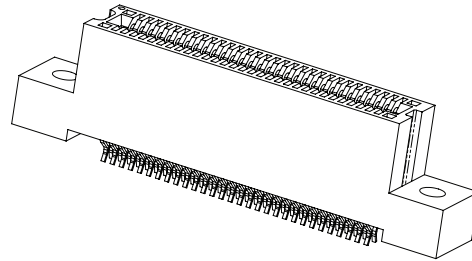




**.050" [1.27 mm] Contact Centers, .610" [15.49 mm] Insulator Height,**  
**Dip Solder/Card Extender/SMT for .031" [0.79 mm], .062" [1.57 mm] or .093" [2.36 mm] Mating PCB**

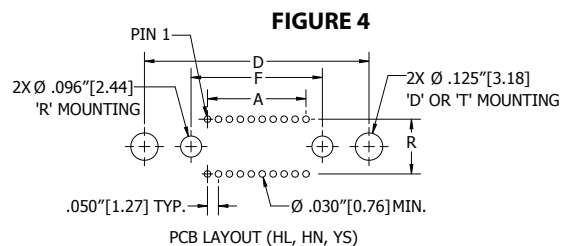
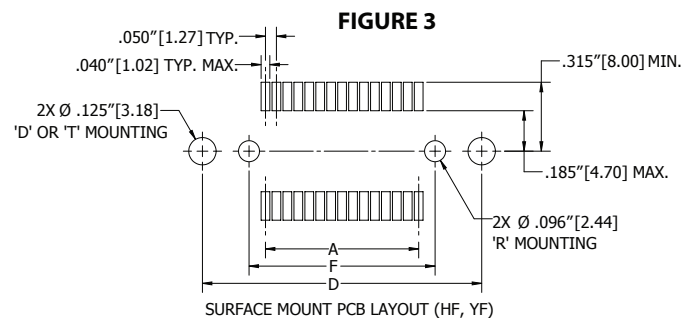
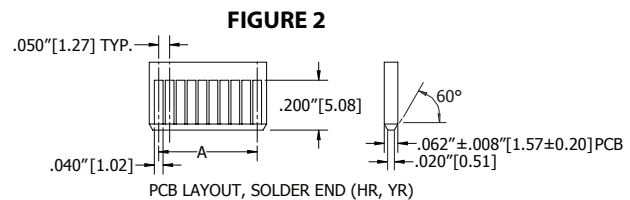
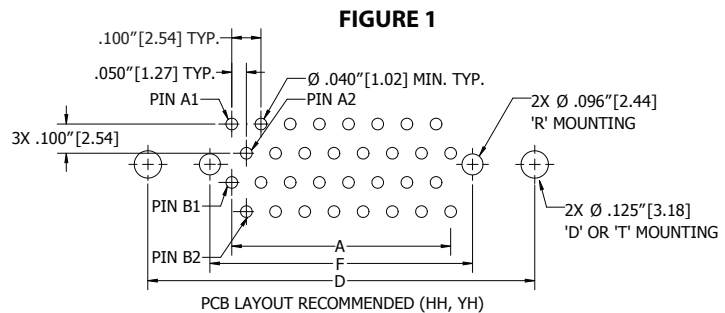
## SPECIFICATIONS

- Accommodates .031"  $\pm$  .006" [0.79 mm  $\pm$  0.15 mm], .062"  $\pm$  .008" [1.57 mm  $\pm$  0.20 mm] or .093"  $\pm$  .008" [2.36 mm  $\pm$  0.20 mm] mating PCB
- PPS or PA9T insulator
- Molded-in key available
- High reliability/high cycle hairpin bellow & cantilever contacts
- 1 Amp current rating per contact for contacts fully energized
- UL Flammability Rating: 94V-0
- Operating Temperature: -65°C up to +200°C

