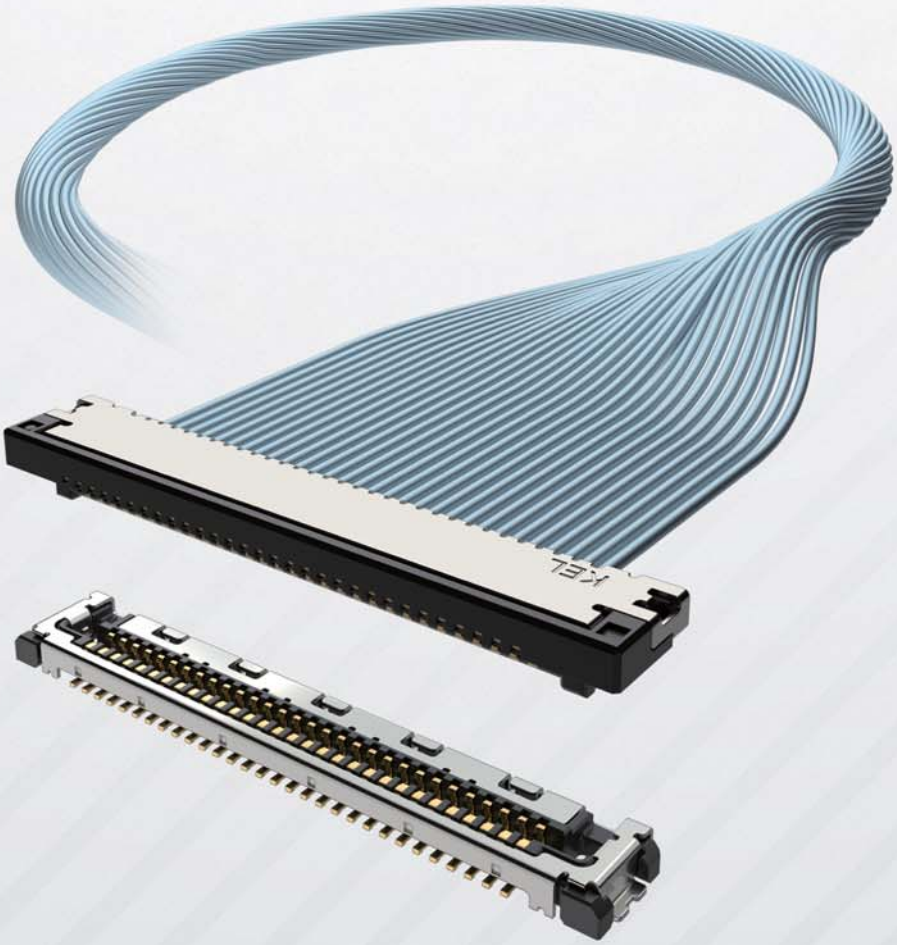
KEL

B.C.E. ELECTRONICS

0.4mm pitch Micro Coaxial Cable Connector

ASLS SERIES



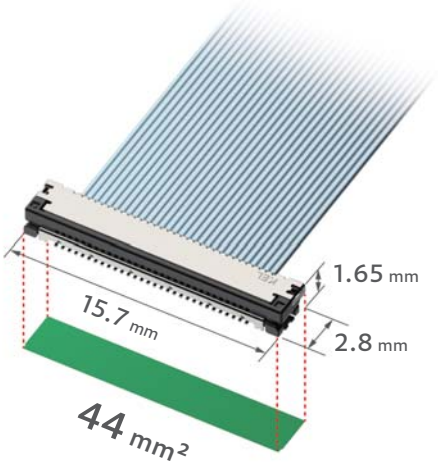
Introducing the industry's smallest non-magnetic connector
with compact size and high heat resistance

A connector for micro coaxial cables with stable performance even at 105°C,

Space saving

Board occupying area of 44mm², the industry's smallest class ! Expand your design freedom

By improving the product structure, we have realized a board area of 44mm². Approximately 17% space saving compared to our 0.4mm pitch micro coaxial cable connector (30pin comparison). The industry's smallest connectors expand your designs in limited space.

