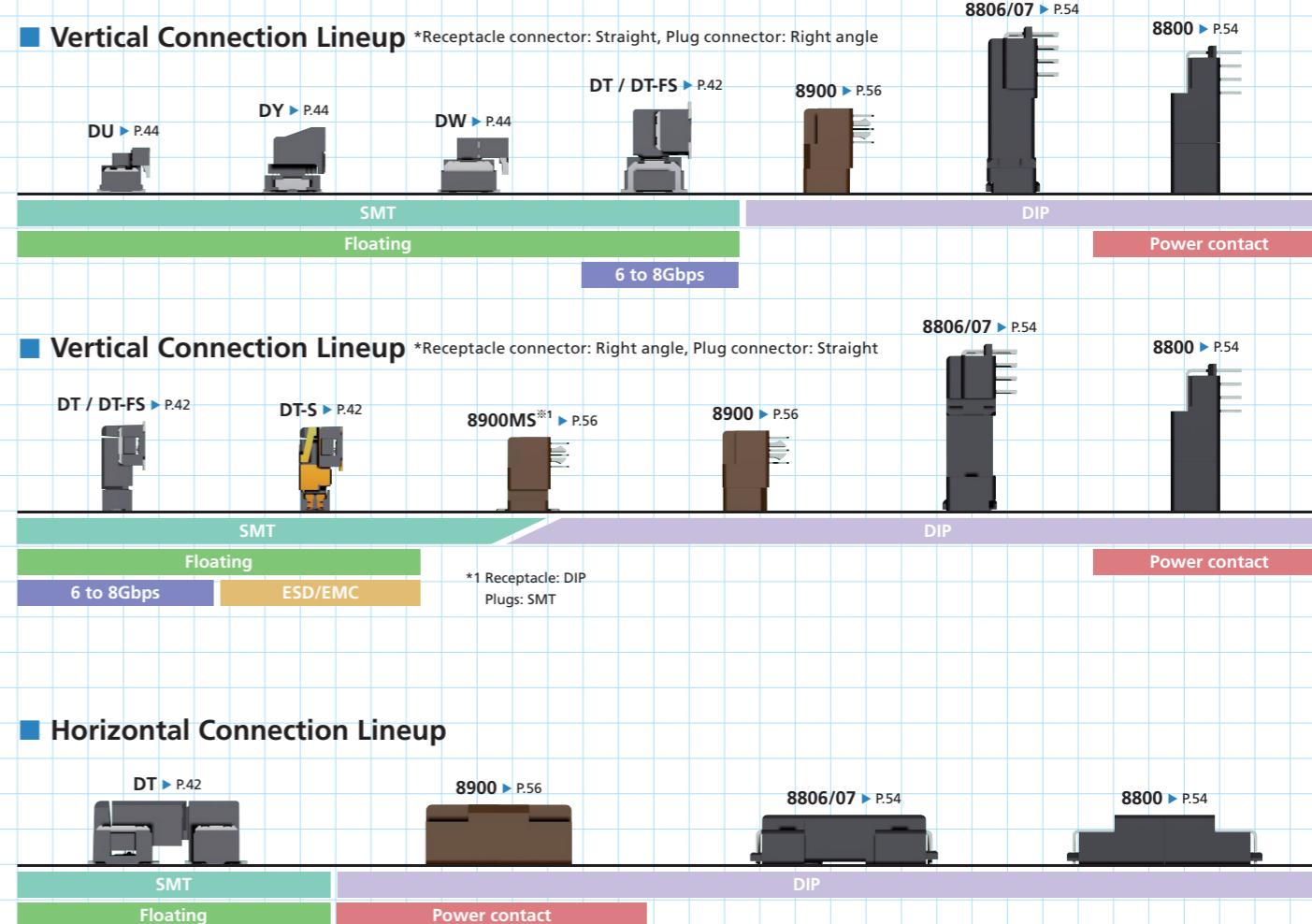


\*Full-scale illustration (The actual dimensions may differ slightly.) Grid: 5 mm

Information

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## ■ Vertical Connection Lineup \*Receptacle connector: Straight, Plug connector: Right angle



