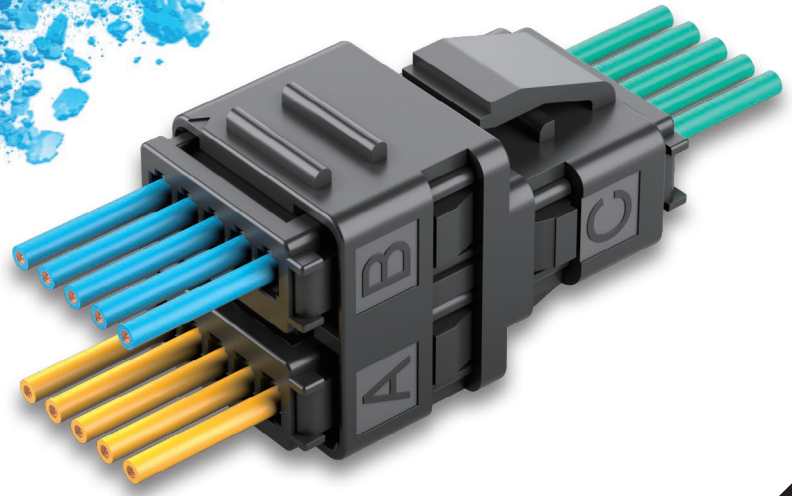
KEL 2026 HEADLINERS

A trusted partner around the world



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 manufacurer 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

GOVERNANCE

Strengthening governance to increase quality, safety, and customer satisfaction

Governance

Communication with stakeholders

SOCIAL

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

Diverse workforce/well-being

Business efforts to solve social problems

Safe and comfortable local communities

Making products to support lives globally

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.)

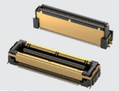
We aim to expand our business through local production and sales of products for the Chinese market. We plan to introduce automatic connector production and operate with a small number of people. We also aim to improve performance by shifting our products to local production.

CLOSE UP

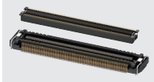
Yamanashi Factory

■Main Products

DT-FS Series

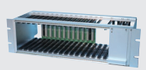


DT-S Series



DUS Series

GC / GD Series

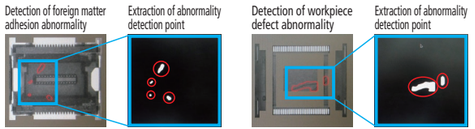


Rack

Introduction of AI inspection machines

As a visual inspection machine for connectors, we are introducing a visual AI inspection machine equipped with AI functions that utilize state-of-the-art AI models for detecting visual abnormalities. By automating visual inspections, we aim to improve productivity by reducing inspection errors and reducing the burden on inspectors.

■Schematic diagram of defect detection



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.

● **Custom Harness Process**

Request from customer → Summarization of requests → Design + Prototype → Mass production

■Example of special-order harness

8822E

[Noise suppression]
Ferrite core

8925E

[Cable protection]
Braid sleeve

8922E

[Shield processing]
Drain wire

XSLS

[Cable bundling]
Bundle of shrinkable tubes

USL

[Cable bundling]
Bundle of PTFE tapes

SSL

[Cable bundling]
Bundle of shrinkable tubes

USL

[Cable bundling]
Bundle of partial tapes

FA

[Cable bundling]
Bundle of cable ties

SSL

[Cable protection]
Tape pasting

8925E

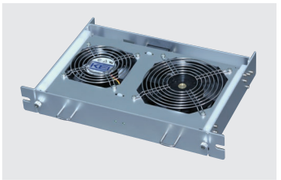
[Cable bundling]
Spiral tube installation

Rack Business

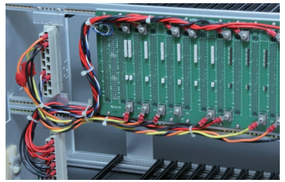
■Customized rack example

Rack

Backplane



Optional unit



Bus rack (wiring example)

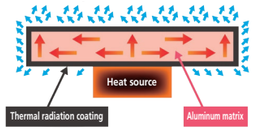
KEL is not only a connector manufacturer, but also a manufacturer of racks, which are industrial computers. We develop custom racks that combine various optional units and accessories, focusing on standard bus racks such as CPCI and VME. We have more than 40 years' experience in manufacturing rack products, 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

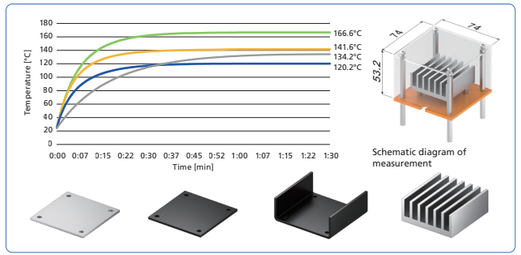
Under development

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.

● **Special coating improves heat radiation performance**

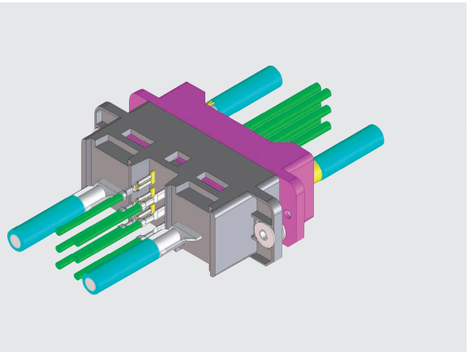


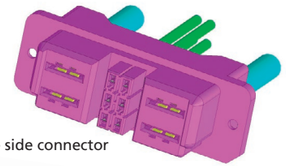
● **Thermal comparison graph by process**



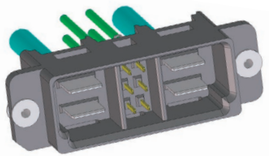
Product Under Development | High Current Battery Connector

FG SERIES





Receptacle side connector



Plug side connector

Target Specifications

Number of contacts	Power contact: 2 pins Signal contact: 6 pins
Rated current	Power contact: 40 to 50 A Signal contact: 2 to 3 A
Applicable wire size: (AWG)	Power contact: #6 to 8 Signal contact: #16 to 20

Application

Power Receiving and Distributing Equipment

Renewable energy

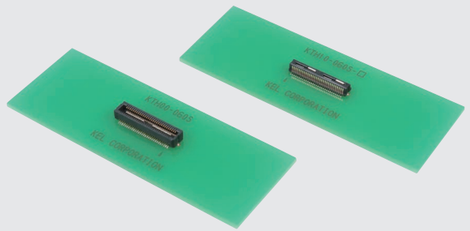
Inverter

Relay vehicle

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

Product Under Development | Heat Path Connector

KTH SERIES



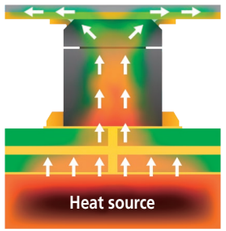
Target Specifications

Pitch	0.4mm
Number of contacts	60 pins
Stack height	3mm
Operating temperature range	-40°C to +125°C

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

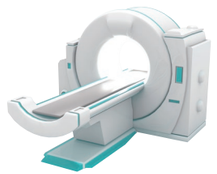
Radiating path

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



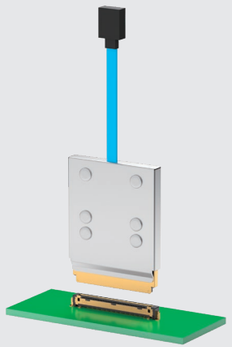
Application

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
128Gbps*
(32Gbps/1ch×4ch)

Long-distance transmission
30m*

*Target specification

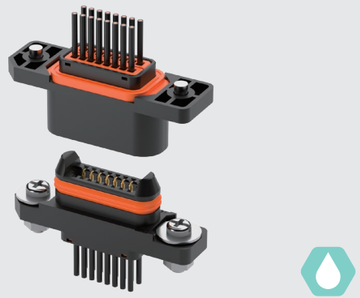
We conduct R&D on photoelectric conversion connectors for the telecommunications market.

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.

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

Product Under Development 2.0 mm Pitch Waterproof/Dustproof Drawer Connector Waterproof

FWSA SERIES



Drawer structure

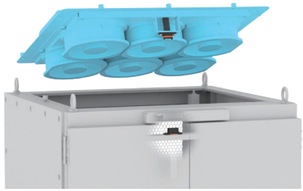
- The screw fixing part moves to absorb the maximum±1.0 mm in the XY direction.
- The guiding structure enables to absorb misalignment up to ±1.5 mm.

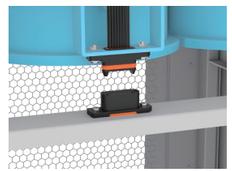
Waterproof and dustproof

- Realize high waterproof and dust resistance equivalent to IP67.

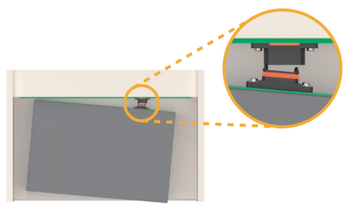
Improved maintainability

- 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.





