

PC BOARD MOUNTING CONNECTORS

720 SERIES (CRIMP TYPE CONNECTORS)

■ FEATURES

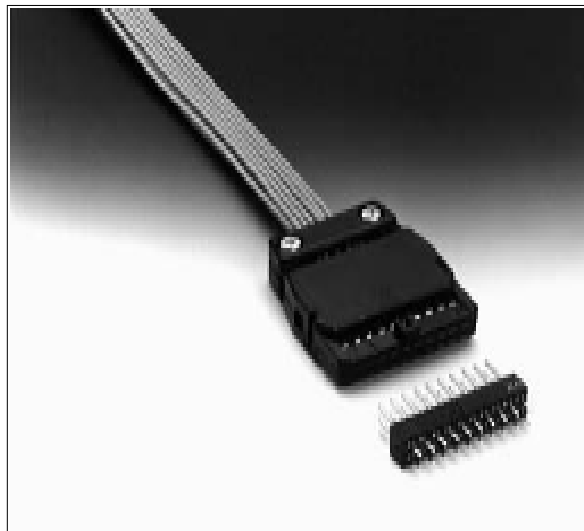
The 720 series connectors (crimp connector) are designed for a wide range of uses, and come in many shapes, two contact arrangements (one and two rows), and various pin types. The 720 series headers can be mated with 700 and 740 series sockets, and are lockable when a special cover is used. Female contacts are secured in the housing by a unique internal spring structure. High-pressure contacts are also available which prevent accidental disconnection in applications that use only a few contacts.

For W and S type headers, insulation molds can be cut to the necessary size.

■ SPECIFICATIONS

| Item | | Specification |
|--------------------------------|------------------------|---|
| Operating temperature range | | -55°C to +85°C |
| Current rating | | DC 3 A |
| Voltage rating | | AC 250 V |
| Contact resistance | | 20 mΩ max. (DC 6 V, 0.1 A) |
| Insulation resistance | | 1000 MΩ max. (DC 500 V) |
| Dielectric strength | | AC 500 V for 1 minute |
| Insertion force | Standard contacts | 1.05 kg max. (3 pins), 25.2 kg max. (72 pins) |
| | High-pressure contacts | 2.1 kg max. (3 pins), 50.4 kg max. (72 pins) |
| Withdrawal force | Standard contacts | 0.09 kg min. (3 pins), 2.16 kg min. (72 pins) |
| | High-pressure contacts | 0.18 kg min. (3 pins), 4.32 kg min. (72 pins) |
| Applicable wire | | Wire-wrap: AWG #26 to #30 (solid) Crimping: AWG #20 to #32 |
| Applicable PC board (standard) | | 1.6 mm (0.062 in.) |

Note: For thin wire crimping, the crimp height must be adjusted for increased reliability. Please contact us for further information.



■ MATERIALS

| Item | | Materials |
|---------------------|----------|---------------------|
| Insulating material | Header | Polyester (UL94V-0) |
| | Socket | PPO (UL94V-1) |
| | Cover | Nylon 6 (UL94V-2) |
| Conductor | | Copper alloy |
| Plating | Contact | Gold |
| | Terminal | Palladium |

Note: Tin-plated connectors are also available for 8- to 34-pin types.

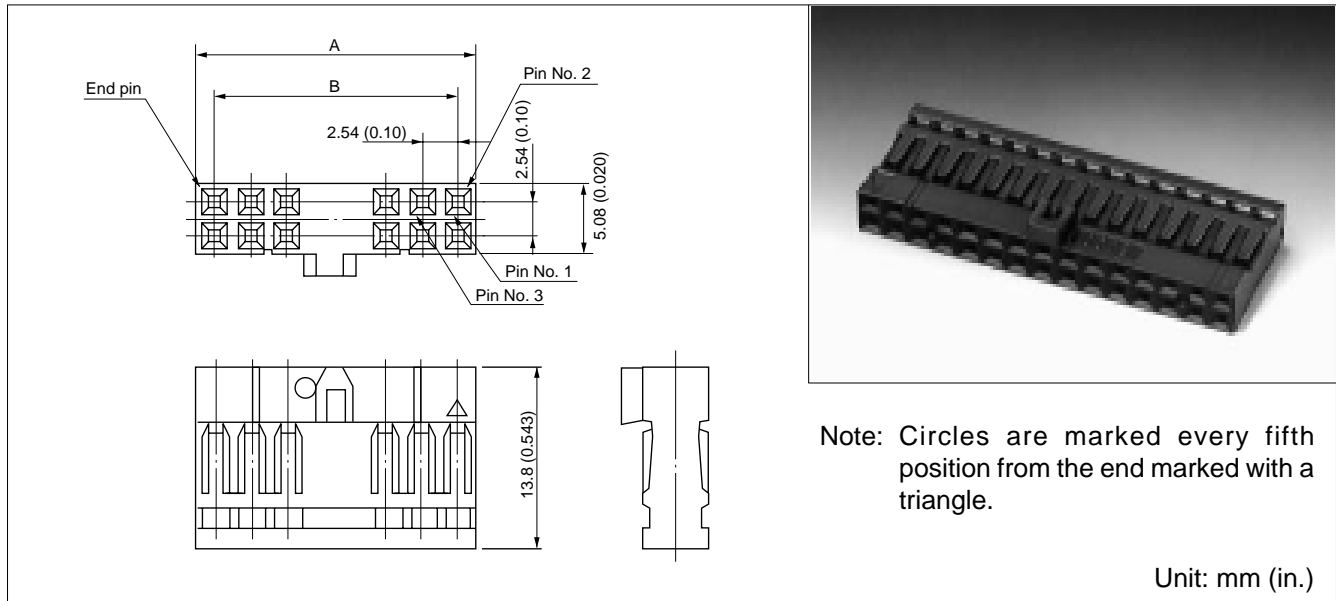
■ MATERIALS (SMT CONNECTOR)