Information

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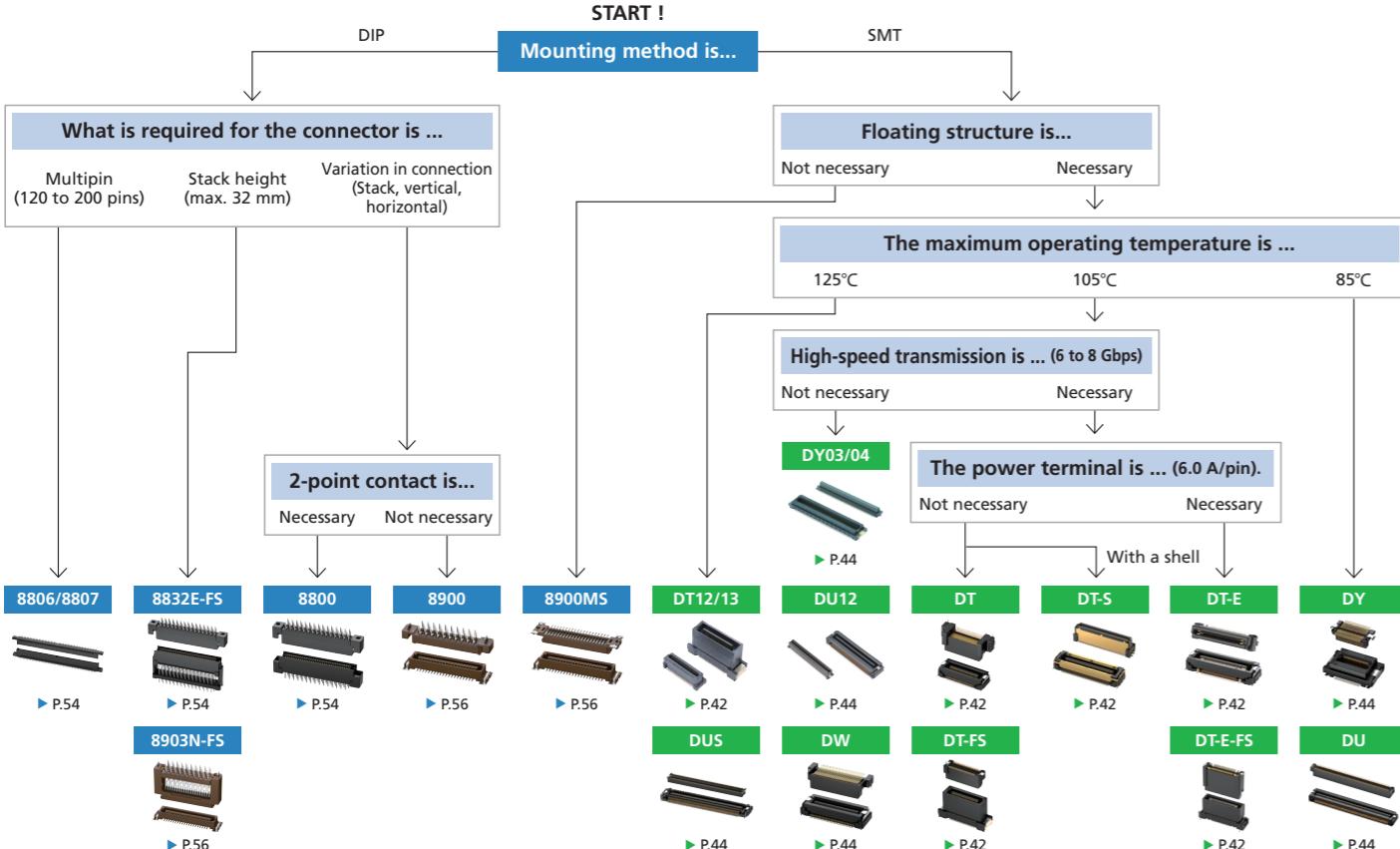
## ■ Horizontal Connection Lineup



