

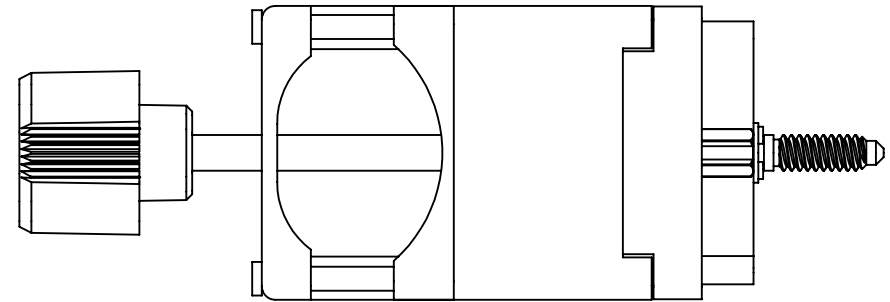
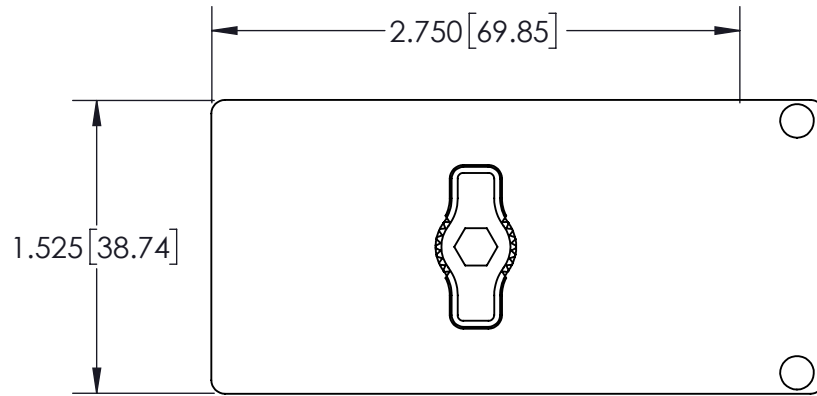
**Contact Detail:**  
**500-Wire Hole .110x.024(2.79x0.61) - Tail LG.=.245(6.22)**

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ISSUE NUMBER

ORIGINAL



**Features**

- UL Recognized
- .150 (3.81) Contact Spacing x .130 (3.30) or .150 (3.81) Row Spacing with Staggered Grid
- Plug and Receptacle in 20, 38, 56, 90 or 120 Contact Sizes
- Edacon Hermaphroditic Contact Mating Design
- Contact Termination Options Include: Crimp, P.C. Tail, Wire Hole and Wire Wrap
- Mating and Unmating Simplified with use of Actuating Screws
- Optional Covers with Side or Top Entry Cable Clamp in Plastic or Metal Material Available for All Connector Sizes
- Versatile Metal Cover Design Permits Assembly and Disassembly after Cabling is Complete plus Cable Entry Style Flexibility
- Actuating Screws, Locknuts, Polarizing Hardware, Covers and Contacts Suitable for either Plug or Receptacle
- Polarizing Hardware Adjustable for 288 Mating Combinations
- Tools Available for Contact Installation, Removal and Crimping and Polarizing Changes

**Specifications**

- Insulator Material: Diallyl Phthalate or Thermo plastic Polyester, UL94V-0, Colour: Green, or Polycarbonate, Colour: Grey
- Contact Material: Phosphor Bronze Alloy CA-510
- Contact Plating: Gold over Nickel for Entire Contact
- Cover Material: Polycarbonate, Colour: Green, or Die-Cast Zinc, Finished with Grey Enamel Paint
- Current Rating: 8.5 Amperes
- Contact Resistance: 10 Milliohms Maximum
- Dielectric Withstanding Voltage: 2000 V AC rms at Sea Level
- Insulation Resistance: 5000 Megohms Minimum
- Operating Temperature: -65 to +125 Degrees C
- Insertion and Withdrawal Force: 2 to 16 oz (0.56 to 4.45 N) per Contact Position

**See Accompanying Pages for:**  
 - PC Tail Layout  
 - Cutout Panel Details  
 - Cover Details

|                              |  |                                 |                     |
|------------------------------|--|---------------------------------|---------------------|
| 516 Assembly                 |  | ACAD REFERENCE NO. 516 Assembly |                     |
| Part Number: 516-120-500-251 |  | DRAWN: J.LEE                    | DATE: JUNE 18, 2009 |
|                              |  | CHECKED:                        | DATE:               |
|                              |  | SCALE: 1:1                      | SHEET 1 OF 4        |
|                              |  | DRAWING NUMBER                  | ISSUE               |
|                              |  | 516 Assembly                    | 1                   |



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ISSUE NUMBER

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516 Assembly  
P.C. Tail Layout Details



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DRAWN: J.LEE DATE: JUNE 18, 2009