| Item | | Materials |
|---------------------|----------|--------------------|
| Insulating material | | 66 Nylon (UL94V-0) |
| Conductor | | Copper alloy |
| Plating | Contact | Gold |
| | Terminal | Palladium |

720 Series (Crimp Type Connectors)

CRIMP SOCKET HOUSING (2-ROW, BUMP TYPE)

■ DIMENSIONS



■ PART NUMBERS AND DIMENSIONS

| Number of contacts | Part number | Dimensions (unit: mm (in.)) | |
|--------------------|---------------|-----------------------------|---------------|
| | | A | B |
| 10 | FCN-723B010/2 | 12.70 (0.500) | 10.16 (0.400) |
| 14 | FCN-723B014/2 | 17.78 (0.700) | 15.24 (0.600) |
| 16 | FCN-723B016/2 | 20.32 (0.800) | 17.78 (0.700) |
| 20 | FCN-723B020/2 | 25.40 (1.000) | 22.86 (0.900) |
| 26 | FCN-723B026/2 | 33.02 (1.300) | 30.48 (1.200) |
| 30 | FCN-723B030/2 | 38.10 (1.500) | 35.56 (1.400) |
| 34 | FCN-723B034/2 | 43.18 (1.700) | 40.64 (1.600) |
| 40 | FCN-723B040/2 | 50.80 (2.000) | 48.26 (1.900) |
| 50 | FCN-723B050/2 | 63.50 (2.500) | 60.96 (2.400) |
| 60 | FCN-723B060/2 | 76.20 (3.000) | 73.66 (2.900) |

■ REMARKS

- A cover may be used.
Part numbers for the cover:
FCN-720C □□□/2S (for 16-, 20-, 26-, 34-, and 50-contact types)
FCN-720C □□□/2P (for 34-, 40-, 50-, and 60-contact types)
FCN-720C □□□/2E (for 20-, 26-, 34-, 40-, 50-, and 60-contact types)

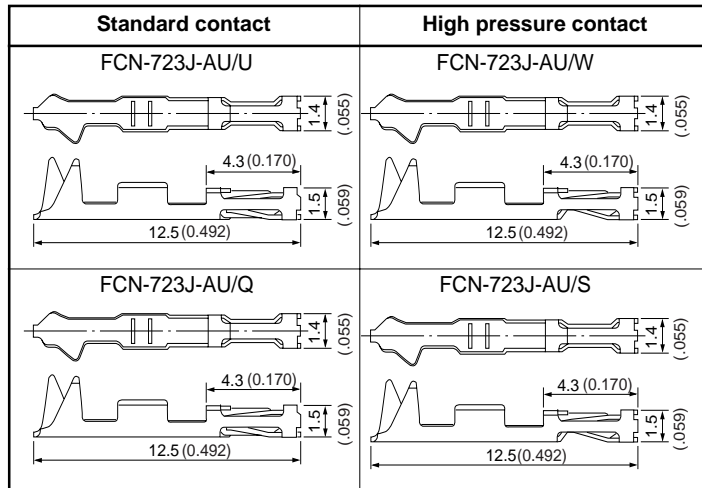
720 Series (Crimp Type Connectors)