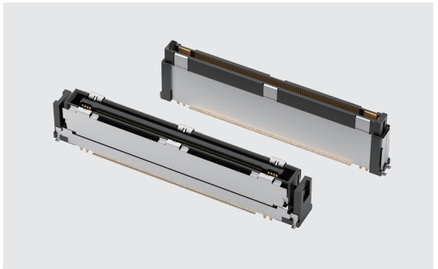
Smooth connection in environments prone to misalignment



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

Product Under Development High-Speed Transmission Floating Connector Equivalent to PCIe5.0

JG SERIES



Equivalent to ***PCIe5.0***

80A *10A per pin × 8*

Floating ***±1.2mm***

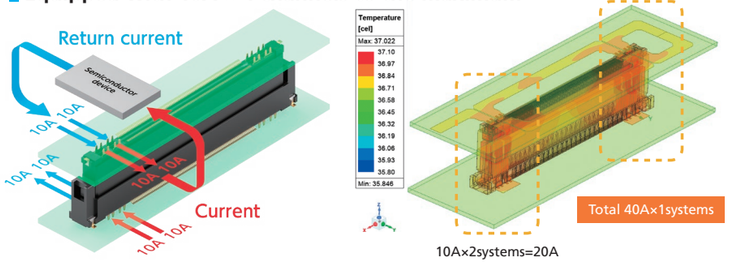
MAX ***240pins***

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 XY direction
Operating temperature range	-40°C to +125°C (including temperature rise due to energization)
Remarks	Power terminals, Selectable with/without shell

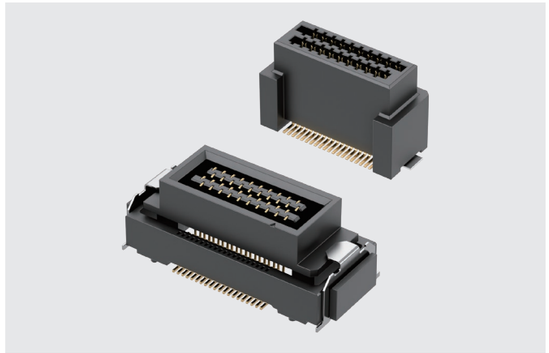
Equipped with 10A × 4 channels to the maximum

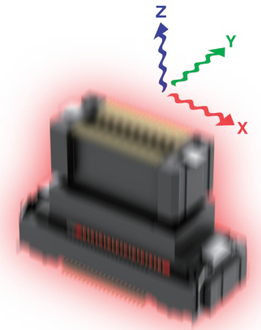


As this is a product under development, the specifications and shape may change without notice.

Product Under Development Vibration Resistant, 140°C High Heat-Resistant Floating Connector

JF SERIES





Heat resistant at ***140°C***

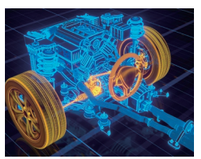
Vibration resistant
(X, Y, and Z directions)

Application

On-board charger

Inverter

DC/DC converter



Electric power steering

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

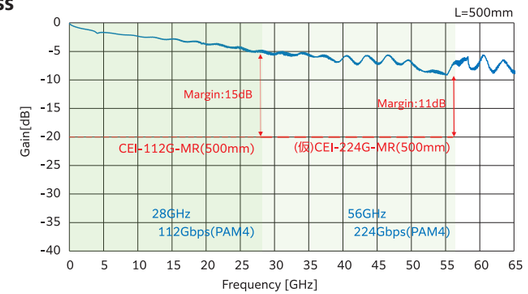
As this is a product under development, the specifications and shape may change without notice.

Product Under Development 224 Gbps (PAM4) Differential Transmission Cable Connector

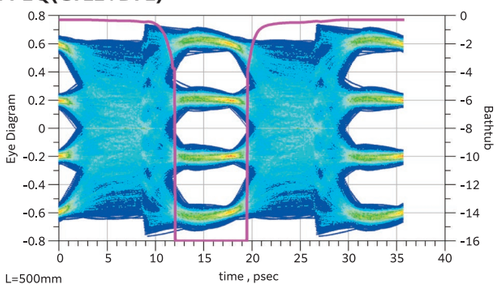
HSP SERIES

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.

Insertion Loss



112Gbps PAM4 EQ(CTLE+DFE)

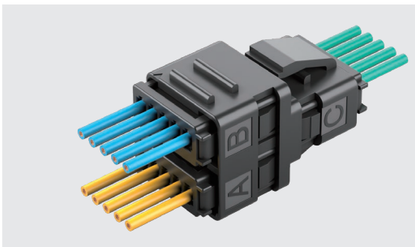


As this is a product under development, the specifications and shape may change without notice.

New Product 2.1 mm Pitch Crimp Cable Connector, Branching and Relay Type

FK SERIES

105 °C UL1977 *UL cUL File No. E509060

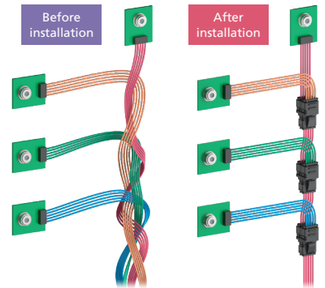


Specifications

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

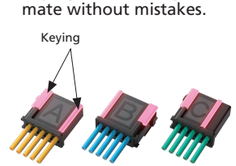
Contribute to wire-saving through branch and relay

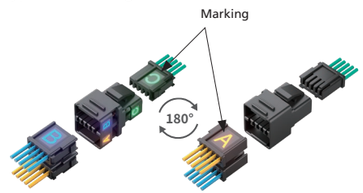
- Reduced wiring in the chassis contributes to miniaturization and weight reduction of equipment.
- In addition, even if a malfunction occurs inside the device, it can be partially removed, which can lead to improved maintainability.



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.

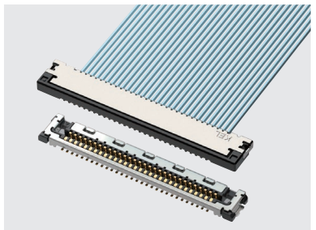




New Product 0.4 mm Pitch Micro Coaxial Cable Connector

ASLS SERIES

Space-saving　Non-magnetic　105 °C High heat resistance



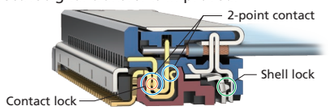
Locking structure and 2-point contact structure

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.

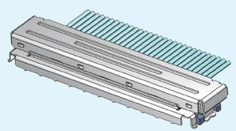
Specifications

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

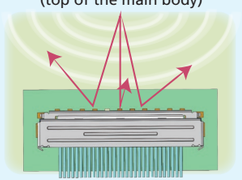
ASLS Number of Contacts List

Number of contacts	30 pins	40 pins	50 pins	60 pins
ASLS	○	○	○	Under development

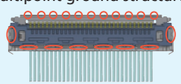
Product Under Development **ASLS EM SERIES** EMC measures enhancement products



EMC image (top of the main body)



Multipoint ground structure



Mating condition Bottom of the PCB side connector　○ Multipoint ground part

Full shield design

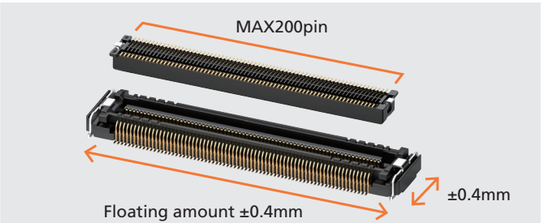
Mating surface of the PCB side connector　○ Shell contact part

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

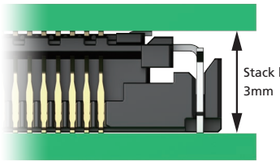
New Product 0.4 mm Pitch Floating Connector

DUS SERIES

125 °C　16G bps



Supports a low profile with a stack height of 3 mm



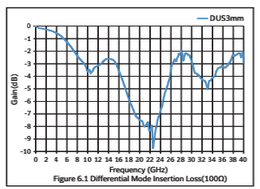
DUS Series Variation List

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	○	○	○	○	○	○	○	○

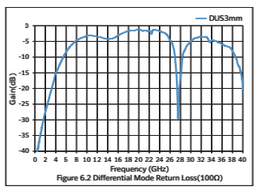
Specifications

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

Transmission characteristics

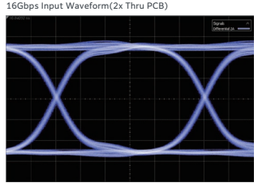


Insertion Loss



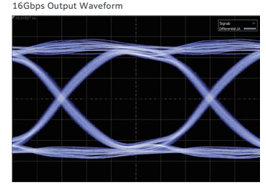
Return Loss

16Gbps Input Waveform(2x Thru PCB)



Eye Pattern Input

16Gbps Output Waveform

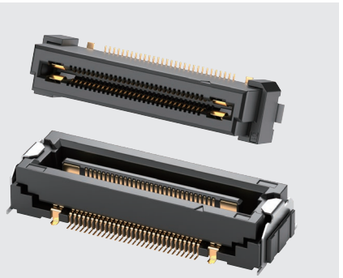


Eye Pattern Output

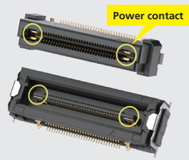
New Product 0.5 mm Pitch Floating Connector with Power Contacts / High Stack Type

