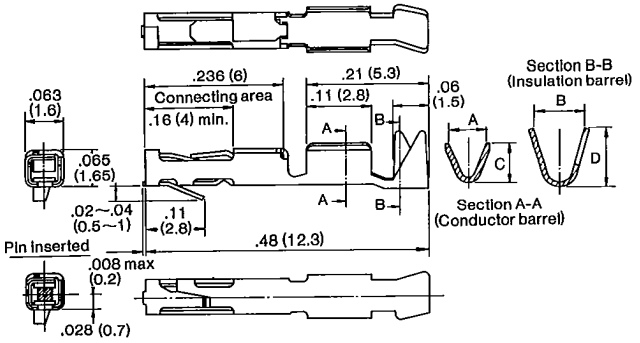
•CRIMP CONTACT FOR DISCRETE WIRE SOCKET CONTACT (SF TYPE) & CRIMPING TOOL

A-61-05-11

SOCKET CONTACT FOR SOCKET CONNECTOR

Crimp type socket contact inserted into socket connector (PS-**SD-D4C2, PS-**SD-S4C2, PS-D4C**)
After crimped with crimping tool, contact is inserted into contact hole from housing rear side and is retained in housing with contact latch. Contact can be extracted with extraction tool if necessary.

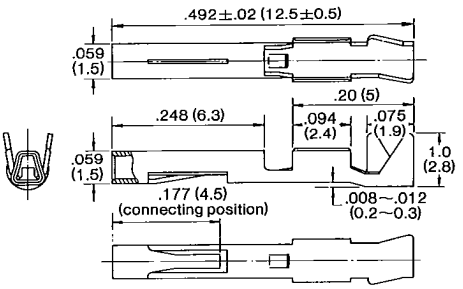


Material: Phosphor bronze
Finish: gold over nickel. .000004 (0.1 μ) min. gold on connecting area, gold flash on the other area.

SOCKET CONTACT FOR DISCRETE WIRE

Socket contact is crimped with discrete wire and is connected to single post or pin header post, or other .025 (0.64mm) square post for individual connection in internal wiring.

Part Number: 030-50698-1



Material: Phosphor bronze
Finish: .000012 (0.3 μ) gold over nickel

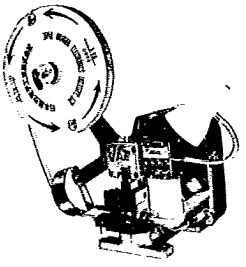
Dimensions subject to change.
(millimeters are in parentheses)

	Part Number (Note 1)	A ±.012 (±0.3)	B ±.012 (±0.3)	C ±.012 (±0.3)	D ±.012 (±0.3)	Applicable Wire Size: AWG	Applicable Wire Size: Conductor Cross-sectional Area	Applicable Wire Size: Overall dia. including Insulation	Tool
LOOSE	030-51304-001 (PS-SF-C2-1)	.063 (1.6)	.071 (1.8)	.063 (1.6)	.094 (2.4)	#28~#24	0.08~0.20mm²	.028 (0.7)~ .047 (1.2)	CT150-1-PSSF Hand Tool
REELED (Note 2)	031-50828 (PS-SF-C2-1-N)								CT350-2-PSSF Semi-Auto. Tool
LOOSE	030-51307-001 (PS-SF-C1-1)	.067 (1.7)	.087 (2.2)	.071 (1.8)	.102 (2.6)	#24~#22	0.20~0.38mm²	.047 (1.2)~ .063 (1.6)	CT150-1G-PSSF Hand Tool
REELED (Note 2)	031-50831 (PS-SF-C1-1-N)								CT350-2-PSSF Semi-Auto. Tool
For discrete wire	030-50698-1 (PS-SC-C2-1)	—	—	—	—	#28~#26	0.08~0.13mm²	.031 (0.8)~ 0.43 (1.1)	CT150-1-PSC (hand)
						#26~#24	0.13~0.20mm²	.039 (1.0)~ 0.55 (1.4)	CT150-1B-PSC (hand)

(Note 1) Part number in parentheses is not needed.
(Note 2) 5,000 contacts per reel
(Note 3) Other than .000004 (0.1 μ) min gold on connecting area, .000012 (0.3 μ) min. gold or .000030 (0.76 μ) min. gold on connecting area are also available.