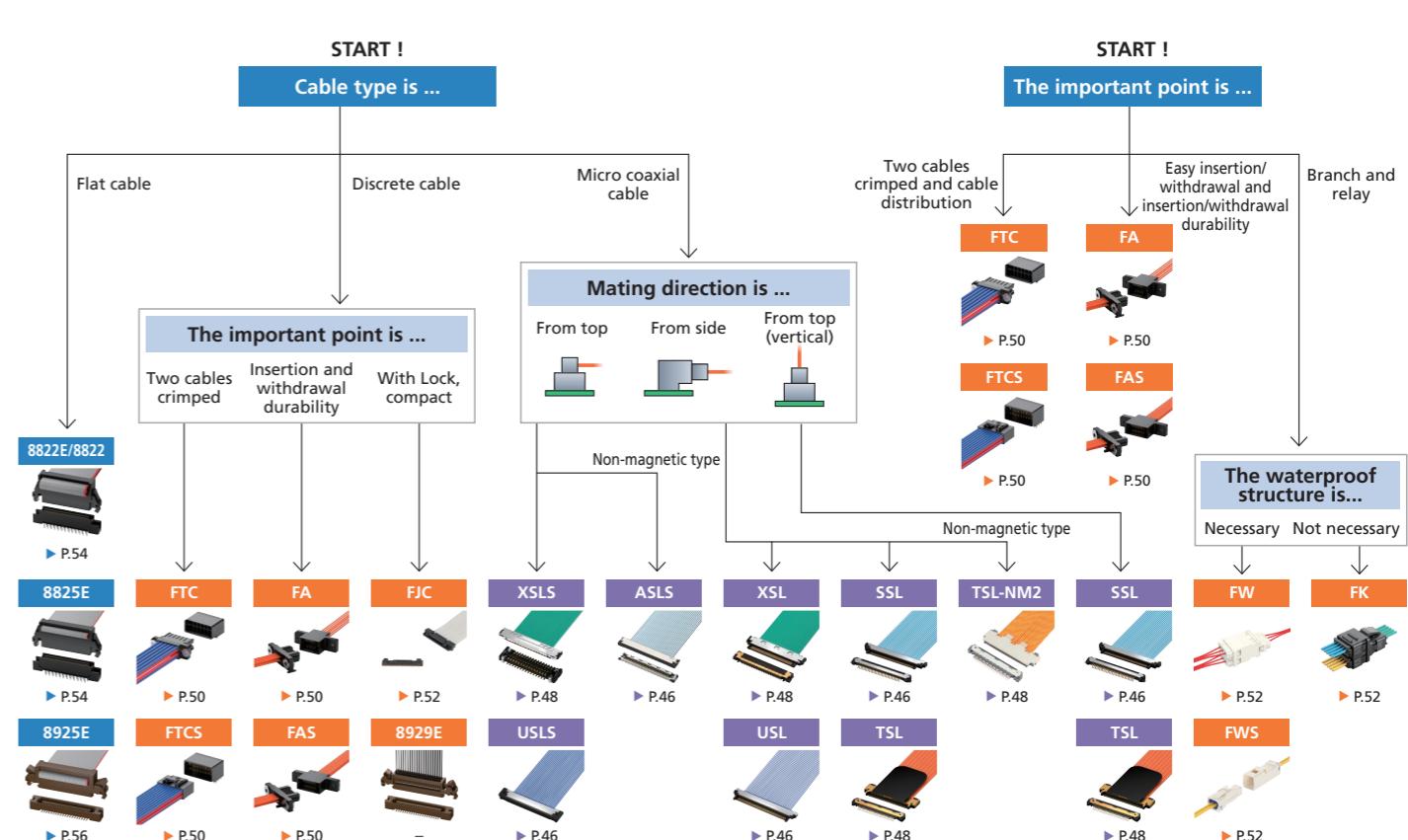
\*Full-scale illustration (The actual dimensions may differ slightly.) Grid: 5 mm