DT-E / DT-E-FS SERIES

105 °C | SATA equivalent | 8G bps



Power contact (4 pins)



Connection variation

DT-E SERIES
Stacked mating (8–20 mm)

DT-E-FS SERIES
Stacked mating (18–30 mm)

Specifications

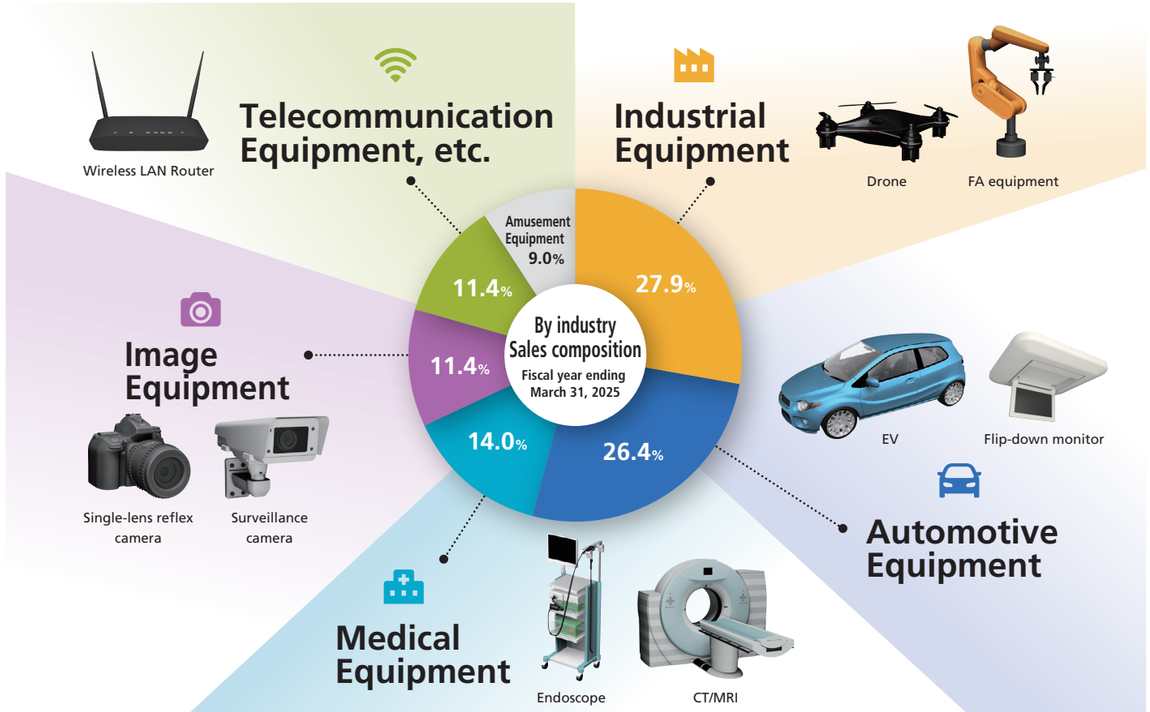
Performance	
Rated current	0.4 A per contact (signal contact) (Simultaneous energization shall not exceed 100 pins.) 6.0 A per contact (power contact)
Contact resistance	80 mΩ or less (signal contact) 20 mΩ or less (power contact)
Dielectric withstand voltage	200 V AC for 1 minute
Insulation resistance	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

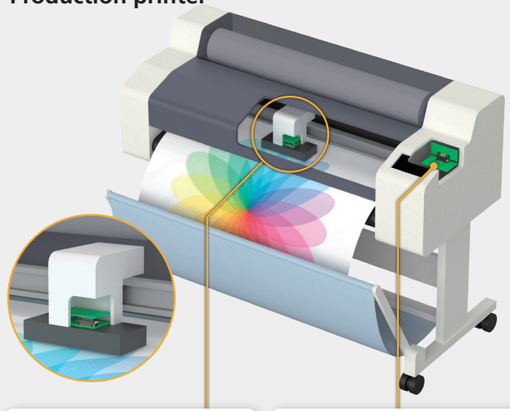
Sales for fiscal year ending March 31, 2025: 11,871 million yen (consolidated)



Industrial Equipment

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

Production printer

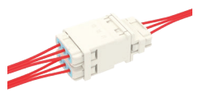


DT

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

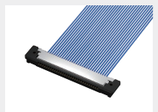
DT

- Signal processing board to RF board

XSLS

- Main board to image processing board

USLS



- Main board to sensor board

FWS

- Main body to motor

ATM

DY

- Main body to bill unit

FA

- Main body to bill unit

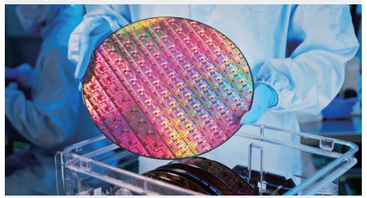
FAS

- Main body to bill unit

8929E

- Main body to bill unit

Semiconductor manufacturing equipment



DT

- Internal connection of the main body

DY

- Internal connection of the main body

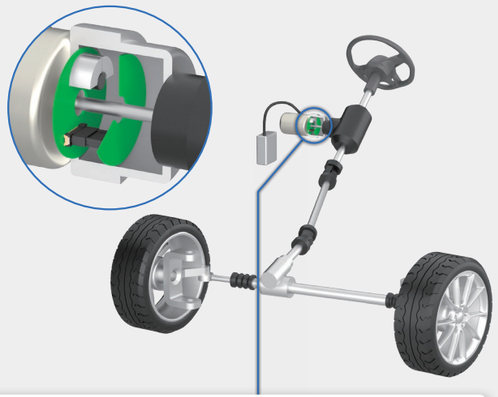
DU

- Main board to tester board

Automotive Equipment

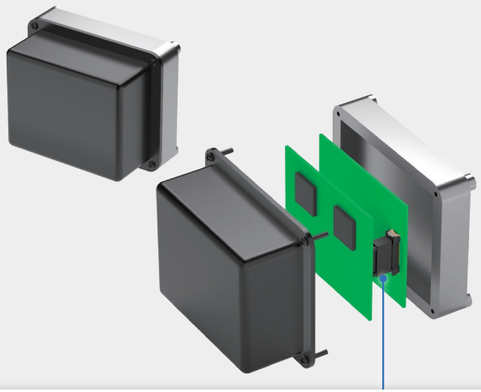
Adoption in EVs contributes to environmental protection by utilizing clean energy and reducing CO_2 emissions.

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

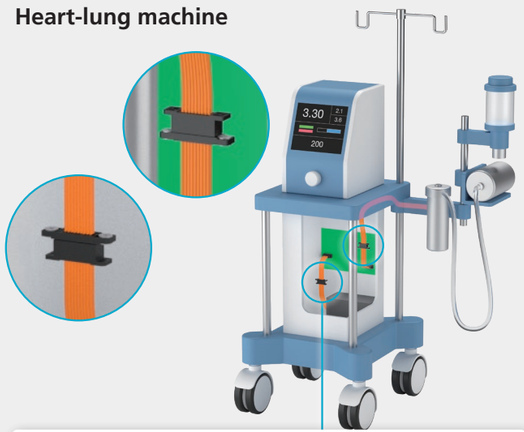
USL

- Front camera board to room camera board

Medical Equipment

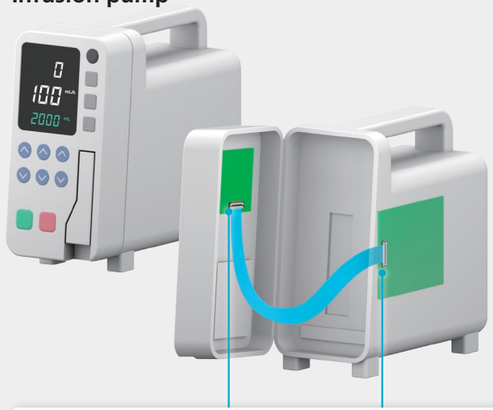
The improved performance of the equipment enables precise diagnosis and contributes to the provision of high-quality medical services.

