

# **MATERIAL (INSULATOR/CONTACT)**

- E = PBT/PHOSPHOR BRONZE**  
 OPERATING TEMP: -65°C TO +125°C @ 3 AMPS PER CONTACT  
 OPERATING TEMP: -65°C TO +21°C @ 5 AMPS PER CONTACT  
 PROCESSING TEMP: 260°C FOR 10 SECS MAX
- R = PPS/PHOSPHOR BRONZE**  
 OPERATING TEMP: -65°C TO +125°C  
 PROCESSING TEMP: 260°C FOR 120 SECS MAX  
 CURRENT RATING PER CONTACT: 5 AMPS
- G = PA9T/PHOSPHOR BRONZE**  
 OPERATING TEMP: -65°C TO +125°C  
 PROCESSING TEMP: 260°C FOR 120 SECS MAX  
 CURRENT RATING PER CONTACT: 5 AMPS
- H = PBT/BERYLLIUM COPPER**  
 OPERATING TEMP: -65°C TO +125°C @ 3 AMPS PER CONTACT  
 OPERATING TEMP: -65°C TO +105°C @ 5 AMPS PER CONTACT  
 PROCESSING TEMP: 260°C FOR 10 SECS MAX
- A = PPS/BERYLLIUM COPPER**  
 OPERATING TEMP: -65°C TO +150°C  
 PROCESSING TEMP: 260°C FOR 120 SECS MAX  
 CURRENT RATING PER CONTACT: 5 AMPS
- J = PA9T/BERYLLIUM COPPER**  
 OPERATING TEMP: -65°C TO +150°C  
 PROCESSING TEMP: 260°C FOR 120 SECS MAX  
 CURRENT RATING PER CONTACT: 5 AMPS
- F = PPS/SPINODAL (CONSULT FACTORY)**  
 AVAILABLE IN OVERALL GOLD ONLY (S OR M PLATING CODE)  
 OPERATING TEMP: -65°C TO +200°C  
 PROCESSING TEMP: 260°C FOR 120 SECS MAX  
 CURRENT RATING PER CONTACT: 3 AMPS
- C = PPS/BERYLLIUM NICKEL (CONSULT FACTORY)**  
 AVAILABLE IN OVERALL GOLD ONLY (S OR M PLATING CODE)  
 OPERATING TEMP: -65°C TO +200°C @ 3 AMPS PER CONTACT  
 PROCESSING TEMP: 260°C FOR 120 SECS MAX
- W = PEEK/BERYLLIUM NICKEL (CONSULT FACTORY)**  
 AVAILABLE IN OVERALL GOLD ONLY (S OR M PLATING CODE)  
 OPERATING TEMP: -65°C TO +250°C  
 CURRENT RATING PER CONTACT: 3 AMPS  
 (CONSULT FACTORY FOR OTHER MATERIALS)

# **PART NUMBER CODING**

M D

# **MOUNTING STYLE**

- H = .125" DIA. CLEARANCE HOLES  
 N = NO MOUNTING EARS  
 S = .125" DIA. SIDE MOUNTING  
 I = #4-40 THREADED INSERT  
 F = FLOATING BOBBIN  
 D = FLUSH MOUNTING

# **TAIL LENGTH ±.025[.64]**

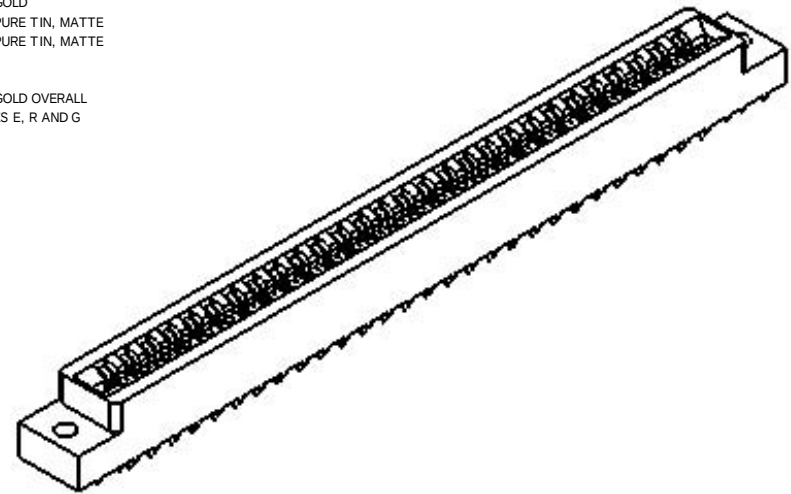
- RX = .137[3.48]  
 RF = .200[5.08]  
 RU = .225[5.71]  
 RP = .408[10.40]