CRIMP CONTACT

■ DIMENSIONS

1. Parts in bulk

Tool: Hand crimping tool

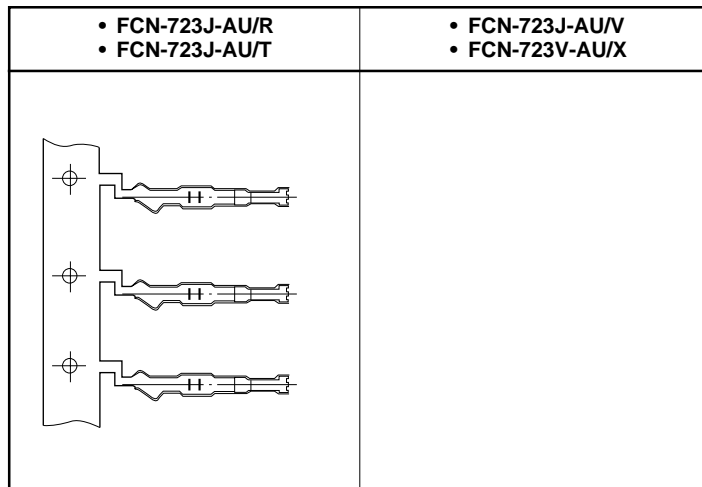


| Wire gauge (AWG#) | Applied contact | |
|-------------------|-----------------|---------------|
| | Standard type | High pressure |
| #20 | FCN-723J-AU/U | FCN-723J-AU/W |
| #22 | | |
| #24 | FCN-723J-AU/Q | FCN-723J-AU/S |
| #26 | | |
| #28 | | |
| #30 | | |
| #32 | | |

Unit: mm (in.)

2. Parts in strips

Tool: Semiautomatic crimping tool



| Wire gauge (AWG#) | Applied contact | |
|-------------------|-----------------|---------------|
| | Standard type | High pressure |
| #20 | FCN-723J-AU/V | FCN-723J-AU/X |
| #22 | | |
| #24 | FCN-723J-AU/R | FCN-723J-AU/T |
| #26 | | |
| #28 | | |
| #30 | | |
| #32 | | |

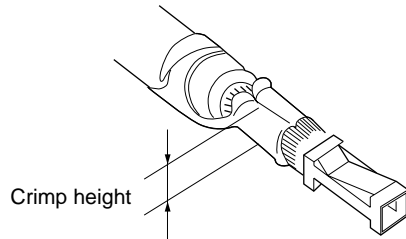
Unit: mm (in.)

720 Series (Crimp Type Connectors)

CRIMPING TOOLS

■ NOTES ON USING CRIMPING TOOLS

- Many crimping tools are available, but they are not compatible. Always use the crimping tools specified by Fujitsu.
- When using the tools, be sure to adjust the crimp height according to the table below. Otherwise, wires may be loose or break off.



Hand crimping tool

Semiautomatic crimping tool

■ HAND CRIMPING TOOL

| Wire gauge (AWG#) | Wire cross-sectional area (mm (in.)) | Crimp height (mm (in.)) | Insulator diameter (mm (in.)) | Hand crimping tool | Contact type | | Stripped length (mm (in.)) |
|-------------------|--------------------------------------|----------------------------------|--|--------------------------------------|---------------|---------------|--------------------------------|
| | | | | | Standard type | High pressure | |
| #20 | 0.52 to 0.64 (0.0205 to .0251) | 0.75 to 0.85 (0.029 to 0.033) | φ1.3 to φ1.8 (0.051 to 0.071) | FCN-723T-T018/H | FCN-723J-AU/U | FCN-723J-AU/W | 3.1 to 3.6 (0.122 to 0.141) |
| #22 | 0.30 to 0.40 (0.0118 to 0.0157) | 0.70 to 0.80 (.027 to .031) | | | | | |
| #24 | 0.20 to 0.24 (0.0079 to 0.0094) | 0.70 to 0.80 (.027 to .031) | φ1.1 to φ1.6 (0.043 to 0.063) | FCN-723T-T007/H | FCN-723J-AU/Q | FCN-723J-AU/S | |
| #26 | 0.13 to 0.16 (0.0051 to 0.0063) | 0.66 to 0.76 (.026 to .030) | | | | | |
| #28 | 0.088 to 0.096 (0.0035 to 0.0038) | 0.60 to 0.68 (.024 to .027) | φ0.7 to φ1.0 (0.028 to 0.039) (φ0.5 to φ0.6) (0.020 to 0.024) | FCN-723T-T008/H (FCN-723T-T015/H) | | | |
| #30 | 0.055 to 0.060 (0.0022 to 0.0029) | 0.68 to 0.75 (.027 to .029) | | | | | |
| #32 | 0.032 to 0.038 (0.0013 to 0.0015) | 0.66 to 0.71 (.026 to .028) | | | | | |

Note: Also, hand tool is available that can crimp two wires (AWG #30 φ0.5 mm) on one contact.
Part Number: FCN-723T-T014/H, Applicable contact: FCN-723J-Au/Q or S