Heart-lung machine

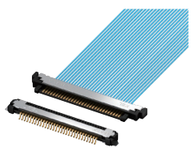


FA

Infusion pump



SSL



Ultrasonic diagnostic apparatus

DT

- Analog receiving board to image processing board

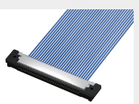
DY

- 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

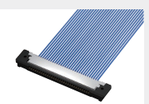
DY

- Main board to image processing board

XSLS

- Scope board to I/F board

USLS

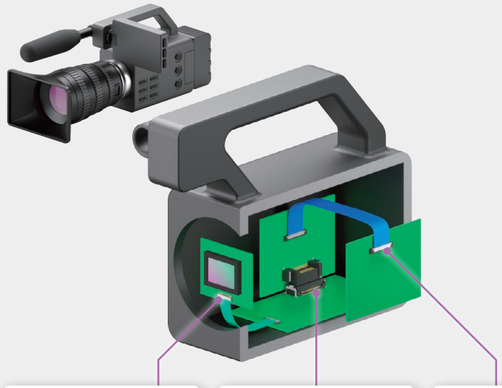


- Scope board to I/F board

Image Equipment

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

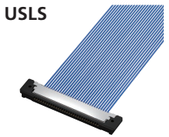
Professional camera



XSLS

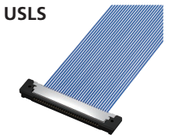
DT

USLS



Surveillance camera

USLS



ASLS

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

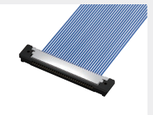
DUS

・Main board to power supply board

XSLS

・Main board to liquid crystal monitor

USLS



・Main board to sensor board

Smart glass

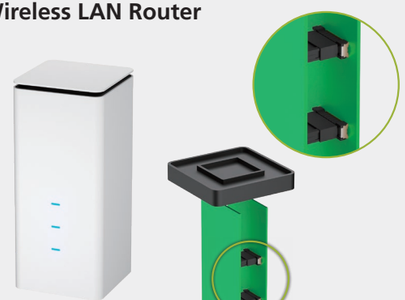
XSLS

・Main board to FPC
・Main board to I/F board

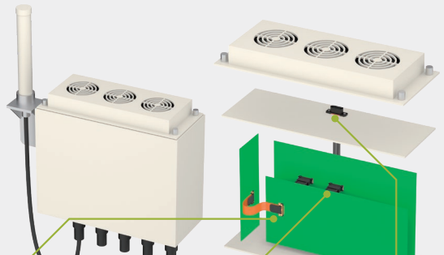
Telecommunication Equipment

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.

Wireless LAN Router



Relay base station



DT

TSL

DT-E

FWSA Product under development

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

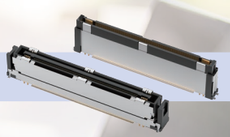
8900

・Main board to sub-board

8900MS

・Main board to sub-board

Interview with Engineer —JG Series—



Person in charge of development

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

Person in charge of development

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?

Person in charge of development

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?

Person in charge of development

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?

Person in charge of 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?

Person in charge of development

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.

Person in charge of development

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

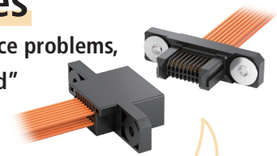
- It is indispensable to conduct regular periodic maintenance of the internal bill transport unit.

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.

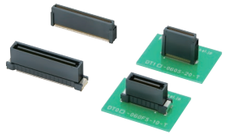
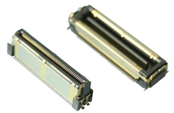
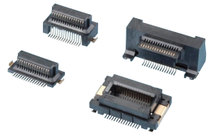
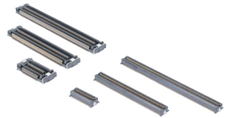
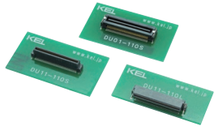
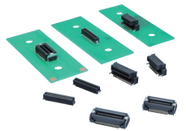
Effect of adopting FA / FAS series

- 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: 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*1	Signal contact: 0.4 Power contact: 6.0	DT: 0.4 DT-FS: 0.5	0.4*2	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*2	±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-E) 8 Gbps equivalent (DT-E-FS) Effective mating length: 1.5 mm	SATA standard equivalent (DT) 8 Gbps equivalent (DT-FS) Effective mating length: 1.5 mm Multipole support (DT)	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*3 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 height of 5 mm, the effective mating length is 1.1 mm.

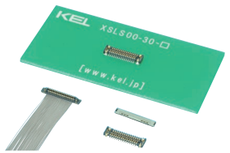
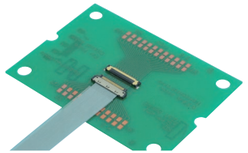
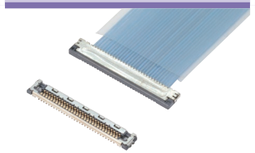
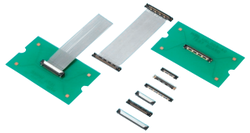
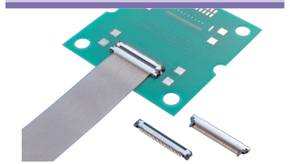
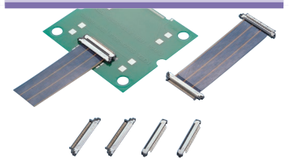
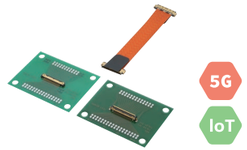
Product List

Micro Coaxial Cable Connector

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

For 5G IoT

Connection format: Board to Board / Board to Cable / Cable to Cable

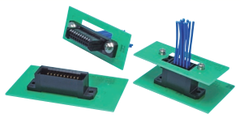
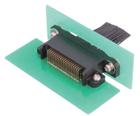
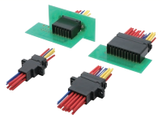
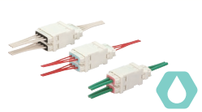
Series name	XSLS	XSL	ASLS	USLS			USL	SSL	TSL	TSL-NM2
Product appearance										
Equipment to adopt										
Pitch (mm)	0.25	0.25	0.4	0.4			0.4	0.5	0.55	0.55
Number of contacts	30, 40, 52	48	30, 40, 50	20, 30, 34, 40			20, 30, 40	10, 20, 30, 40	31	31
Rated current (A)/PIN	AWG#44: 0.3 AWG#46: 0.15	0.25	0.25	0.25			0.25	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
Applicable wire size (AWG) (micro coaxial cable)	#44/46	#44/46	#42	#42 *For 34 pins: #40/42/44/46			#42	#40	#30/32/36	#30/32/36
Cable joining method	Soldering	Soldering	IDC	IDC *34 pins: soldering			IDC	IDC	Soldering	Soldering
Mating height (mm)	1.44	1.0	1.65	1.65			1.0	1.4	3.25	2.17
Operating temperature range (°C)	-40 to +85	-40 to +85	-40 to +105	-40 to +85			-40 to +85	-40 to +85	-40 to +85	-40～+85
Remarks	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
Product details	P.48	P.48	P.46	P.46			P.46	P.46	P.48	P.48

Product List

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

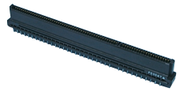
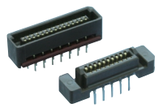
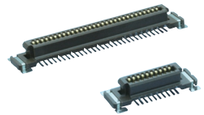
Series name	FJC	FA	FAS	FTC			FTCS	FK	FW	FWS	8929E
Product appearance											
Equipment to adopt											
Pitch (mm)	0.75	2.5	1.5	5.08			2.5	2.1	5.0	2.0	1.27
Number of contacts*1	30	4–40	4–40	6, 10, 12, 20			6, 12, 16, 20	5, 7	2, 3, 4	2, 3, 4, 6, 8	30–68
Rated current (A)/PIN*2	1.0	3.0	1.5–3.0	7.0–12.0*4			2.0–6.5*5	2.5–5.5	7.0–10.0	3.0	1.0
Applicable wire size (AWG) (discrete cable)	#28/30 (cable coating outer diameter: ϕ0.5–0.6mm)	#22/24/26/28 (cable coating outer diameter: ϕ0.88–1.70mm)	#24/26/28 (cable coating outer diameter: ϕ0.88–1.14mm)	#14/16/18/20 (cable coating outer diameter: ϕ1.8–3.4mm)			#18/20/22/24/26/28 (cable coating outer diameter: ϕ0.88–2.03mm)	#22/24/26/28 (cable coating outer diameter: ϕ0.8–1.7mm)	#16/18/20/22 (0.3–1.25sq) (cable coating outer diameter: ϕ1.5–3.1mm)	#22/24/26/28 (0.08–0.3sq) (cable coating outer diameter: ϕ1.0–1.7mm)	#26/28/30 (cable coating outer diameter: ϕ1.0mm or less)
Mating durability (times)	100	Max. 7000*3	Max. 7000*3	100, 500*3			100, 500*3	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 12 pins.
*5 Rated current when all contacts are energized using 20 pins.

Half Pitch 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	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*1	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.

Product List

Battery Connector

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

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*1	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*2	DIP type Standard type Reverse type Mating cycle: 5,000 times*3	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.