# Connector Selection Chart

## Board to board connector



## Board to cable connector



## Variation Chart

### Board to Board

Connection format	Board to Board					
Pitch (mm)	Series name	Stack height (mm)	Rated current (A)/PIN <sup>*1</sup>	Number of contacts	Floating amount (mm) [X and Y directions]	Product details
0.4	DU	5, 7	DU: 0.4 DU12: 0.35	80~200	±0.4	P.44
0.4	DUS	3	0.4	40~200	±0.4	P.44
0.5	DT / DT-FS	8~30	DT: 0.4 DT-FS: 0.5	DT: 30~240 DT-FS: 30~140	DT: ±0.5 DT-FS: ±1.0	P.42
0.5	DT-E / DT-E-FS	8~30	Signal contact: 0.4 Power contact: 6.0	30~140	DT-E: ±0.7 DT-E-FS: ±1.2	P.42
0.5	DT12/13	18	0.4	60	±1.0	P.42
0.5	DT-S	10	0.4	30, 40, 100	±0.5	P.42
0.5	DY / DY03/04	5~14	DY: 0.4 (when mating straight type) 0.3 (when mating right-angle type) DY03/04: 0.4	DY: 30~140 DY03/04: 50~140	±0.5	P.44
0.635	DW	6.3, 10, 15	0.5	40~60	±0.7	P.44
1.27	8800	14.1	0.8~1.0 (power contact: 2.0)	20~100	—	P.54
1.27	8832E-FS	20~30	0.5	20~100	—	P.54
1.27	8806/8807	17.1	0.5	120~200	—	P.54
1.27	8900	7~12	0.5	20~120	—	P.56
1.27	8900MS	7, 8	0.5	20~120	—	P.56
1.27	8903N-FS	20~32	0.5	40~100	—	P.56

\*1 Depending on the number of contacts and mating method, the rated current may be more than the listed current capacity. Please contact our sales representative for details. Please note that the number of contacts for simultaneous energization is limited.

### Battery Connector

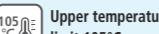
Connection format	Battery Connector				
Pitch (mm)	Series name	Rated current (A)/PIN	Number of contacts	Product details	
2.0	GF	When GF0□ and GF1□ are mated: 7 (2 contacts), 0.5 (other contacts) When GF2□ and GF31□ are mated: 5 (2 contacts), 0.5 (other contacts)	GF0□/GF1□: 8 GF2□/GF31: 8, 10	P.57	
3.0	GD	DC 5.0 (2 contacts at both ends only)	4, 5, 6, 8, 10	P.57	
5.0	GC	DC 5.0 (2 contacts, max.)	3, 4, 5, 6, 8, 10	P.57	