# **NUMBER OF POSITIONS (CONTACTS PER ROW)**

# **PLATING**

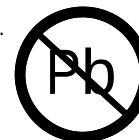
ALL PLATINGS ARE LEAD FREE AND HAVE .000050" NICKEL UNDERPLATE

- |                                        |                          |
|----------------------------------------|--------------------------|
| CONTACT SURFACE                        | TERMINATION              |
| G = .000010" GOLD                      | .000005" GOLD            |
| Y = .000030" GOLD                      | .000005" GOLD            |
| B = .000010" GOLD                      | .000100" PURE TIN, MATTE |
| C = .000030" GOLD                      | .000100" PURE TIN, MATTE |
| *E = .000100" PURE TIN, MATTE, OVERALL |                          |
| S = .000010" GOLD OVERALL              |                          |
| M = .000030" GOLD                      | .000010" GOLD OVERALL    |
- \*\* OVERALL TIN ONLY AVAILABLE ON MATERIAL CODES E, R AND G



# **NOTES:**

- MATERIALS:**
  - INSULATOR: SEE PART NUMBER CODING.
  - CONTACT: SEE PART NUMBER CODING.
  - PLATING: SEE PART NUMBER CODING.
- THERMAL:**
  - OPERATING TEMPERATURE: SEE PART NUMBER CODING.
  - PROCESSING TEMP: SEE PART NUMBER CODING.
  - UL FLAMMABILITY RATING: 94V-0.
- ELECTRICAL:**
  - DIELECTRIC WITHSTANDING VOLTAGE: MATED CONNECTOR MUST EXHIBIT NO EVIDENCE OF BREAKDOWN, FLASHOVER, OR DETERIORATION FROM AN APPLIED VOLTAGE OF 950 VAC (VALUE HAS BEEN DE-RATED), RMS 60 Hz WHEN TESTED IN ACCORDANCE WITH MIL-STD-1344, METHOD 3001. DURATION OF APPLICATION SHALL BE 5 SECS MIN.
  - INSULATION RESISTANCE (IR): 5,000 MEGOHMS @ 500 VOLTS±10% WHEN TESTED IN ACCORDANCE WITH MIL-STD-1344, METHOD 3003 @ 25°C.
  - CONTACT RESISTANCE: 30 MILLIOHM MAX AT RATED CURRENT WHEN TESTED PER MIL-STD-202, METHOD 307 @ 25°C±3°C.
  - CURRENT RATING: SEE PART NUMBER CODING.
- MECHANICAL:**
  - CONNECTOR IDENTIFICATION: THE PART SHALL BE MARKED WITH A LOT CODE AS A MINIMUM. IF SPACE PERMITS ALSO MARK PART WITH SULLINS WEBSITE, AND PART NUMBER.
  - DURABILITY: 500 CYCLES MINIMUM.
  - BOARD THICKNESS ACCOMMODATED: .062±.008"
  - BOARD INSERTION FORCE: 16 OZ MAX PER CONTACT PAIR WHEN USING A .062" TEST BLADE. INTERNAL INSPECTION TO BE PER SULLIN'S WORK INSTRUCTION W17.3-01.
  - BOARD WITHDRAWAL FORCE: 1 OUNCE MINIMUM PER CONTACT PAIR USING .062" PCB.

