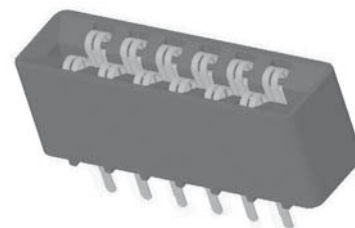


## Sullins Edgecards

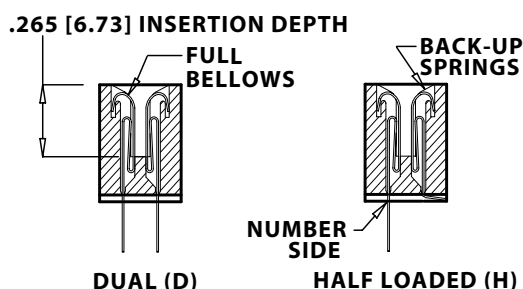
**.156" [3.96mm] Contact Centers, .431" Insulator Height**  
**Dip Solder/Eyelet/Right Angle**

### SPECIFICATIONS

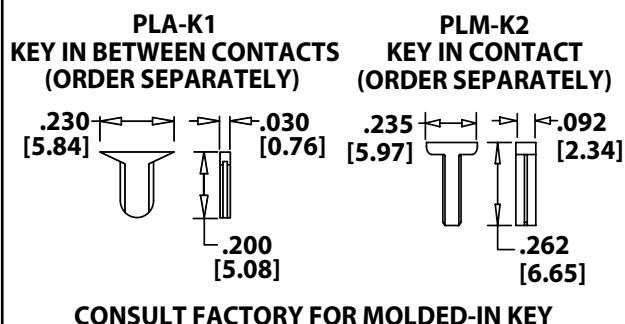
- Accommodates .062" ± .008" [1.57 ± .20] PC board
- Molded-in key available
- 3 amp current rating per contact  
(for 5 amp application, consult factory)
- 30 milli ohm maximum at rated current



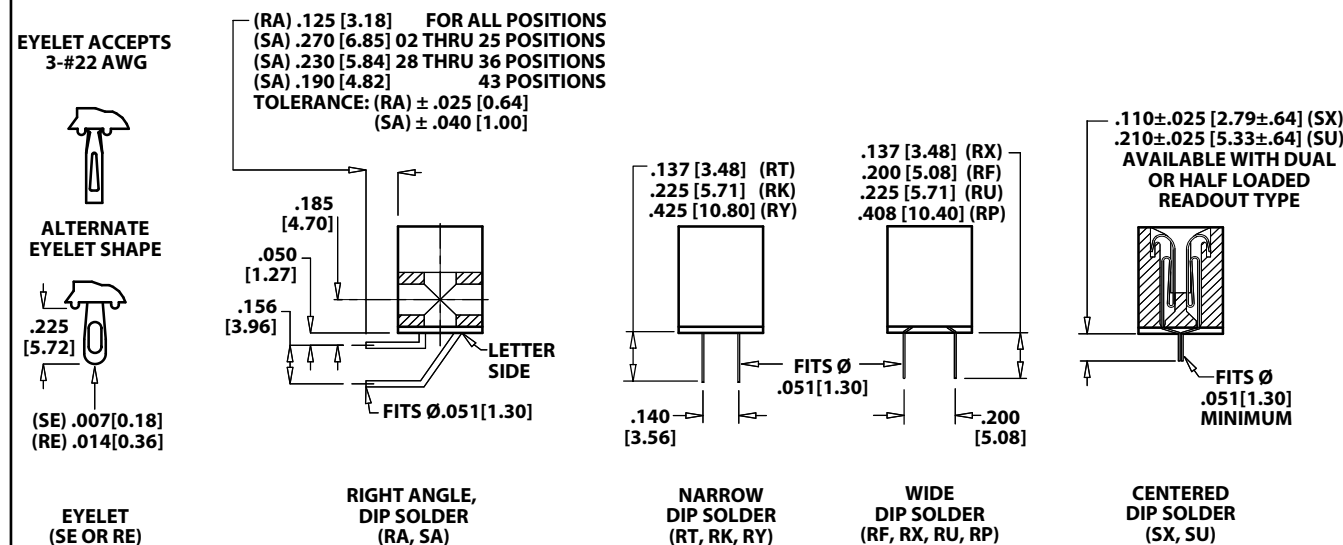
### READOUT



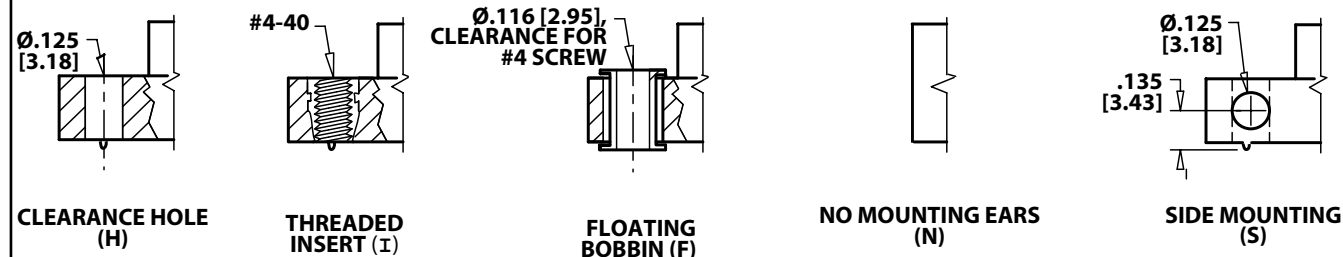
### POLARIZING KEY



### TERMINATION TYPE



### MOUNTING STYLE



**.156" [3.96mm] Contact Centers, .431" Insulator Height  
Dip Solder/Eyelet/Right Angle**

**PART NUMBER CODING**

**MATERIALS (Insulator/Contact)**

- E = PBT/Phosphor Bronze (Standard)  
R = PPS/Phosphor Bronze  
G = PA9T/Phosphor bronze  
H = PBT/Beryllium Copper  
A = PPS/Beryllium Copper  
J = PA9T/Beryllium Copper  
\*F = PPS/Spinodal (Overall Gold Plating Only)  
Consult Factory for Special Soldering Guidelines  
\*C = PPS/Beryllium Nickel (Overall Gold Plating Only)  
\*W = PEEK/Beryllium Nickel (Overall Gold Plating Only)  
\*Consult Factory for availability.

**CONTACT FINISH - RoHS Compliant**

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

|     | Contact Surface          | Termination              |
|-----|--------------------------|--------------------------|
| B = | .000010" Gold            | .000100" Pure Tin, Matte |
| C = | .000030" Gold            | .000100" Pure Tin, Matte |
| G = | .000010" Gold            | .000005" Gold            |
| Y = | .000030" Gold            | .000005" Gold            |
|     | Contact Surface          | Overall Plating          |
| S = | .000010" Gold            | .000010" Gold            |
| M = | .000030" Gold            | .000010" Gold            |
| E = | .000100" Pure Tin, Matte | .000100" Pure Tin, Matte |

**CONTACT CENTERS**

M = .156" [3.96mm]

**NUMBER OF CONTACT POSITIONS**

See Chart Below

**E B M 43 D RK H - Sxxx**

**MODIFICATION CODE** (Consult Factory)

- OMIT FOR STANDARD  
-S13 = Card Extender Accepts .062" [1.57] PCB  
(RT, RK, RY, SE Terminations Only)

**MOUNTING STYLE** (Opposite Page)

- H = .125" [3.18mm] Clearance Holes  
N = No Mounting  
S = Side Mounting  
I = Threaded Insert  
F = Floating Bobbin

**TERMINATION TYPE** (Opposite Page)

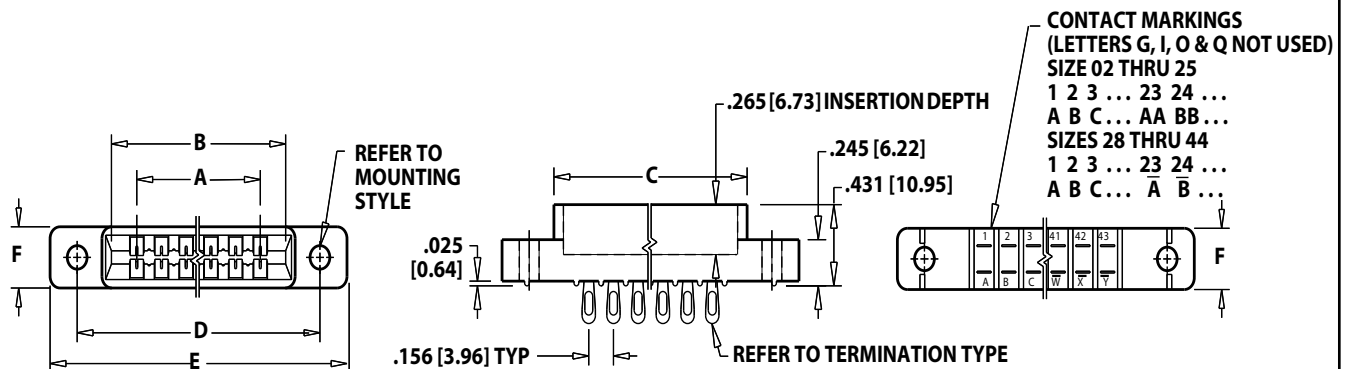
- RA = .125" Right Angle Dip Solder  
SA = Long Right Angle Dip Solder  
RT = .140" x .137" Dip Solder  
RK = .140" x .225" Dip Solder  
RY = .140" x .425" Dip Solder  
RX = .200" x .137" Dip Solder  
RF = .200" x .200" Dip Solder  
RU = .200" x .225" Dip Solder  
RP = .200" x .408" Dip Solder  
SX = .110" [2.79mm] Centered Dip Solder  
SU = .210" [5.33mm] Centered Dip Solder  
SE = .007" [0.18mm] Thick Eyelet  
RE = .014" [0.36mm] Thick Eyelet

**READOUT** (Opposite Page)

- D = Dual  
D = Dual Row/ Crimp to Center for  
Single Readout (SX, SU Termination Only)  
H = Half Loaded

**DIMENSIONS**

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



Tolerances with PPS Insulator Material may vary slightly due to shrinkage differential: Consult Factory.

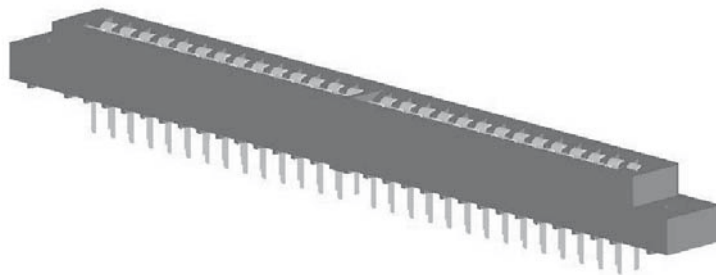
| POSITIONS/<br>CONTACTS | INCHES |        |        |              |       | F±.005 | [MILLIMETERS] |        |        |              |        |        |
|------------------------|--------|--------|--------|--------------|-------|--------|---------------|--------|--------|--------------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010       | E MAX |        | A±0.20        | B±0.20 | C±0.38 | D±0.25       | E MAX  | F±0.13 |
| 02/04                  | 0.156  | 0.476  | 0.596  | 'N' MOUNTING |       | 0.325  | 3.96          | 12.09  | 15.14  | 'N' MOUNTING |        | 8.26   |
| 03/06                  | 0.312  | 0.632  | 0.752  | 'N' MOUNTING |       |        | 7.92          | 16.05  | 19.10  | 'N' MOUNTING |        |        |
| 06/12                  | 0.780  | 1.100  | 1.220  | 1.533        | 1.902 |        | 19.81         | 27.94  | 30.99  | 38.94        | 48.31  |        |
| 08/16                  | 1.092  | 1.412  | 1.532  | 1.845        | 2.214 |        | 27.74         | 35.86  | 38.91  | 46.86        | 56.24  |        |
| 10/20                  | 1.404  | 1.724  | 1.844  | 2.157        | 2.526 |        | 35.66         | 43.79  | 46.84  | 54.79        | 64.16  |        |
| 11/22                  | 1.560  | 1.880  | 2.000  | 2.313        | 2.682 |        | 39.62         | 47.75  | 50.80  | 58.75        | 68.12  |        |
| 12/24                  | 1.716  | 2.036  | 2.156  | 2.469        | 2.838 |        | 43.59         | 51.71  | 54.76  | 62.71        | 72.09  |        |
| 15/30                  | 2.184  | 2.504  | 2.624  | 2.937        | 3.306 |        | 55.47         | 63.60  | 66.65  | 74.60        | 83.97  |        |
| 18/36                  | 2.652  | 2.972  | 3.092  | 3.405        | 3.774 |        | 67.36         | 75.49  | 78.54  | 86.49        | 95.86  |        |
| 22/44                  | 3.276  | 3.596  | 3.716  | 4.029        | 4.398 |        | 83.21         | 91.34  | 94.39  | 102.34       | 111.71 |        |
| 24/48                  | 3.588  | 3.908  | 4.028  | 4.341        | 4.710 | 91.14  | 99.26         | 102.31 | 110.26 | 119.63       |        |        |
| 25/50                  | 3.744  | 4.064  | 4.184  | 4.497        | 4.866 | 95.10  | 103.23        | 106.27 | 114.22 | 123.60       |        |        |
| 28/56                  | 4.212  | 4.532  | 4.652  | 4.965        | 5.334 | 0.438  | 106.98        | 115.11 | 118.16 | 126.11       | 135.48 | 11.13  |
| 36/72                  | 5.460  | 5.780  | 5.900  | 6.213        | 6.582 |        | 138.68        | 146.81 | 149.86 | 157.81       | 167.18 |        |
| 43/86                  | 6.552  | 6.872  | 6.992  | 7.305        | 7.674 | 0.500  | 166.42        | 174.55 | 177.60 | 185.55       | 194.92 | 12.70  |
| 44/88                  | 6.708  | 7.028  | 7.148  | 7.461        | 7.830 |        | 170.38        | 178.51 | 181.56 | 189.51       | 198.88 |        |



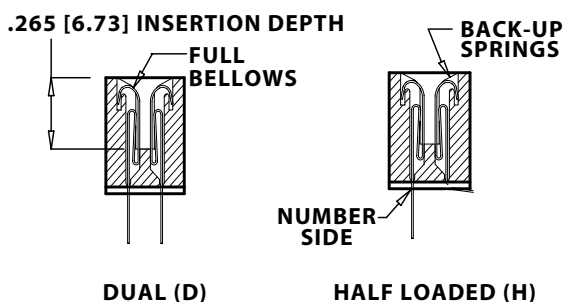
## .156" [3.96mm] Contact Centers, .431" Insulator Height Special Body Configuration Dip Solder/Eyelet/Right Angle

### SPECIFICATIONS

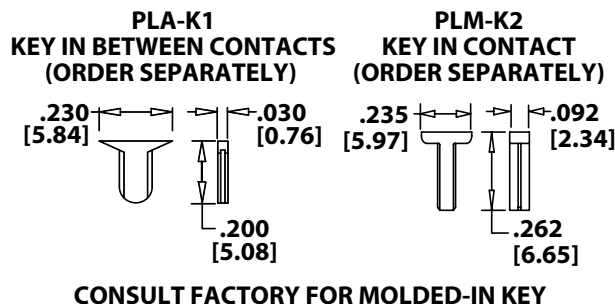
- Accommodates .062"  $\pm$  .008"  
[1.57  $\pm$  .20] PC board
- Molded-in key available
- 3 amp current rating per contact  
(for 5 amp application, consult factory)
- 30 milli ohm maximum at rated current



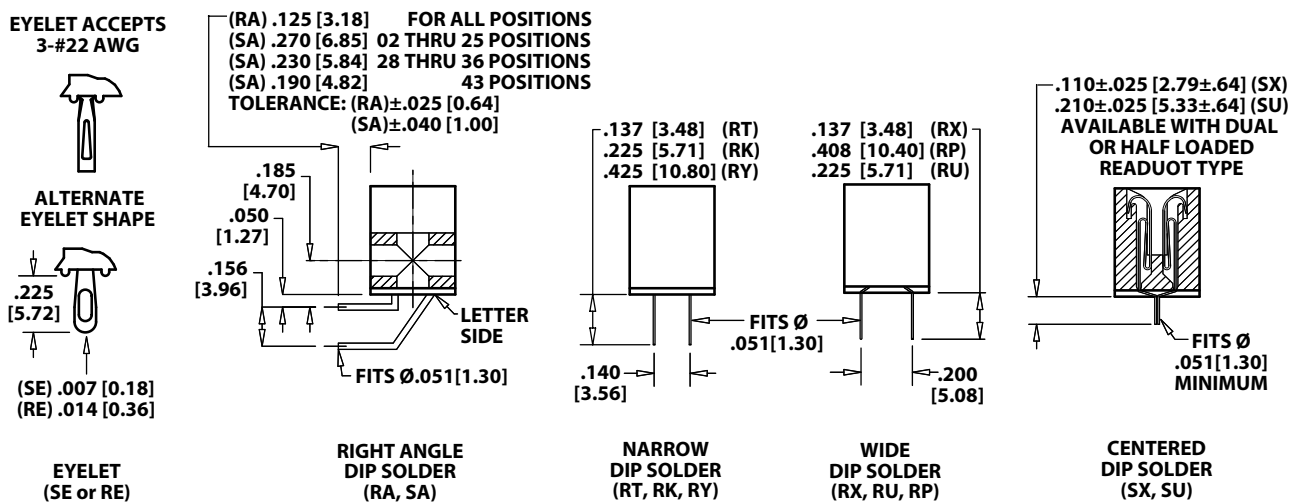
### READOUT



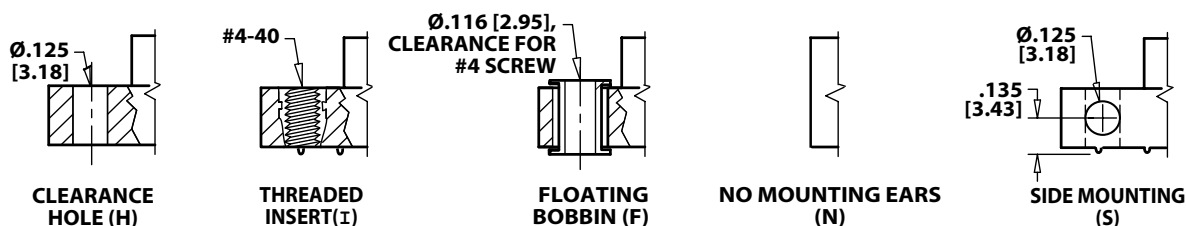
### POLARIZING KEY



### TERMINATION TYPE



### MOUNTING STYLE





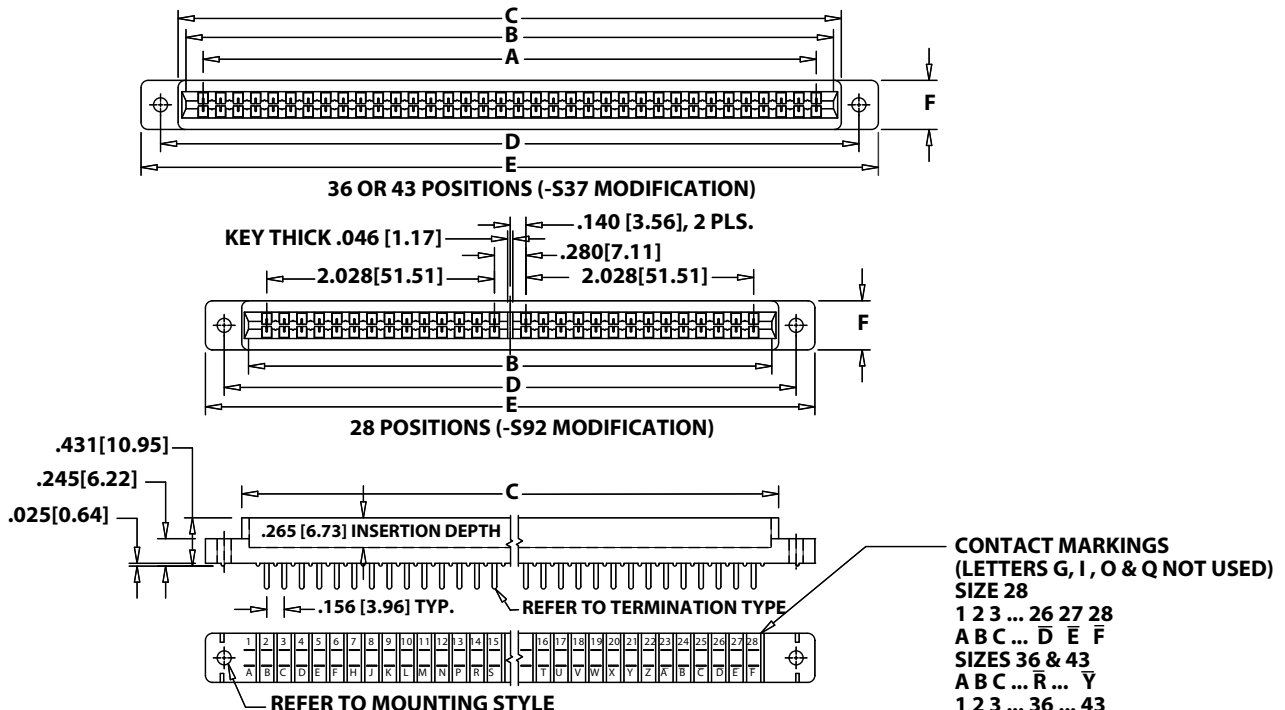
# **.156" [3.96mm] Contact Centers, .431" Insulator Height Special Body Configuration Dip Solder/Eyelet/Right Angle**