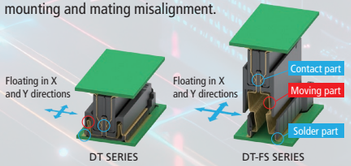
memo

Floating power to absorb misalignment and create trust

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

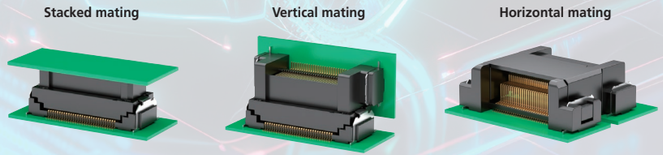
Connector absorbs misalignment during mounting and mating

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



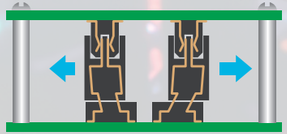
Mating method suitable for board configuration is selectable

DT SERIES mating method



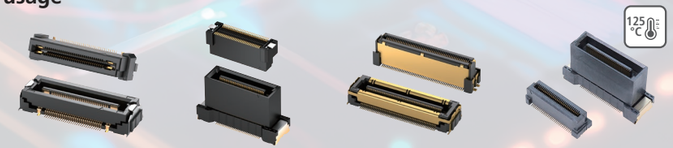
More freedom in design by mounting multiple connectors

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



Mating error is absorbed by floating mechanism

Extensive lineup of products that can be selected according to usage



DT-E / DT-E-FS SERIES
Type with power contacts

DT / DT-FS SERIES
High stack type

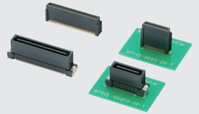
DT-S SERIES
ESD/EMC measure type with shell

DT12/13 SERIES
High heat resistant type

DT / DT-FS SERIES

0.5 mm Pitch Floating Connector / High Stack Type

For more information on DT:
For more information on DT-FS:
YouTube



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, 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

Mating method: Stacked

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

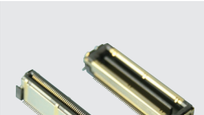
Effective mating length
1.5 mm

Mating method: Stacked

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	ESD EMC

Mating method: Stacked, Vertical

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

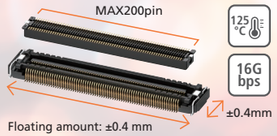
DY SERIES
0.5 mm pitch
Floating amount: ±0.5 mm in X and Y directions

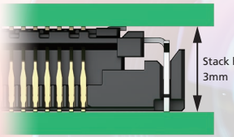
Supports overseas production and OUT-OUT supply

DW SERIES
0.635 mm pitch
Floating amount: ±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.





DY / DY03/04 SERIES

0.5 mm Pitch Floating Connector, High Heat Resistant Type

For more information on DY:

For more information on DY03/04:

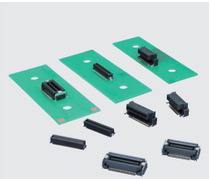
Pitch	Connection	Number of contacts	Mating method
0.5 mm	BtoB	30-140	Stacked / Vertical

Mounting method	Floating amount	Stack height
SMT	±0.5 mm	5-14 mm

Upper temperature limit	Effective mating length
85 °C / 105 °C	1.25 mm

DW SERIES

0.635 mm Pitch Floating Connector



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.635 mm	BtoB	40-60	105 °C	Stacked / Vertical

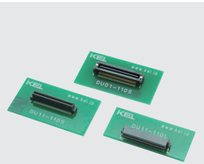
Mounting method	Floating amount	Stack height
SMT	±0.7 mm	6.3/10/15 mm

Effective mating length
1.4 mm

DU SERIES

0.4 mm Pitch Floating Connector

For more information



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.4 mm	BtoB	80-200	105 °C	Stacked / Vertical

Mounting method	Floating amount	Stack height
SMT	±0.4 mm	5/7 mm

Effective mating length
1.2 mm

DUS SERIES

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

For more information

Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.4 mm	BtoB	40-200	125 °C	Stacked

Mounting method	Floating amount	Stack height
SMT	±0.4 mm	3 mm

Effective mating length	Transmission
0.8 mm	16G bps

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.

[Cable protection example]
Tape pasting

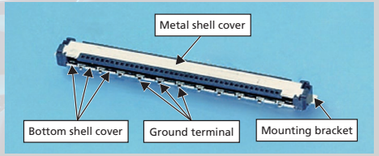
[Cable bundling example]
PTFE tape bundle

[Cable bundling example]
Shrinkable tube bundle

[Cable bundling example]
Partial tape bundle

Noise-resistant design

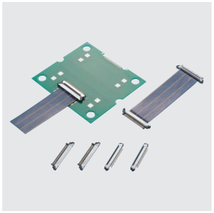
Metal shell cover and multipoint ground provide excellent noise resistance.



SSL SERIES

0.5 mm Pitch Micro Coaxial Cable Connector

For more information



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.5 mm	BtoC	10/20/30/40	85 °C	PCB side: right angle Cable: horizontal / PCB side: straight Cable: vertical

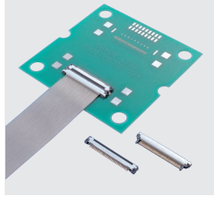
Mounting method	Mating height	Applicable cable
SMT	1.4 mm	AWG #40

Cable connection	Effective mating length
IDC	0.5 mm

USL SERIES

0.4 mm Pitch Micro Coaxial Cable Connector

For more information



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.4 mm	BtoC	20/30/40	85 °C	PCB side: right angle Cable: horizontal

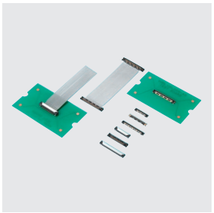
Mounting method	Mating height	Applicable cable
SMT	1.0 mm	AWG #42

Cable connection	Effective mating length
IDC	0.5 mm

USLS SERIES

0.4 mm Pitch Micro Coaxial Cable Connector, Stacked Mating Type

For more information



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.4 mm	BtoC	20/30/34/40	85 °C	PCB side: straight Cable: horizontal

Mounting method	Mating height	Applicable cable
SMT	1.65 mm	AWG #40/42/44/46

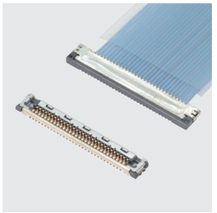
Cable connection	Effective mating length
IDC / Soldering	0.35 mm

ASLS SERIES

0.4 mm Pitch Micro Coaxial Cable Connector, Stacked Mating Type

For more information

YouTube



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.4 mm	BtoC	30/40/50	105 °C	PCB side: straight Cable: horizontal

Mounting method	Mating height	Applicable cable
SMT	1.65 mm	AWG #42

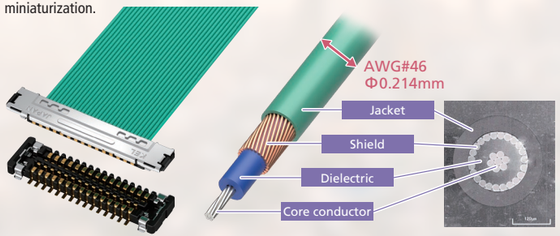
Cable connection	Effective mating length	Other features
IDC	0.27 mm	Locking mechanism / Non-magnetic

Ultra-compact, high-speed transmission

Micro coaxial cable connector supporting next-generation technologies.

0.25 mm pitch contributes to further miniaturization.

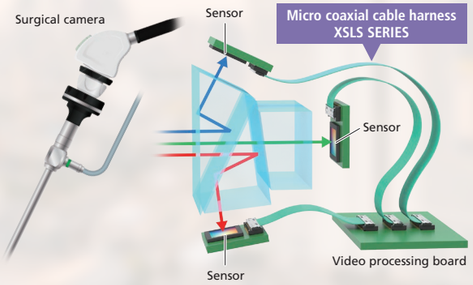
The 0.25 mm pitch XSL and XSLS series contribute to devices that require further miniaturization.



XSLS SERIES

Internal structure of micro coaxial cable

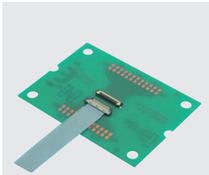
Adoption example



XSL SERIES

0.25 mm Pitch Micro Coaxial Cable Connector

For more information



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.25 mm	BtoC	48	85 °C	PCB side: right angle Cable: horizontal

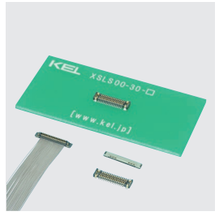
Mounting method	Mating height	Applicable cable
SMT	1.0 mm	AWG #44/46

Cable connection	Effective mating length
Soldering	0.51 mm

XSLS SERIES

0.25 mm Pitch Micro Coaxial Cable Connector, Stacked Mating Type

For more information



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.25 mm	BtoC	30/40/52	85 °C	PCB side: straight Cable: horizontal

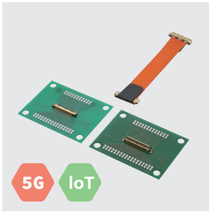
Mounting method	Mating height	Applicable cable
SMT	1.44 mm	AWG #44/46

Cable connection	Effective mating length
Soldering	0.31 mm

TSL SERIES

0.55 mm Pitch High-Performance Coaxial Harness

For more information YouTube



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.55 mm	BtoC	31	85 °C	PCB side: right angle Cable: horizontal PCB side: straight Cable: vertical

Mounting method	Mating height	Applicable cable	Other features
SMT	3.25 mm	AWG #30/32/36	Locking mechanism

Cable connection	Effective mating length	Transmission
Soldering	0.5 mm	32G bps, 5G, IoT

TSL-NM2 SERIES

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

For more information

Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
0.55 mm	BtoC	31	85 °C	PCB side: right angle Cable: horizontal

Mounting method	Mating height	Applicable cable	Other features
SMT	2.17 mm	AWG #30/32/36	Locking mechanism

Cable connection	Effective mating length	Transmission	Other features
Soldering	0.5 mm	32G bps, 5G, IoT	Non-magnetic

Enabling efficient assembly and high reliability

Crimp cable connector with easy and reliable connection.

