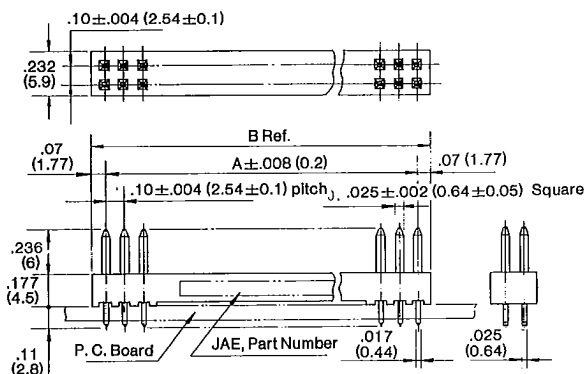


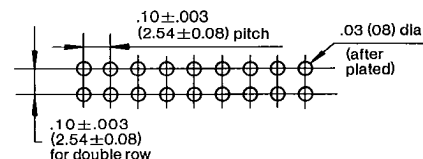
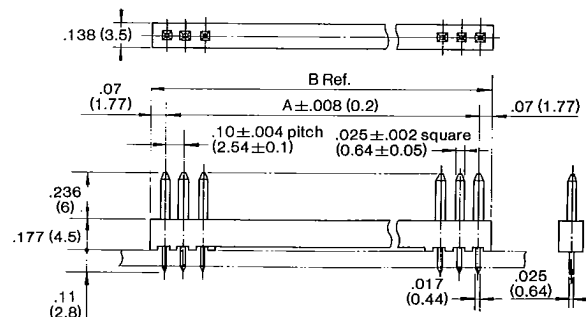
# • OPEN PIN HEADER (PCB CONNECTION, SOLDERING) STRAIGHT THROUGH HOLE (T) TAIL

A-61-05-07

## DOUBLE ROW: PS-\*\*PE-D4T1-PN\*



## SINGLE ROW: PS-\*\*PE-S4T1-PN\*



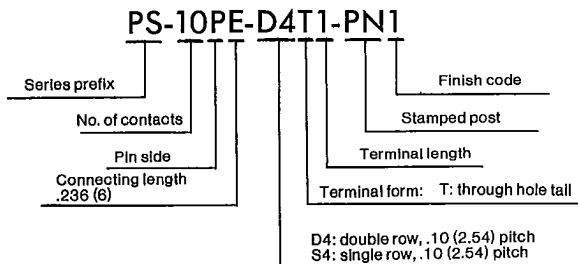
| Double Row            |                  | Single Row            |                  | A<br>±.008 (±0.2) | B<br>Ref.     |
|-----------------------|------------------|-----------------------|------------------|-------------------|---------------|
| Number of<br>Contacts | Part Number      | Number of<br>Contacts | Part Number      |                   |               |
| 10                    | PS-10PE-D4T1-PN* | 5                     | PS-5PE-S4T1-PN*  | .400 (10.16)      | .540 (13.70)  |
| 16                    | PS-16PE-D4T1-PN* | —                     | —                | .700 (17.78)      | .840 (21.32)  |
| 20                    | PS-20PE-D4T1-PN* | 10                    | PS-10PE-S4T1-PN* | .900 (22.86)      | 1.040 (26.40) |
| 26                    | PS-26PE-D4T1-PN* | —                     | —                | 1.200 (30.48)     | 1.340 (34.02) |
| 30                    | PS-30PE-D4T1-PN* | 15                    | PS-15PE-S4T1-PN* | 1.400 (35.56)     | 1.540 (39.10) |
| 34                    | PS-34PE-D4T1-PN* | —                     | —                | 1.600 (40.64)     | 1.740 (44.18) |
| 40                    | PS-40PE-D4T1-PN* | 20                    | PS-20PE-S4T1-PN* | 1.900 (48.26)     | 2.040 (51.80) |
| 50                    | PS-50PE-D4T1-PN* | 25                    | PS-25PE-S4T1-PN* | 2.400 (60.96)     | 2.540 (64.50) |
| 60                    | PS-60PE-D4T1-PN* | 30                    | PS-30PE-S4T1-PN* | 2.900 (73.66)     | 3.040 (77.20) |

(Note) For complete part number, add header finish code (see below) to \* position.

Example: PS-10PE-D4T1-PN1

• Please consult us for availability of other number of contact header not shown above.

## • HOW TO ORDER



## • MATERIALS/FINISHES

Insulator: Polyester

UL94V-0, black

Pin contact: Phosphor bronze/Gold over nickel

(For gold plate, see below)

| Finish code     | 1                      | 2                  | 3                   |
|-----------------|------------------------|--------------------|---------------------|
| Connecting area | .000004<br>(0.1 μ)     | .000012<br>(0.3 μ) | .000030<br>(0.76 μ) |
| The other area  | gold flash over nickel |                    |                     |

Dimensions subject to change.  
(millimeters are in parentheses)

# 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 M $\Omega$ min.                                                                                                                                                             |                                                                | 1000 M $\Omega$ 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 m $\Omega$ max.                                                                                                                                                               |                                                                | (a) socket. . . 20 m $\Omega$ max.<br>(b) transition 10 m $\Omega$ max. | Voltage drop measurement, test current 0.1 A DC, applied voltage 3—6 V                                                                                            |                                                                                                                                                                                       |
|               | Low level contact resistance                | 10 m $\Omega$ max.                                                                                                                                                               |                                                                | (a) socket. . . 20 m $\Omega$ max.<br>(b) transition 10 m $\Omega$ max. | Test current 1 mA max.<br>Open test voltage 20 mV max.                                                                                                            |                                                                                                                                                                                       |
| MECHANICAL    | Lever operating force (shrouded pin header) | 2 kg max. for 10 contact connector<br>2.5 kg max. for 16—34 contact connector<br>3 kg max. for 40—50 contact connector<br>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.<br>(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 $\pm$ .00004 (0.64 $\pm$ 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. . .<br>300 g x (no. of contacts) max.<br>(b) connector unmating force. . .<br>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.<br>(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 mm <sup>2</sup>                                                                                                                                                              | #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 $\pm$ $\frac{3}{2}$ (−55 $\pm$ $\frac{3}{2}$ for Group B)  |                                                                         | 30                                                                                                                                                                |                                                                                                                                                                                       |
|               |                                             | 2                                                                                                                                                                                | +25 $\pm$ $\frac{3}{2}$                                        |                                                                         | 5 max.                                                                                                                                                            |                                                                                                                                                                                       |
|               |                                             | 3                                                                                                                                                                                | +125 $\pm$ $\frac{3}{2}$ (+85 $\pm$ $\frac{3}{2}$ for Group B) |                                                                         | 30                                                                                                                                                                |                                                                                                                                                                                       |
|               |                                             | 4                                                                                                                                                                                | +25 $\pm$ $\frac{3}{2}$                                        |                                                                         | 5 max.                                                                                                                                                            |                                                                                                                                                                                       |
|               | Moisture resistance                         | After test<br>Insulation resistance 100 M $\Omega$ min.                                                                                                                          |                                                                |                                                                         |                                                                                                                                                                   | MIL-STD-202, Method 103, condition B, Mated connector, 40 $\pm$ 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<br>After test,<br>Individual contact unmating force: 40 g min.<br>Contact resistance: 10 m $\Omega$ max. (40 m $\Omega$ 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.