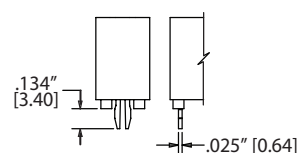


## TERMINATION TYPE

| HAIR PIN POST<br>.018" [0.46] X<br>.012" [0.30] | (P/N CODE)<br>TERMINATION<br>LAYOUT       | ROW<br>SPACING<br>(R' DIM)     | TAIL<br>LENGTH<br>(L' DIM) |
|-------------------------------------------------|-------------------------------------------|--------------------------------|----------------------------|
|                                                 | (HH)<br>THRU HOLE<br>STRAIGHT<br>figure 1 | 3 X<br>0.100" [2.54]           | 0.125" [3.18]              |
|                                                 | (HR)<br>CARD<br>EXTENDER<br>figure 2      | ACCEPTS<br>.062" [1.57]<br>PCB | 0.160" [4.06]              |
|                                                 | (HF)<br>SURFACE<br>MOUNT<br>figure 3      | N/A                            | 0.100" [2.54]              |
|                                                 | (HL)<br>THRU HOLE<br>STRAIGHT<br>figure 4 | 0.250" [6.35]                  | 0.160" [4.06]              |
|                                                 | (HN)<br>THRU HOLE<br>STRAIGHT<br>figure 4 | 0.100" [2.54]                  | 0.125" [3.18]              |
| CANTILEVER<br>POST SIZE<br>.016" [0.41] SQ.     | (P/N CODE)<br>TERMINATION<br>LAYOUT       | ROW<br>SPACING<br>(R' DIM)     | TAIL<br>LENGTH<br>(L' DIM) |
|                                                 | (YH)<br>THRU HOLE<br>STRAIGHT<br>figure 1 | 3 X<br>0.100" [2.54]           | 0.125" [3.18]              |
|                                                 | (YR)<br>CARD EXTENDER<br>figure 2         | ACCEPTS<br>.062" [1.57]<br>PCB | 0.175" [4.45]              |
|                                                 | (YF)<br>SURFACE MOUNT<br>figure 3         | N/A                            | 0.100" [2.54]              |
|                                                 | (YS)<br>THRU HOLE<br>STRAIGHT<br>figure 4 | 0.200" [5.08]                  | 0.140" [3.56]              |



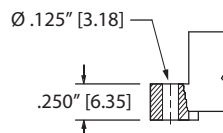
## MOUNTING STYLE



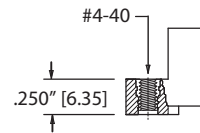
**BOARD LOCK (R)**  
(with no mounting ears)



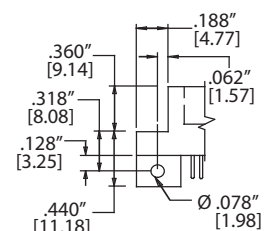
**NO MOUNTING EARS (N)**



**FLUSH MOUNTING (D)**



**FLUSH MOUNTING  
WITH THREADED INSERT (T)**



**STRADDLE MOUNT (Q)**



**.050" [1.27 mm] Contact Centers, .610" [15.49 mm] Insulator Height,  
Dip Solder/Card Extender/SMT for .031" [0.79mm], .062" [1.57mm] or .093" [2.36mm] Mating PCB**

### PART NUMBER OPTIONS

#### MATERIALS (INSULATOR/CONTACT)

G = PA9T/Phosphor Bronze  
R = PPS/Phosphor Bronze  
J = PA9T/Beryllium Copper  
A = PPS/Beryllium Copper  
F = PPS/Spinodal\*\*

Refer to Page 7 for Operating/Processing Temperatures

#### CONTACT FINISH - RoHS Compliant

All platings are Lead Free and have .000050" Nickel underplate

##### Contact Surface

B = .000010" Gold  
C = .000030" Gold  
\*\*\*M = .000030" Gold

##### Termination

.000100" Pure Tin, Matte  
.000100" Pure Tin, Matte  
.000010" Gold Overall

\*\*\* (YH, YR, YF & YS Termination only)

#### CONTACT CENTERS

B = .050" [1.27 mm]

#### NUMBER OF CONTACT POSITIONS

See Chart Below

**G B B 40 D HH D - Sxxx**

#### MODIFICATION CODE (Consult Factory)

OMIT FOR STANDARD

-S1648 = .031" ± .006" [0.79 ± 0.15] Mating PCB

-S1763 = .093" ± .008" [2.36 ± 0.20] Mating PCB

(for HH, HR, HF, HN & HL Termination Only)

#### MOUNTING STYLE (Opposite Page)

D = Flush Mounting

N = No Mounting

T = Flush Mounting With Threaded Insert

Q = Straddle Mount (Card Extender Only)\*

R = Metal Board Locks

#### TERMINATION TYPE (Opposite Page)

HH, YH = Staggered Dip Solder

HR, YR = Card Extender

HF, YF = Surface Mount

HL = Dip Solder

HN = Dip Solder

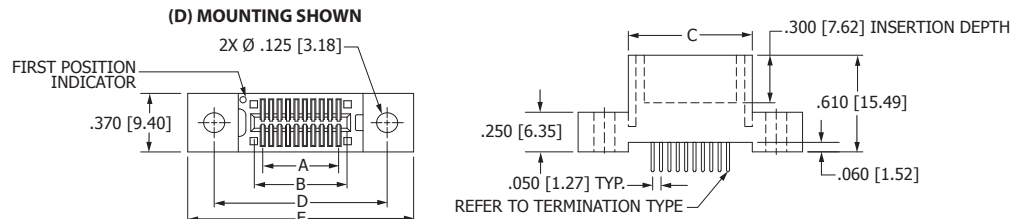
YS = Dip Solder

#### READOUT (Opposite Page)

D = Dual

\*\*Consult factory for special soldering guidelines. YH, YR, YF & YS termination with 'M' plating only.

### DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



| POSITIONS/<br>CONTACTS | INCHES |        |        |        |        |        | MILLIMETERS |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|-------------|--------|--------|--------|--------|--------|
|                        | A±.005 | B±.005 | C±.015 | D±.010 | E±.020 | F±.010 | A±0.13      | B±0.13 | C±0.38 | D±0.25 | E±0.51 | F±0.25 |
| 05/10                  | 0.200  | 0.300  | 0.490  | 0.776  | 1.090  | 0.350  | 5.08        | 7.62   | 12.45  | 19.71  | 27.69  | 8.89   |
| 06/12                  | 0.250  | 0.350  | 0.540  | 0.826  | 1.140  | 0.400  | 6.35        | 8.89   | 13.72  | 20.98  | 28.96  | 10.16  |
| 08/16                  | 0.350  | 0.450  | 0.640  | 0.926  | 1.240  | 0.500  | 8.89        | 11.43  | 16.26  | 23.52  | 31.50  | 12.70  |
| 09/18                  | 0.400  | 0.500  | 0.690  | 0.976  | 1.290  | 0.550  | 10.16       | 12.70  | 17.53  | 24.79  | 32.77  | 13.97  |
| 10/20                  | 0.450  | 0.550  | 0.740  | 1.026  | 1.340  | 0.600  | 11.43       | 13.97  | 18.80  | 26.06  | 34.04  | 15.24  |
| 13/26                  | 0.600  | 0.700  | 0.890  | 1.176  | 1.490  | 0.750  | 15.24       | 17.78  | 22.61  | 29.87  | 37.85  | 19.05  |
| 14/28                  | 0.650  | 0.750  | 0.940  | 1.226  | 1.540  | 0.800  | 16.51       | 19.05  | 23.88  | 31.14  | 39.12  | 20.32  |
| 15/30                  | 0.700  | 0.800  | 0.990  | 1.276  | 1.590  | 0.850  | 17.78       | 20.32  | 25.15  | 32.41  | 40.39  | 21.59  |
| 16/32                  | 0.750  | 0.850  | 1.040  | 1.326  | 1.640  | 0.900  | 19.05       | 21.59  | 26.42  | 33.68  | 41.66  | 22.86  |
| 20/40                  | 0.950  | 1.050  | 1.240  | 1.526  | 1.840  | 1.100  | 24.13       | 26.67  | 31.50  | 38.76  | 46.74  | 27.94  |
| 22/44                  | 1.050  | 1.150  | 1.340  | 1.626  | 1.940  | 1.200  | 26.67       | 29.21  | 34.04  | 41.30  | 49.28  | 30.48  |
| 24/48                  | 1.150  | 1.250  | 1.440  | 1.726  | 2.040  | 1.300  | 29.21       | 31.75  | 36.58  | 43.84  | 51.82  | 33.02  |
| 25/50                  | 1.200  | 1.300  | 1.490  | 1.776  | 2.090  | 1.350  | 30.48       | 33.02  | 37.85  | 45.11  | 53.09  | 34.29  |
| 28/56                  | 1.350  | 1.450  | 1.640  | 1.926  | 2.240  | 1.500  | 34.29       | 36.83  | 41.66  | 48.92  | 56.90  | 38.10  |
| 30/60                  | 1.450  | 1.550  | 1.740  | 2.026  | 2.340  | 1.600  | 36.83       | 39.37  | 44.20  | 51.46  | 59.44  | 40.64  |
| 34/68                  | 1.650  | 1.750  | 1.940  | 2.226  | 2.540  | 1.800  | 41.91       | 44.45  | 49.28  | 56.54  | 64.52  | 45.72  |
| 35/70                  | 1.700  | 1.800  | 1.990  | 2.276  | 2.590  | 1.850  | 43.18       | 45.72  | 50.55  | 57.81  | 65.79  | 46.99  |
| 40/80                  | 1.950  | 2.050  | 2.240  | 2.526  | 2.840  | 2.100  | 49.53       | 52.07  | 56.90  | 64.16  | 72.14  | 53.34  |
| 41/82*                 | 2.000  | 2.100  | 2.290  | 2.576  | 2.890  | 2.150  | 50.80       | 53.34  | 58.17  | 65.43  | 73.41  | 54.61  |
| 44/88                  | 2.150  | 2.250  | 2.440  | 2.726  | 3.040  | 2.300  | 54.61       | 57.15  | 61.98  | 69.24  | 77.22  | 58.42  |