## **PART NUMBER CODING**

|  |                              |  |
|--|------------------------------|--|
| <b>MATERIALS (Insulator/Contact)</b>                           | <b>E B M 43 D RT H - S37</b> | <b>MODIFICATION CODE</b> (Consult Factory)           |
| E = PBT/Phosphor Bronze (Standard)                             |                              | -S37 = Reverse Contact ID & Shorter Card Slot Length |
| R = PPS/Phosphor Bronze  |                              | -S92 = Center Barrier Molded in Card Slot            |
| G = PA9T/Phosphor bronze                                       |                              |  |
| H = PBT/Beryllium Copper                                       |                              | <b>MOUNTING STYLE (Opposite Page)</b>                |
| A = PPS/Beryllium Copper                                       |                              | H = .125" [3.18mm] Clearance Holes                   |
| J = PA9T/Beryllium Copper                                      |                              | N = No Mounting                                      |
| *F = PPS/Spinodal (Overall Gold Plating Only)                  |                              | S = Side Mounting                                    |
| Consult Factory for Special Soldering Guidelines               |                              | I = Threaded Insert                                  |
| *C = PPS/Beryllium Nickel (Overall Gold Plating Only)          |                              | F = Floating Bobbin                                  |
| *W = PEEK/Beryllium Nickel (Overall Gold Plating Only)         |                              |  |
| *Consult Factory for availability.                             |                              | <b>TERMINATION TYPE (Opposite Page)</b>              |
| <b>CONTACT FINISH - RoHS Compliant</b>                         |                              | RA = .125" Right Angle Dip Solder                    |
| All platings are Lead Free and have .000050" Nickel underplate |                              | SA = Long Right Angle Dip Solder                     |
| <b>Contact Surface</b>   | <b>Termination</b>           | RT = .140" x .137" Dip Solder                        |
| B = .000010" Gold  | .000100" Pure Tin, Matte     | RK = .140" x .225" Dip Solder                        |
| C = .000030" Gold  | .000100" Pure Tin, Matte     | RY = .140" x .425" Dip Solder                        |
| G = .000010" Gold  | .000005" Gold                | RX = .200" x .137" Dip Solder                        |
| Y = .000030" Gold  | .000005" Gold                | RU = .200" x .225" Dip Solder                        |
| <b>Contact Surface</b>   | <b>Overall Plating</b>       | RP = .200" x .408" Dip Solder                        |
| S = .000010" Gold  | .000010" Gold                | SX = .110" [2.79mm] Centered Dip Solder              |
| M = .000030" Gold  | .000010" Gold                | SU = .210" [5.33mm] Centered Dip Solder              |
| E = .000100" Pure Tin, Matte                                   | .000100" Pure Tin, Matte     | SE = .007" [.18mm] Thick Eyelet                      |
| <b>CONTACT CENTERS</b>   |                              | RE = .014" [.36mm] Thick Eyelet                      |
| M = .156" [3.96mm]   |                              | <b>READOUT (Opposite Page)</b>                       |
| <b>NUMBER OF CONTACT POSITIONS</b>                             |                              | D = Dual   |
| 28 (14/14), 36 or 43   |                              | D = Dual Row/ Crimp to Center for Single             |
|  |                              | Readout (SX, SU Termination Only)                    |
|  |                              | H = Half Loaded                                      |

## **DIMENSIONS**

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



Tolerances with PPS Insulator Material may vary slightly due to shrinkage differential; Consult Factory.

| POSITIONS/<br>CONTACTS | INCHES |        |        |        |       |        | [MILLIMETERS] |        |        |        |        |        | CENTER<br>BARRIER |
|------------------------|--------|--------|--------|--------|-------|--------|---------------|--------|--------|--------|--------|--------|-------------------|
|                        | A±.008 | B±.008 | C±.015 | D±.010 | E MAX | F±.005 | A±0.20        | B±0.20 | C±0.38 | D±0.25 | E MAX  | F±0.13 |                   |
| 28/56                  |        | 4.660  | 4.780  | 5.093  | 5.427 | 0.438  |               | 118.36 | 121.41 | 129.36 | 137.85 | 11.13  | YES               |
| 36/72                  | 5.460  | 5.766  | 5.906  | 6.219  | 6.566 | 0.438  | 138.68        | 146.46 | 150.01 | 157.96 | 166.78 | 11.13  | NO                |
| 43/86                  | 6.552  | 6.810  | 7.000  | 7.302  | 7.643 | 0.500  | 166.42        | 172.97 | 177.80 | 185.47 | 194.13 | 12.70  | NO                |

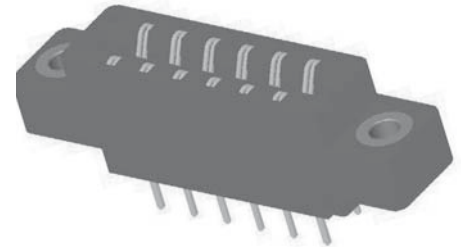




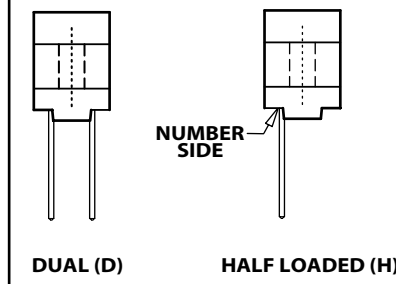
## .156" [3.96mm] Contact Centers, .610" Insulator Height Dip Solder/Wire Wrap/Right Angle/Card Extender

### SPECIFICATIONS

- Accommodates .062"  $\pm$  .008" [1.57  $\pm$  .20] PC board (See page 64/65 for .093"  $\pm$  .008" [2.36  $\pm$  .20] and .125"  $\pm$  .008" [3.18  $\pm$  .20] boards)
- PBT, PPS or PA9T insulator
- Molded-in key available
- 3 amp current rating per contact
- 30 milli ohm maximum at rated current

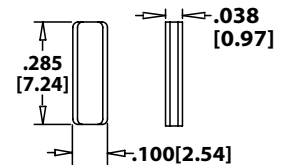


### READOUT



### POLARIZING KEY

#### PLC-K1

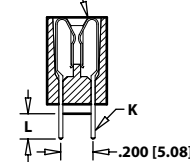


**KEY IN BETWEEN CONTACTS  
(ORDER SEPARATELY)**

### TERMINATION TYPE

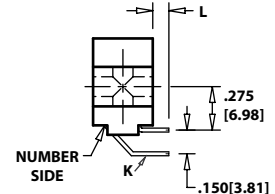
| HAIRPIN BELLOWS | TERMINATION TYPE | POST CROSS SECTION K    | POST LENGTH L<br>.025 [.64] | FITS MIN. HOLE SIZE |
|-----------------|------------------|-------------------------|-----------------------------|---------------------|
| CW              | DIP SOLDER       | .015 x .025 [.38 x .64] | .125 [3.18]                 | .035 [0.76]         |
| CT              | DIP SOLDER       | .015 x .025 [.38 x .64] | .170 [4.32]                 | .035 [0.76]         |
| CS              | DIP SOLDER       | .025 [.64] SQUARE       | .160 [4.06]                 | .040 [1.02]         |
| CM              | WIRE WRAP        | .025 [.64] SQUARE       | .560 [14.20]                | .040 [1.02]         |
| CA              | RIGHT ANGLE      | .025 [.64] SQUARE       | .100 [2.54]                 | .043 [1.09]         |
| CB              | RIGHT ANGLE      | .025 [.64] SQUARE       | .180 [4.57]                 | .043 [1.09]         |
| CC              | RIGHT ANGLE      | .025 [.64] SQUARE       | .250 [6.35]                 | .043 [1.09]         |

#### HAIRPIN BELLOWS



(CW, CT, CS, CM)

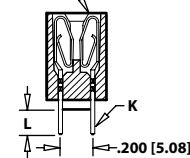
#### RIGHT ANGLE



(CA, CB, CC, TA, TB, TM, KA, KE, KU, KJ)

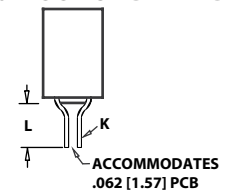
| LOOP BELLOWS | TERMINATION TYPE | POST CROSS SECTION K | POST LENGTH L<br>.025 [.64] | FITS MIN. HOLE SIZE |
|--------------|------------------|----------------------|-----------------------------|---------------------|
| TK, CK       | DIP SOLDER       | .026 [.66] ROUND     | .190 [4.83]                 | .030 [0.76]         |
| RS           | DIP SOLDER       | .025 [.64] SQUARE    | .190 [4.83]                 | .040 [1.02]         |
| RM           | WIRE WRAP        | .025 [.64] SQUARE    | .560 [14.20]                | .040 [1.02]         |
| TA           | RIGHT ANGLE      | .025 [.64] SQUARE    | .100 [2.54]                 | .043 [1.09]         |
| TB           | RIGHT ANGLE      | .025 [.64] SQUARE    | .180 [4.57]                 | .043 [1.09]         |
| TM           | RIGHT ANGLE      | .025 [.64] SQUARE    | .250 [6.35]                 | .043 [1.09]         |

#### LOOP BELLOWS



(TK, CK, RS, RM)

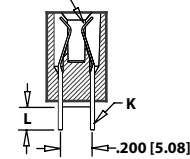
#### HAIRPIN or LOOP CARD EXTENDER



ACCOMMODATES  
.062 [1.57] PCB  
(CW, CT, CS, CM, TK, CK, RS, RM)  
Example P/N: EBM10DCSN-S288  
(Requires -S288 Modification Code)

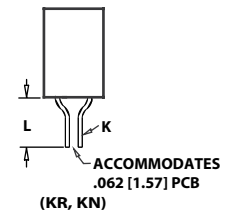
| CANTILEVER | TERMINATION TYPE | POST CROSS SECTION K | POST LENGTH L<br>.025 [.64] | FITS MIN. HOLE SIZE |
|------------|------------------|----------------------|-----------------------------|---------------------|
| KS         | DIP SOLDER       | .025 [.64] SQUARE    | .190 [4.83]                 | .040 [1.02]         |
| KD         | DIP SOLDER       | .025 [.64] SQUARE    | .160 [4.06]                 | .043 [1.09]         |
| KM         | WIRE WRAP        | .025 [.64] SQUARE    | .560 [14.20]                | .040 [1.02]         |
| *KA        | RIGHT ANGLE      | .025 [.64] SQUARE    | .100 [2.54]                 | .043 [1.09]         |
| *KE        | RIGHT ANGLE      | .025 [.64] SQUARE    | .180 [4.57]                 | .043 [1.09]         |
| *KU        | RIGHT ANGLE      | .025 [.64] SQUARE    | .250 [6.35]                 | .043 [1.09]         |
| *KJ        | RIGHT ANGLE      | .025 [.64] SQUARE    | .500 [12.70]                | .043 [1.09]         |
| *KR        | CARD EXTENDER    | .025 [.64] SQUARE    | .235 [5.97]                 | N/A                 |
| *KN        | CARD EXTENDER    | .025 [.64] SQUARE    | .605 [15.37]                | N/A                 |

#### CANTILEVER



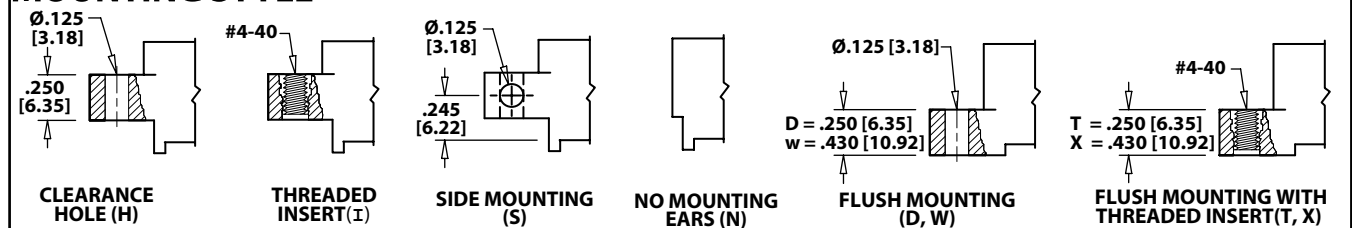
(KS, KD, KM)

#### CANTILEVER CARD EXTENDER



ACCOMMODATES  
.062 [1.57] PCB  
(KR, KN)  
Example P/N: EBM10DKRN  
(Omit Modification Code)

### MOUNTING STYLE



# **.156" [3.96mm] Contact Centers, .610" Insulator Height Dip Solder/Wire Wrap/Right Angle/Card Extender**

## **PART NUMBER CODING**

**E B M 43 D CM H - Sxxx**

**MATERIALS (Insulator/Contact)**  
 E = PBT/Phosphor Bronze (Standard)  
 R = PPS/Phosphor Bronze  
 G = PA9T/Phosphor Bronze  
 A = PPS/Beryllium Copper  
 J = PA9T/Beryllium Copper  
 (Consult Factory For Other Materials)

**CONTACT FINISH - RoHS Compliant**  
 All platings are Lead Free and have .000050" Nickel underplate

|     | Contact Surface          | Termination              |
|-----|--------------------------|--------------------------|
| B = | .000010" Gold            | .000100" Pure Tin, Matte |
| C = | .000030" Gold            | .000100" Pure Tin, Matte |
| G = | .000010" Gold            | .000005" Gold            |
| Y = | .000030" Gold            | .000005" Gold            |
|     | Contact Surface          | Overall Plating          |
| S = | .000010" Gold            | .000010" Gold            |
| M = | .000030" Gold            | .000010" Gold            |
| E = | .000100" Pure Tin, Matte | .000100" Pure Tin, Matte |

**CONTACT CENTERS**  
 M = .156" [3.96mm]

**NUMBER OF CONTACT POSITIONS**  
 See Chart Below

**READOUT (Opposite Page)**  
 D = Dual  
 H = Half Loaded

**MODIFICATION CODE** (Consult Factory)  
 OMIT FOR STANDARD

-S189 = .200" [5.08mm] Row to Row on Right Angle  
 -S288\* = Card Extender Accepts .062" [1.57] PCB  
 \* Not Required on KR or KN Terminations

### **MOUNTING STYLE (Opposite Page)**

H = Clearance Holes  
 I = Threaded Inserts  
 S = Side Mounting  
 N = No Mounting  
 D, W = Flush Mounting  
 T, X = Flush Mounting With Threaded Inserts

### **TERMINATION TYPE (Opposite Page)**

**Hairpin Bellows - Available with B or C plating and Phosphor Bronze Only**

CS = .025" [.64mm] Square Dip Solder  
 CM = .025" [.64mm] Square Wire Wrap  
 CA, CB, CC = .025" [.64mm] Square Right Angle  
 CW, CT = .015" x .025" [.38 x .64] Dip Solder

### **Loop Bellows**

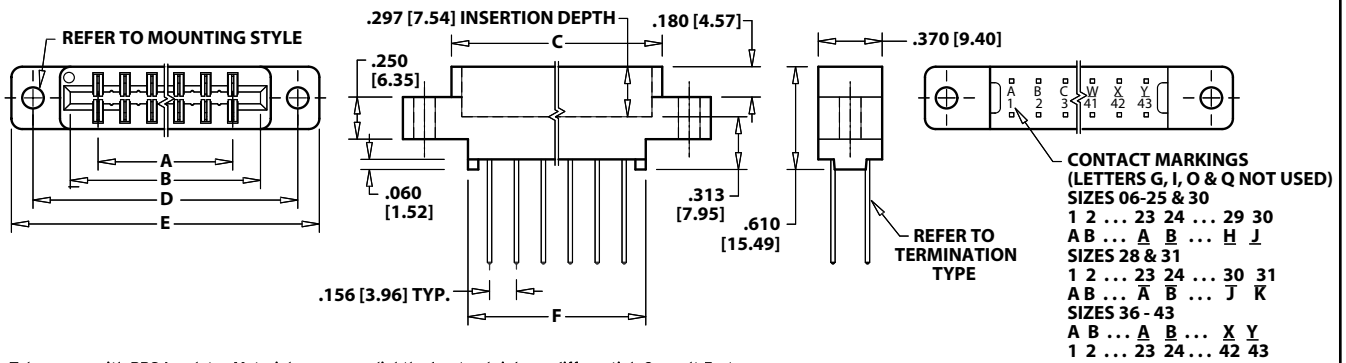
RS = .025" [.64mm] Square Dip Solder  
 CK, TK = .026" [.66mm] Round Dip Solder  
 RM = .025" [.64mm] Square Wire Wrap  
 TA, TB, TM = .025" [.64mm] Square Right Angle

**Cantilever Bellows - Available in Y, B, or C Contact Finish Only**  
 Not Available with R or A Materials

KS, KD = .025" [.64mm] Square Dip Solder  
 KM = .025" [.64mm] Square Wire Wrap  
 KA, KE, KU, KJ = .025" [.64mm] Square Right Angle  
 KR, KN = .025" [.64mm] Square Card Extender

## **DIMENSIONS**

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



Tolerances with PPS Insulator Material may vary slightly due to shrinkage differential; Consult Factory.

| POSITIONS/<br>CONTACTS | INCHES |        |        |        |        |        | [MILLIMETERS] |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010 | E±.020 | F±.015 | A±.020        | B±.020 | C±.038 | D±.025 | E±.051 | F±.038 |
| 06/12                  | 0.780  | 1.102  | 1.221  | 1.534  | 1.784  | 1.030  | 19.81         | 27.99  | 31.01  | 38.96  | 45.31  | 26.16  |
| 08/16                  | 1.092  | 1.414  | 1.533  | 1.846  | 2.096  | 1.342  | 27.74         | 35.92  | 38.94  | 46.89  | 53.24  | 34.09  |
| 10/20                  | 1.404  | 1.726  | 1.845  | 2.158  | 2.408  | 1.654  | 35.66         | 43.84  | 46.86  | 54.81  | 61.16  | 42.01  |
| 12/24                  | 1.716  | 2.038  | 2.157  | 2.470  | 2.720  | 1.966  | 43.59         | 51.77  | 54.79  | 62.74  | 69.09  | 49.94  |
| 15/30                  | 2.184  | 2.506  | 2.625  | 2.938  | 3.188  | 2.434  | 55.47         | 63.65  | 66.68  | 74.63  | 80.98  | 61.82  |
| 18/36                  | 2.652  | 2.974  | 3.093  | 3.406  | 3.656  | 2.902  | 67.36         | 75.54  | 78.56  | 86.51  | 92.86  | 73.71  |
| 20/40*                 | 2.964  | 3.286  | 3.405  | 3.718  | 3.968  | 3.214  | 75.29         | 83.46  | 86.49  | 94.44  | 100.79 | 81.64  |
| 22/44                  | 3.276  | 3.598  | 3.717  | 4.030  | 4.280  | 3.526  | 83.21         | 91.39  | 94.41  | 102.36 | 108.71 | 89.56  |
| 24/48                  | 3.588  | 3.910  | 4.029  | 4.342  | 4.592  | 3.838  | 91.14         | 99.31  | 102.34 | 110.29 | 116.64 | 97.49  |
| 25/50                  | 3.744  | 4.066  | 4.185  | 4.498  | 4.748  | 3.994  | 95.10         | 103.28 | 106.30 | 114.25 | 120.60 | 101.45 |
| 28/56                  | 4.212  | 4.534  | 4.653  | 4.966  | 5.216  | 4.462  | 106.98        | 115.16 | 118.19 | 126.14 | 132.49 | 113.33 |
| 30/60                  | 4.524  | 4.846  | 4.965  | 5.278  | 5.528  | 4.774  | 114.91        | 123.09 | 126.11 | 134.06 | 140.41 | 121.26 |
| 31/62                  | 4.680  | 5.002  | 5.121  | 5.434  | 5.684  | 4.930  | 118.87        | 127.05 | 130.07 | 138.02 | 144.37 | 125.22 |
| 36/72                  | 5.460  | 5.782  | 5.901  | 6.214  | 6.464  | 5.710  | 138.68        | 146.86 | 149.89 | 157.84 | 164.19 | 145.03 |
| 40/80                  | 6.084  | 6.406  | 6.525  | 6.838  | 7.088  | 6.334  | 154.53        | 162.71 | 165.74 | 173.69 | 180.04 | 160.88 |
| 43/86                  | 6.552  | 6.874  | 6.993  | 7.306  | 7.556  | 6.802  | 166.42        | 174.60 | 177.62 | 185.57 | 191.92 | 172.77 |

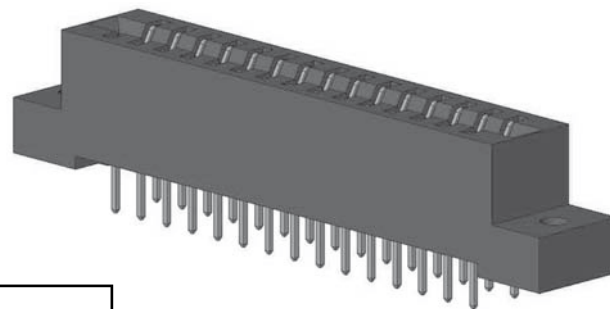
\* Consult Factory for availability.