•Semi-automatic Crimping Tool

Semi-automatic crimping tool is available for high volume of crimp terminations. Reeled contacts can be successively crimped and labor-saving can be accomplished in the termination procedure. Consult us for details.



•Hand Crimp tool

(see page 16 for hand crimp procedure)

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■GENERAL SPECIFICATIONS (MAIN PERFORMANCE)

(Note) Group A... crimp type socket connector, dip receptacle pin header, pin connector
Group B... socket connector for FRC (contact installed) and PCB transition connector

	TEST ITEM	PERFORMANCE		TEST METHOD
		GROUP A	GROUP B	
ELECTRICAL	Rated current	3 A	1 A	—
	Insulation resistance	1000 MΩ min.	1000 MΩ min.	To be measured within 1 min. with 500 VDC (100 VDC for FRC socket) applied between contacts
	D.W.V.	1000 VAC r.m.s.	500 VAC r.m.s.	Between the most adjacent contacts for 1 min.
	Contact resistance	10 mΩ max.	(a) socket... 20 mΩ max. (b) transition 10 mΩ max.	Voltage drop measurement, test current 0.1 A DC, applied voltage 3—6 V
	Low level contact resistance	10 mΩ max.	(a) socket... 20 mΩ max. (b) transition 10 mΩ max.	Test current 1 mA max. Open test voltage 20 mV max.
MECHANICAL	Lever operating force (shrouded pin header)	2 kg max. for 10 contact connector 2.5 kg max. for 16—34 contact connector 3 kg max. for 40—50 contact connector 3.5 kg max. for 60 contact connector		Both levers are operated evenly to unmate mated connectors and the load is measured using tester
	Locking strength (shrouded pin header)	(a) 8 kg min. (b) no cracking, breaking or loosening of parts		Mated connectors are pulled in the axial direction and the load is measured using tester.
	Individual contact unmating force	40 g min.		A steel pin gage (.025±.00004 (0.64±0.01)) is inserted into and withdrawn from socket contact in the axial direction and withdrawal force is measured
	Connector mating/ unmating force	(a) connector mating force... 300 g x (no. of contacts) max. (b) connector unmating force... 40 g x (no. of contacts) min.		Pin header is inserted into and withdrawn from socket connector in the axial direction and the load is measured using a tester
	Cover holding force	—	(a) socket... 10 kg min. (b) transition 5 kg min.	Cover insulator assembled in base insulator is pulled to separate from base insulator and the load is measured
	Crimp tensile strength (crimp contact only)	Nominal sect. area / Corresponding AWG No. / Min. crimp tensile strength		Both ends of crimped contact and wire are pulled to the axial direction until the contact and the wire are ultimately separated or broken
		0.2 mm² / #24 / 3.5 kg		
		0.15 / #26 / 2.1		
		0.08 / #28 / 1.4		
ENVIRONMENTAL	Thermal shock	Step / Temperature (°C) / Time (min.)		MIL-STD-202, Method 107, condition B (condition A for FRC connector), mated connector, 5 cycles, no physical damage during test.
		1 / −65 +0 −3 (−65 +0 −3 for Group B) / 30		
		2 / +25 +10 −5 / 5 max.		
		3 / +125 +3 −0 (+85 +3 −0 for Group B) / 30		
		4 / +25 +10 −5 / 5 max.		
	Moisture resistance	After test Insulation resistance 100 MΩ min.		MIL-STD-202, Method 103, condition B, Mated connector, 40±2°C, 90 to 95% relative humidity, 96 hours
	Salt spray	No evidence of corrosion on contacts sufficient to interfere with operation of connectors.		MIL-STD-202, method 101, condition B, Mated connector, 5% salt solution, 35°C, 48 hours
	Vibration	No cracking, breaking or loosening of parts, no interruption more than 1 microsecond max. Individual contact unmating force and connector mating/ unmating force are to be passed		MIL-STD-202, Method 204 (Method 201 for FRC connector) Mated connectors, carrying a 100 mA current during test
	Shock	No cracking, breaking or loosening of parts. No interruption more than 1 microsecond		MIL-STD-202, Method 202, Mated connector, 50G, one blow in each direction of three mutually perpendicular axes, carrying a 100mA current during test
	Durability	No physical defects during test After test, Individual contact unmating force: 40 g min. Contact resistance: 10 mΩ max. (40 mΩ max. for FRC connector)		500 cycles of mating and unmating
	Current cycling	Wire size (AWG) / Test current (A) / Voltage drop (mV)		50 cycles of current cycling test (one cycle consists current running of 30 minutes and no current of 15 minutes) are conducted and the resistance at connecting portion is measured.
		#28 / 1.25 / 5		
		#26 / 1.25 / 4		
		#24 / 3.75 / 10		

Note: For detailed specifications, consult us.