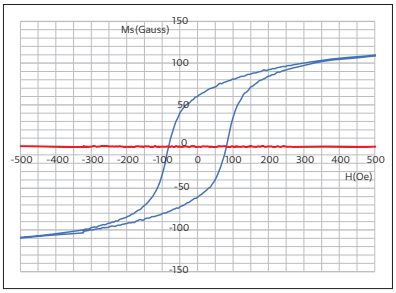


Non-magnetic

Introducing a new non-magnetic micro coaxial cable connector!

Achieved non-magnetic properties by reviewing the plating. It is useful in situations where consideration for magnetism is required.

In various situations such as medical settings



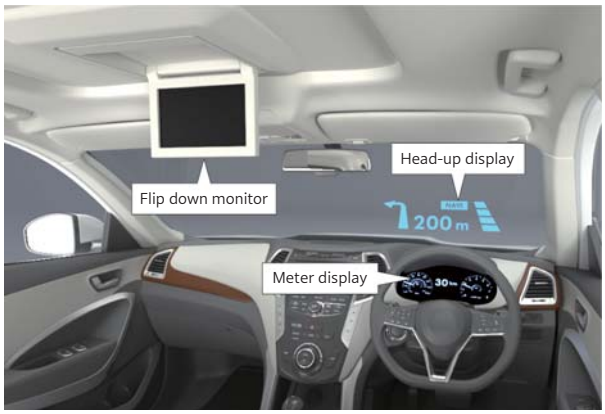
Normal plating — Non-magnetic plating

Hysteresis curve

High heat resistance

105°C compatible Progress from 85°C

The upper limit of the operating temperature for conventional connectors for micro coaxial cables was 85°C. ASLS has a double crimp structure with two cable fixing points, making it possible to use an upper limit temperature of 105°C. With the addition of high heat resistant products, it can be used in a wide range of equipment.



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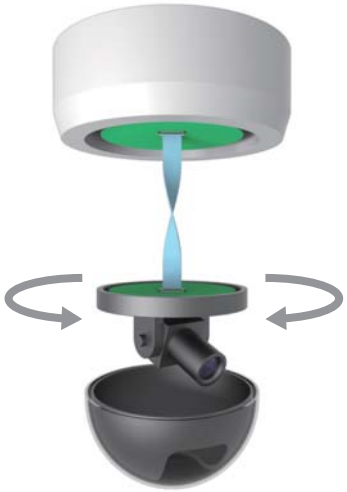
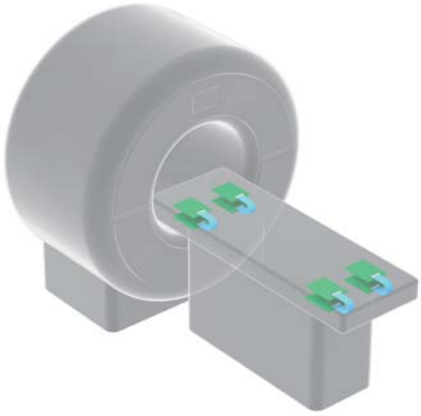
Tel.: 0536 811616 - Fax: 0536 811500 - Web: www.bce.it - E-mail: bce@bce.it



Application example **TV conference camera, Dome camera**

The compact design makes it suitable for use in limited space, such as in imaging equipment. In addition, it has excellent bending and twisting resistance, so it is useful in situations such as flip-down monitors that need to be routed in tight spaces, and in situations where devices such as surveillance cameras rotate.



Conventional product

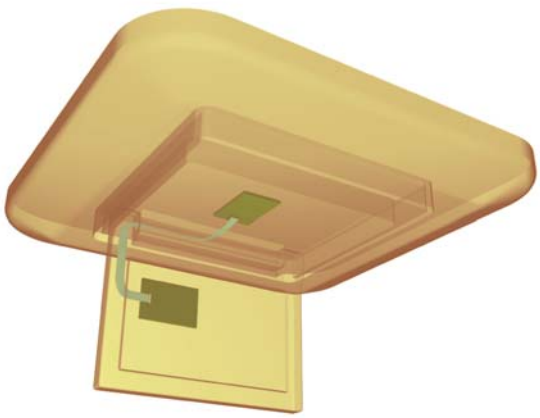
The connector peels off from PCB under the influence of the magnetic field.