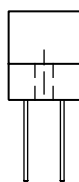
## .156" [3.96mm] Contact Centers, .610" Insulator Height Dip Solder/Wire Wrap/Right Angle for .093" [2.36] or .125" [3.18] Mating PCB

### SPECIFICATIONS

- Accommodates .093"  $\pm$  .008" [2.36  $\pm$  .20] or .125"  $\pm$  .008" [3.18  $\pm$  .20] mating PCB (Consult factory for .031"  $\pm$  .008" [.79  $\pm$  .20] boards)
- PBT, PPS or PA9T insulator
- Molded-in key available
- 3 amp current rating per contact
- 30 milli ohm maximum at rated current

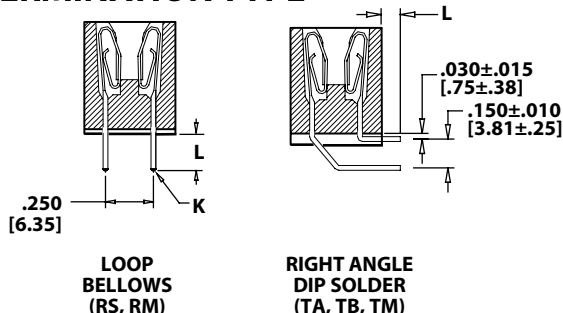


### READOUT



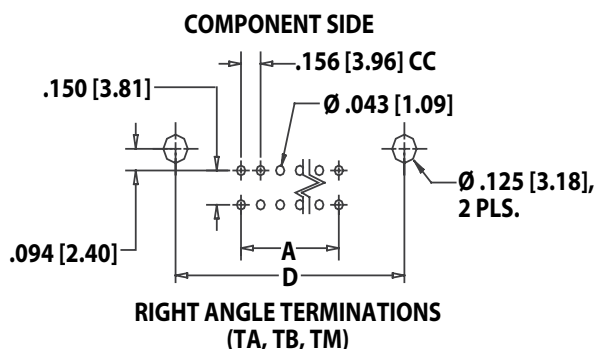
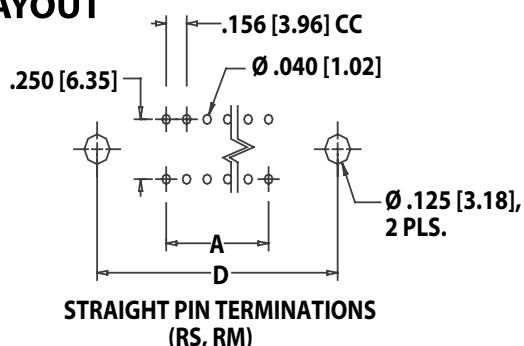
DUAL (D)

### TERMINATION TYPE

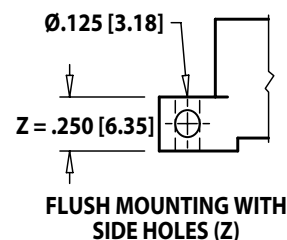
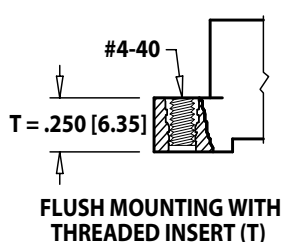
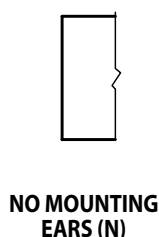
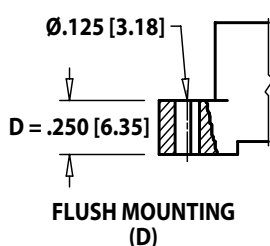


| TERMINATION TYPE |             | POST CROSS SECTION (K) | POST LENGTH L $\pm$ .025 [.64] | FITS MIN. HOLE SIZE |
|------------------|-------------|------------------------|--------------------------------|---------------------|
| RS               | Dip Solder  | .025 [.64] SQUARE      | .190 [4.83]                    | .040 [1.02]         |
| RM               | Wire Wrap   | .025 [.64] SQUARE      | .560 [14.20]                   | .040 [1.02]         |
| TA               | Right Angle | .025 [.64] SQUARE      | .100 [2.54]                    | .043 [1.09]         |
| TB               | Right Angle | .025 [.64] SQUARE      | .180 [4.57]                    | .043 [1.09]         |
| TM               | Right Angle | .025 [.64] SQUARE      | .250 [6.35]                    | .043 [1.09]         |

### PCB LAYOUT



### MOUNTING STYLE





**.156" [3.96mm] Contact Centers, .610" Insulator Height**  
**Dip Solder/Wire Wrap/Right Angle for .093" [2.36] or .125" [3.18] Mating PCB**

**PART NUMBER CODING**

**E B M 43 D RM D - S273**

**MATERIALS (Insulator/Contact)**  
 E = PBT/Phosphor Bronze (Standard)  
 R = PPS/Phosphor Bronze  
 G = PA9T/Phosphor Bronze  
 A = PPS/Beryllium Copper  
 J = PA9T/Beryllium Copper  
 (Consult Factory For Other Materials)

**CONTACT FINISH - RoHS Compliant**  
 All platings are Lead Free and have .000050" Nickel underplate

|                              |                          |
|------------------------------|--------------------------|
| <b>Contact Surface</b>       | <b>Termination</b>       |
| B = .000010" Gold            | .000100" Pure Tin, Matte |
| C = .000030" Gold            | .000100" Pure Tin, Matte |
| G = .000010" Gold            | .000005" Gold            |
| Y = .000030" Gold            | .000005" Gold            |
| <b>Contact Surface</b>       | <b>Overall Plating</b>   |
| S = .000010" Gold            | .000010" Gold            |
| M = .000030" Gold            | .000010" Gold            |
| E = .000100" Pure Tin, Matte | .000100" Pure Tin, Matte |

**CONTACT CENTERS**  
 M = .156" [3.96mm]

**MODIFICATION CODE (Consult Factory)**  
 -S273 = FOR .093" ± .008" [2.36 ± .20] THICK MATING PCB  
 -S664 = FOR .125" ± .008" [3.18 ± .20] THICK MATING PCB

**MOUNTING STYLE (Opposite Page)**  
 N = No Mounting  
 D = Flush Mounting  
 T = Flush Mounting With Threaded Inserts  
 Z = Flush Mounting With Side Holes

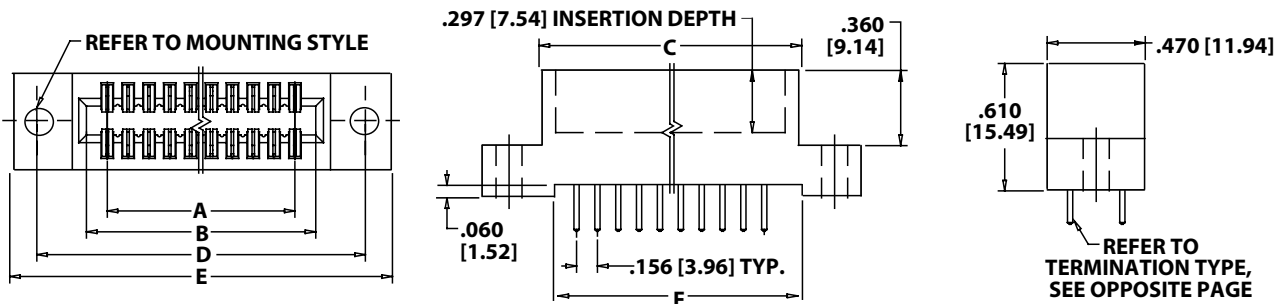
**TERMINATION TYPE (Opposite Page)**  
 RS = .025" [.64mm] Square Dip Solder  
 RM = .025" [.64mm] Square Wire Wrap  
 TA, TB, TM = .025" [.64mm] Square Right Angle

**READOUT (Opposite Page)**  
 D = Dual

**NUMBER OF CONTACT POSITIONS**  
 See Chart Below

**DIMENSIONS**

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



Tolerances with PPS Insulator Material may vary slightly due to shrinkage differential; Consult Factory.

| POSITIONS/<br>CONTACTS | INCHES |        |        |        |        |        | [MILLIMETERS] |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010 | E±.020 | F±.015 | A±0.20        | B±0.20 | C±0.38 | D±0.25 | E±0.51 | F±0.38 |
| 06/12                  | 0.780  | 1.102  | 1.221  | 1.534  | 1.784  | 1.104  | 19.81         | 27.99  | 31.01  | 38.96  | 45.31  | 28.04  |
| 08/16                  | 1.092  | 1.414  | 1.533  | 1.846  | 2.096  | 1.416  | 27.74         | 35.92  | 38.94  | 46.89  | 53.24  | 35.97  |
| 10/20*                 | 1.404  | 1.726  | 1.845  | 2.158  | 2.408  | 1.728  | 35.66         | 43.84  | 46.86  | 54.81  | 61.16  | 43.89  |
| 12/24                  | 1.716  | 2.038  | 2.157  | 2.470  | 2.720  | 2.040  | 43.59         | 51.77  | 54.79  | 62.74  | 69.09  | 51.82  |
| 15/30*                 | 2.184  | 2.506  | 2.625  | 2.938  | 3.188  | 2.508  | 55.47         | 63.65  | 66.68  | 74.63  | 80.98  | 63.70  |
| 18/36*                 | 2.652  | 2.974  | 3.093  | 3.406  | 3.656  | 2.976  | 67.36         | 75.54  | 78.56  | 86.51  | 92.86  | 75.59  |
| 20/40*                 | 2.964  | 3.286  | 3.405  | 3.718  | 3.968  | 3.288  | 75.29         | 83.46  | 86.49  | 94.44  | 100.79 | 83.52  |
| 22/44                  | 3.276  | 3.598  | 3.717  | 4.030  | 4.280  | 3.600  | 83.21         | 91.39  | 94.41  | 102.36 | 108.71 | 91.44  |
| 24/48*                 | 3.588  | 3.910  | 4.029  | 4.342  | 4.592  | 3.912  | 91.14         | 99.31  | 102.34 | 110.29 | 116.64 | 99.37  |
| 25/50*                 | 3.744  | 4.066  | 4.185  | 4.498  | 4.748  | 4.068  | 95.10         | 103.28 | 106.30 | 114.25 | 120.60 | 103.33 |
| 28/56*                 | 4.212  | 4.534  | 4.653  | 4.966  | 5.216  | 4.536  | 106.98        | 115.16 | 118.19 | 126.14 | 132.49 | 115.21 |
| 30/60*                 | 4.524  | 4.846  | 4.965  | 5.278  | 5.528  | 4.848  | 114.91        | 123.09 | 126.11 | 134.06 | 140.41 | 123.14 |
| 31/62*                 | 4.680  | 5.002  | 5.121  | 5.434  | 5.684  | 5.004  | 118.87        | 127.05 | 130.07 | 138.02 | 144.37 | 127.10 |
| 36/72                  | 5.460  | 5.782  | 5.901  | 6.214  | 6.464  | 5.784  | 138.68        | 146.86 | 149.89 | 157.84 | 164.19 | 146.91 |
| 40/80*                 | 6.084  | 6.406  | 6.525  | 6.838  | 7.088  | 6.408  | 154.53        | 162.71 | 165.74 | 173.69 | 180.04 | 162.76 |
| 43/86*                 | 6.552  | 6.874  | 6.993  | 7.306  | 7.556  | 6.876  | 166.42        | 174.60 | 177.62 | 185.57 | 191.92 | 174.65 |

\* Consult Factory for availability.

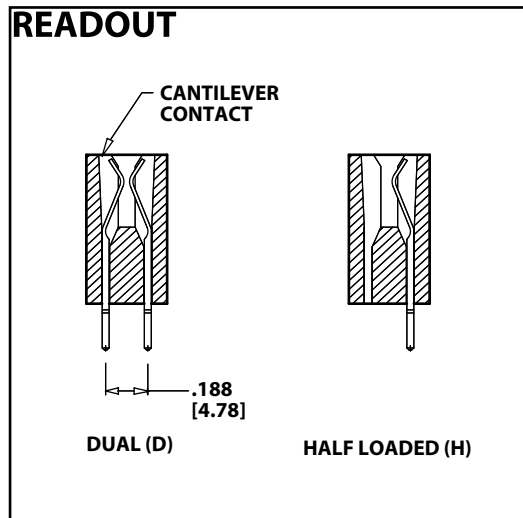
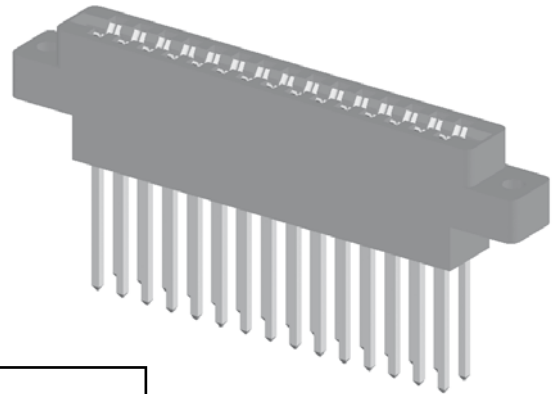


## Sullins Edgecards

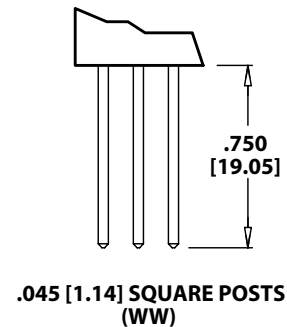
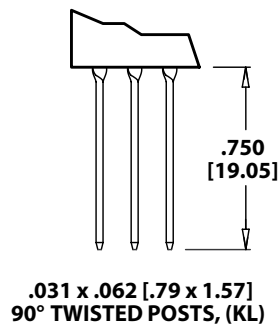
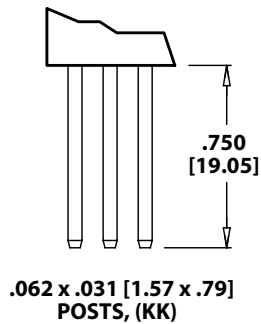
**.156" [3.96mm] Contact Centers, .720" Insulator Height**  
**.045" square / .031" x .062" Wire Wrap**

### SPECIFICATIONS

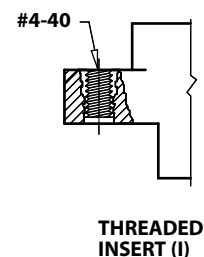
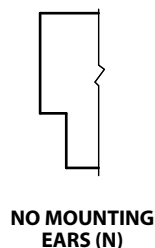
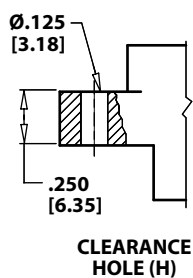
- Accommodates  $.062" \pm .008"$  [1.57  $\pm$  .20] PC board
- PBT insulator
- Molded-in key available
- 5 amp current rating per contact
- 30 milli ohm maximum at rated current



### TERMINATION TYPE



### MOUNTING STYLE





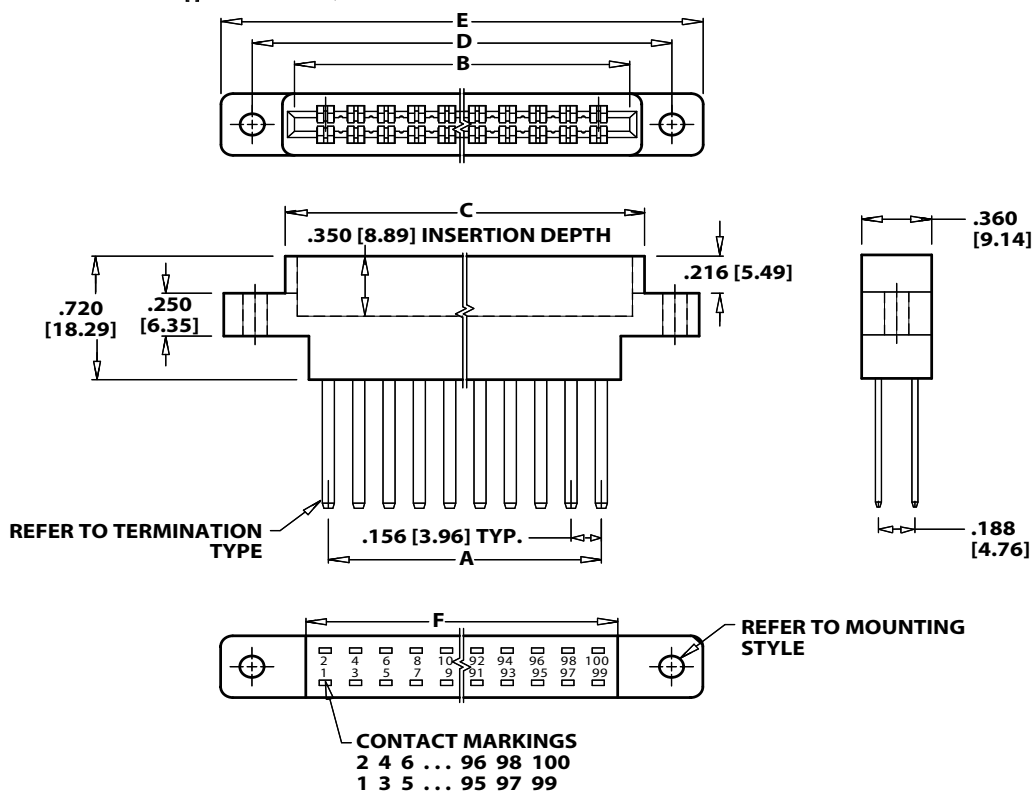
**.156" [3.96mm] Contact Centers, .720" Insulator Height  
.045" square / .031" x .062" Wire Wrap**

## PART NUMBER CODING

|  |          |          |          |           |          |           |          |               |  |
|--|----------|----------|----------|-----------|----------|-----------|----------|---------------|--|
| <b>MATERIALS (Insulator/Contact)</b>   | <b>E</b> | <b>B</b> | <b>M</b> | <b>43</b> | <b>D</b> | <b>KK</b> | <b>H</b> | <b>- Sxxx</b> | <b>MODIFICATION CODE</b> (Consult Factory)<br>OMIT FOR STANDARD  |
| E = PBT/Phosphor Bronze (Standard)<br>(Consult Factory For Other Materials)                              |          |          |          |           |          |           |          |               |  |
| <b>CONTACT FINISH - RoHS Compliant</b><br>All platings are Lead Free and have .000050" Nickel underplate |          |          |          |           |          |           |          |               | <b>MOUNTING STYLE (Opposite page)</b><br>H = Clearance Hole<br>N = No Mounting<br>I = Threaded Inserts   |
| <b>Contact Surface</b>   |          |          |          |           |          |           |          |               | <b>TERMINATION TYPE (Opposite Page)</b><br>KK = .031" [.79mm] x .062" [1.58mm] Post<br>KL = .031" [.79mm] x .062" [1.58mm] Post,<br>Twisted 90°<br>WW = .045" [1.14mm] Square Post |
| <b>Termination</b>   |          |          |          |           |          |           |          |               | <b>READOUT (Opposite Page)</b><br>D = Dual Row<br>H = Half Loaded  |
| B = .000010" Gold .000100" Pure Tin, Matte   |          |          |          |           |          |           |          |               | <b>NUMBER OF CONTACT POSITIONS</b><br>See Chart Below  |
| C = .000030" Gold .000100" Pure Tin, Matte   |          |          |          |           |          |           |          |               |  |
| G = .000010" Gold .000005" Gold  |          |          |          |           |          |           |          |               |  |
| Y = .000030" Gold .000005" Gold  |          |          |          |           |          |           |          |               |  |
| <b>Contact Surface</b>   |          |          |          |           |          |           |          |               |  |
| S = .000010" Gold .000010" Gold  |          |          |          |           |          |           |          |               |  |
| M = .000030" Gold .000010" Gold  |          |          |          |           |          |           |          |               |  |
| E = .000100" Pure Tin, Matte .000100" Pure Tin, Matte  |          |          |          |           |          |           |          |               |  |
| <b>CONTACT CENTERS</b><br>M = .156" [3.96mm]   |          |          |          |           |          |           |          |               |  |

## DIMENSIONS

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



| POSITIONS/<br>CONTACTS | INCHES |        |        |        |        |        | [MILLIMETERS] |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010 | E±.020 | F±.015 | A±.020        | B±.020 | C±.038 | D±.025 | E±0.51 | F±0.38 |
| 06/12*                 | 0.780  | 1.100  | 1.224  | 1.534  | 1.784  | 0.980  | 19.81         | 27.94  | 31.09  | 38.96  | 45.31  | 24.89  |
| 10/20                  | 1.404  | 1.724  | 1.848  | 2.158  | 2.408  | 1.604  | 35.66         | 43.79  | 46.94  | 54.81  | 61.16  | 40.74  |
| 12/24                  | 1.716  | 2.036  | 2.160  | 2.470  | 2.720  | 1.916  | 43.59         | 51.71  | 54.86  | 62.74  | 69.09  | 48.67  |
| 15/30                  | 2.184  | 2.504  | 2.628  | 2.938  | 3.188  | 2.384  | 55.47         | 63.60  | 66.75  | 74.63  | 80.98  | 60.55  |
| 18/36                  | 2.652  | 2.972  | 3.096  | 3.406  | 3.656  | 2.852  | 67.36         | 75.49  | 78.64  | 86.51  | 92.86  | 72.44  |
| 22/44                  | 3.276  | 3.596  | 3.720  | 4.030  | 4.280  | 3.476  | 83.21         | 91.34  | 94.49  | 102.36 | 108.71 | 88.29  |
| 25/50*                 | 3.744  | 4.064  | 4.188  | 4.498  | 4.748  | 3.944  | 95.10         | 103.23 | 106.38 | 114.25 | 120.60 | 100.18 |
| 28/56                  | 4.212  | 4.532  | 4.656  | 4.966  | 5.216  | 4.412  | 106.98        | 115.11 | 118.26 | 126.14 | 132.49 | 112.06 |
| 30/60*                 | 4.524  | 4.844  | 4.968  | 5.278  | 5.528  | 4.724  | 114.91        | 123.04 | 126.19 | 134.06 | 140.41 | 119.99 |
| 31/62*                 | 4.680  | 5.000  | 5.124  | 5.434  | 5.684  | 4.880  | 118.87        | 127.00 | 130.15 | 138.02 | 144.37 | 123.95 |
| 36/72                  | 5.460  | 5.780  | 5.904  | 6.214  | 6.464  | 5.660  | 138.68        | 146.81 | 149.96 | 157.84 | 164.19 | 143.76 |
| 43/86*                 | 6.552  | 6.872  | 6.996  | 7.306  | 7.556  | 6.752  | 166.42        | 174.55 | 177.70 | 185.57 | 191.92 | 171.50 |
| 50/100*                | 7.644  | 7.964  | 8.088  | 8.398  | 8.648  | 7.844  | 194.16        | 202.29 | 205.44 | 213.31 | 219.66 | 199.24 |

\* Consult Factory for availability.