■ SEMIAUTOMATIC CRIMPING TOOL

| Wire gauge (AWG#) | Wire cross-sectional area | Insulator diameter (mm (in.)) | Semiautomatic crimping tool | | Contact type | | Stripped length (mm (in.)) |
|-------------------|---------------------------|----------------------------------|-----------------------------|------------|---------------|---------------|----------------------------|
| | | | Press | Applicator | Standard type | High pressure | |
| #20 | | φ1.3 to φ1.7 (0.051 to 0.070) | FCN-M110 | | FCN-A118 | FCN-723J-AU/V | FCN-723J-AU/X |
| #22 | | | | | | | |
| #24 | | φ0.8 to φ1.6 (0.031 to 0.063) | | | FCN-A107 | FCN-723J-AU/R | FCN-723J-AU/T |
| #26 | | | | | | | |
| #28 | | φ0.5 to φ1.3 (0.020 to 0.051) | | | FCN-A108 | | |
| #30 | | | | | | | |
| #32 | | | | | | | |

Note: FCN-M100 conventional 3-ton press is also available. Contact us.

■ UNITS OF ORDERING PARTS IN STRIPS

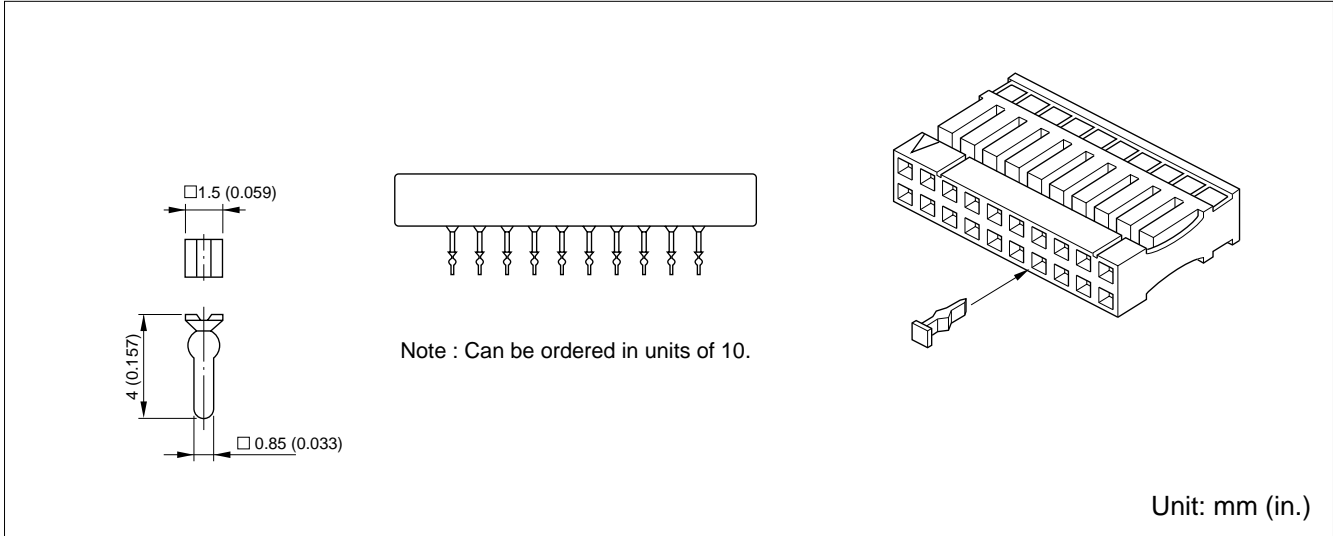
| Part number | Units of order |
|---------------|----------------|
| FCN-723J-AU/V | 5,000 |
| FCN-723J-AU/R | 8,000 |
| FCN-723J-AU/X | 5,000 |
| FCN-723J-AU/T | 8,000 |

720 Series (Crimp Type Connectors)

POLARIZING KEY

■ DIMENSIONS

Part number: FCN-700A1



■ SPECIFICATION OF POLARITY TO PREVENT INCORRECT INSERTION

| | Header | Socket |
|---------------|--|--|
| Polarization | Do one of the following: (1) Cut the contact of a specified pin. (2) Pull out a specified pin. | Plug in a polarizing key in a specified position. |
| Specification | Specify a two-digit pin number with polarity at the end of the part number. Example: When specifying pin No. 4 FCN-725P050-AU/0#04 | Specify a two-digit pin number with polarity at the end of the part number. Example: When specifying pin No. 4 FCN-723J050-AU/2#04 |

Note: The standard specification is #04 or the end pin number (if the end pin is 50, the specification is #50).

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