### Connection format | Board to Cable / Cable to Cable

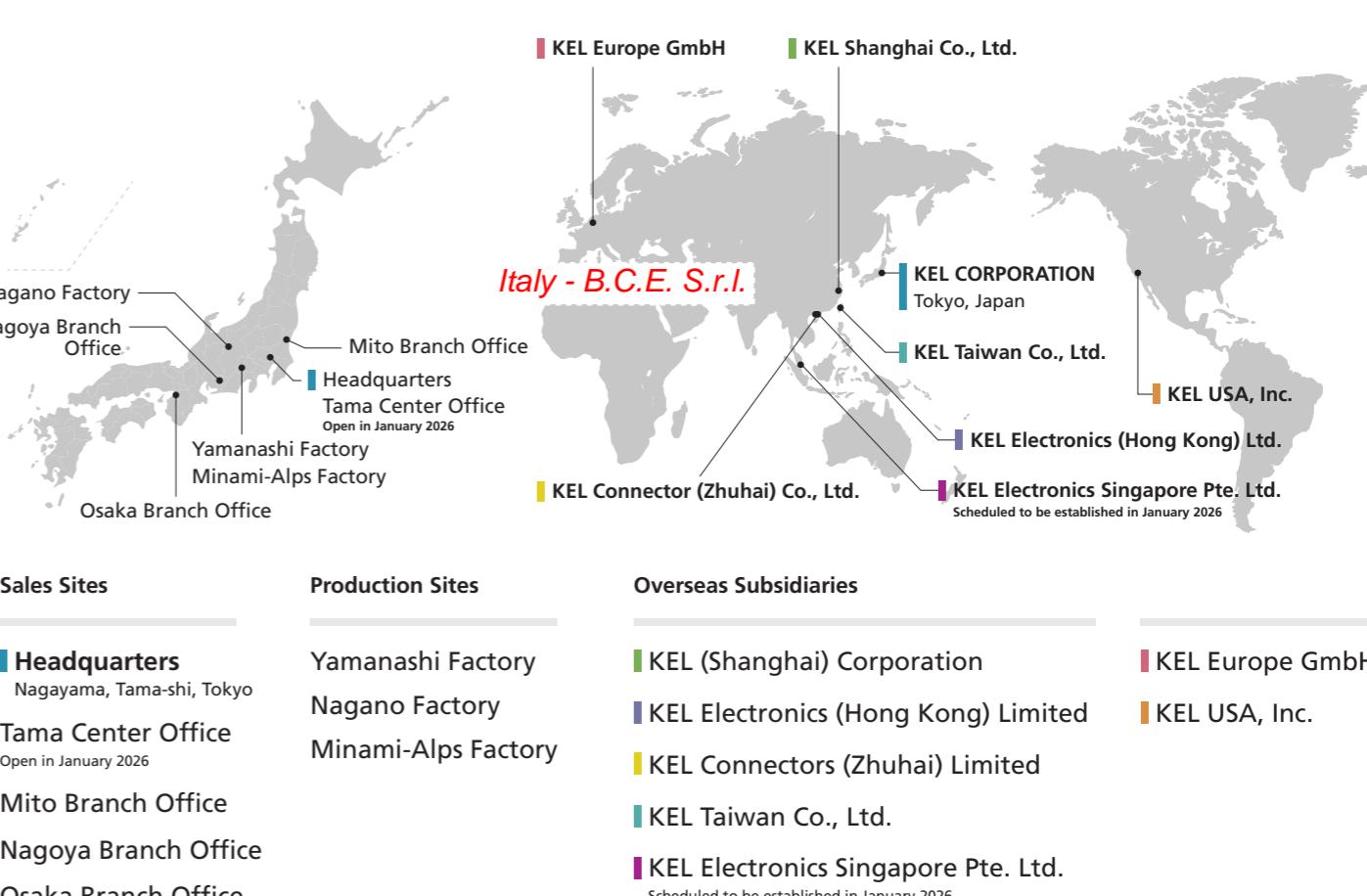
Pitch (mm)	Series name	Applicable wire size (AWG)	Rated current (A)/PIN <sup>*1</sup>	Number of contacts	Product details
0.25	XSL	Micro coaxial cable: #44/46	0.25	48	P.48
0.25	XSL5	Micro coaxial cable: #44/46	AWG#44:0.3 AWG#46:0.15	30, 40, 52	P.48
0.4	ASLS	Micro coaxial cable: #42	0.25	30, 40, 50	P.46
0.4	USL	Micro coaxial cable: #42	0.25	20, 30, 40	P.46
0.4	USLS	Micro coaxial cable: #42 34 pins: #40/42/44/46	0.25	20, 30, 34, 40	P.46
0.5	SSL	Micro coaxial cable: #40	0.3	10, 20, 30, 40	P.46
0.55	TSL	Micro coaxial cable: #30/32/36	AWG#30:1.0 AWG#32:0.9 AWG#36:0.6	31	P.48
0.55	TSL-NM2	Micro coaxial cable: #30/32/36	AWG#30:1.0 AWG#32:0.9 AWG#36:0.6	31	P.48
0.75	FJC	Discrete cable: #28/30 (cable coating outer diameter: φ 0.5~0.6 mm)	1.0	30	P.52
1.27	8929E	Discrete cable: #26/28/30 (cable coating outer diameter: φ 1.0mm or less)	1.0	30~68	—
1.27	8822E/8822	Flat cable: #28	1.0	[8822E]20~100 [8822]20~68	P.54
1.27	8825E	Flat cable: #30	0.8~1.0	20~100	P.54
1.27	8925E	Flat cable: #30	0.5	20~100	P.56
1.5	FAS	Discrete cable: #24/26/28 (cable coating outer diameter: φ 0.88~1.14 mm)	1.5~3.0	4~40	P.50
2.0	FWS	Discrete cable: #22/24/26/28 (cable coating outer diameter: φ 0.1~1.7 mm)	3.0	2, 3, 4, 6, 8	P.52
2.1	FK	Discrete cable: #22/24/26/28 (cable coating outer diameter: φ 0.8~1.7 mm)	2.5~5.5	5, 7	P.52
2.5	FA	Discrete cable: #22/24/26/28 (cable coating outer diameter: φ 0.88~1.70 mm)	3.0	4~40	P.50
2.5	FTCS	Discrete cable: #18/20/22/24/26/28 (cable coating outer diameter: φ 0.88~2.03 mm)	2.0~6.5 <sup>*2</sup>	6, 12, 16, 20	P.50
5.0	FW	Discrete cable: #16/18/20/22(0.3~1.25sq) (cable coating outer diameter: φ 1.5~3.1 mm)	7.0~10.0	2, 3, 4	P.52
5.08	FTC	Discrete cable: #14/16/18/20 (cable coating outer diameter: φ 1.8~3.4 mm)	7.0~12.0 <sup>*3</sup>	6, 10, 12, 20	P.50