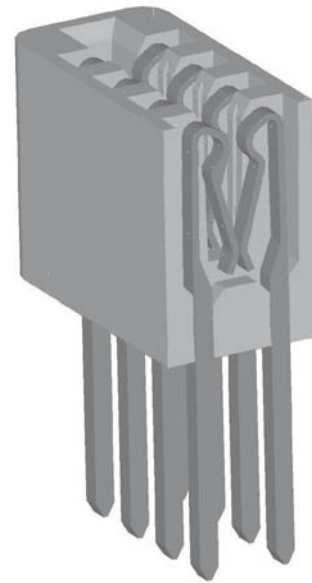
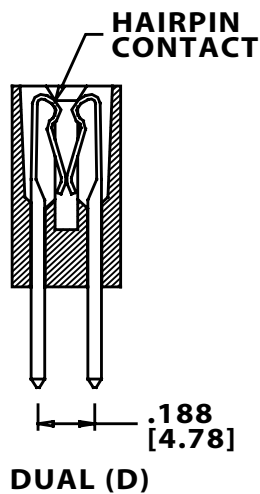
## Sullins Edgecards

**.156" [3.96mm] Contact Centers, .720" Insulator Height**  
**.045" square Make Before Break**

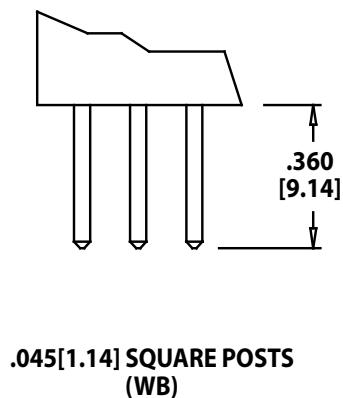
### SPECIFICATIONS

- Make before break (MBB) Application
- Accommodates .062"  $\pm$  .008" [1.57  $\pm$  .20] PC board
- PBT, PPS or PA9T insulator
- Molded-in key available
- 5 amp current rating per contact
- 30 milli ohm maximum at rated current

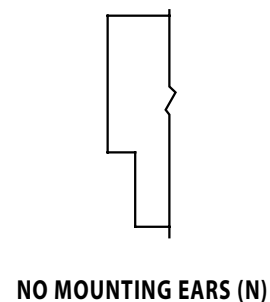
#### READOUT



#### TERMINATION TYPE



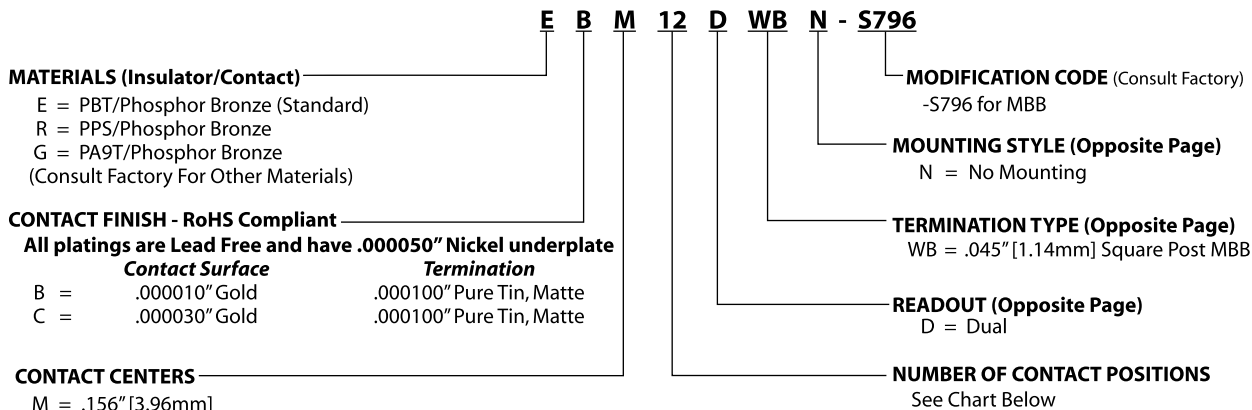
#### MOUNTING STYLE





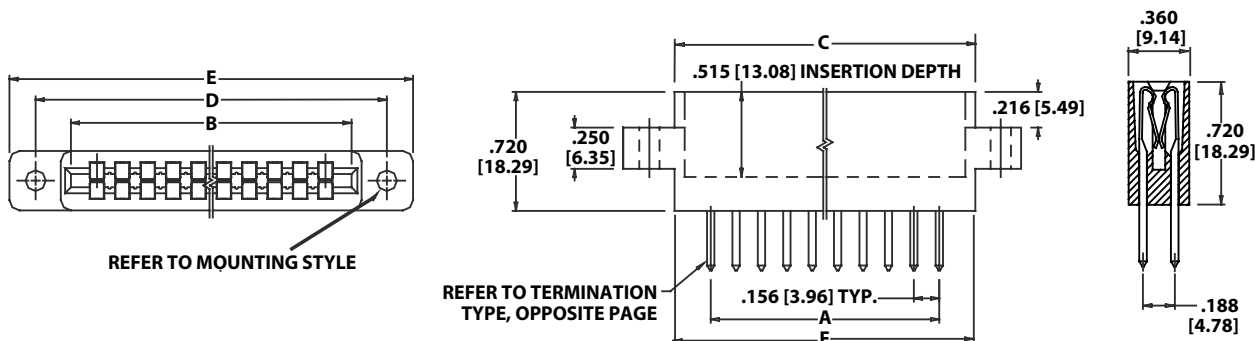
**.156" [3.96mm] Contact Centers, .720" Insulator Height  
.045" square Make Before Break**

**PART NUMBER CODING**



**DIMENSIONS**

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



Tolerances with PPS Insulator Material may vary slightly due to shrinkage differential; Consult Factory.

| POSITIONS/<br>CONTACTS | INCHES |        |        |        |        |        | [MILLIMETERS] |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
|                        | A±.08  | B±.008 | C±.015 | D±.010 | E±.020 | F±.015 | A±0.20        | B±0.20 | C±0.38 | D±0.25 | E±0.51 | F±0.38 |
| 10/20*                 | 1.404  | 1.724  | 1.848  | 2.158  | 2.408  | 1.604  | 35.66         | 43.79  | 46.94  | 54.81  | 61.16  | 40.74  |
| 12/24                  | 1.716  | 2.036  | 2.160  | 2.470  | 2.720  | 1.916  | 43.59         | 51.71  | 54.86  | 62.74  | 69.09  | 48.67  |
| 15/30*                 | 2.184  | 2.504  | 2.628  | 2.938  | 3.188  | 2.384  | 55.47         | 63.60  | 66.75  | 74.63  | 80.98  | 60.55  |
| 18/36*                 | 2.652  | 2.972  | 3.096  | 3.406  | 3.656  | 2.852  | 67.36         | 75.49  | 78.64  | 86.51  | 92.86  | 72.44  |
| 22/44*                 | 3.276  | 3.596  | 3.720  | 4.030  | 4.280  | 3.476  | 83.21         | 91.34  | 94.49  | 102.36 | 108.71 | 88.29  |
| 25/50*                 | 3.744  | 4.064  | 4.188  | 4.498  | 4.748  | 3.944  | 95.10         | 103.23 | 106.38 | 114.25 | 120.60 | 100.18 |
| 28/56*                 | 4.212  | 4.532  | 4.656  | 4.966  | 5.216  | 4.412  | 106.98        | 115.11 | 118.26 | 126.14 | 132.49 | 112.06 |
| 30/60*                 | 4.524  | 4.844  | 4.968  | 5.278  | 5.528  | 4.724  | 114.91        | 123.04 | 126.19 | 134.06 | 140.41 | 119.99 |
| 31/62*                 | 4.680  | 5.000  | 5.124  | 5.434  | 5.684  | 4.880  | 118.87        | 127.00 | 130.15 | 138.02 | 144.37 | 123.95 |
| 36/72*                 | 5.460  | 5.780  | 5.904  | 6.214  | 6.464  | 5.660  | 138.68        | 146.81 | 149.96 | 157.84 | 164.19 | 143.76 |
| 43/86*                 | 6.552  | 6.872  | 6.996  | 7.306  | 7.556  | 6.752  | 166.42        | 174.55 | 177.70 | 185.57 | 191.92 | 171.50 |
| 50/100*                | 7.644  | 7.964  | 8.088  | 8.398  | 8.648  | 7.844  | 194.16        | 202.29 | 205.44 | 213.31 | 219.66 | 199.24 |

\* Consult Factory for Other Positions.



## GENERAL SPECIFICATIONS

### RoHS COMPLIANT

RoHS  
COMPLIANT

All parts are currently manufactured with recommended materials to meet RoHS standards. All contacts have 50u" of nickel underplating, and a large selection of plating options: Pure tin matte, overall gold, or selective gold plating. For complete part number information or operating/processing temperature parameters, visit the RoHS section of our website, or refer to page 5 of this catalog.

### MATERIALS

#### Insulator

- PBT, Valox\*, Thermoplastic Polyester
- PPS, Ryton\*, Polyphenylene Sulfide
- PEEK, Polyetheretherketone
- PA9T, High Temperature Polyamide
- Other materials available. Consult Factory

#### Contacts

Phosphor Bronze (Standard), Beryllium Copper, Beryllium Nickel, Spinodal\*\*, Brass

#### Plating

Gold and/or Tin over .000050" Nickel Underplate, Lead Free

**UL/CUL File Number:** E64287

**Cage Code:** 54453

### MECHANICAL

Board Insertion Force 16 oz Maximum per contact pair using .062"[1.58mm] thick steel test blade

Board Withdrawal Force 1 oz Minimum per contact pair using .062"[1.58mm] thick steel test blade

**Special Insertion/Withdrawal forces available upon request**

### ELECTRICAL

Insulation Resistance: 5,000 Mega Ohm

Dielectric Withstanding Voltage

|                  |            |               |               |               |               |               |
|------------------|------------|---------------|---------------|---------------|---------------|---------------|
| Contact Centers: | .039"[1mm] | .050"[1.27mm] | .100"[2.54mm] | .125"[3.18mm] | .150"[3.81mm] | .156"[3.96mm] |
| Voltage:         | 125 VDC    | 250 VDC       | 600 VDC       | 800 VDC       | 1500 VDC      | 1800 VDC      |
|                  | 225 VAC    | 300 VAC       | 750 VAC       | 750 VAC       | 900 VAC       | 950 VAC       |

Current Rating: 1 to 5 amp per contact

Voltage Drop: 30 milli volt at rated current

Contact Resistance: 30 milli ohm maximum at rated current

### ENVIRONMENTAL

Solvent resistance: Perchloroethylene, Freon 113, Freon 11, Trichloroethylene

|  |      |                       |                     |                |
|--|------|-----------------------|---------------------|----------------|
| Operating Temperature:   | PBT  | -65° to +130°C        | Phosphor Bronze     | -65° to +125°C |
|  | PPS  | -65° to +200/220°C*** | Beryllium Copper    | -65° to +150°C |
|  | PEEK | -65° to +250°C***     | Spinodal**          | -65° to +200°C |
|  | PA9T | -65° to +150°C        | Beryllium Nickel*** | -65° to +300°C |
| (Continuous temperatures, higher for short duration. Contact Factory for details.) |      |                       |                     |                |

\* Or equivalent.

\*\* Consult factory for special soldering guidelines.

\*\*\* Consult factory.



## PART NUMBER OPTIONS

**E B M 43 D RT H - Sxxx**

### MATERIALS (Insulator/Contact)

- E = PBT & Phosphor Bronze  
OPERATING TEMPERATURE: -65°C to +125°C  
PROCESSING TEMP: 260°C FOR 10 sec. MAX.  
(230°C, 30 sec.)
- R = PPS & Phosphor Bronze  
OPERATING TEMPERATURE: -65°C to +125°C  
PROCESSING TEMPERATURE: 260°C FOR 120 sec. MAX.
- G = PA9T & PHOSPHOR BRONZE  
OPERATING TEMPERATURE: -65°C to +125°C  
PROCESSING TEMPERATURE: 260° FOR 120 sec. MAX.
- H = PBT & Beryllium Copper  
OPERATING TEMPERATURE: -65°C to +125°C  
PROCESSING TEMP: 260°C FOR 10 sec. MAX.  
(230°C, 30 sec.)
- A = PPS & Beryllium Copper  
OPERATING TEMPERATURE: -65°C to +150°C  
PROCESSING TEMPERATURE: 260°C FOR 120 sec. MAX.
- J = PA9T & Beryllium Copper  
OPERATING TEMPERATURE: -65°C to +150°C  
PROCESSING TEMPERATURE: 260°C FOR 120 sec. MAX.
- M = White PA9T/Beryllium Copper  
OPERATING TEMPERATURE: -65°C to +150°C
- F = PPS & Spinodal (Consult Factory)  
OPERATING TEMPERATURE: -65°C to +200°C
- C = PPS & Beryllium Nickel (Consult Factory)  
OPERATING TEMPERATURE: -65°C to +200°C  
PROCESSING TEMPERATURE: 260°C FOR 120 sec. MAX.
- W = PEEK & Beryllium Nickel (Consult Factory)  
OPERATING TEMPERATURE: -65°C to +250°C
- N = Nylon 6T & Phosphor Bronze  
OPERATING TEMPERATURE: -10°C to +85°C  
PROCESSING TEMPERATURE: 260°C for 10 sec. MAX.

**CONTACT FINISH - RoHS Compliant**

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

|     | <b>Contact Surface</b>   | <b>Termination</b>       |
|-----|--------------------------|--------------------------|
| B = | .000010" Gold            | .000100" Pure Tin, Matte |
| C = | .000030" Gold            | .000100" Pure Tin, Matte |
| G = | .000010" Gold            | .000005" Gold            |
| Y = | .000030" Gold            | .000005" Gold            |
|     | <b>Contact Surface</b>   | <b>Overall Plating</b>   |
| S = | .000010" Gold            | .000010" Gold            |
| M = | .000030" Gold            | .000010" Gold            |
| E = | .000100" Pure Tin, Matte | .000100" Pure Tin, Matte |

## CONTACT CENTERS

- E = 1.00mm [.039"]  
B = .050" [1.27 mm]  
K = .078" [1.98 mm]  
C = .100" [2.54 mm]  
A = .125" [3.18 mm]  
J = .150" [3.84 mm]  
M = .156" [3.96 mm]

### NUMBER OF CONTACT POSITIONS

See applicable specification page

## READOUT

- D = Dual  
D = Dual Row/ Crimp to Center for Single Readout  
H = Half Loaded  
M = Male Edgcard

## Registered Trademarks

Sabic Innovative Plastics: Valox  
Phillips 66: Ryton  
Gardner-Denver Co.: Wire Wrap  
RTP Compounder: PEEK  
Sullins Electronics: Zero Lead Time  
Sullins Electronics: Sullins  
Underwriters Labs: UL  
Ametek: Spinodal

**Specifications are subject to change without notice.**

**—MODIFICATION CODE** (Consult Factory)  
OMIT FOR STANDARD

## — MOUNTING STYLE

- H = Clearance Holes, .125" [3.18mm] Dia  
N = No Mounting  
S = Side Mounting, .125" [3.18mm] Dia  
I = #4-40 Threaded Insert  
F = Floating Bobbin  
W = .430" Ears, Flush Mounting, .125" [3.18mm] Dia  
D = .250" Ears, Flush Mounting, .125" [3.18mm] Dia  
P = Clearance Holes, .142" [3.61mm] Dia.  
B = Open Card Slot  
X = .430" Ears, Flush Mounting, #4-40 Threaded Insert  
Q = .250" Ears, Flush Mounting, #4-40 Threaded Insert  
T = Straddle Mount  
Z = .250" Ears, Flush, Side Mounting

## -TERMINATION TYPE

### Card Extender

- HR = .050" & 1mm Contact Centers  
KR,KN = .025" [.64mm] Square Post, Cantilever

### ***Dip Solder - High Profile***

- RS = .025 [.64mm] Square Tail, Loop Bellows  
CS, SC = .025" [.64mm] Square Tail, Hairpin Bellows  
TK = .026" [.66mm] Round Tail, Loop Bellows  
CT, CW = .015" x .025" Tail, Hairpin Bellows  
CK = .026" [.66mm] Round Tail, Loop Bellows  
HH = 1mm [.039"] Contact Centers  
HH, HL, HN = .050" Contact Centers  
KS, KD = .025" [.64mm] Square Post, Cantilever

**Dip Solder - Low Profile**

- SX, SU = Crimp to Center for Single Readout  
RT, RK, RY = .140" [3.56mm] Row Spacing  
RX, RF, RU, RP = .200" [5.08mm] Row Spacing  
RJ = .250" [6.35mm] Row Spacing

**Evelet**

RE, TE, SE = Eyelet Tail

**Press Fit**

- | <i>.200"[5.08mm] Row Spacing</i> | <i>.100"[2.54mm] Row Spacing</i> |
|----------------------------------|----------------------------------|
| JB = .025" [.64mm] Sq. Post      | JF = .025" [.64mm] Sq. Post      |
| JC = .025" [.64mm] Sq. Post      | JG = .025" [.64mm] Sq. Post      |
| JW = .025" [.64mm] Sq. Post      | JY = .025" [.64mm] Sq. Post      |
| JX = .025" [.64mm] Sq. Post      | JZ = .025" [.64mm] Sq. Post      |

**Right Angle**

- RA, SA = Right Angle, Full Bellows  
TA, TB, TM = Right Angle, Loop Bellows  
CA, CB, CC = Right Angle, Hairpin Bellows  
HA = Right Angle, .050" & 1mm Contact Centers  
HB = Right Angle, .050" Contact Centers  
KA, KE, KU, KJ = .025" [.64mm] Square Post, Cantilever

**Surface Mount**

HF = Surface Mount, .050" & 1mm Contact Centers

### **Wire Wrap**

- RM = .025" [.64mm] Square Post, Loop Bellows  
CM, MC = .025" [.64mm] Square Post, Hairpin Bellows  
KK = .031" [.79mm] x .062" [1.58mm] Post  
KL = .031" [.79mm] x .062" [1.58mm] Post Twisted 90°  
KM = .025" [.64mm] Square Post, Cantilever  
WW = .045" [1.14mm] Square Post

### Bi-Level Terminations

- LR = Card Extender  
LT = Dip Solder  
KB = Right Angle

**Male Edgwards**

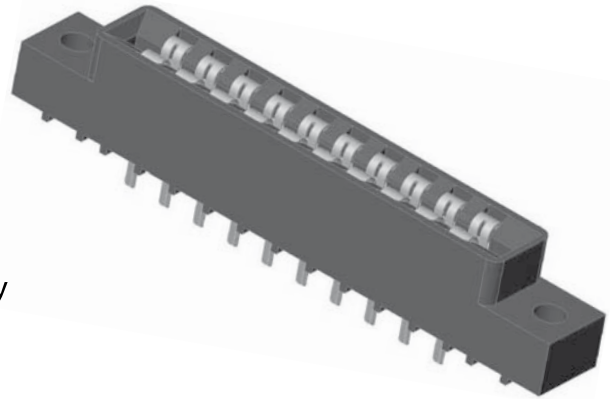
- MW, MS = Dip Solder  
MA, MV, MB = Right Angle  
MD, MJ, MK = Right Angle  
MR, MN = Card Extender  
MM = Wire Wrap



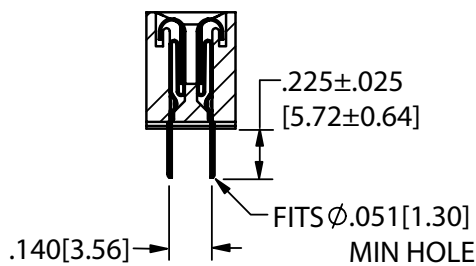
## .156" Contact Centers, .431" Insulator Height, Dip Solder