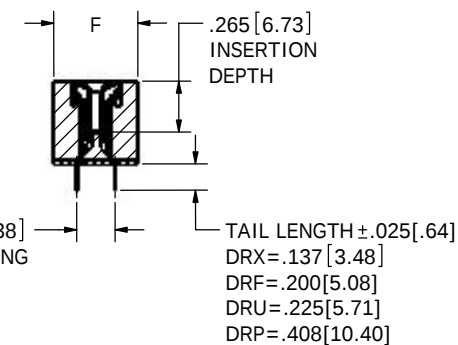
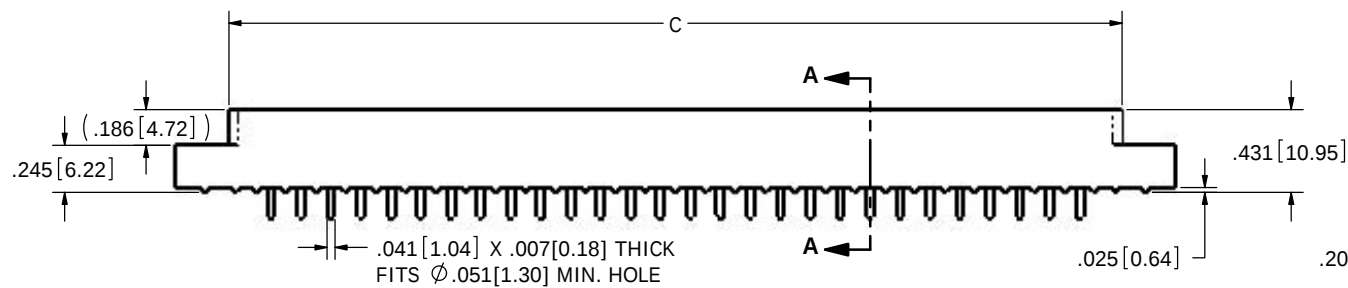
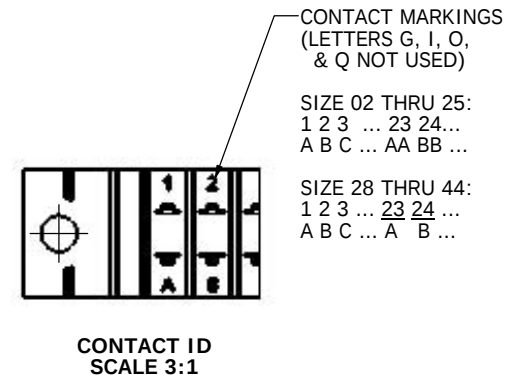
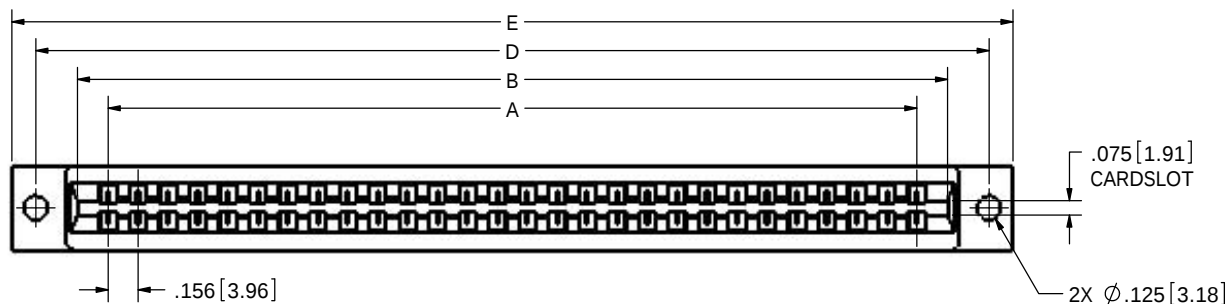


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# **CUSTOMER COPY**

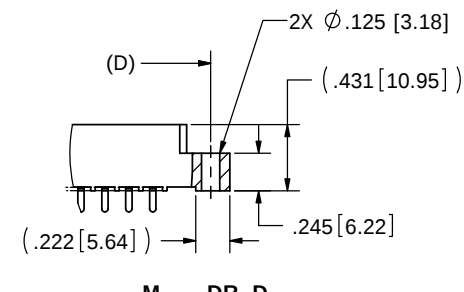
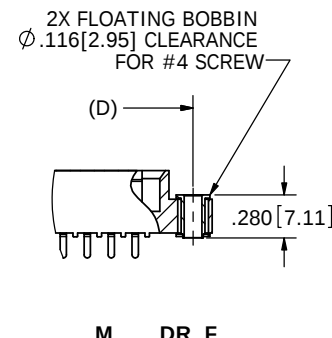
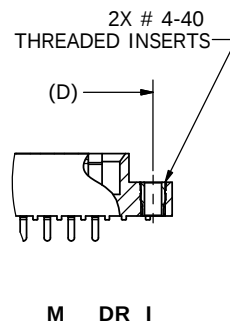
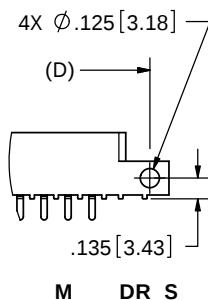
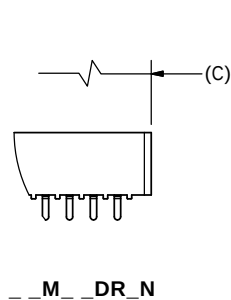
| REVISIONS |         |                                            |           |     |
|-----------|---------|--------------------------------------------|-----------|-----|
| REV.      | ECO. NO | DESCRIPTION                                | DATE      | BY  |
| C         | 1662    | UPDATE DRAWING FORMAT & PART NUMBER CODING | 4/23/2008 | VJ  |
| D         | 1771    | TABULATE DRF, DRU AND DRP TERMINATIONS     | 7/29/2008 | MNH |
| E         | 1808    | ADD 'D' MOUNTING, UPDATE FORMAT            | 9/23/2008 | ASK |