ASLS

It does not float because it is non-magnetic. Connector does not peel off from PCB.

Application example **MRI**

It is unaffected by electronic equipment that generates magnetic fields, such as medical equipment, and prevents the connector from peeling off.



Application example **In-vehicle monitor**

A connector for micro coaxial cables that achieves stable transmission even under harsh conditions such as in-vehicle equipment.

Preventive lock structure and 2-point contact structure

Contact lock

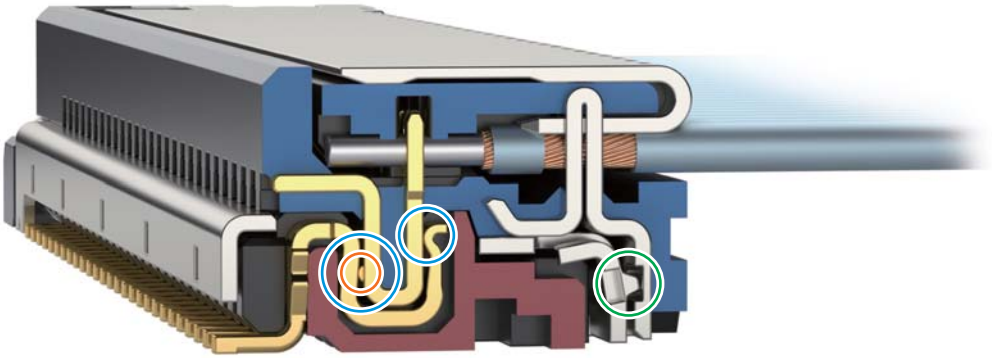
- Good click feeling
- Strengthening downward stirring strength

Shell lock

- Good click feeling
- Strengthening upward stirring strength

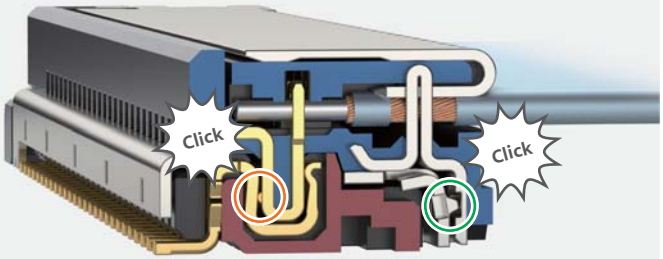
Two-point contact structure with high contact reliability

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



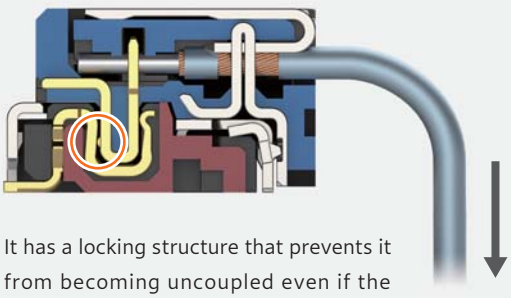
Good click feeling

The two locking structures create a good click feeling when mating. This makes it easier for the operator to recognize when the connector is mated, thereby preventing incorrect mating and poor contact.

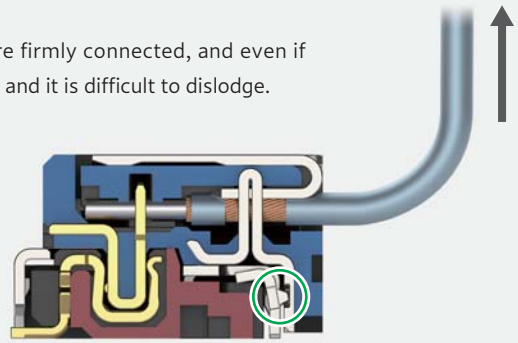


Strengthening of stirring strength

The locking points on the contact side and the shell side are firmly connected, and even if force is applied in the vertical direction, contact is maintained and it is difficult to dislodge.