### SPECIFICATIONS

- Accommodates  $.062" \pm .008"$  [ $1.57 \pm 0.20$ ] PC Board
- Insulator Material available in PBT, PPS or PA9T
- 3 Amp Current Rating per contact
- Insulator / Contact Specifications and Part Number Coding See Page 82-83
- Row Spacing Available in .140" or .200"  
(Use Modification Code 'X9' for .200")
- P/N 04-0001-000 for In Between Contact Position Key  
P/N 04-0002-000 for In Contact Position Key  
See Page 126 (Sold Separately)
- Molded-in Key Available - Consult Factory

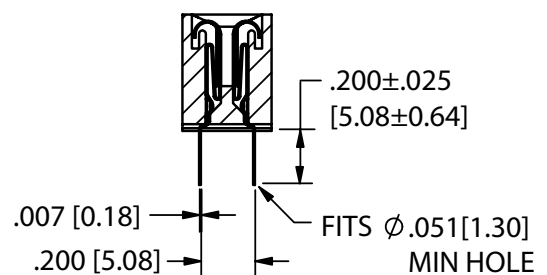


### TERMINATION TYPE



#### DIP SOLDER (S) .140" ROW SPACING

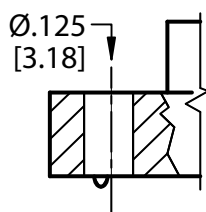
*Example P/N: MP<sup>SL</sup>-0156-10-DS-1K*



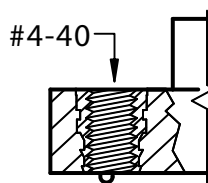
#### DIP SOLDER (S) .200" ROW SPACING REQUIRES 'X9' MODIFICATION CODE

*Example P/N: MP<sup>SL</sup>-0156-10-DS-1X9K*

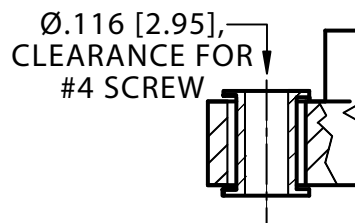
### MOUNTING STYLE



(STYLE 1)



(STYLE 2)



(STYLE 3)



(STYLE 4)



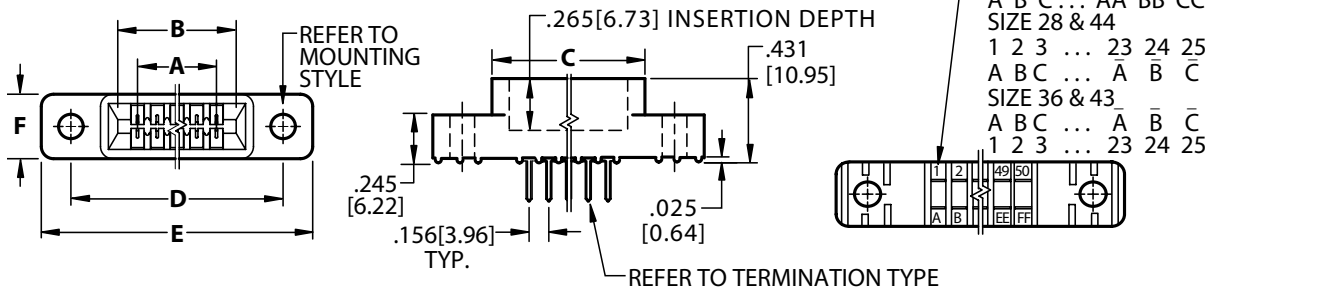
## PART NUMBER CODING

|  |  |                          |                 |            |              |          |  |
|--|--|--------------------------|-----------------|------------|--------------|----------|--|
| <b>PLATING - RoHS Compliant</b>                                |  | <b>MPSL - 0</b>          | <b>156 - 10</b> | <b>- D</b> | <b>S - 1</b> | <b>K</b> | <b>MODIFICATION CODE**</b><br>K = Required on MPSL or MPL Plating<br>Omit for MP Plating (Overall Gold)<br>X9 = .200" Row Spacing            |
| All Platings are Lead Free and have .000050" Nickel Underplate |  |                          |                 |            |              |          |  |
| <b>Contact Surface</b>   |  | <b>Termination</b>       |                 |            |              |          | <b>MOUNTING STYLE</b> (See Opposite Page)<br>1 = .125" Clearance Hole<br>2 = #4-40 Threaded Insert<br>3 = Floating Bobbin<br>4 = No Mounting |
| *MPSL = .000010" Gold  |  | .000100" Pure Tin, Matte |                 |            |              |          |  |
| *MPL = .000100" Overall Pure Tin, Matte                        |  |                          |                 |            |              |          | <b>TERMINATION TYPE</b> (See Opposite Page)<br>S = Dip Solder  |
| MP = .000010" Overall Gold                                     |  |                          |                 |            |              |          |  |
| <b>*Requires 'K' Modification Code</b>                         |  |                          |                 |            |              |          | <b>READOUT</b><br>D = Dual   |
| <b>INSULATOR MATERIAL **</b>                                   |  |                          |                 |            |              |          |  |
| 0 = PBT  |  |                          |                 |            |              |          | <b>CONTACT CENTERS</b><br>156 = .156" [3.96mm]   |
|  |  |                          |                 |            |              |          |  |
| <b>NUMBER OF POSITIONS</b>                                     |  |                          |                 |            |              |          | Contacts Per Row (See Position Chart Below)  |
|  |  |                          |                 |            |              |          |  |

**\*\* SEE PAGES 82-83 FOR SPECIFICATIONS AND OTHER VARIATIONS**

## DIMENSIONS

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



| POSITIONS/<br>CONTACTS | INCHES |        |        |              |       |        | [MILLIMETERS] |        |        |              |        |        |
|------------------------|--------|--------|--------|--------------|-------|--------|---------------|--------|--------|--------------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010       | E MAX | F±.005 | A±0.20        | B±0.20 | C±0.38 | D±0.25       | E MAX  | F±0.13 |
| 02/04                  | 0.156  | 0.476  | 0.596  | 'N' MOUNTING |       |        | 3.96          | 12.09  | 15.14  | 'N' MOUNTING |        |        |
| 03/06                  | 0.312  | 0.632  | 0.752  | 'N' MOUNTING |       |        | 7.92          | 16.05  | 19.10  | 'N' MOUNTING |        |        |
| 06/12                  | 0.780  | 1.100  | 1.220  | 1.533        | 1.902 | 0.325  | 19.81         | 27.94  | 30.99  | 38.94        | 48.31  | 8.26   |
| 08/16                  | 1.092  | 1.412  | 1.532  | 1.845        | 2.214 |        | 27.74         | 35.86  | 38.91  | 46.86        | 56.24  |        |
| 10/20                  | 1.404  | 1.724  | 1.844  | 2.157        | 2.526 |        | 35.66         | 43.79  | 46.84  | 54.79        | 64.16  |        |
| 11/22                  | 1.560  | 1.880  | 2.000  | 2.313        | 2.682 |        | 39.62         | 47.75  | 50.80  | 58.75        | 68.12  |        |
| 12/24                  | 1.716  | 2.036  | 2.156  | 2.469        | 2.838 |        | 43.59         | 51.71  | 54.76  | 62.71        | 72.09  |        |
| 15/30                  | 2.184  | 2.504  | 2.624  | 2.937        | 3.306 |        | 55.47         | 63.60  | 66.65  | 74.60        | 83.97  |        |
| 18/36                  | 2.652  | 2.972  | 3.092  | 3.405        | 3.774 |        | 67.36         | 75.49  | 78.54  | 86.49        | 95.86  |        |
| 22/44                  | 3.276  | 3.596  | 3.716  | 4.029        | 4.398 |        | 83.21         | 91.34  | 94.39  | 102.34       | 111.71 |        |
| 24/48                  | 3.588  | 3.908  | 4.028  | 4.341        | 4.710 |        | 91.14         | 99.26  | 102.31 | 110.26       | 119.63 |        |
| 25/50                  | 3.744  | 4.064  | 4.184  | 4.497        | 4.866 |        | 95.10         | 103.23 | 106.27 | 114.22       | 123.60 |        |
| 28/56                  | 4.212  | 4.532  | 4.652  | 4.965        | 5.334 | 0.438  | 106.98        | 115.11 | 118.16 | 126.11       | 135.48 | 11.13  |
| 36/72                  | 5.460  | 5.780  | 5.900  | 6.213        | 6.582 |        | 138.68        | 146.81 | 149.86 | 157.81       | 167.18 |        |
| 43/86                  | 6.552  | 6.872  | 6.992  | 7.305        | 7.674 | 0.500  | 166.42        | 174.55 | 177.60 | 185.55       | 194.92 | 12.70  |
| 44/88                  | 6.708  | 7.028  | 7.148  | 7.461        | 7.830 |        | 170.38        | 178.51 | 181.56 | 189.51       | 198.88 |        |

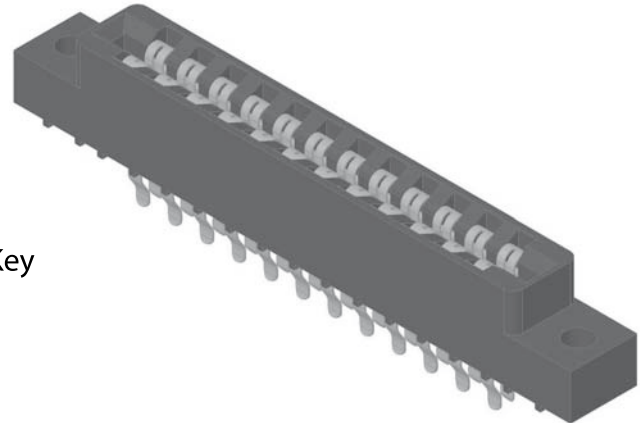




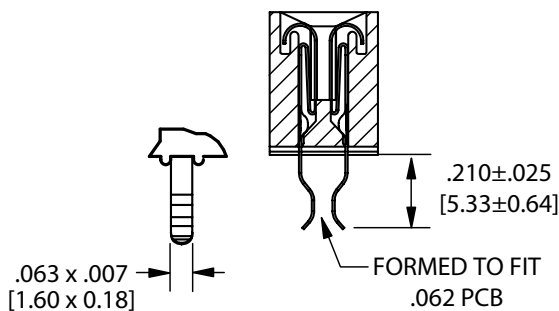
## .156" Contact Centers, .431" Insulator Height, Card Extender

### SPECIFICATIONS

- Accommodates  $.062" \pm .008"$  [ $1.57 \pm 0.20$ ] PC Board
- Insulator Material available in PBT, PPS or PA9T
- 3 Amp Current Rating per contact
- Insulator / Contact Specifications and Part Number Coding See Page 82-83
- P/N 04-0001-000 for In Between Contact Position Key  
P/N 04-0002-000 for In Contact Position Key  
See Page 126 (Sold Separately)
- Molded-in Key Available - Consult Factory

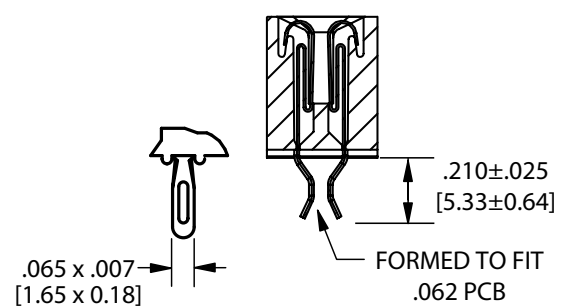


### TERMINATION TYPE



**CARD EXTENDER (SE)**

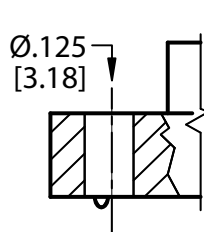
*Example P/N: MP~~SL~~-0156-10-DSE-1K*



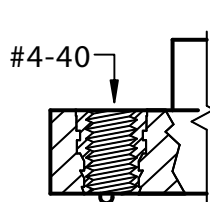
**ECONOMY EYELET  
CARD EXTENDER (PE)**

*Example P/N: EM~~PL~~-0156-10-DPE-1K*

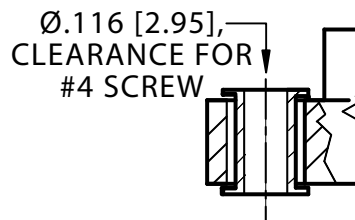
### MOUNTING STYLE



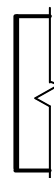
**(STYLE 1)**



**(STYLE 2)**



**(STYLE 3)**



**(STYLE 4)**



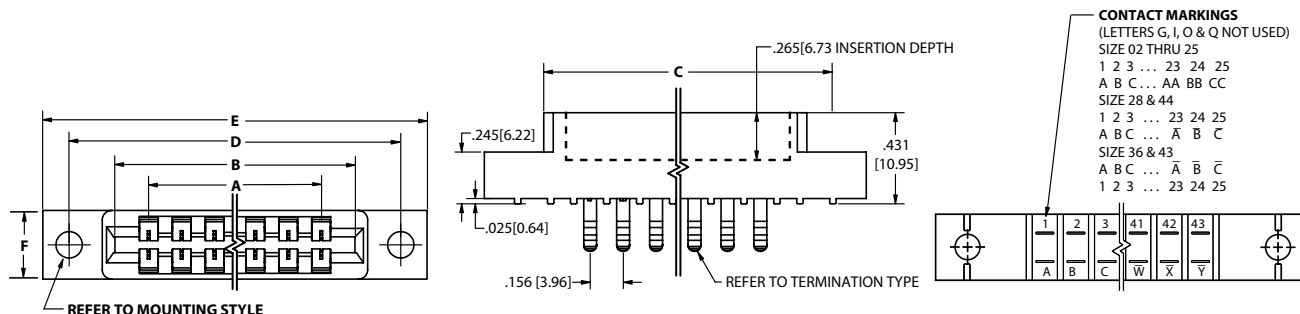
## PART NUMBER CODING

|   |                 |                 |          |               |          |   |
|---|-----------------|-----------------|----------|---------------|----------|---|
| <b>PLATING - RoHS Compliant</b>                                 | <b>MPSL - 0</b> | <b>156 - 10</b> | <b>D</b> | <b>SE - 1</b> | <b>K</b> | <b>PLATING MODIFICATION CODE**</b>  |
| All Platings are Lead Free and have .000050" Nickel Underplate  |                 |                 |          |               |          | K = Required on MPSL or MPL Plating<br>Omit for MP Plating (Overall Gold) |
| <b>Contact Surface</b>  |                 |                 |          |               |          | <b>MOUNTING STYLE</b> (See Opposite Page)                                 |
| *MPSL = .000010" Gold   |                 |                 |          |               |          | 1 = .125" Clearance Hole  |
| *MPL = .000100" Overall Pure Tin, Matte                         |                 |                 |          |               |          | 2 = #4-40 Threaded Insert   |
| MP = .000010" Overall Gold                                      |                 |                 |          |               |          | 3 = Floating Bobbin   |
| <b>Platings that start with 'E' are for Economy Eyelet Only</b> |                 |                 |          |               |          | 4 = No Mounting   |
| *EMPSL = .000010" Gold  |                 |                 |          |               |          | <b>TERMINATION TYPE</b> (See Opposite Page)                               |
| *EMPL = .000100" Overall Pure Tin, Matte                        |                 |                 |          |               |          | SE = Card Extender  |
| EMP = .000010" Overall Gold                                     |                 |                 |          |               |          | <i>Requires Part Number to start with 'M'</i>                             |
| <b>* Requires 'K' Modification Code</b>                         |                 |                 |          |               |          | PE = Economy Eyelet Card Extender   |
| Other Plating and thicknesses available upon request            |                 |                 |          |               |          | <i>Requires Part Number to start with 'E'</i>                             |
| <b>INSULATOR MATERIAL**</b>                                     |                 |                 |          |               |          | <b>READOUT</b>  |
| 0 = PBT   |                 |                 |          |               |          | D = Dual  |
| <b>CONTACT CENTERS</b>  |                 |                 |          |               |          |   |
| 156 = .156" [3.96mm]  |                 |                 |          |               |          |   |
| <b>NUMBER OF POSITIONS</b>                                      |                 |                 |          |               |          |   |
| Contacts Per Row (See Position Chart Below)                     |                 |                 |          |               |          |   |

**\*\* SEE PAGES 82-83 FOR SPECIFICATIONS AND OTHER VARIATIONS**

## DIMENSIONS

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



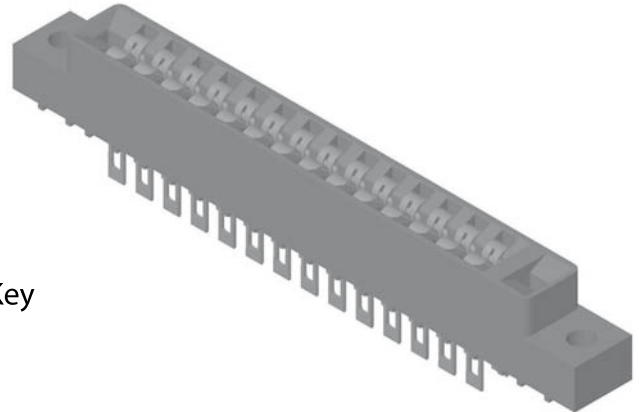
| POSITIONS/<br>CONTACTS | INCHES |        |        |              |       |        | [MILLIMETERS] |        |        |              |        |        |
|------------------------|--------|--------|--------|--------------|-------|--------|---------------|--------|--------|--------------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010       | E MAX | F±.005 | A±0.20        | B±0.20 | C±0.38 | D±0.25       | E MAX  | F±0.13 |
| 02/04                  | 0.156  | 0.476  | 0.596  | 'N' MOUNTING |       | 0.325  | 3.96          | 12.09  | 15.14  | 'N' MOUNTING |        | 8.26   |
| 03/06                  | 0.312  | 0.632  | 0.752  | 'N' MOUNTING |       |        | 7.92          | 16.05  | 19.10  | 'N' MOUNTING |        |        |
| 06/12                  | 0.780  | 1.100  | 1.220  | 1.533        | 1.902 |        | 19.81         | 27.94  | 30.99  | 38.94        | 48.31  |        |
| 08/16                  | 1.092  | 1.412  | 1.532  | 1.845        | 2.214 |        | 27.74         | 35.86  | 38.91  | 46.86        | 56.24  |        |
| 10/20                  | 1.404  | 1.724  | 1.844  | 2.157        | 2.526 |        | 35.66         | 43.79  | 46.84  | 54.79        | 64.16  |        |
| 11/22                  | 1.560  | 1.880  | 2.000  | 2.313        | 2.682 |        | 39.62         | 47.75  | 50.80  | 58.75        | 68.12  |        |
| 12/24                  | 1.716  | 2.036  | 2.156  | 2.469        | 2.838 |        | 43.59         | 51.71  | 54.76  | 62.71        | 72.09  |        |
| 15/30                  | 2.184  | 2.504  | 2.624  | 2.937        | 3.306 |        | 55.47         | 63.60  | 66.65  | 74.60        | 83.97  |        |
| 18/36                  | 2.652  | 2.972  | 3.092  | 3.405        | 3.774 |        | 67.36         | 75.49  | 78.54  | 86.49        | 95.86  |        |
| 22/44                  | 3.276  | 3.596  | 3.716  | 4.029        | 4.398 |        | 83.21         | 91.34  | 94.39  | 102.34       | 111.71 |        |
| 24/48                  | 3.588  | 3.908  | 4.028  | 4.341        | 4.710 |        | 91.14         | 99.26  | 102.31 | 110.26       | 119.63 |        |
| 25/50                  | 3.744  | 4.064  | 4.184  | 4.497        | 4.866 |        | 95.10         | 103.23 | 106.27 | 114.22       | 123.60 |        |
| 28/56                  | 4.212  | 4.532  | 4.652  | 4.965        | 5.334 | 0.438  | 106.98        | 115.11 | 118.16 | 126.11       | 135.48 | 11.13  |
| 36/72                  | 5.460  | 5.780  | 5.900  | 6.213        | 6.582 |        | 138.68        | 146.81 | 149.86 | 157.81       | 167.18 |        |
| 43/86                  | 6.552  | 6.872  | 6.992  | 7.305        | 7.674 | 0.500  | 166.42        | 174.55 | 177.60 | 185.55       | 194.92 | 12.70  |
| 44/88                  | 6.708  | 7.028  | 7.148  | 7.461        | 7.830 |        | 170.38        | 178.51 | 181.56 | 189.51       | 198.88 |        |



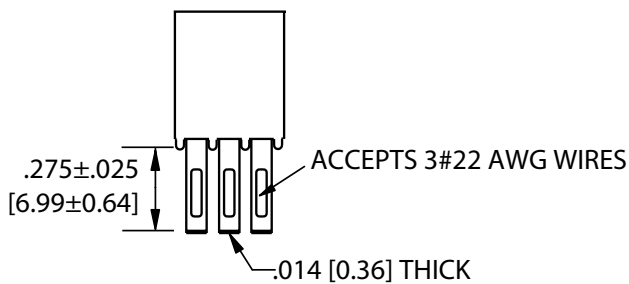
## .156" Contact Centers, .431" Insulator Height, Eyelet