|                                                                                                                                                                                                                                            |  |                                                                                                                                           |            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------|------------|
| UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN INCHES[MM]<br>TOLERANCES:<br>ANGULAR: ± 30°<br>.XX=± .02 [508]<br>.XXX=± .005 [127]<br>.XXXX=± .0005 [0127]<br>SURFACE FINISH: 63 Ra<br>REMOVE ALL BURRS AND SHARP EDGES .010 MAX         |  | DATE<br>2/2/2007                                                                                                                          | NAME<br>MV |
| THE INFORMATION HEREIN CONTAINS PROPRIETARY INFORMATION OF SULLINS ELECTRONICS AND IS NOT TO BE REPRODUCED, USED OR DISCLOSED TO OTHERS FOR ANY PURPOSE EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY AN OFFICER OF SULLINS ELECTRONICS. |  |                                                                                                                                           |            |
| INTERPRET DIMENSIONS AND GEOMETRIC TOLERANCING PER: ANSI Y14.5M-1994                                                                                                                                                                       |  | DESCRIPTION<br>EDGE CARD, .156 CC, LP<br>PART NUMBER<br>M DR<br>SIZE<br>C<br>DWG. NO.<br>C10889<br>REV<br>E<br>SCALE: 2:1<br>SHEET 1 OF 3 |            |



--M--DR\_H

SECTION A-A



## MOUNTING STYLES

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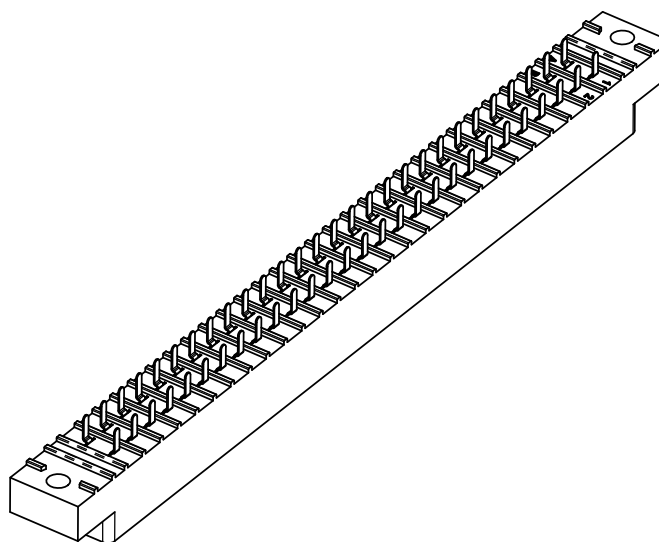


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|                                       |              |
|---------------------------------------|--------------|
| <b>SULLINS</b><br>CONNECTOR SOLUTIONS |              |
| DESCRIPTION<br>EDGE CARD, .156 CC, LP |              |
| PART NUMBER<br>M DR                   |              |
| SIZE<br>C                             | REV<br>E     |
| DWG. NO.<br>C10889                    |              |
| SCALE: 2:1                            | SHEET 2 OF 3 |