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REFERENCE: OLD/NEW PART NUMBER CROSS REFERENCE

JAE PS series connectors have been standardized for cost reduction and reliability improvement. Examples are connecting length from .276″ (7 mm) to .236″ (6 mm), and stamped contact of pin header post. This catalog deals mainly with our latest standard items. For your future needs, please use our latest items as shown in this catalog although you have been satisfied with our connectors in the past.
Some combinations of old and new items should not be used. For details, consult us. (see below)

•CRIMP TYPE SOCKET CONTACT

Applicable wire	SD type (old)	SF type (new)
AWG #22～#24	030-51065-1 (PS-SD-C1NN-1)	030-51307-001 (PS-SF-C1-1)
	031-50800 (PS-SD-C1NN-1-N)	031-50831 (PS-SF-C1-1-N)
AWG #24～#28	030-50793-1 (PS-SD-C2NN-1)	030-51304-001 (PS-SF-C2-1)
	031-50617 (PS-SD-C2NN-1-N)	031-50828 (PS-SF-C2-1-N)

When crimp type socket contact SD type for discrete wire is used, care should be taken about the connecting length of counterpart pin header.

COMBINATION

Contact	Pin header connecting length	
	PA type .276 (7)	PE type .236 (6)
SD type (old)	o	x
SF type (new)	o	o

•SOCKET CONNECTOR

Double type	PS-**SD-D4C2
Single type	PS-**SD-S4C2

•SOCKET CONNECTOR WITH KEY

Old type	New type
PS-**SD-D4C2-N1	PS-D4C**

•OPEN PIN HEADER

		PA type (old)		PE type (new)
Changed content	Post connecting length	.276 (7)	.276 (7)	.236 (6)
	Manufactured	machined	stamped	stamped
	PCB mounting hole dia.	.039～.043 (1～1.1)	.039～.043 (1～1.1)	.031 (0.8) DIA (.039～.043 (1～1.1) for wrapping type)
Part number	straight, double	PS-**PA-D4T1-A1	PS-**PA-D4T1-P1	PS-**PE-D4T1-PN1
	straight, single	PS-**PA-S4T1-A1	PS-**PA-S4T1-P1	PS-**PE-S4T1-PN1
	angle, double	PS-**PA-D4LT1-A1	PS-**PA-D4LT1-P1	PS-**PE-D4LT1-PN1
	angle, single	PS-**PA-S4LT1-A1	PS-**PA-S4LT1-P1	PS-**PE-S4LT1-PN1
	wrapping, double	PS-**PA-D4R1-A1	—	PS-**PE-D4R1-A1 (machined)
	wrapping, single	PS-**PA-S4R1-A1	—	PS-**PE-S4R1-A1 (machined)

•IDC SOCKET CONNECTOR

	SEO type (old)	SEN type (new)
closed-end	PS-**SEO-D4P1-1C	PS-**SEN-D4P1-1C
daisy-chain	PS-**SEO-D4P1-1D	PS-**SEN-D4P1-1D

COMBINATION

Socket	Pin header connecting length	
	PA type .276 (7)	PE type .236 (6)
SEO (old)	o	o
SEN (new)	o	o

•PIN HEADER WITH LOCKING/UNLOCKING MECHANISM

		PA/PE type (old)		PE type (new)
Changed content	Connecting length	.276 (7)	.236 (6)	.236 (6)
	Manufactured	machined	machined	stamped
	MTG hole (dia.)	.039—.043 (1—1.1)	L1: .039—.943 (1—1.1) LN1: .031 (0.8)	.031 (0.8) dia. (.039—.043 (1—1.1) dia. for wrapping type
Part number	Straight	PS-**PA-D4T1-L1	PS-**PE-D4T1-L1 or LN1	PS-**PE-D4T1-LP1
	Angle	PS-**PA-D4LT1-L1	PS-**PE-D4LT1-L1 or LN1	PS-**PE-D4LT1-LP1
	Wrapping	PS-**PA-D4R1-L1	PS-**PE-D4R1-L1	PS-**PE-D4R1-L1 (machined)

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