### SPECIFICATIONS

- Accommodates  $.062" \pm .008"$  [ $1.57 \pm 0.20$ ] PC Board
- Insulator Material available in PBT, PPS or PA9T
- 3 Amp Current Rating per contact
- Insulator / Contact Specifications and Part Number Coding See Page 82-83
- Row Spacing Available in  $.140"$  or  $.200"$  (Use Modification Code 'X9' for  $.200"$ )
- P/N 04-0001-000 for In Between Contact Position Key  
P/N 04-0002-000 for In Contact Position Key  
See Page 126 (Sold Separately)
- Molded-in Key Available - Consult Factory

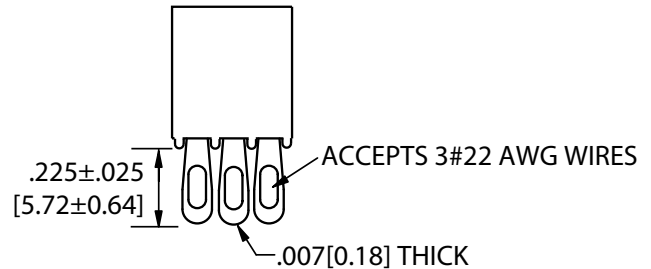


### TERMINATION TYPE



#### EYELET (P)

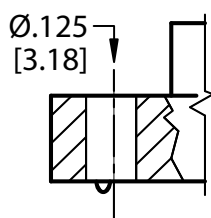
Example P/N: MP-0156-10-DP-1



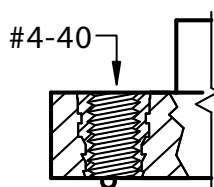
#### ECONOMY EYELET (P)

Example P/N: EMPSL-0156-10-DP-1K

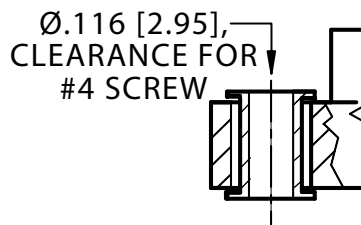
### MOUNTING STYLE



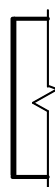
#### (STYLE 1)



#### (STYLE 2)



#### (STYLE 3)



#### (STYLE 4)



# **.156" Contact Centers, .431" Insulator Height, Eyelet**

## PART NUMBER CODING

**MPL - 0 156 - 10 - D P - 1 K**

**PLATING - RoHS Compliant**  
All Platings are Lead Free and have .000050" Nickel Underplate

**Contact Surface      Termination**

\*MPL = .000100" Overall Pure Tin, Matte  
MP = .000010" Overall Gold

**Platings that start with 'E' are for Economy Eyelet Only**

\*EMPSL = .000010" Gold      .000100" Pure Tin Matte  
\*EMPL = .000100" Overall Pure Tin, Matte  
EMP = .000010" Overall Gold

**\* Requires 'K' Modification Code**  
Other Plating and thicknesses available upon request

**INSULATOR MATERIAL\*\***  
0 = PBT

**CONTACT CENTERS**  
156 = .156" [3.96mm]

**NUMBER OF POSITIONS**  
Contacts Per Row (See Position Chart Below)

**PLATING MODIFICATION CODE\*\***  
K = Required on Tin Plating Terminations  
Omit for MP and EMP Plating (Overall Gold)

**MOUNTING STYLE** (See Opposite Page)  
1 = .125" Clearance Hole  
2 = #4-40 Threaded Insert  
3 = Floating Bobbin  
4 = No Mounting

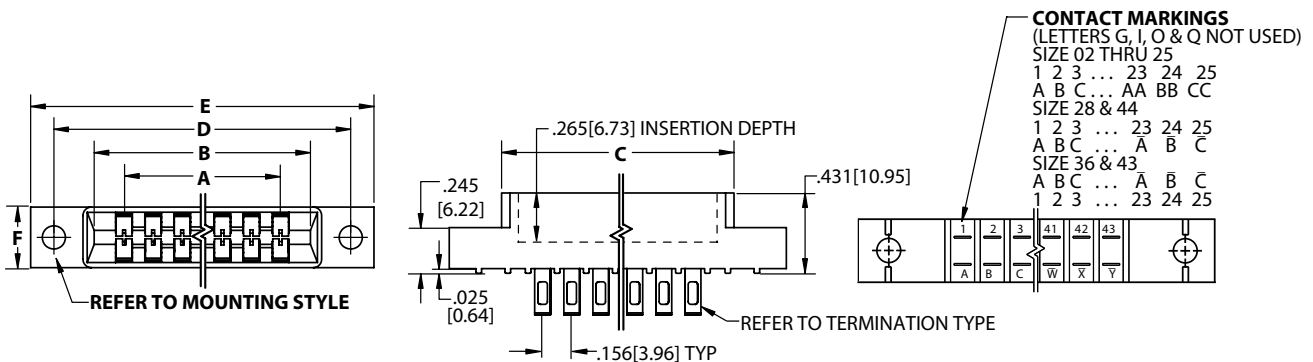
**TERMINATION TYPE** (See Opposite Page)  
P = Pierced Eyelet, .014" Thick  
**MPL and MP Plating Only**  
P = Economy Eyelet, .007" Thick  
**Requires Part Number to start with 'E'**

**READOUT**  
D = Dual

**\*\* SEE PAGES 82-83 FOR SPECIFICATIONS AND OTHER VARIATIONS**

## DIMENSIONS

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



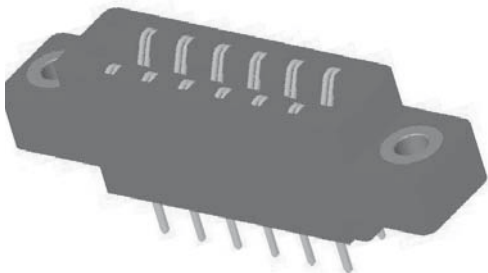
| POSITIONS/<br>CONTACTS | INCHES |        |        |              |       |        | [MILLIMETERS] |        |        |              |        |        |
|------------------------|--------|--------|--------|--------------|-------|--------|---------------|--------|--------|--------------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010       | E MAX | F±.005 | A±0.20        | B±0.20 | C±0.38 | D±0.25       | E MAX  | F±0.13 |
| 02/04                  | 0.156  | 0.476  | 0.596  | 'N' MOUNTING |       |        | 3.96          | 12.09  | 15.14  | 'N' MOUNTING |        |        |
| 03/06                  | 0.312  | 0.632  | 0.752  | 'N' MOUNTING |       |        | 7.92          | 16.05  | 19.10  | 'N' MOUNTING |        |        |
| 06/12                  | 0.780  | 1.100  | 1.220  | 1.533        | 1.902 |        | 19.81         | 27.94  | 30.99  | 38.94        | 48.31  |        |
| 08/16                  | 1.092  | 1.412  | 1.532  | 1.845        | 2.214 |        | 27.74         | 35.86  | 38.91  | 46.86        | 56.24  |        |
| 10/20                  | 1.404  | 1.724  | 1.844  | 2.157        | 2.526 |        | 35.66         | 43.79  | 46.84  | 54.79        | 64.16  |        |
| 11/22                  | 1.560  | 1.880  | 2.000  | 2.313        | 2.682 |        | 39.62         | 47.75  | 50.80  | 58.75        | 68.12  |        |
| 12/24                  | 1.716  | 2.036  | 2.156  | 2.469        | 2.838 |        | 43.59         | 51.71  | 54.76  | 62.71        | 72.09  |        |
| 15/30                  | 2.184  | 2.504  | 2.624  | 2.937        | 3.306 |        | 55.47         | 63.60  | 66.65  | 74.60        | 83.97  |        |
| 18/36                  | 2.652  | 2.972  | 3.092  | 3.405        | 3.774 |        | 67.36         | 75.49  | 78.54  | 86.49        | 95.86  |        |
| 22/44                  | 3.276  | 3.596  | 3.716  | 4.029        | 4.398 |        | 83.21         | 91.34  | 94.39  | 102.34       | 111.71 |        |
| 24/48                  | 3.588  | 3.908  | 4.028  | 4.341        | 4.710 |        | 91.14         | 99.26  | 102.31 | 110.26       | 119.63 |        |
| 25/50                  | 3.744  | 4.064  | 4.184  | 4.497        | 4.866 |        | 95.10         | 103.23 | 106.27 | 114.22       | 123.60 |        |
| 28/56                  | 4.212  | 4.532  | 4.652  | 4.965        | 5.334 |        | 106.98        | 115.11 | 118.16 | 126.11       | 135.48 |        |
| 36/72                  | 5.460  | 5.780  | 5.900  | 6.213        | 6.582 |        | 138.68        | 146.81 | 149.86 | 157.81       | 167.18 |        |
| 43/86                  | 6.552  | 6.872  | 6.992  | 7.305        | 7.674 |        | 166.42        | 174.55 | 177.60 | 185.55       | 194.92 |        |
| 44/88                  | 6.708  | 7.028  | 7.148  | 7.461        | 7.830 |        | 170.38        | 178.51 | 181.56 | 189.51       | 198.88 |        |



**.156" Contact Centers, .610" Insulator Height,  
Wire Wrap & Dip Solder**

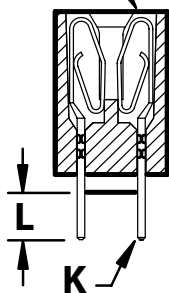
**SPECIFICATIONS**

- Accommodates .062" ± .008" [1.57 ± 0.20] PC Board
- Insulator Material available in PBT, PPS or PA9T
- 3 Amp Current Rating per contact
- Insulator / Contact Specifications and Part Number Coding See Page 82-83
- P/N 04-0004-000 for In Between Contact Position Key See Page 126 (Sold Separately)
- Molded-in Key Available - Consult Factory



**TERMINATION TYPE**

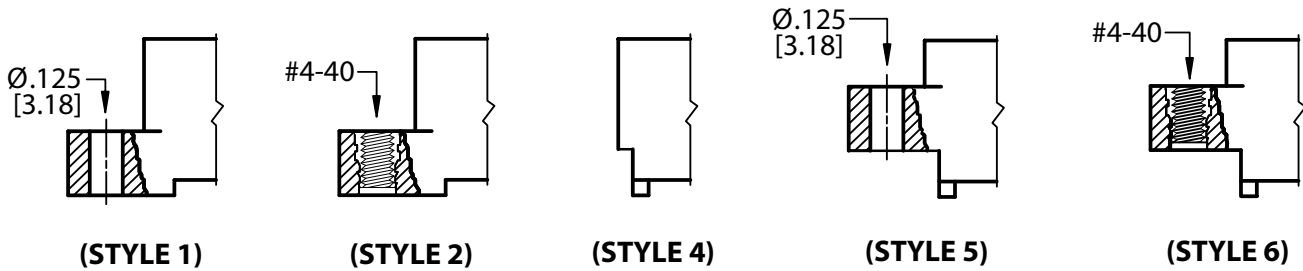
**LOOP BELLOWS**



**LOOP BELLOWS**

| TERMINATION CODE | MODIFICATION CODE | TYPE       | POST CROSS SECTION K | POST LENGTH L | FITS MIN. HOLE SIZE | EXAMPLE PART NUMBER                     |
|------------------|-------------------|------------|----------------------|---------------|---------------------|---|
| R                | H                 | Dip Solder | .026 [0.66] Round    | .190 [4.83]   | .030 [0.76]         | <i><b>MPSL-0156-10-DR-1HK</b></i>       |
| R                | H(.165)           | Dip Solder | .026 [0.66] Round    | .165 [4.19]   | .030 [0.76]         | <i><b>MPSL-0156-10-DR-1HK(.165)</b></i> |
| W                | H                 | Dip Solder | .025 [0.64] Square   | .190 [4.83]   | .040 [1.02]         | <i><b>MPSL-0156-10-DW-1HK</b></i>       |
| W                | OMIT              | Wire Wrap  | .025 [0.64] Square   | .560 [14.20]  | .040 [1.02]         | <i><b>MPSL-0156-10-DW-1K</b></i>        |

**MOUNTING STYLE**





**.156" Contact Centers, .610" Insulator Height,  
Wire Wrap & Dip Solder**

**PART NUMBER CODING**

**MPSL - 0 156 - 10 - D W - 1 H K**

**PLATING - RoHS Compliant**  
All Platings are Lead Free and have .000050" Nickel Underplate  
**Contact Surface Termination**  
\*MPSL = .000010" Gold .000100" Pure Tin, Matte  
\*MPL = .000100" Overall Pure Tin, Matte  
MP = .000010" Overall Gold  
**\*Requires 'K' Modification Code**

**INSULATOR MATERIAL\*\***  
0 = PBT

**CONTACT CENTERS**  
156 = .156" [3.96mm]

**NUMBER OF POSITIONS**  
Contacts Per Row (See Position Chart Below)

**READOUT**  
D = Dual

**PLATING MODIFICATION CODE\*\***  
K = Required on MPSL or MPL Plating  
Omit for MP Plating (Overall Gold)

**MODIFICATION CODE\*\***  
(See Opposite Page)  
H = Dip Solder .190 [4.83] Tail Length  
(.026 Round or .025 Square)  
H(.165) = Dip Solder .165 [4.19] Tail Length  
(.026 Round Only)

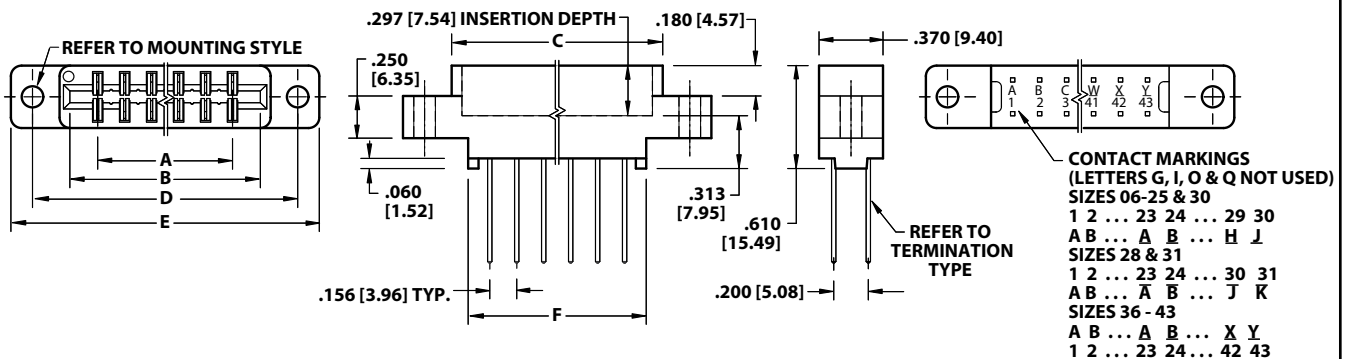
**MOUNTING STYLE** (See Opposite Page)  
1 = .125" Clearance Hole  
2 = #4-40 Threaded Insert  
4 = No Mounting  
5 = Raised, .125" Clearance Hole  
6 = Raised, #4-40 Threaded Insert

**TERMINATION TYPE** (See Opposite Page)  
**LOOP BELLOWS**  
R = .026 [6.6mm] Round  
W = .025 [6.4mm] Square

**\*\* SEE PAGES 82-83 FOR SPECIFICATIONS AND OTHER VARIATIONS**

**DIMENSIONS**

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



| POSITIONS/<br>CONTACTS | INCHES |        |        |        |        |        | [MILLIMETERS] |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010 | E±.020 | F±.015 | A±0.20        | B±0.20 | C±0.38 | D±0.25 | E±0.51 | F±0.38 |
| 06/12                  | 0.780  | 1.102  | 1.221  | 1.534  | 1.784  | 1.030  | 19.81         | 27.99  | 31.01  | 38.96  | 45.31  | 26.16  |
| 08/16                  | 1.092  | 1.414  | 1.533  | 1.846  | 2.096  | 1.342  | 27.74         | 35.92  | 38.94  | 46.89  | 53.24  | 34.09  |
| 10/20                  | 1.404  | 1.726  | 1.845  | 2.158  | 2.408  | 1.654  | 35.66         | 43.84  | 46.86  | 54.81  | 61.16  | 42.01  |
| 12/24                  | 1.716  | 2.038  | 2.157  | 2.470  | 2.720  | 1.966  | 43.59         | 51.77  | 54.79  | 62.74  | 69.09  | 49.94  |
| 15/30                  | 2.184  | 2.506  | 2.625  | 2.938  | 3.188  | 2.434  | 55.47         | 63.65  | 66.68  | 74.63  | 80.98  | 61.82  |
| 18/36                  | 2.652  | 2.974  | 3.093  | 3.406  | 3.656  | 2.902  | 67.36         | 75.54  | 78.56  | 86.51  | 92.86  | 73.71  |
| 20/40*                 | 2.964  | 3.286  | 3.405  | 3.718  | 3.968  | 3.214  | 75.29         | 83.46  | 86.49  | 94.44  | 100.79 | 81.64  |
| 22/44                  | 3.276  | 3.598  | 3.717  | 4.030  | 4.280  | 3.526  | 83.21         | 91.39  | 94.41  | 102.36 | 108.71 | 89.56  |
| 24/48                  | 3.588  | 3.910  | 4.029  | 4.342  | 4.592  | 3.838  | 91.14         | 99.31  | 102.34 | 110.29 | 116.64 | 97.49  |
| 25/50                  | 3.744  | 4.066  | 4.185  | 4.498  | 4.748  | 3.994  | 95.10         | 103.28 | 106.30 | 114.25 | 120.60 | 101.45 |
| 28/56                  | 4.212  | 4.534  | 4.653  | 4.966  | 5.216  | 4.462  | 106.98        | 115.16 | 118.19 | 126.14 | 132.49 | 113.33 |
| 30/60                  | 4.524  | 4.846  | 4.965  | 5.278  | 5.528  | 4.774  | 114.91        | 123.09 | 126.11 | 134.06 | 140.41 | 121.26 |
| 31/62                  | 4.680  | 5.002  | 5.121  | 5.434  | 5.684  | 4.930  | 118.87        | 127.05 | 130.07 | 138.02 | 144.37 | 125.22 |
| 36/72                  | 5.460  | 5.782  | 5.901  | 6.214  | 6.464  | 5.710  | 138.68        | 146.86 | 149.89 | 157.84 | 164.19 | 145.03 |
| 40/80                  | 6.084  | 6.406  | 6.525  | 6.838  | 7.088  | 6.334  | 154.53        | 162.71 | 165.74 | 173.69 | 180.04 | 160.88 |
| 43/86                  | 6.552  | 6.874  | 6.993  | 7.306  | 7.556  | 6.802  | 166.42        | 174.60 | 177.62 | 185.57 | 191.92 | 172.77 |

\* Consult Factory for availability.

