

NEW



ES9 Series

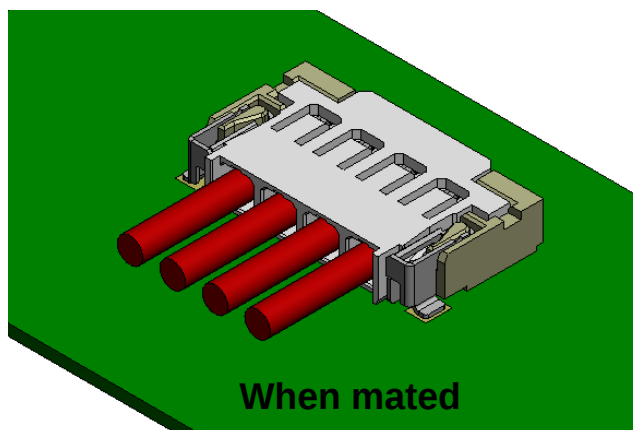
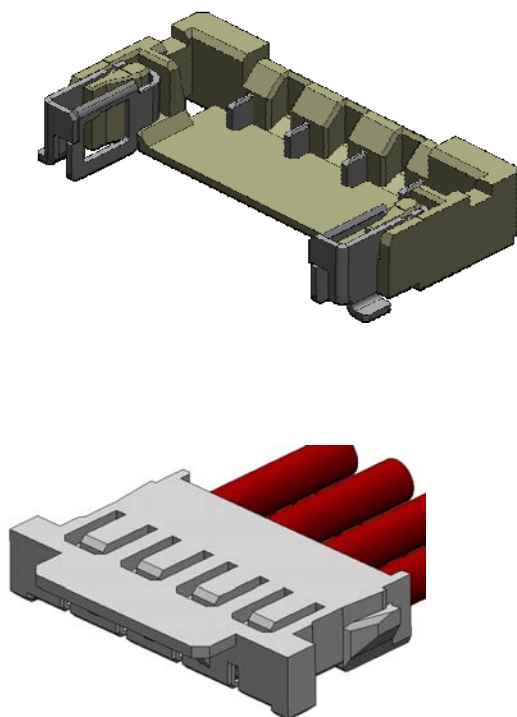
Spring Lock Connector

CONNECTOR

MB-0264-1

July 2013

RoHS Compliant



Features

- Improved operability through upper-side mating. Easy to visually confirm the connector is mated.
- Original locking design structure (Spring Lock) achieves high retention strength in the cable lifting direction.
Cable lifting-direction retention strength: 15N min.
- Improved contact reliability with a 2-point contact structure.
- 22AWG (outer cable diameter: 2.1mm max.) compatible with a low-profile structure (product height: 3mm).

General Specifications

- | | |
|--|--|
| ■ No. of Contacts: 2, 4 positions | ■ Retention Strength: 15N min. |
| ■ Contact Resistance: 30m Ω max. (initial),
45m Ω max. (after test) | ■ Insulation Resistance: 10M Ω min. |
| | ■ Mating Cycles: 10 times |
| ■ Voltage: AC/DC 300V | ■ Operating Temperature:
-40 Deg. C to +105 Deg. C |
| ■ Current: 4A per position (for 2-position)
3A per position (for 4-position) | ■ Applicable Wire: 22 to 26AWG
(Outer cable diameter: 1.0 to 2.1mm) |

Materials and Finishes

Component	Item	Material and Finish
Plug (Board side)	Insulator	LCP resin
	Contact	Copper alloy / Sn plating
	Hold down	Copper alloy / Sn plating over Ni
Socket (Cable side)	Housing	Nylon resin
	Crimp contact	Copper alloy / Sn plating

Ordering Information

ES9 P 00 * V F Z (R 1 6 0 0)

Series

Connection type

P: Plug side

S: Socket side

No. of Contacts

Board Connection

V: SMT straight type with hold-down

S: Socket for crimp connection

Reel Product (Note 1)

Z: Standard product (plug, socket)

1: UL certified product (plug)

A: UL certified product (socket)

Note) Please refer to MB-0260-2 for
UL certified products.

Connection Area Plating

F: Sn plating

Z: None (housing)

Note 1: An embossed tape reel contains 1,600 pieces.

ES9 S 06K 4 F A

Series

Connection type

P: Plug side

S: Socket side

Reel Product (Note 2)

Modification Code

Connection Area Plating

F: Sn plating

Z: None (housing)

Applicable wire: 22 to 26 AWG

Note 2: A carrier tape reel contains 6,000 pieces.

Technical drawing of the ES9S00*SZ series connector, showing front, side, and cross-sectional views with dimensions and callouts.