Pinching 2-point contact excellent in contact reliability

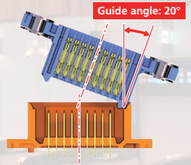
The pinching 2-point contact improves contact reliability and prevents instantaneous disconnection by enabling the contacts to follow movement.

FA / FAS / FTC / FTCS / FK SERIES

Supports guide angles up to 20° for smooth mating

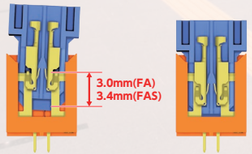
Since contacts are contacted after the connector aligns straight, deformation and buckling of the contacts are prevented.

FA / FAS SERIES



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.

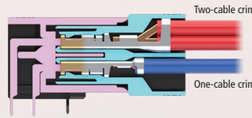


Effective mating length
FA SERIES: 3.0mm
FAS SERIES: 3.4mm

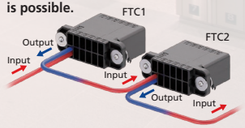
One-cable crimping or two-cable crimping can be selected.

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

FTC / FTCS SERIES



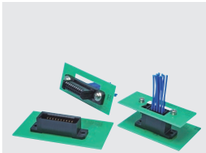
Connection wiring between connectors is possible.



FA SERIES

2.5 mm Pitch Crimp Cable Connector, Drawer Type

For more information

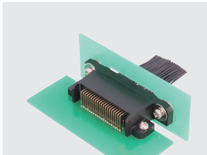


Pitch	Connection		Number of contacts	Mating method
2.5 mm	BtoC	CtoC	4-40	PCB side: straight Cable: vertical
Mounting method	**Upper temperature limit**	**Applicable cable**		Cable relay
DIP	85 °C	AWG #22/24/26/28		
Cable connection	**Effective mating length**	**Other features**		
Crimping	3.0 mm	Drawer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

FAS SERIES

1.5 mm Pitch Crimp Cable Connector, Drawer Type

For more information

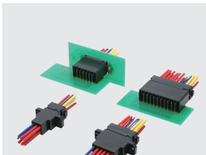


Pitch	Connection		Number of contacts	Mating method
1.5 mm	BtoC	CtoC	4-40	PCB side: right angle Cable: horizontal
Mounting method	**Upper temperature limit**	**Applicable cable**		PCB side: straight Cable: vertical
DIP	85 °C	AWG #24/26/28		Cable relay
Cable connection	**Effective mating length**	**Other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

FTC SERIES

5.08 mm Pitch Crimp Cable Connector, Two Cable Crimpable Type

For more information

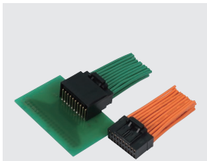


Pitch	Connection		Number of contacts	Mating method
5.08 mm	BtoC	CtoC	6/10/12/20	PCB side: right angle Cable: horizontal
Mounting method	**Upper temperature limit**	**Applicable cable**		PCB side: straight Cable: vertical
DIP	105 °C	AWG #14/16/18/20		Cable relay
Cable connection	**Effective mating length**	**Other features**		
Crimping	3.0 mm	Drawer / Locking mechanism / Two-cable crimp		

FTCS SERIES

2.5 mm Pitch Crimp Cable Connector, Two Cable Crimpable Type

For more information



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

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

FWB01-□□-□ (receptacle side)

FWP11-□□-□□ (plug side)

FWS SERIES branch and relay connection

FWSB01-02-1 (receptacle side)

FWSP1A-□□-□□ (plug side)

FK SERIES branch and relay connection

FK1-□□-□ (receptacle side)

FK11-□□ (plug side)

Robust locking structure with click feel

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

FW SERIES

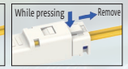
Lock: insert

Unlock: removal

FWS SERIES

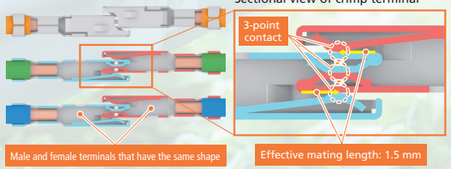
Lock: insert

Unlock: removal

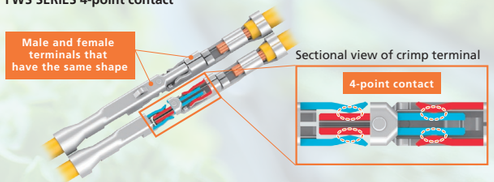


Multipoint contact for stable connection

FW SERIES 3-point contact



FWS SERIES 4-point contact

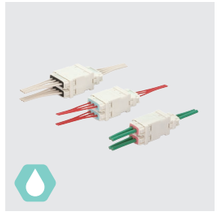


FW SERIES

5.0 mm Pitch Crimp Cable Connector, IP67 Support Waterproof Type

For more information

YouTube



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
5.0 mm	CtoC	2/3/4	105 °C	Cable relay, Cable branch and relay

Applicable cable	Cable connection
AWG #16/18/20/22	Crimping

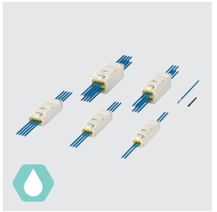
Effective mating length	Other features		
1.5 mm	Waterproof IP67	Locking mechanism	Branch and relay

FWS SERIES

2.0 mm Pitch Crimp Cable Connector, IP67 Support Waterproof Type

For more information

YouTube



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
2.0 mm	CtoC	2/3/4/6/8	105 °C	Cable relay, Cable branch and relay

Applicable cable	Cable connection
AWG #22/24/26/28	Crimping

Effective mating length	Other features		
0.8 mm	Waterproof IP67	Locking mechanism	Branch and relay

FK SERIES

2.1 mm Pitch Crimp Cable Connector, Branching and Relay Type

For more information

YouTube

Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
2.1 mm	CtoC	5/7	105 °C	Cable branch and relay

Applicable cable	Cable connection
AWG #22/24/26/28	Crimping

Effective mating length	Other features	
0.7 mm	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
0.75 mm	BtoC	30	85 °C	PCB side: right angle Cable: horizontal

Mating height	Mounting method	Applicable cable
4.2 mm	SMT	AWG #28/30

Cable connection	Effective mating length	Other features
Crimping	0.576 mm	Locking mechanism

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

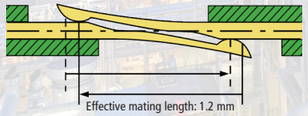
Rugged, reliable 88 series

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

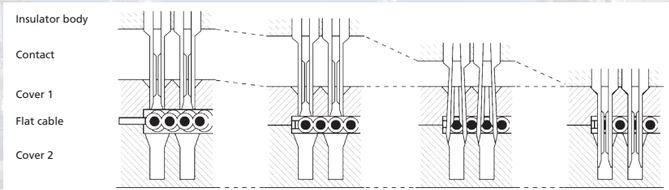
Contact points move each other, which removes film and dirt to prevent conduction failure.



Highly reliable and unique IDC method

IDC connection mechanism

8825E SERIES



Stage1
Hold the cable from both sides with the holding force of cover 1 press-fitted to the tip of the contact.

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

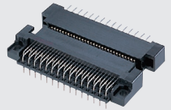
Stage3
With further pressure applied, cover 1 loses its holding force with the tip of the contact, and the contact is guided to the cable conductor while being moved and press-fitted.

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



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

Mating method: Stacked, Vertical, Horizontal

8832E-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	20-100	85 °C

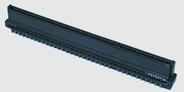
Mounting method	Stack height
DIP	20-30 mm

Mating method: Stacked

8806/8807 SERIES

1.27 mm Pitch Connector, Multipole Type

For more information



Pitch	Connection	Number of contacts	Upper temperature limit
1.27 mm	BtoB	120-200	85 °C

Mounting method	Stack height
DIP	17.1 mm

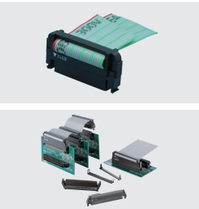
Mating method: Stacked, Vertical, Horizontal

8822E/8822 SERIES
8825E SERIES

1.27 mm Pitch Connector, Flat Cable Support

For more information on 8822E/8822

For more information on 8825E



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

Mounting method	Applicable cable	Cable connection
DIP	AWG #28/30	IDC

Other features
Locking mechanism

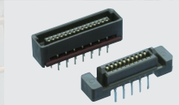
Mating method: PCB side: straight Cable: horizontal; PCB side: right angle Cable: vertical

Provide high reliability with rich variations

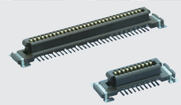
89 series connectors offer reliability and design versatility with flexible variations.