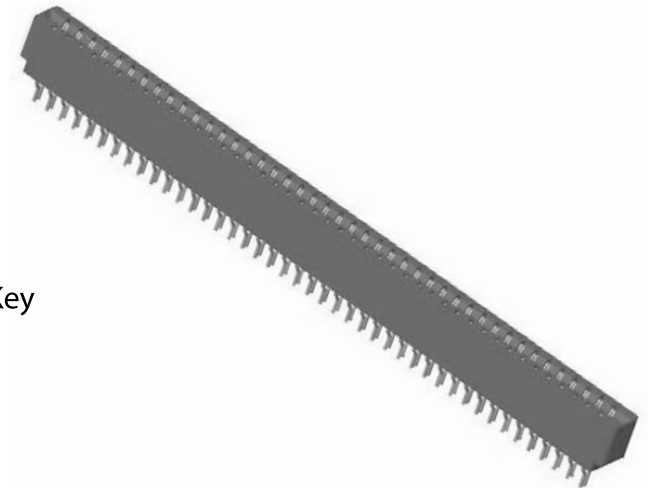




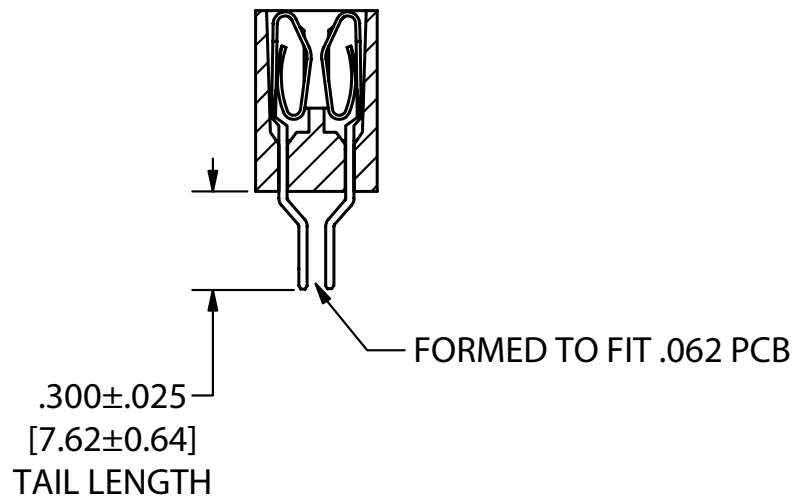
**.156" Contact Centers, .550" Insulator Height,  
.025" Square Card Extender**

## SPECIFICATIONS

- Accommodates  $.062" \pm .008"$  [ $1.57 \pm 0.20$ ] PC Board
- Insulator Material available in PBT, PPS or PA9T
- 3 Amp Current Rating per contact
- Insulator / Contact Specifications and Part Number Coding See Page 82-83
- P/N 04-0004-000 for In Between Contact Position Key See Page 126 (Sold Separately)
- Molded-in Key Available - Consult Factory

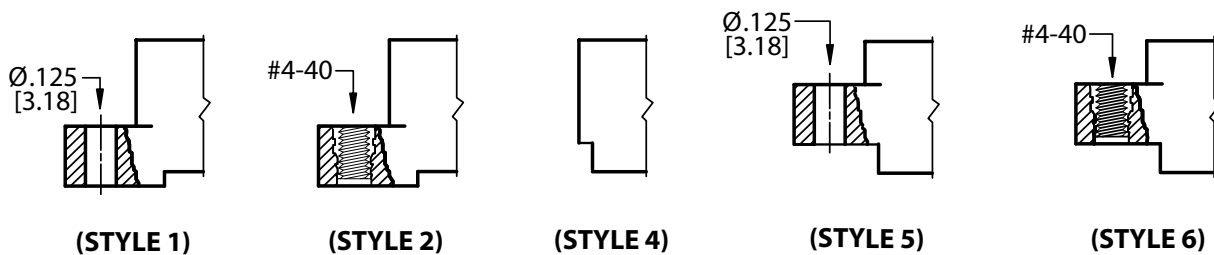


## TERMINATION TYPE



**Example P/N: *MPSL-0156-10-DWE-4KTT***

## MOUNTING STYLE





**.156" Contact Centers, .550" Insulator Height,  
.025" Square Card Extender**

**PART NUMBER CODING**

**MPSL - 0 156 - 10 - D WE - 4 K TT**

**PLATING - RoHS Compliant**  
All Platings are Lead Free and have .000050" Nickel Underplate  
**Contact Surface Termination**  
\*MPSL = .000010" Gold .000100" Pure Tin, Matte  
\*MPL = .000100" Overall Pure Tin, Matte  
MP = .000010" Overall Gold  
\*Requires 'K' Modification Code

**MODIFICATION CODE\*\***  
TT = No Standoffs

**PLATING MODIFICATION CODE\*\***  
K = Required on MPSL or MPL Plating  
Omit for MP Plating (Overall Gold)

**MOUNTING STYLE** (See Opposite Page)  
1 = .125" Clearance Hole  
2 = #4-40 Threaded Insert  
4 = No Mounting  
5 = Raised, .125" Clearance Hole  
6 = Raised, #4-40 Threaded Insert

**TERMINATION TYPE** (See Opposite Page)  
WE = Card Extender

**INSULATOR MATERIAL\*\***  
0 = PBT

**CONTACT CENTERS**  
156 = .156" [3.96mm]

**NUMBER OF POSITIONS**  
Contacts Per Row (See Position Chart Below)

**READOUT**  
D = Dual

**\*\* SEE PAGES 82-83 FOR SPECIFICATIONS AND OTHER VARIATIONS**

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

**CONTACT MARKINGS**  
(LETTERS G, I, O & Q NOT USE)  
SIZES 06-25 & 30  
1 2 ... 23 24 ... 29 30  
A B ... A B ... H J  
SIZES 28 & 31  
1 2 ... 23 24 ... 30 31  
A B ... A B ... J K  
SIZES 36 - 43  
A B ... A B ... X Y  
1 2 ... 23 24 ... 42 43

| POSITIONS/<br>CONTACTS | INCHES |        |        |        |        |        | [MILLIMETERS] |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010 | E±.020 | F±.015 | A±0.20        | B±0.20 | C±0.38 | D±0.25 | E±0.51 | F±0.38 |
| 06/12                  | 0.780  | 1.102  | 1.221  | 1.534  | 1.784  | 1.030  | 19.81         | 27.99  | 31.01  | 38.96  | 45.31  | 26.16  |
| 08/16                  | 1.092  | 1.414  | 1.533  | 1.846  | 2.096  | 1.342  | 27.74         | 35.92  | 38.94  | 46.89  | 53.24  | 34.09  |
| 10/20                  | 1.404  | 1.726  | 1.845  | 2.158  | 2.408  | 1.654  | 35.66         | 43.84  | 46.86  | 54.81  | 61.16  | 42.01  |
| 12/24                  | 1.716  | 2.038  | 2.157  | 2.470  | 2.720  | 1.966  | 43.59         | 51.77  | 54.79  | 62.74  | 69.09  | 49.94  |
| 15/30                  | 2.184  | 2.506  | 2.625  | 2.938  | 3.188  | 2.434  | 55.47         | 63.65  | 66.68  | 74.63  | 80.98  | 61.82  |
| 18/36                  | 2.652  | 2.974  | 3.093  | 3.406  | 3.656  | 2.902  | 67.36         | 75.54  | 78.56  | 86.51  | 92.86  | 73.71  |
| 20/40*                 | 2.964  | 3.286  | 3.405  | 3.718  | 3.968  | 3.214  | 75.29         | 83.46  | 86.49  | 94.44  | 100.79 | 81.64  |
| 22/44                  | 3.276  | 3.598  | 3.717  | 4.030  | 4.280  | 3.526  | 83.21         | 91.39  | 94.41  | 102.36 | 108.71 | 89.56  |
| 24/48                  | 3.588  | 3.910  | 4.029  | 4.342  | 4.592  | 3.838  | 91.14         | 99.31  | 102.34 | 110.29 | 116.64 | 97.49  |
| 25/50                  | 3.744  | 4.066  | 4.185  | 4.498  | 4.748  | 3.994  | 95.10         | 103.28 | 106.30 | 114.25 | 120.60 | 101.45 |
| 28/56                  | 4.212  | 4.534  | 4.653  | 4.966  | 5.216  | 4.462  | 106.98        | 115.16 | 118.19 | 126.14 | 132.49 | 113.33 |
| 30/60                  | 4.524  | 4.846  | 4.965  | 5.278  | 5.528  | 4.774  | 114.91        | 123.09 | 126.11 | 134.06 | 140.41 | 121.26 |
| 31/62                  | 4.680  | 5.002  | 5.121  | 5.434  | 5.684  | 4.930  | 118.87        | 127.05 | 130.07 | 138.02 | 144.37 | 125.22 |
| 36/72                  | 5.460  | 5.782  | 5.901  | 6.214  | 6.464  | 5.710  | 138.68        | 146.86 | 149.89 | 157.84 | 164.19 | 145.03 |
| 40/80                  | 6.084  | 6.406  | 6.525  | 6.838  | 7.088  | 6.334  | 154.53        | 162.71 | 165.74 | 173.69 | 180.04 | 160.88 |
| 43/86                  | 6.552  | 6.874  | 6.993  | 7.306  | 7.556  | 6.802  | 166.42        | 174.60 | 177.62 | 185.57 | 191.92 | 172.77 |

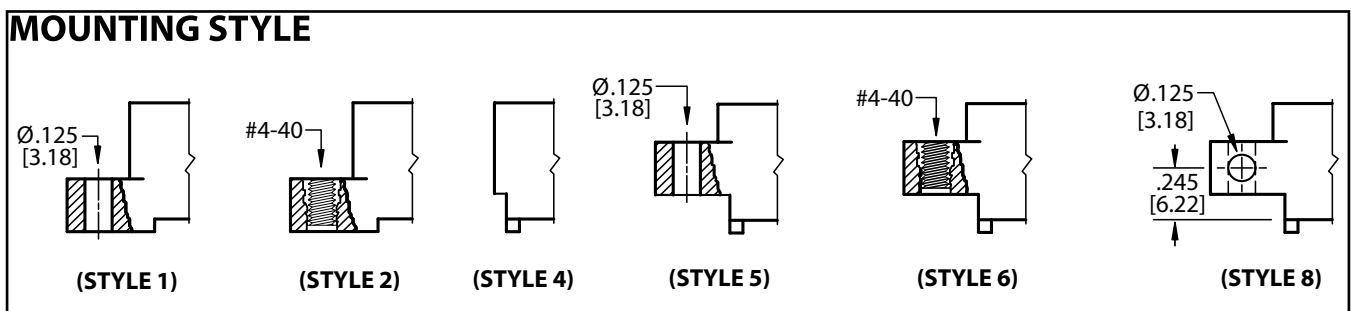
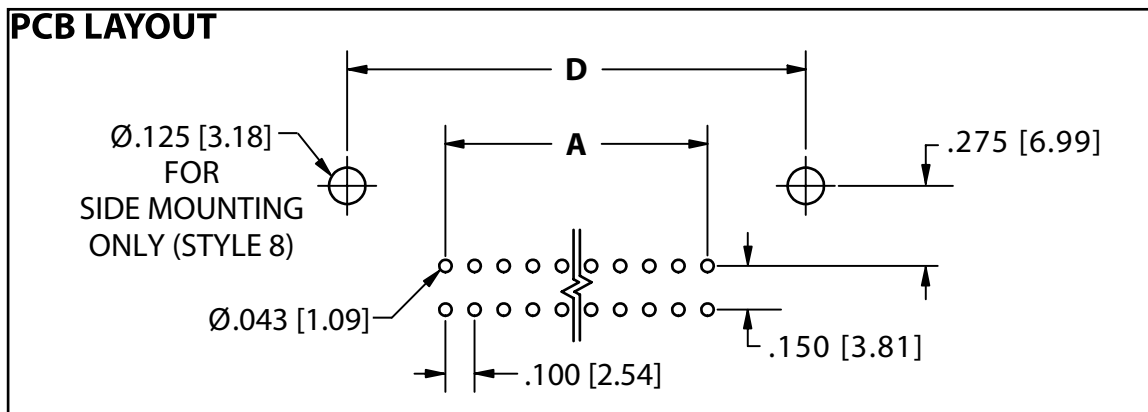
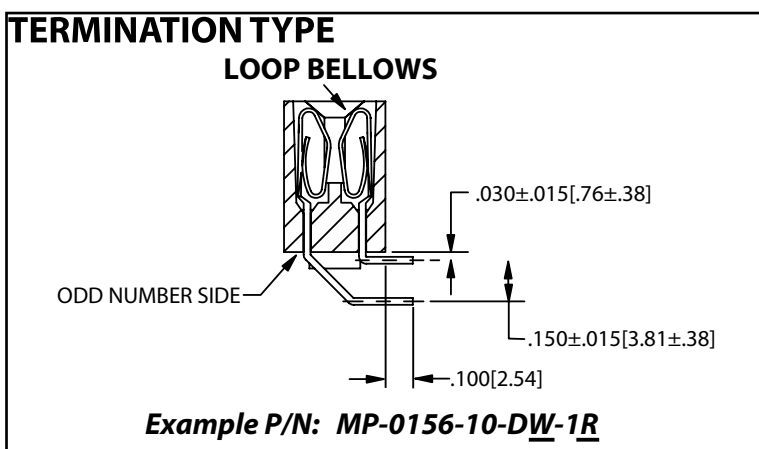
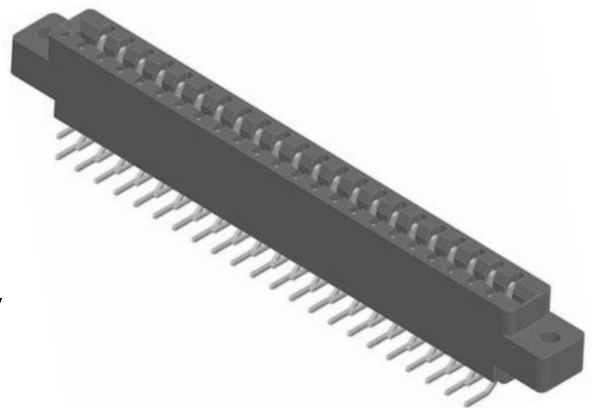
\* Consult Factory for availability.



## .156" Contact Centers, .610" Insulator Height, Right Angle

### SPECIFICATIONS

- Accommodates .062"  $\pm$  .008" [1.57  $\pm$  0.20] PC Board
- Insulator Material available in PBT, PPS or PA9T
- 3 Amp Current Rating per contact
- Insulator / Contact Specifications and Part Number Coding See Page 82-83
- P/N 04-0004-000 for In Between Contact Position Key See Page 126 (Sold Separately)
- Molded-in Key Available - Consult Factory





# .156" Contact Centers, .610" Insulator Height, Right Angle

## PART NUMBER CODING

**MPSL - 0 156 - 10 - D W - 1 K R**

**PLATING - RoHS Compliant**  
All Platings are Lead Free and have .000050" Nickel Underplate

**Contact Surface Termination**

\*MPSL = .000010" Gold .000100" Pure Tin, Matte  
\*MPL = .000100" Overall Pure Tin, Matte  
MP = .000010" Overall Gold  
\*Requires 'K' Modification Code

**INSULATOR MATERIAL\*\***  
0 = PBT

**CONTACT CENTERS**  
156 = .156" [3.96mm]

**NUMBER OF POSITIONS**  
Contacts Per Row (See Position Chart Below)

**READOUT**  
D = Dual

**MODIFICATION CODE\*\***  
R = Right Angle

**PLATING MODIFICATION CODE\*\***  
K = Required on MPSL or MPL Plating  
Omit for MP Plating (Overall Gold)

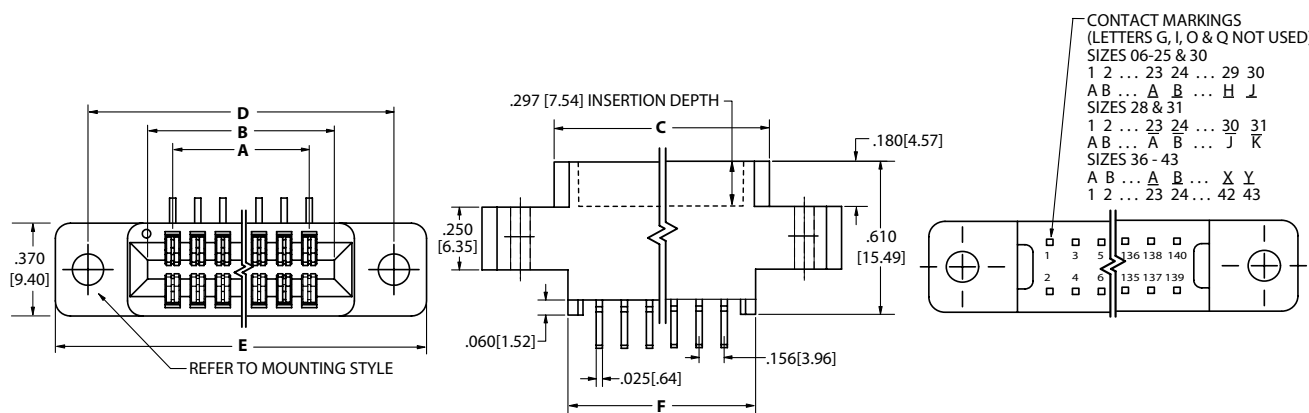
**MOUNTING STYLE** (See Opposite Page)  
1 = .125" Clearance Hole  
2 = #4-40 Threaded Insert  
4 = No Mounting  
5 = Raised, .125" Clearance Hole  
6 = Raised, #4-40 Threaded Insert  
8 = Raised, Side Mounting, .125" Clearance Hole

**TERMINATION TYPE**  
**LOOP BELLOWS**  
W = .025 [.64] Square

\*\* SEE PAGES 82-83 FOR SPECIFICATIONS AND OTHER VARIATIONS

## DIMENSIONS

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



| POSITIONS/<br>CONTACTS | INCHES |        |        |        |        |        | [MILLIMETERS] |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010 | E±.020 | F±.015 | A±0.20        | B±0.20 | C±0.38 | D±0.25 | E±0.51 | F±0.38 |
| 06/12                  | 0.780  | 1.102  | 1.221  | 1.534  | 1.784  | 1.030  | 19.81         | 27.99  | 31.01  | 38.96  | 45.31  | 26.16  |
| 08/16                  | 1.092  | 1.414  | 1.533  | 1.846  | 2.096  | 1.342  | 27.74         | 35.92  | 38.94  | 46.89  | 53.24  | 34.09  |
| 10/20                  | 1.404  | 1.726  | 1.845  | 2.158  | 2.408  | 1.654  | 35.66         | 43.84  | 46.86  | 54.81  | 61.16  | 42.01  |
| 12/24                  | 1.716  | 2.038  | 2.157  | 2.470  | 2.720  | 1.966  | 43.59         | 51.77  | 54.79  | 62.74  | 69.09  | 49.94  |
| 15/30                  | 2.184  | 2.506  | 2.625  | 2.938  | 3.188  | 2.434  | 55.47         | 63.65  | 66.68  | 74.63  | 80.98  | 61.82  |
| 18/36                  | 2.652  | 2.974  | 3.093  | 3.406  | 3.656  | 2.902  | 67.36         | 75.54  | 78.56  | 86.51  | 92.86  | 73.71  |
| 20/40*                 | 2.964  | 3.286  | 3.405  | 3.718  | 3.968  | 3.214  | 75.29         | 83.46  | 86.49  | 94.44  | 100.79 | 81.64  |
| 22/44                  | 3.276  | 3.598  | 3.717  | 4.030  | 4.280  | 3.526  | 83.21         | 91.39  | 94.41  | 102.36 | 108.71 | 89.56  |
| 24/48                  | 3.588  | 3.910  | 4.029  | 4.342  | 4.592  | 3.838  | 91.14         | 99.31  | 102.34 | 110.29 | 116.64 | 97.49  |
| 25/50                  | 3.744  | 4.066  | 4.185  | 4.498  | 4.748  | 3.994  | 95.10         | 103.28 | 106.30 | 114.25 | 120.60 | 101.45 |
| 28/56                  | 4.212  | 4.534  | 4.653  | 4.966  | 5.216  | 4.462  | 106.98        | 115.16 | 118.19 | 126.14 | 132.49 | 113.33 |
| 30/60                  | 4.524  | 4.846  | 4.965  | 5.278  | 5.528  | 4.774  | 114.91        | 123.09 | 126.11 | 134.06 | 140.41 | 121.26 |
| 31/62                  | 4.680  | 5.002  | 5.121  | 5.434  | 5.684  | 4.930  | 118.87        | 127.05 | 130.07 | 138.02 | 144.37 | 125.22 |
| 36/72                  | 5.460  | 5.782  | 5.901  | 6.214  | 6.464  | 5.710  | 138.68        | 146.86 | 149.89 | 157.84 | 164.19 | 145.03 |
| 40/80                  | 6.084  | 6.406  | 6.525  | 6.838  | 7.088  | 6.334  | 154.53        | 162.71 | 165.74 | 173.69 | 180.04 | 160.88 |
| 43/86                  | 6.552  | 6.874  | 6.993  | 7.306  | 7.556  | 6.802  | 166.42        | 174.60 | 177.62 | 185.57 | 191.92 | 172.77 |

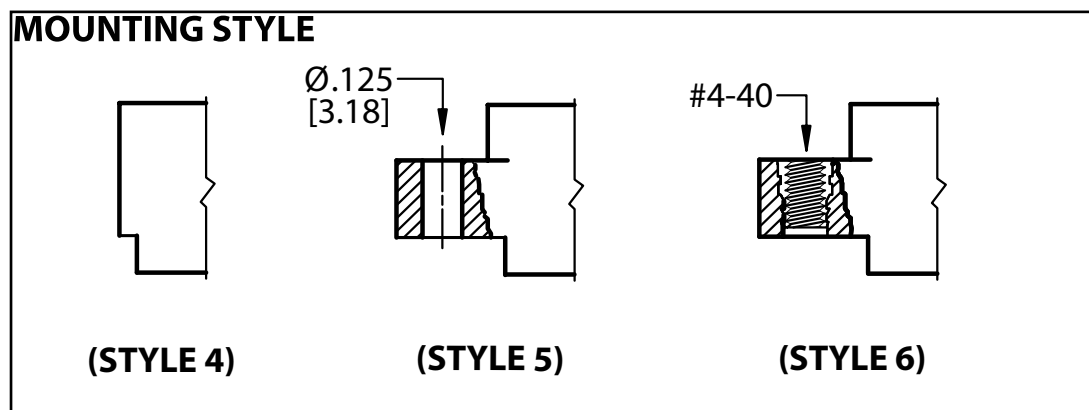
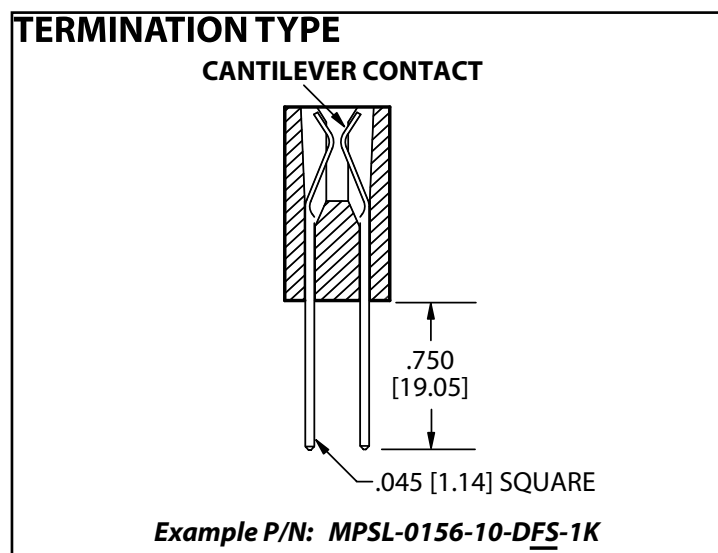
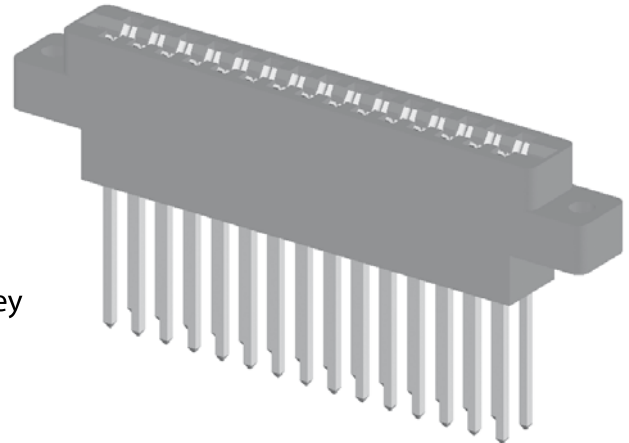
\* Consult Factory for availability.