It has a locking structure that prevents it from becoming uncoupled even if the cable is pulled downward.



It has a locking structure that prevents it from becoming uncoupled even if the cable is pulled upward.

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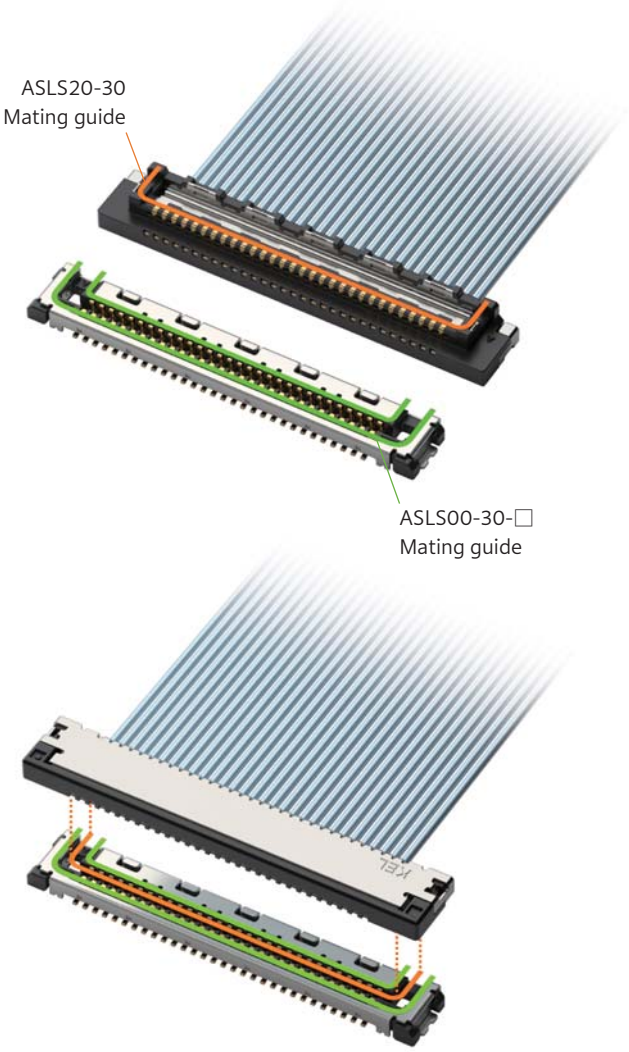
Mating guide structure