Various connection variations that can be selected depending on the application

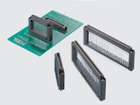
Board to board



8900 SERIES
DIP type

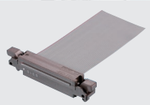


8900MS SERIES
SMT type



8903N-FS SERIES
High stack type

Board to cable



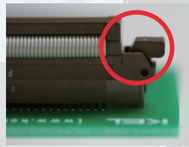
8925E SERIES
Cable IDC connection type

8929E SERIES
Cable crimping connection type

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

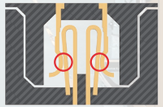
Can be operated with one hand, and the operability of insertion and removal is greatly improved.

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.



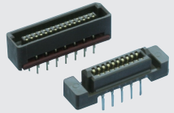
8825E/8830E

8925R/8931E

8900 SERIES

1.27 mm Pitch Connector, Low Profile Type

For more information

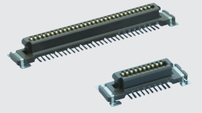


Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
1.27 mm	BtoB	20-120	85 °C	Stacked / Vertical / Horizontal
Mounting method	**Stack height**			
DIP	7-12 mm			

8900MS SERIES

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

For more information



Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
1.27 mm	BtoB	20-120	85 °C	Stacked / Vertical
Mounting method	**Stack height**			
SMT	7-8 mm			

Supported when mated with 8900 series

8903N-FS SERIES

1.27 mm Pitch Connector, High Stack Type

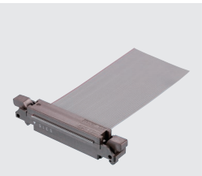
For more information

Pitch	Connection	Number of contacts	Upper temperature limit	Mating method
1.27 mm	BtoB	40-100	85 °C	Stacked
Mounting method	**Stack height**			
DIP	20-32 mm			

8925E SERIES

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

For more information



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

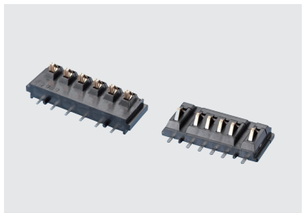
GF SERIES

- 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

For more information



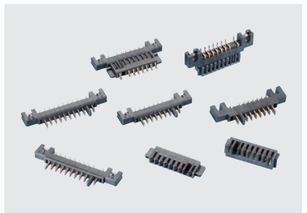
Pitch	Number of contacts	Upper temperature limit
5.0 mm / 3.0 mm	3-10	85 °C

Mounting method	Other features		
DIP	1-piece	Standard	Reverse

GF SERIES

2.0 mm Pitch Two-Piece Battery Connector

For more information



Pitch	Number of contacts	Upper temperature limit
2.0 mm	8/10	85 °C

Mounting method		Other features	
SMT	DIP	2-piece	Hot swap

memo

Product Launch Timeline

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

1962

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

2026

Product under development

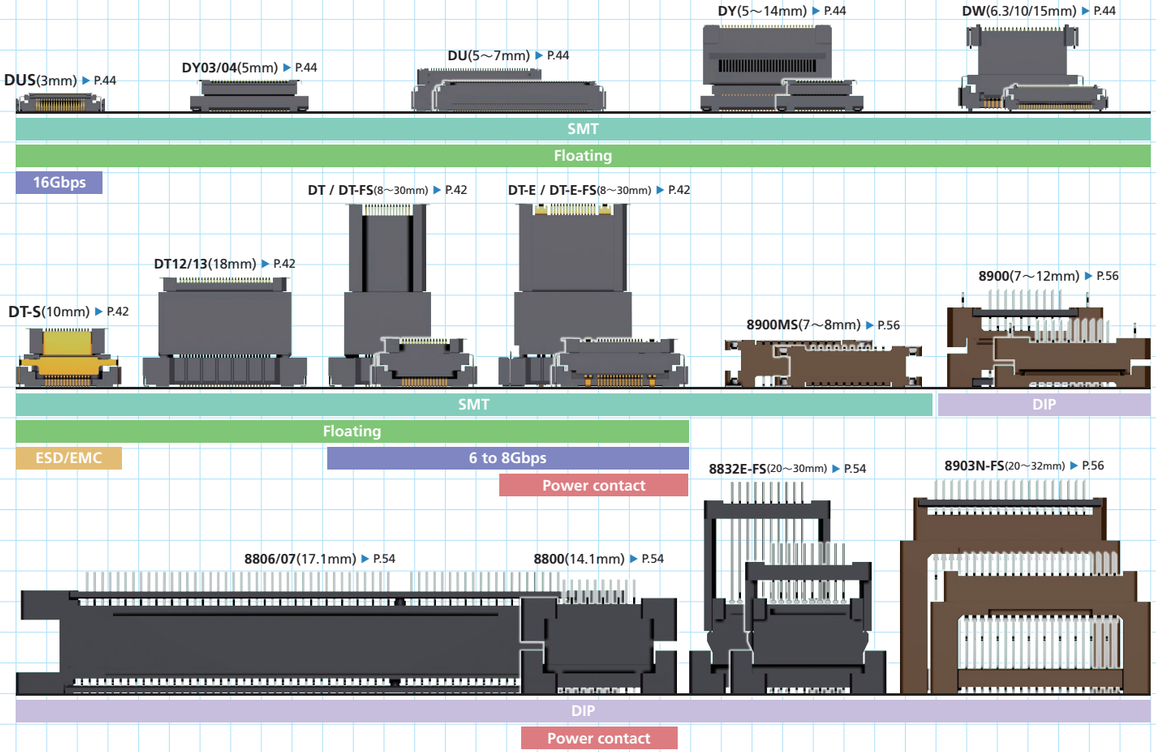
- FG Series
- KTH Series
- TSL-AOC Series
- FWSA Series
- JG Series
- JF Series
- HSP Series

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℃			JF		
125℃		DUS	JG, DT12/13		
105℃		DU12, ASLS	DT / DT-FS, DT-S, DT-E / DT-E-FS, DY03/04		DW
85℃	XSL, XSLS	DU, USL, USLS	DY, SSL	TSL, TSL-NM2	
Pitch	0.25mm	0.4mm	0.5mm	0.55mm	0.635mm

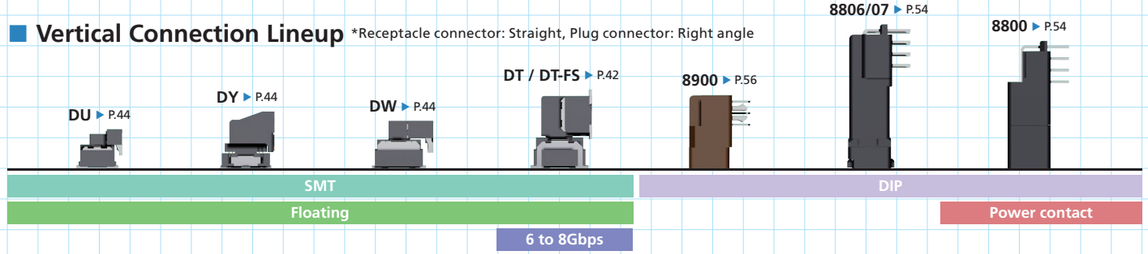
Stack Connection Lineup *In( )=Stack height



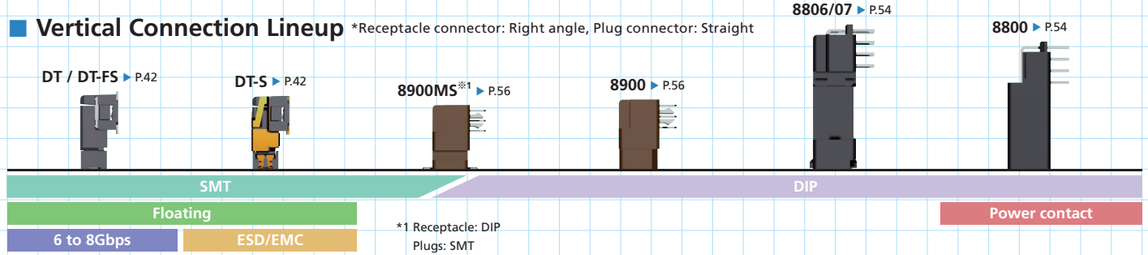
*Full-scale illustration (The actual dimensions may differ slightly.)