Front View Dimensions:

- Overall width: $A \pm 0.2$
- Pin pitch: $3 \times (N-1) \pm 0.2$
- Pin diameter: 3 ± 0.1 (PITCH)
- Pin spacing: 0.3 ± 0.05
- Mounting hole diameter: $\phi 2.95$
- Mounting hole spacing: $B \pm 0.2$
- Pin length: $C \pm 0.2$
- Pin diameter: $\phi \text{MIN.} 5.7 \text{mm}$

Side View Dimensions:

- Overall height: 1.95 ± 0.2
- Pin length: 7 ± 0.2
- Pin diameter: 0.75 ± 0.2
- Pin spacing: 3 ± 0.2

Cross-sectional View Dimensions:

- Overall width: 1.35
- Pin diameter: $\phi 0.5$

Callouts and Notes:

- NO.1: Pin 1
- 1: Pin 1
- 2: Pin 2
- (VACUUM AREA): Vacuum area
- (NOTE1): Note 1
- 3: Pin 3
- 4: Pin 4
- ES9S00*SZ: Connector model
- ES9S06K4FA: Connector model
- MATED CONDITION (REF.): Mated condition (reference)
- 嵌合状態図(参考): Mated condition diagram (reference)
- NOTE1: LOT MARKING: Note 1. Lot marking
- 注1: 組立ロットを表示する: Note 1. Lot marking

TABLE 1

NO. OF CONTACTS	A	B	C	D
2	10.8	11.3	7.3	11.7
4	16.8	17.3	9.8	17.7

Technical drawing of the CR-1000 connector, showing various views and dimensions.

Top View: Shows the overall dimensions of the connector. The length is 18 ± 0.1 mm. The width is 1.75 ± 0.1 mm. The thickness is 0.3 ± 0.1 mm. The mounting holes are spaced 4 ± 0.1 mm apart. The connector is shown in a cross-section view (A-A) with a diameter of 1.5 ± 0.1 mm.

Side View: Shows the profile of the connector. The height is 1.75 ± 0.1 mm. The width is 0.3 ± 0.1 mm. The mounting holes are spaced 4 ± 0.1 mm apart. The connector is shown in a cross-section view (B-B) with a diameter of 1.5 ± 0.1 mm.

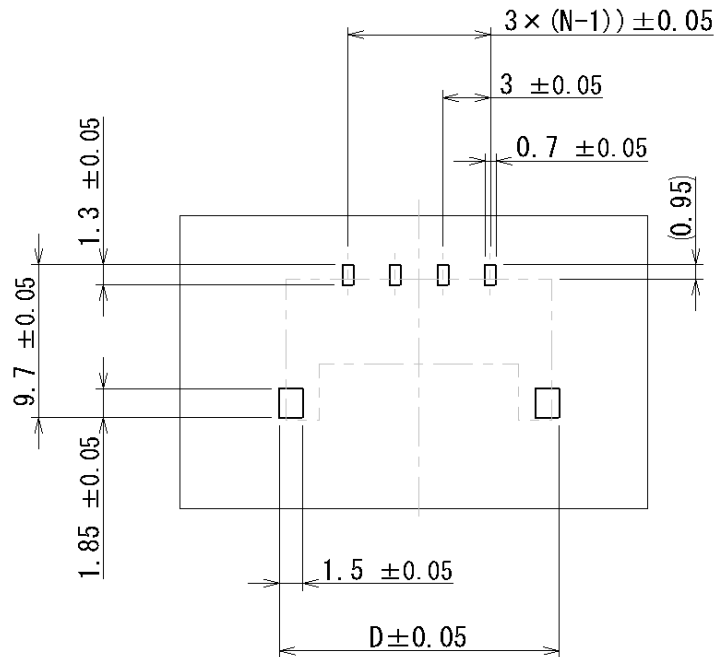
End View: Shows the end of the connector. The diameter is 1.5 ± 0.1 mm. The thickness is 0.3 ± 0.1 mm. The mounting holes are spaced 4 ± 0.1 mm apart. The connector is shown in a cross-section view (C-C) with a diameter of 1.5 ± 0.1 mm.

Detail View: Shows the detail of the connector. The diameter is 1.5 ± 0.1 mm. The thickness is 0.3 ± 0.1 mm. The mounting holes are spaced 4 ± 0.1 mm apart. The connector is shown in a cross-section view (D-D) with a diameter of 1.5 ± 0.1 mm.

Table 1: Dimensions of the CR-1000 connector

NO. OF CONTACTS	A	B	C	D
2	25.5	24	11.5	-
4	35.5	32	14.2	28.4

<Applicable Board Dimensions>



APPLICABLE P.C.B. DIMENSION (REF.)
適合基板寸法 (参考)

Drawing Number

Part Number	Drawing No.
ES9P00*VFZ	SJ114446
ES9S00*VFZR1600	SJ114447
ES9S00*SZZ	SJ114448
ES9S06K4FA	SJ113516

Crimping Tool

Cable Size	Hand Tool	Semi-automatic Applicator
22 to 26AWG	CT150-4-ES9	3502-ES9-2

Technical Documents

Specifications	JACS-11001
Handling Instructions	JAHL-11001

Notice:

1. The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products. For purchase, a product specification must be agreed upon.
2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.
3. The products presented in this brochure are designed for the uses recommended below.
We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.
 - (1) Applications that require consultation:
 - (i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:
Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.
 - (ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as :
Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.
 - (2) Recommended applications include:
Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc

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