\*1 The applicable range of the rated current depends on the cable size and the number of energized contacts. Consult our sales representative in advance. \*2 Rated current when all contacts are energized using 20 pins. \*3 Rated current when all contacts are energized using 12 pins.

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Series name	GD	39, 57	GD	39, 57	 <b>Stacked mating</b>	8900MS	38, 56	XSL	33, 48
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8800	37, 54	HSP	13	SSL	34, 46	8800	37, 54	DT-S	31, 42
8806/8807	37, 54	JF	12	TSL	34, 48	8806/8807	37, 54	 <b>PCB side: straight Cable: horizontal</b>	
8822E/8822	37, 54	JG	11	TSL-NM2	34, 48	8832E-FS	37, 54	8822E/8822	37, 54
8825E	37, 54	KTH	8	USL	34, 46	8900	38, 56	8825E	37, 54
8832E-FS	37, 54	SSL	34, 46	USLS	33, 46	8900MS	38, 56	8925E	38, 56
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8903N-FS	38, 56	TSL-NM2	34, 48			DT12/13	31, 42	DT	31, 42
8925E	38, 56	USL	34, 46	 <b>Upper temperature limit 105°C</b>		DT-E / DT-E-FS	17, 31, 42	XSLS	33, 48
8929E	36	USLS	33, 46			DT-S	31, 42		
ASLS	15, 33, 46	XSL	33, 48			 <b>PCB side: straight Cable: vertical</b>			
DT / DT-FS	31, 42	XSLS	33, 48			DU	32, 44	 <b>PCB side: right angle Cable: vertical</b>	
DT12/13	31, 42					DUS	16, 32, 44	8929E	36
DT-E / DT-E-FS	17, 31, 42	 <b>Upper temperature limit 85°C</b>				DW	32, 44	8822E/8822	37, 54
DT-S	31, 42					FA	35, 50	8825E	37, 54
DU	32, 44	8800	37, 54	DW	32, 44	FAS	35, 50	8925E	38, 56
DUS	16, 32, 44	8806/8807	37, 54	DY / DY03/04	32, 44	FTC	35, 50		
DW	32, 44	8822E/8822	37, 54			FTCS	36, 50		
DY / DY03/04	32, 44	8825E	37, 54			SSL	34, 46		
FA	35, 50	8832E-FS	37, 54			TSL	34, 48	 <b>Cable relay</b>	
FAS	35, 50	8900	38, 56			FA	35, 50		
FG	7	8900MS	38, 56			FAS	35, 50		
FJC	35, 52	8903N-FS	38, 56			FTC	35, 50		
FK	14, 36, 52	8925E	38, 56	 <b>Upper temperature limit 125°C</b>		FTCS	36, 50		
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# Site List



B.C.E. S.r.l. - Via Regina Pacis, 54/c - Sassuolo (MO) - I 41049 - Italy  
Tel.: 0536 811616 - Fax: 0536 811500 - Web: [www.bce.it](http://www.bce.it) - E-mail: [bce@bce.it](mailto:bce@bce.it)

# KEL



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](http://www.bce.it) - E-mail: [bce@bce.it](mailto:bce@bce.it)



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