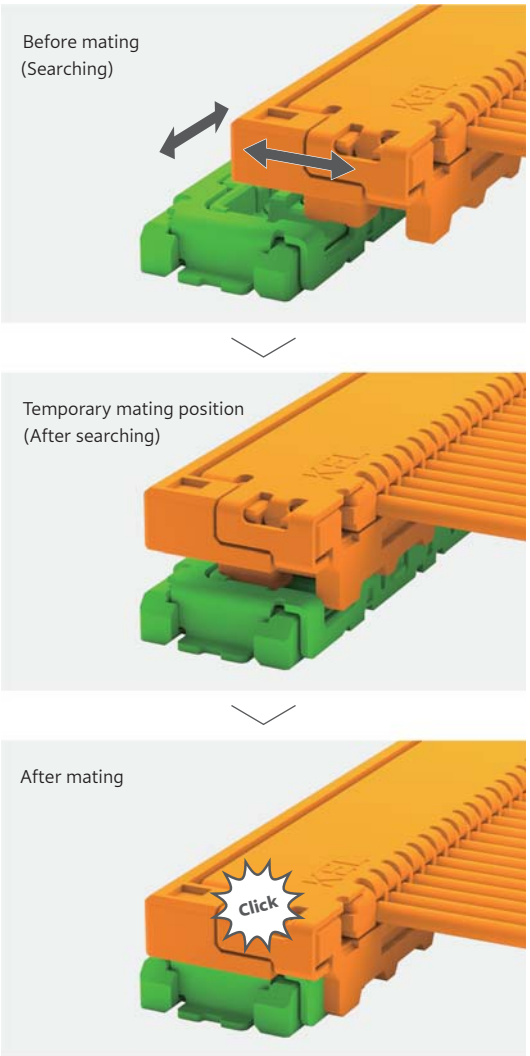
Improved mating workability

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



Easy to match mating position

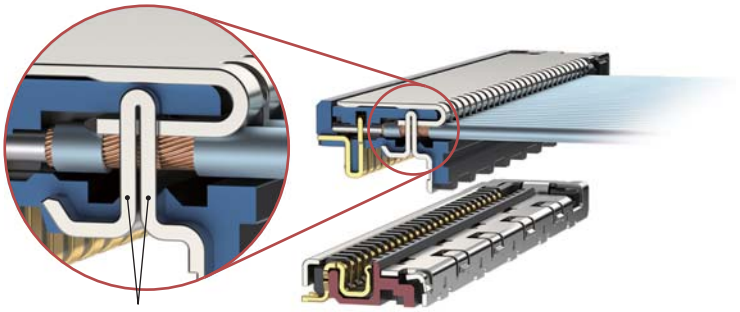
The easy-to-search structure makes it easy to match the temporary mating position. Prevents incorrect mating and damage due to misalignment of the mating position.



W Crimp structure

Enables enhanced cable retention and high temperature support of 105°C

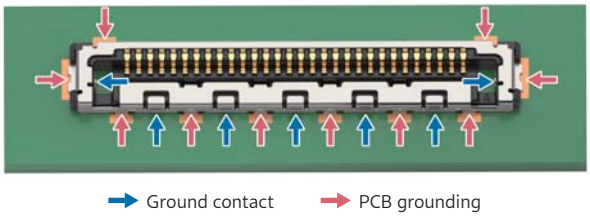
By bending the crimp part 180 degrees and providing cable fixing in two places, the cable holding power is strengthened, the contact reliability with the shield wire is improved, and it can now withstand temperatures as high as 105°C.



Ground multi-point structure

Excellent noise immunity

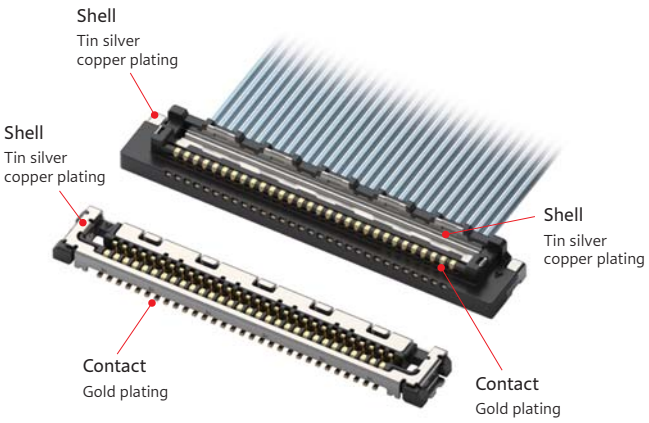
Multi-point ground contacts and multi-point grounding prevent electrical interference in the vicinity and enhance noise resistance.



Plating specifications that enable non-magnetic properties

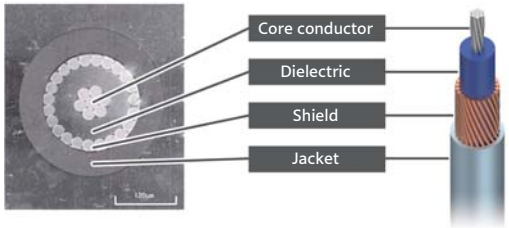
Non-magnetic properties achieved through contact and shell plating specifications

By changing the plating specifications of our existing micro coaxial cable connectors, we have achieved non-magnetism while maintaining the previous transmission characteristics.