| 45/90                  | 2.200  | 2.300  | 2.490  | 2.776  | 3.090  | 2.350  | 55.88       | 58.42  | 63.25  | 70.51  | 78.49  | 59.69  |
| 50/100                 | 2.450  | 2.550  | 2.740  | 3.026  | 3.340  | 2.600  | 62.23       | 64.77  | 69.60  | 76.86  | 84.84  | 66.04  |
| 55/110                 | 2.700  | 2.800  | 2.990  | 3.276  | 3.590  | 2.850  | 68.58       | 71.12  | 75.95  | 83.21  | 91.19  | 72.39  |
| 60/120                 | 2.950  | 3.050  | 3.240  | 3.526  | 3.840  | 3.100  | 74.93       | 77.47  | 82.30  | 89.56  | 97.54  | 78.74  |
| 62/124                 | 3.050  | 3.150  | 3.340  | 3.626  | 3.940  | 3.200  | 77.47       | 80.01  | 84.84  | 92.10  | 100.08 | 81.28  |
| 64/128                 | 3.150  | 3.250  | 3.440  | 3.726  | 4.040  | 3.300  | 80.01       | 82.55  | 87.38  | 94.64  | 102.62 | 83.82  |
| 65/130                 | 3.200  | 3.300  | 3.490  | 3.776  | 4.090  | 3.350  | 81.28       | 83.82  | 88.65  | 95.91  | 103.89 | 85.09  |
| 66/132                 | 3.250  | 3.350  | 3.540  | 3.826  | 4.140  | 3.400  | 82.55       | 85.09  | 89.92  | 97.18  | 105.16 | 86.36  |
| 70/140                 | 3.450  | 3.550  | 3.740  | 4.026  | 4.340  | 3.600  | 87.63       | 90.17  | 95.00  | 102.26 | 110.24 | 91.44  |
| 75/150                 | 3.700  | 3.800  | 3.990  | 4.276  | 4.590  | 3.850  | 93.98       | 96.52  | 101.35 | 108.61 | 116.59 | 97.79  |
| 80/160                 | 3.950  | 4.050  | 4.240  | 4.526  | 4.840  | 4.100  | 100.33      | 102.87 | 107.70 | 114.96 | 122.94 | 104.14 |
| 81/162                 | 4.000  | 4.100  | 4.290  | 4.576  | 4.890  | 4.150  | 101.60      | 104.14 | 108.97 | 116.23 | 124.21 | 105.41 |
| 85/170*                | 4.200  | 4.300  | 4.490  | 4.776  | 5.090  | 4.350  | 106.68      | 109.22 | 114.05 | 121.31 | 129.29 | 110.49 |
| 90/180                 | 4.450  | 4.550  | 4.740  | 5.026  | 5.340  | 4.600  | 113.03      | 115.57 | 120.40 | 127.66 | 135.64 | 116.84 |
| 92/184*                | 4.550  | 4.650  | 4.840  | 5.126  | 5.440  | 4.700  | 115.57      | 118.11 | 122.94 | 130.20 | 138.18 | 119.38 |
| 95/190                 | 4.700  | 4.800  | 4.990  | 5.276  | 5.590  | 4.850  | 119.38      | 121.92 | 126.75 | 134.01 | 141.99 | 123.19 |
| 96/192*                | 4.750  | 4.850  | 5.040  | 5.326  | 5.640  | 4.900  | 120.65      | 123.19 | 128.02 | 135.28 | 143.26 | 124.46 |
| 100/200                | 4.950  | 5.050  | 5.240  | 5.526  | 5.840  | 5.100  | 125.73      | 128.27 | 133.10 | 140.36 | 148.34 | 129.54 |
| 105/210                | 5.200  | 5.300  | 5.490  | 5.776  | 6.090  | 5.350  | 132.08      | 134.62 | 139.45 | 146.71 | 154.69 | 135.89 |
| 106/212                | 5.250  | 5.350  | 5.540  | 5.826  | 6.140  | 5.400  | 133.35      | 135.89 | 140.72 | 147.98 | 155.96 | 137.16 |
| 108/216*               | 5.350  | 5.450  | 5.640  | 5.926  | 6.240  | 5.500  | 135.89      | 138.43 | 143.26 | 150.52 | 158.50 | 139.70 |
| 110/220                | 5.450  | 5.550  | 5.740  | 6.026  | 6.340  | 5.600  | 138.43      | 140.97 | 145.80 | 153.06 | 161.04 | 142.24 |
| 120/240                | 5.950  | 6.050  | 6.240  |        |        | 6.100  | 151.13      | 153.67 | 158.50 |        |        | 154.94 |

\* Consult factory for availability.