Only applies for  
PPS/PEEK  
insulators with  
threaded inRXrts  
or floats

| PART NUMBER | NO. OF<br>POS. | A ± .008[0.20] |        | B ± .008[0.20] |        | C ± .015[0.38] |        | D ± .010[0.25] |        | E ± .020[0.51] |        | E ± .020[0.51] |        | F ± .005[0.13] |       |
|-------------|----------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|-------|
|             |                | IN             | MM     | IN             | MM     | IN             | MM     | IN             | MM     | IN             | MM     | IN             | MM     | IN             | MM    |
| M02D N      | 2              | 0.156          | 3.96   | 0.476          | 12.09  | 0.596          | 15.14  | "N" MOUNTING   |        |                |        |                |        | 0.325          | 8.26  |
| M03D N      | 3              | 0.312          | 7.92   | 0.632          | 16.05  | 0.752          | 19.10  |                |        |                |        |                |        |                |       |
| M06D        | 6              | 0.780          | 19.81  | 1.100          | 27.94  | 1.220          | 30.99  | 1.533          | 38.94  | 1.782          | 45.26  | 1.882          | 47.80  |                |       |
| M08D        | 8              | 1.092          | 27.74  | 1.412          | 35.86  | 1.532          | 38.91  | 1.845          | 46.86  | 2.094          | 53.19  | 2.194          | 55.73  |                |       |
| M10D        | 10             | 1.404          | 35.66  | 1.724          | 43.79  | 1.844          | 46.84  | 2.157          | 54.79  | 2.406          | 61.11  | 2.506          | 63.65  |                |       |
| M11D        | 11             | 1.560          | 39.62  | 1.880          | 47.75  | 2.000          | 50.80  | 2.313          | 58.75  | 2.562          | 65.07  | 2.662          | 67.61  |                |       |
| M12D        | 12             | 1.716          | 43.59  | 2.036          | 51.71  | 2.156          | 54.76  | 2.469          | 62.71  | 2.718          | 69.04  | 2.818          | 71.58  |                |       |
| M15D        | 15             | 2.184          | 55.47  | 2.504          | 63.60  | 2.624          | 66.65  | 2.937          | 74.60  | 3.186          | 80.92  | 3.286          | 83.46  |                |       |
| M18D        | 18             | 2.652          | 67.36  | 2.972          | 75.49  | 3.092          | 78.54  | 3.405          | 86.49  | 3.654          | 92.81  | 3.754          | 95.35  |                |       |
| M22D        | 22             | 3.276          | 83.21  | 3.596          | 91.34  | 3.716          | 94.39  | 4.029          | 102.34 | 4.278          | 108.66 | 4.378          | 111.20 |                |       |
| M24D        | 24             | 3.588          | 91.14  | 3.908          | 99.26  | 4.028          | 102.31 | 4.341          | 110.26 | 4.590          | 116.59 | 4.690          | 119.13 |                |       |
| M25D        | 25             | 3.744          | 95.10  | 4.064          | 103.23 | 4.184          | 106.27 | 4.497          | 114.22 | 4.746          | 120.55 | 4.846          | 123.09 |                |       |
| M28D        | 28             | 4.212          | 106.98 | 4.532          | 115.11 | 4.652          | 118.16 | 4.965          | 126.11 | 5.214          | 132.44 | 5.314          | 134.98 | 0.438          | 11.13 |
| M36D        | 36             | 5.460          | 138.68 | 5.780          | 146.81 | 5.900          | 149.86 | 6.213          | 157.81 | 6.462          | 164.13 | 6.562          | 166.67 | 0.500          | 12.70 |
| M43D        | 43             | 6.552          | 166.42 | 6.872          | 174.55 | 6.992          | 177.60 | 7.305          | 185.55 | 7.554          | 191.87 | 7.654          | 194.41 |                |       |
| M44D        | 44             | 6.708          | 170.38 | 7.028          | 178.51 | 7.148          | 181.56 | 7.461          | 189.51 | 7.710          | 195.83 | 7.810          | 198.37 |                |       |



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RoHS COMPLIANT

|                                       |                    |
|---------------------------------------|--------------------|
|                                       |                    |
| DESCRIPTION<br>EDGE CARD, .156 CC, LP |                    |
| PART NUMBER                           |                    |
| M DR                                  |                    |
| SIZE<br>C                             | DWG. NO.<br>C10889 |
| REV<br>E                              |                    |
| SCALE: 2:1                            |                    |
| SHEET 3 OF 3                          |                    |