Features of micro coaxial cable

Despite being extremely thin, each cable has a coaxial structure, offering excellent noise resistance and transmission characteristics. This cable has high flexibility and twistability.



Highly flexible and free wiring

Bending / twisting / movable parts

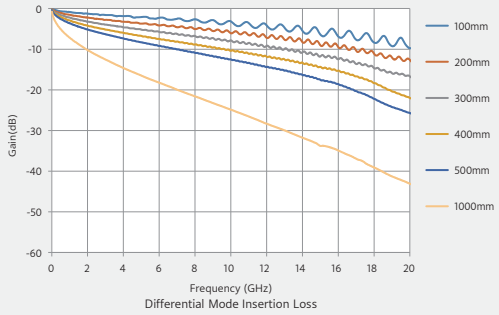
Free routing / Possible to pass through thin tubes afterwards

Type with shell for enhanced EMC measures

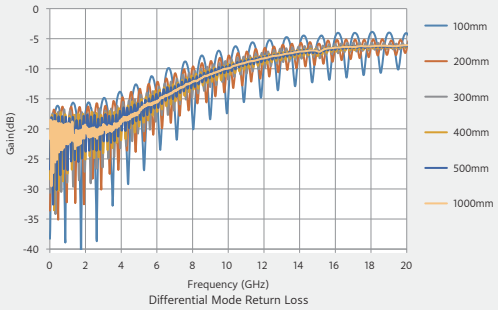
It is also possible to take further EMC measures.
If you have any requests, please contact our sales representative.

Covering the connector with a shell prevents noise from entering.

Insertion Loss

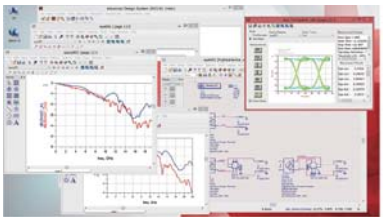


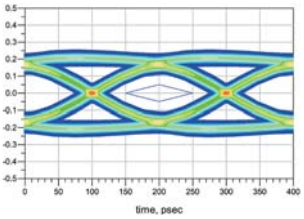
Return Loss

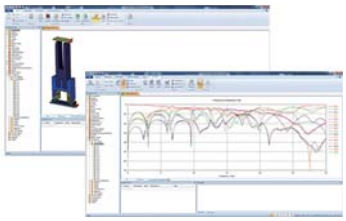


KEL owns equipment to measure transmission characteristic data.
It is possible to submit a report summarizing simulation data and results.

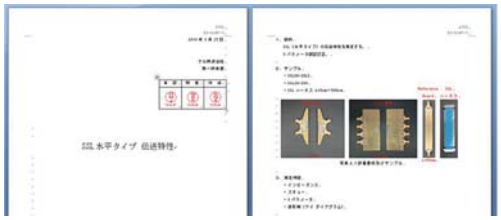
Transmission simulation reference image

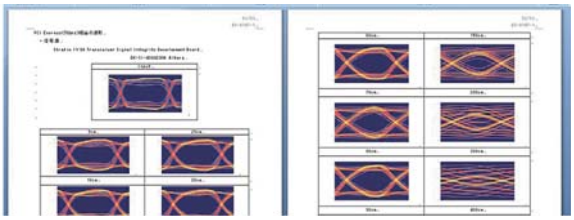






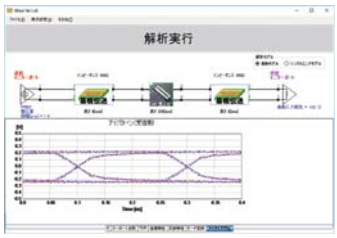
Report image





Simulation software (SiReal) image

We have installed software that can easily simulate transmission characteristic data on the computers of our sales representatives. By listening to the customer's specifications and inputting the data into this software, it is possible to check the simulation of transmission characteristic data on the spot. If you have any requests for high-speed transmission, please contact our sales representative.