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SCALE: 1:1 SHEET 2 OF 4

DRAWING NUMBER ISSUE

516 Assembly

1



|         | Dimension A  | Dimension B   | Dimension C   | Dimension D   | Dimension E   | Dimension F   | Dimension G    |
|---------|--------------|---------------|---------------|---------------|---------------|---------------|----------------|
| 20 Pin  | 0.104 [2.64] | 0.640 [16.26] | 0.410 [10.41] | 0.960 [24.38] | 1.126 [28.60] | 1.270 [32.26] | R0.130 [R3.30] |
| 38 Pin  | 0.136 [3.45] | 0.816 [20.73] | 0.468 [11.89] | 1.420 [36.07] | 1.688 [42.88] | 1.958 [49.73] | R0.130 [R3.30] |
| 56 Pin  | 0.136 [3.45] | 0.816 [20.73] | 0.468 [11.89] | 1.940 [49.28] | 2.280 [57.91] | 2.550 [64.77] | R0.130 [R3.30] |
| 90 Pin  | 0.136 [3.45] | 1.120 [28.45] | 0.765 [19.43] | 2.050 [52.07] | 2.282 [57.96] | 2.675 [67.95] | R0.130 [R3.30] |
| 120 Pin | 0.136 [3.45] | 1.420 [36.07] | 0.875 [22.23] | 2.050 [52.07] | 2.375 [60.33] | 2.675 [67.95] | R0.130 [R3.30] |

516 Assembly  
Cut-Out Panel Detail



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SCALE: SHEET 3 OF 4

DRAWING NUMBER ISSUE

516 Assembly

1

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ISSUE NUMBER

ORIGINAL



Top Entry



Side Entry



Standard Clamp



Large Clamp

| Cover for Connector | Cover Material | Clamp Size | "A"           | "B"           | "C"           | "D"           | "E"           | "F"           | "G"           |
|---------------------|----------------|------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 20 Pin              | Plastic        | Standard   | 1.605 (40.77) | 1.325 (33.66) | 0.906 (23.01) | 1.190 (30.23) | 0.715 (18.16) | 0.450 (11.43) | 0.450 (11.43) |
| 20 Pin              | Metal          | Standard   | 1.539 (39.09) | 1.325 (33.66) | 0.906 (23.01) | 1.120 (28.45) | 0.686 (17.42) | 0.446 (11.33) | 0.490 (12.45) |
| 38 Pin              | Plastic        | Standard   | 2.460 (62.48) | 2.010 (51.05) | 1.530 (38.86) | 1.985 (50.42) | 0.910 (23.11) | 0.650 (16.51) | 0.500 (12.70) |
| 38 Pin              | Plastic        | Large      | 2.460 (62.48) | 2.010 (51.05) | 1.530 (38.86) | 1.985 (50.42) | 1.110 (28.19) | 0.650 (16.51) | 0.608 (15.44) |
| 38 Pin              | Metal          | Standard   | 2.206 (56.03) | 2.006 (50.95) | 1.566 (39.78) | 1.766 (44.86) | 0.875 (22.23) | 0.720 (18.29) | 0.575 (14.61) |
| 56 Pin              | Plastic        | Standard   | 2.602 (66.09) | 2.602 (66.09) | 1.530 (38.86) | 1.985 (50.42) | 0.910 (23.11) | 0.650 (16.51) | 0.500 (12.70) |
| 56 Pin              | Plastic        | Large      | 2.602 (66.09) | 2.602 (66.09) | 1.530 (38.86) | 1.985 (50.42) | 1.110 (28.19) | 0.650 (16.51) | 0.608 (15.44) |
| 56 Pin              | Metal          | Standard   | 2.602 (66.09) | 2.602 (66.09) | 1.566 (39.78) | 1.766 (44.86) | 0.875 (22.23) | 0.720 (18.29) | 0.575 (14.61) |
| 90 Pin              | Plastic        | Standard   | 2.718 (69.04) | 2.718 (69.04) | 1.775 (45.09) | 2.181 (55.40) | 1.250 (31.75) | 0.800 (20.32) | 0.800 (20.32) |
| 90 Pin              | Metal          | Standard   | 2.718 (69.04) | 2.718 (69.04) | 1.775 (45.09) | 2.175 (55.25) | 1.234 (31.34) | 0.880 (22.35) | 0.900 (22.86) |
| 120 Pin             | Plastic        | Standard   | 2.750 (69.85) | 2.750 (69.85) | 2.020 (51.31) | 2.426 (61.62) | 1.530 (38.86) | 0.800 (20.32) | 1.080 (27.43) |
| 120 Pin             | Metal          | Standard   | 2.750 (69.85) | 2.750 (69.85) | 2.020 (51.31) | 2.445 (62.10) | 1.531 (38.89) | 0.890 (22.61) | 1.080 (27.43) |

516 Assembly  
Cut-Out Panel Detail

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