Grid: 5 mm

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

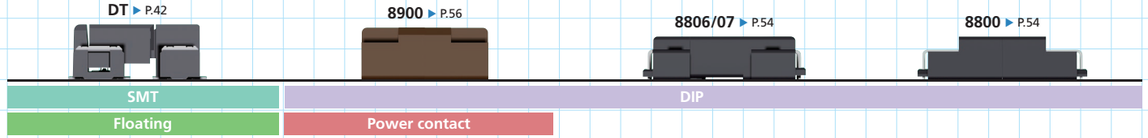


Vertical Connection Lineup *Receptacle connector: Right angle, Plug connector: Straight



*1 Receptacle: DIP
Plugs: SMT

Horizontal Connection Lineup

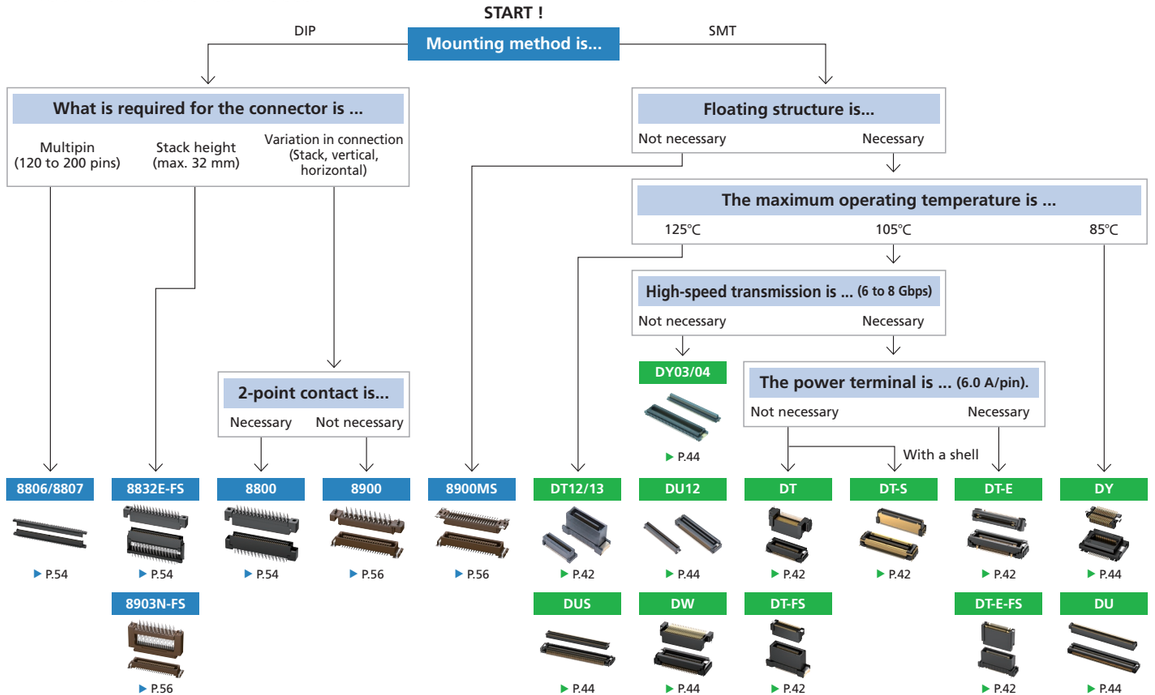


*Full-scale illustration (The actual dimensions may differ slightly.)

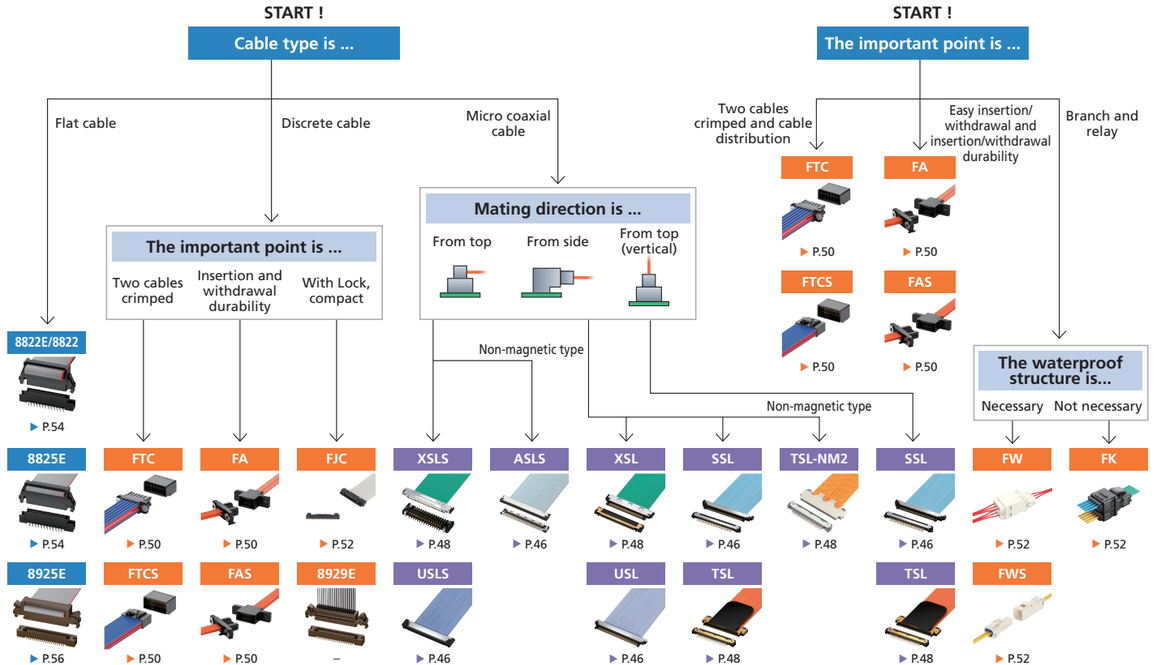
Grid: 5 mm

Connector Selection Chart

Board to board connector



Board to cable connector



Cable to cable connector

Variation Chart

Connection format | Board to Board

Pitch (mm)	Series name	Stack height (mm)	Rated current (A)/PIN*1	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.

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

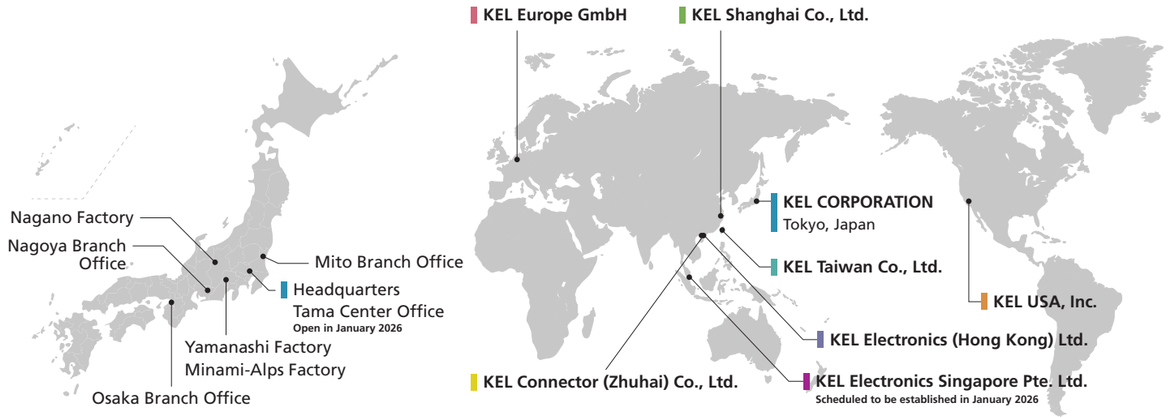
Connection format | Board to Cable / Cable to Cable

Pitch (mm)	Series name	Applicable wire size (AWG)	Rated current (A)/PIN*1	Number of contacts	Product details
0.25	XSL	Micro coaxial cable: #44/46	0.25	48	P.48
0.25	XSLS	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: ϕ0.5–0.6 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: ϕ0.88–1.14 mm)	1.5–3.0	4–40	P.50
2.0	FWS	Discrete cable: #22/24/26/28(0.08–0.3sq) (cable coating outer diameter: ϕ1.0–1.7 mm)	3.0	2, 3, 4, 6, 8	P.52
2.1	FK	Discrete cable: #22/24/26/28 (cable coating outer diameter: ϕ0.8–1.7 mm)	2.5–5.5	5, 7	P.52
2.5	FA	Discrete cable: #22/24/26/28 (cable coating outer diameter: ϕ0.88–1.70 mm)	3.0	4–40	P.50
2.5	FTCS	Discrete cable: #18/20/22/24/26/28 (cable coating outer diameter: ϕ0.88–2.03 mm)	2.0–6.5*2	6, 12, 16, 20	P.50
5.0	FW	Discrete cable: #16/18/20/22(0.3–1.25sq) (cable coating outer diameter: ϕ1.5–3.1 mm)	7.0–10.0	2, 3, 4	P.52
5.08	FTC	Discrete cable: #14/16/18/20 (cable coating outer diameter: ϕ1.8–3.4 mm)	7.0–12.0*3	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.

Index

Site List



Sales Sites

Headquarters
Nagayama, Tama-shi, Tokyo

Tama Center Office
Open in January 2026

Mito Branch Office

Nagoya Branch Office

Osaka Branch Office

Production Sites

Yamanashi Factory

Nagano Factory

Minami-Alps Factory

Overseas Subsidiaries

KEL (Shanghai) Corporation

KEL Electronics (Hong Kong) Limited

KEL Connectors (Zhuhai) Limited

KEL Taiwan Co., Ltd.

KEL Electronics Singapore Pte. Ltd.
Scheduled to be established in January 2026

KEL Europe GmbH

KEL USA, Inc.

KEL

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