Customized harness

KEL provide customized harness products that meet customer specifications. KEL engineers handle everything from design to cable component procurement and management. Furthermore, KEL even guarantee the quality of finished harnesses, ensuring that our customers can use them with peace of mind.

Customer request ⇨ Summarization of request ⇨ Design Prototyping ⇨ Mass production

Order code

ASLS00-30-□
❶ ❷ ❸

❶	Type	ASLS00: Receptacle(PCB side connector)
❷	Number of contacts	30: 30 pin
❸	Quantity	A: 500 pcs/reel B: 1,000 pcs/reel C: 3,000 pcs/reel

ASLS20-30
❶ ❷

❶	Type	ASLS20: Plug(Cable side connector)
❷	Number of contacts	30: 30 pin

* As KEL provide the harness as a complete product, the "ASLS20-30" connector is not sold separately.

Specification

Material and plating	
Insulator material	Glass-filled LCP (UL94V-0), Black
Contact material	Copper alloy
Contact plating	(Contact area) Gold over Nickel (Terminal area) Gold over Nickel
Metal shell material	Copper alloy
Metal shell plating	Tin-silver-copper over Copper
Pressure welding cover material	Glass-filled LCP (UL94V-0), Black
Adsorption tape material	[ASLS00] Polyimide

Electrical characteristics	
Rated current	0.25A per contact
Contact resistance	100mΩ max.
Dielectric withstand voltage	200V AC for 1 minute
Insulation resistance	100MΩ min. at 250V DC
Operating temperature	-40°C to +105°C
Applicable cable	AWG#42 micro-coaxial cable

Order code for cable assembly

ASLS20-30-□□□.□-□□(□)□
❶ ❷ ❸ ❹ ❺ ❻ ❼

❶	Type	ASLS20: Plug(Cable side connector)
❷	Number of contacts	30: 30 pin
❸	Length dimension (cm)	L: Cable length (e.g. 013.5 = 13.5cm)
❹	Wiring code	B: Pin 1 to pin 1 C: Pin 1 to pin n
❺	Laminated tape	No code : Without tape H : With tape
❻	Quantity	(A): 1 to 9 pcs (B): 10 to 49 pcs (C): 50 to 99 pcs (D): 100 pcs or more
❼	Cable type	Y: Standard product No code: Semi-standard product

* Applicable cable length: 4 to 100 cm Minimum Harness length for ASLS20-30-□□□.□-BH(□)□ : 7cm

KEL Company Profile

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

Factories

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

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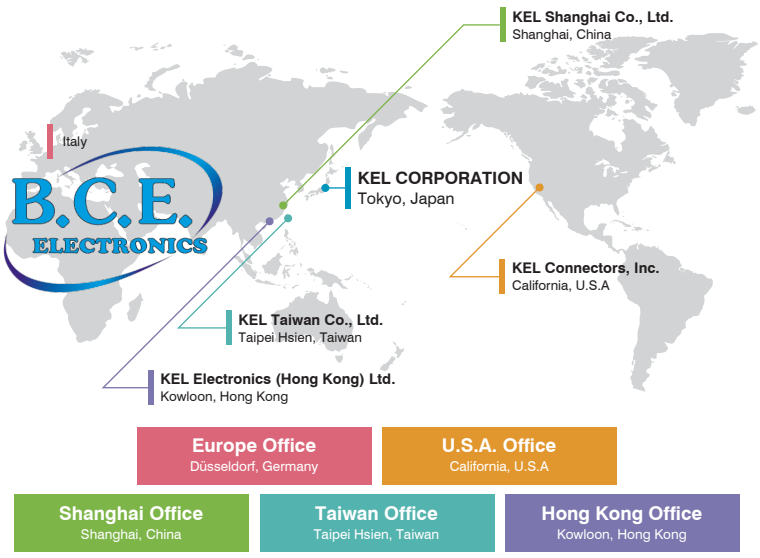
Global Network



www.kel.jp
KEL provides the products from a connector to a rack.
KEL CORPORATION

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