**.156" Contact Centers, .720" Insulator Height,  
.045" Square Wire Wrap**

## SPECIFICATIONS

- Make Before Break (MBB) Application
- Accommodates  $.062" \pm .008"$  [ $1.57 \pm 0.20$ ] PC Board
- Insulator Material available in PBT, PPS or PA9T
- 5 Amp Current Rating per contact
- Insulator / Contact Specifications and Part Number Coding See Page 82-83
- P/N 04-0004-000 for In Between Contact Position Key See Page 126 (Sold Separately)
- Molded-in Key Available - Consult Factory





**.156" Contact Centers, .720" Insulator Height,  
.045" Square Wire Wrap**

**PART NUMBER CODING**

**PLATING - RoHS Compliant**  
All Platings are Lead Free and have .000050" Nickel Underplate

**CONTACT SURFACE**      **TERMINATION**

\*MPSL = .000010" Gold      .000100" Pure Tin, Matte  
\*MPL = .000100" Overall Pure Tin, Matte  
MP = .000010" Overall Gold  
\*Requires 'K' Modification Code

**INSULATOR MATERIAL\*\***  
0 = PBT

**CONTACT CENTERS**  
156 = .156" [3.96mm]

**NUMBER OF POSITIONS**  
Contacts Per Row (See Position Chart Below)

**MODIFICATION CODE\*\***

**PLATING MODIFICATION CODE\*\***  
K = Required on MPSL or MPL Plating  
Omit for MP Plating (Overall Gold)

**MOUNTING STYLE** (See Opposite Page)  
4 = No Mounting  
5 = Raised, .125" Clearance Hole  
6 = Raised, #4-40 Threaded Insert

**TERMINATION TYPE** (See Opposite Page)  
FS = .045 Square Contacts

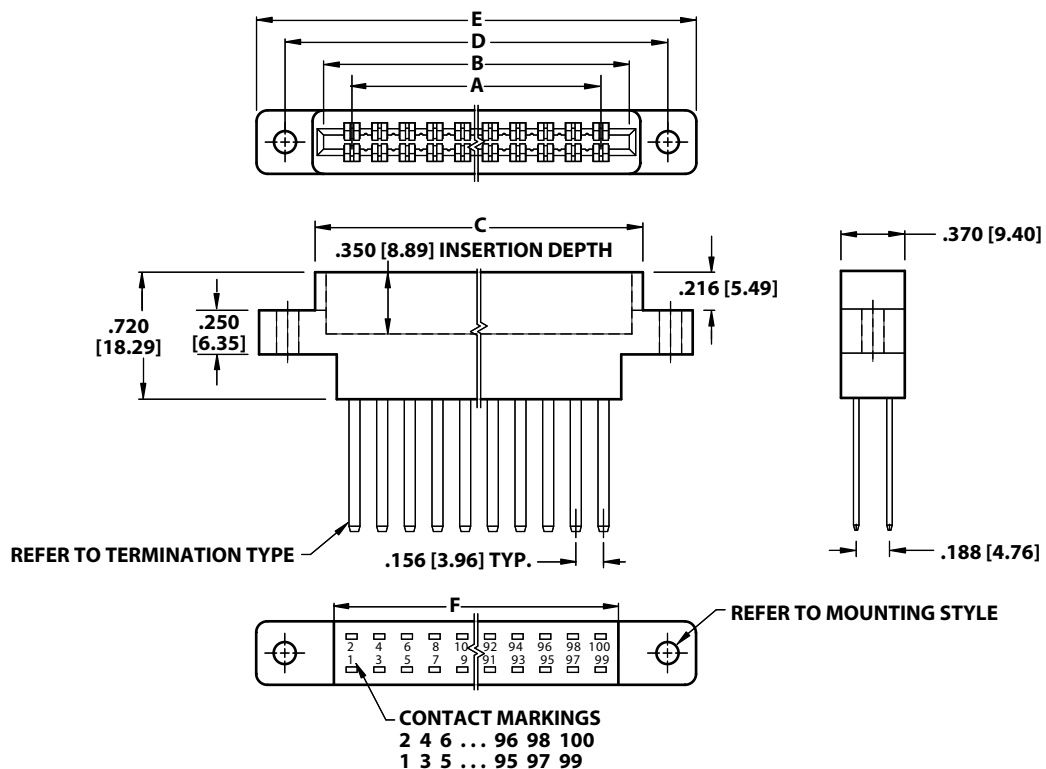
**READOUT**  
D = Dual

**Example Part Number:** MPSL - 0 156 - 10 - D FS - 4 K

**\*\* SEE PAGES 82-83 FOR SPECIFICATIONS AND OTHER VARIATIONS**

**DIMENSIONS**

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



| POSITIONS/<br>CONTACTS | INCHES |        |        |        |        |        | [MILLIMETERS] |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
|                        | A±.008 | B±.008 | C±.015 | D±.010 | E±.020 | F±.015 | A±0.20        | B±0.20 | C±0.38 | D±0.25 | E±0.51 | F±0.38 |
| 10/20                  | 1.404  | 1.724  | 1.848  | 2.158  | 2.408  | 1.604  | 35.66         | 43.79  | 46.94  | 54.81  | 61.16  | 40.74  |
| 12/24                  | 1.716  | 2.036  | 2.160  | 2.470  | 2.720  | 1.916  | 43.59         | 51.71  | 54.86  | 62.74  | 69.09  | 48.67  |
| 15/30                  | 2.184  | 2.504  | 2.628  | 2.938  | 3.188  | 2.384  | 55.47         | 63.60  | 66.75  | 74.63  | 80.98  | 60.55  |
| 18/36                  | 2.652  | 2.972  | 3.096  | 3.406  | 3.656  | 2.852  | 67.36         | 75.49  | 78.64  | 86.51  | 92.86  | 72.44  |
| 22/44                  | 3.276  | 3.596  | 3.720  | 4.030  | 4.280  | 3.476  | 83.21         | 91.34  | 94.49  | 102.36 | 108.71 | 88.29  |
| 25/50                  | 3.744  | 4.064  | 4.188  | 4.498  | 4.748  | 3.944  | 95.10         | 103.23 | 106.38 | 114.25 | 120.60 | 100.18 |
| 28/56                  | 4.212  | 4.532  | 4.656  | 4.966  | 5.216  | 4.412  | 106.98        | 115.11 | 118.26 | 126.14 | 132.49 | 112.06 |
| 30/60                  | 4.524  | 4.844  | 4.968  | 5.278  | 5.528  | 4.724  | 114.91        | 123.04 | 126.19 | 134.06 | 140.41 | 119.99 |
| 36/72                  | 5.460  | 5.780  | 5.904  | 6.214  | 6.464  | 5.660  | 138.68        | 146.81 | 149.96 | 157.84 | 164.19 | 143.76 |
| 43/86                  | 6.552  | 6.872  | 6.996  | 7.306  | 7.556  | 6.752  | 166.42        | 174.55 | 177.70 | 185.57 | 191.92 | 171.50 |



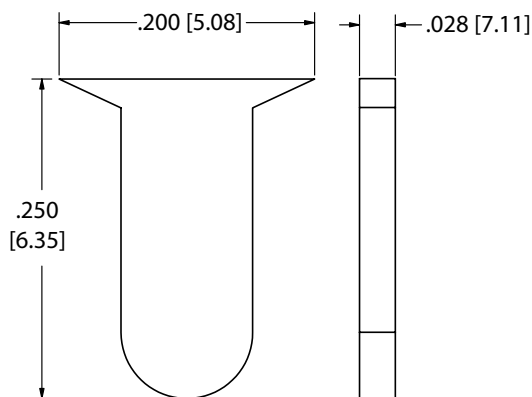
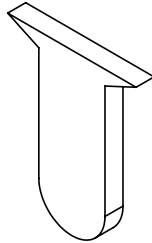


**ALL KEYS ORDERED SEPARATELY**

**IN BETWEEN CONTACT KEY**

**P/N: 04-0001-000**

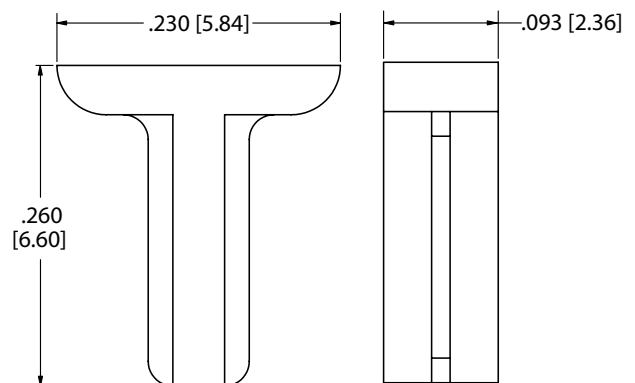
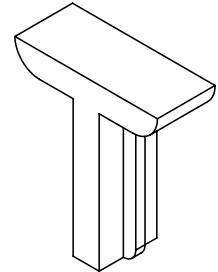
**SULLINS PART: PLM-K1**



**IN CONTACT KEY**

**P/N: 04-0002-000**

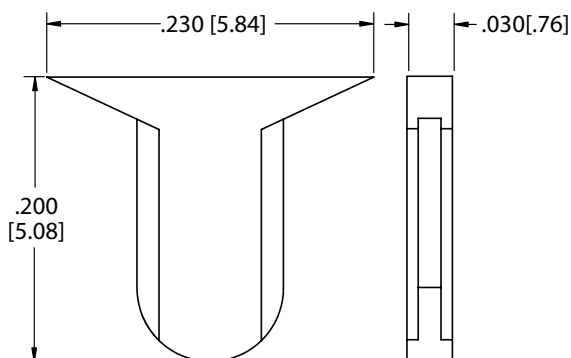
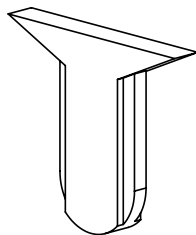
**SULLINS PART: PLM-K2**



**IN BETWEEN CONTACT KEY**

**P/N: 04-0003-000**

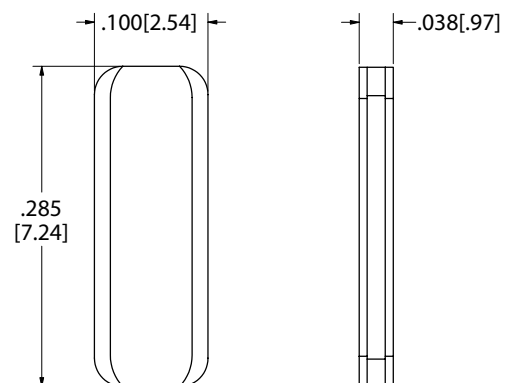
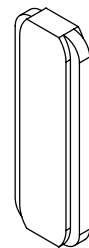
**SULLINS PART: PLA-K1**



**IN BETWEEN CONTACT KEY**

**P/N: 04-0004-000**

**SULLINS PART: PLC-K1**





## GENERAL SPECIFICATIONS

## RoHS COMPLIANT

RoHS  
COMPLIANT

All parts are currently manufactured with recommended materials to meet RoHS standards. All contacts have 50u" of nickel underplating, and a large selection of plating options: Pure tin matte, overall gold, or selective gold plating. For complete part number information or operating/processing temperature parameters, visit the RoHS section of our website, or refer to page 81 of this catalog.

## MATERIALS

To determine Assembly Operating Temperature, take the lower of two temperatures

|                   |             |   | Operating Temperature | Processing Temperature |
|-------------------|-------------|---|-----------------------|------------------------|
| <b>Insulator:</b> |             |   |                       |                        |
| Standard          | PBT, Valox* | Glass filled Thermoplastic Polyester              | -65°C to +130°C       | 260°C / 10 Seconds     |
| Special           | PPS, Ryton* | Glass/Mineral filled Polyphenylene Sulfide, Green | -65°C to +220°C       | 260°C / 120 Seconds    |
| Special           | PPS, Ryton* | Glass filled Polyphenylene Sulfide, Brown         | -65°C to +200°C       | 260°C / 120 Seconds    |
| Special           | PA9T        | High Temperature Polyamide                        | -65°C to +150°C       | 260°C / 120 Seconds    |
| Special           | Peek        | Glass filled Polyetheretherketone                 | -65°C to +250°C       |                        |

**Contacts:**

|          |   |                 |
|----------|---|-----------------|
| Standard | Phosphor Bronze (Available in All Contact Styles) | -65°C to +125°C |
| Special  | Beryllium Copper (Consult Factory)                | -65°C to +150°C |
| Special  | Spinodal** (Consult Factory)                      | -65°C to +200°C |
| Special  | Beryllium Nickel (Consult Factory)                | -65°C to +300°C |

**Plating:**

Gold and/or Tin over .000050" Nickel Underplate, Lead Free

**UL/CUL File Number:** E64287 Section 2

**Cage Code:** 31223

\* Or equivalent.

\*\* Consult factory for special soldering guidelines.

## MECHANICAL

Board Insertion Force 16 oz Maximum per contact pair using .062"[1.58mm] thick steel test blade

Board Withdrawal Force 1 oz Minimum per contact pair using .062"[1.58mm] thick steel test blade

**Special Insertion/Withdrawal forces available upon request**

## ELECTRICAL PERFORMANCE (Per Mil-C-21097C)

Insulation Resistance: 5,000 Mega Ohm

Dielectric Withstanding Voltage

Contact Centers: .100"[2.54mm] .125"[3.18mm] .150"[3.81mm] .156"[3.96mm]

Voltage: 600 VDC 800 VDC 1500 VDC 1800 VDC

750 VAC 750 VAC 900 VAC 950 VAC

Current Rating: 3 to 5 amperes (amps) per contact

Voltage Drop: 30 Milli volt at rated current

Contact Resistance: 30 Milli ohm maximum at rated current

**Registered Trademarks**

Sabco Innovative Plastics: Valox

Gardner-Denver Co.: Wire Wrap

Phillips 66: Ryton

Ametek: Spinodal

RTP Compounder: PEEK

Underwriters Labs: UL

Sullins Electronics: Sullins

Sullins Electronics: Zero Lead Time



**MP - 0 100 - 22 - D W - 5 xxx**

## PLATING - RoHS Compliant

ALL PLATINGS ARE LEAD FREE AND HAVE  
.000050" NICKEL UNDERPLATE

**Contact Surface Termination**

|          |  |                         |
|----------|--|-------------------------|
| *MPSL =  | .000010" Gold                                    | .000100" Pure Tin Matte |
| *EMPSL = | .000010" Gold                                    | .000100" Pure Tin Matte |
| *MPL =   | .000100" Overall Pure Tin, Matte                 |                         |
| *EMPL =  | .000100" Overall Pure Tin, Matte                 |                         |
| MP =     | .000010" Overall Gold                            |                         |
| EMP =    | .000010" Overall Gold                            |                         |
| MPP =    | Spinodal Contact Material<br>(Overall Gold Only) |                         |
| EMPP =   | Spinodal Contact Material<br>(Overall Gold Only) |                         |

### \* Requires 'K' Modification Code

Platings that start with 'E' are for Economy Eyelet Only  
Other Plating and thicknesses available upon request.

## INSULATOR MATERIAL

All Materials are U.L. Approved 94-Vo

|     |               |
|-----|---------------|
| 0 = | PBT, Blue     |
| 1 = | PPS, Brown    |
| 2 = | PBT, Green    |
| 3 = | PBT, Black    |
| 4 = | PA9T, Black   |
| 5 = | PPS, Black    |
| 6 = | PPS, Green    |
| 7 = | PPS, Brown    |
| 8 = | Peek, Natural |

## CONTACT CENTERS

|       |                |
|-------|----------------|
| 100 = | .100" [2.54mm] |
| 125 = | .125" [3.18mm] |
| 150 = | .150" [3.84mm] |
| 156 = | .156" [3.96mm] |

## NUMBER OF POSITIONS

02 - 70 Contacts Per Row

## READOUT

D = Dual Row

## TERMINATION TYPE

|      |   |
|------|---|
| FS = | .045" Square Tails - .720" Insulator Height                           |
| P =  | Solder Eyelet - .431" Insulator Height                                |
| PE = | Economy Eyelet - .431" Insulator Height,<br>Card Extender, .156" only |
| R =  | .026" Round Tails - .610" Insulator Height,                           |
| S =  | Dip Solder - .431" Insulator Height                                   |
| SE = | Card Extender - .431" Insulator Height                                |
| W =  | .025" Square Wire Wrap -<br>.610" Insulator Height                    |
| WE = | .025" Square Card Extender -<br>.610" Insulator Height                |

## MOUNTING STYLE

- 1 = **.125" Clearance Holes**  
.245" Ears, .431" Insulator Height  
.250" Flush Ears, .610" Insulator Height
- 2 = **#4-40 Threaded Insert**  
.245" Ears, .431" Insulator Height  
.250" Flush Ears, .610" Insulator Height
- 3 = **Floating Bobbin**  
.220" Ears not Including Bobbin  
on All Connectors  
(Flush Ears on .610 Insulator Height )
- 4 = **No Mounting Ears**  
All Connectors
- 5 = **Raised with .125" Clearance Holes**  
Wire Wrap Only, .610" Insulator Height
- 6 = **Raised with #4-40 Threaded Insert**  
Wire Wrap Only, .610" Insulator Height
- 8 = **.125" Side Holes (Cross Drilled)**
- 9 = **One Ear, .125" Clearance Hole**  
Dip Solder & Eyelet
- 10 = **One Ear, #4-40 Threaded Insert**  
Dip Solder & Eyelet
- 11 = **.142" Mounting Holes**  
.431" Insulator Height, Dip Solder, Eyelet  
.610" Insulator Height, Wire Wrap
- 12 = **.128" Clearance Holes**  
.431" Insulator Height, Dip Solder & Eyelet  
.610" Insulator Height, Wire Wrap
- 13 = **Flush Ears, .128" Clearance Holes**  
.430" Ears with Pad on .610" Insulator  
Height, Wire Wrap Only
- 14 = **.142" Side Holes (Cross Drilled)**  
.431" Insulator Height, Dip Solder, Eyelet  
.610" Insulator Height, Wire Wrap
- 15 = **Flush Ears, .125" Clearance Holes**  
.190" Ears, No Pad  
.610" Insulator Height, Wire Wrap Only
- 16 = **Flush .250" Ears to top of the  
Card Entry Side of the Connector,**  
.610" Insulator Height, Wire Wrap Only
- 18 = **Flush Ears, .125" Side Holes**  
(Cross Drilled)
- 19 = **.152" Clearance Holes**  
.610" Insulator Height, Wire Wrap Only
- 58 = **Raised Ears, .125" Side Holes**  
(Cross Drilled)
- 81 = **Flush Ears, .125" Side Holes**  
.250" Ears with Pad, .610" Insulator Height,  
Wire Wrap
- 86 = **Side Holes with #4-40 Threaded Insert**  
.250" Ears with Pad, .610" Insulator Height

## MODIFICATION CODE

CONSULT FACTORY FOR OTHER OPTIONS

- A = **Contacts Loaded one side only**
- B = **Center Barrier for 28/56 -**  
.156" Dip Solder & Eyelet
- C = **.030" Longer Cardslot and  
Mounting Hole Centers for 22/44,**  
All .156" (Consult Factory)
- D = **.000050" Gold Plating -**  
(Consult Factory)
- E9 = **.200" Row Spacing on .156"  
Contact Centers**
- F = **6.802" Cardslot for 43/86**  
.156" Eyelet & Wire Wrap Only
- F9 = **6.802" Cardslot and .200" Row  
Spacing for 43/86 Dip Solder Only**
- G = **.000030" Gold Plating**
- H = **.190" Contact Length for .025"  
Square & .026" Round Contacts**  
.250" Contact Length without  
Standoffs
- J = **Low Insertion Force**
- K = **MPSL - Selective Gold with Pure  
Tin, Matte Plating on Tails**  
**MPL - Overall Pure Tin, Matte**
- L = **.140" Contact Length for**  
.156" Dip Solder Only
- M = **Pad on Bottom of Mounting Ears**  
for .156", .431" Insulator Height,  
Dip Solder & Eyelet Only
- N = **Hi-light Contact ID on Bottom**  
(Consult Factory)
- P = **Engraving Reversed**  
(Consult Factory)
- Q = **Right Angle Connector Contacts  
Untrimmed**  
(Requires 'R' Modification Code)
- R = **Right Angle Connectors**
- S = **Shorter Overall Length**
- T = **Center Standoffs Removed**  
.100" & .125" Wire Wrap Only
- TT = **No Standoffs**
- U = **.000020" Gold Plating**
- X9 = **.200" Row Spacing for**  
.100" & .156" Dip Solder Only  
.250" Row Spacing for  
.125" Dip Solder Only
- Y = **Beryllium Copper Contacts**
- Z = **Standoffs on .156" Wire Wrap**

**See applicable specification pages for more information.**

Specifications are subject to change without notice.