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 Matting 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 or 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 Thermoplastic Polyester, UL 94V-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 Megohms Maximum
- Dielectric Withstanding Voltage: 2000 V AC rms at Sea Level
- Insulation Resistance: 5000 Megohms Minimum
- Operating Temperature: -65 to +105 Degrees C
- Insertion and Withdrawal Force: 2 to 16 oz (0.56 to 4.45 N) per Contact Position

516 SERIES ORDERING CODE
Example Part Number 516 - 038 - 500 - 212

<table>
<thead>
<tr>
<th>Series</th>
<th>Total Number of Contacts</th>
<th>Contact Code</th>
<th>Style and Material</th>
<th>Cover Code</th>
<th>Hardware Code</th>
<th>Insulator Material</th>
<th>Tail Length &quot;G&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>516</td>
<td>020, 038, 056, 090 or 120</td>
<td>000</td>
<td>No Contacts Assembled</td>
<td></td>
<td></td>
<td>Green Diallyl Phthalate</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500</td>
<td>Wire Hole .110 x .024 (2.79 x 0.61)</td>
<td>.245 (6.22)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>520</td>
<td>P.C. Tail .025 x .024 (0.64 x 0.61)</td>
<td>.215 (5.46)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>540</td>
<td>Wire Wrap .050 x .024 (1.27 x 0.61)</td>
<td>.600 (15.24)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>541</td>
<td>Wire Wrap .026 x .024 (0.66 x 0.61)</td>
<td>.620 (15.75)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>542</td>
<td>Wire Wrap .050 x .024 (1.27 x 0.61)</td>
<td>.790 (20.07)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Style and Material 3
- 1 Plug: Green Diallyl Phthalate
- 2 Receptacle: Green Diallyl Phthalate
- 3 Plug: Grey Polycarbonate
- 4 Receptacle: Grey Polycarbonate
- 5 Plug: Green Polycarbonate
- 6 Receptacle: Green Polycarbonate

Cover Code 4, 5, 6, 7
- 0 No Cover Assembled
- 1 Plastic Cover, Top Entry Standard Clamp
- 2 Plastic Cover, Side Entry Standard Clamp
- 3 Plastic Cover, Top Entry Large Clamp
- 4 Plastic Cover, Side Entry Large Clamp
- 5 Metal Cover, Side Entry
- 6 Metal Cover, Top Entry

Hardware Code 8
- 0 No Hardware Assembled
- 1 Actuating Screw and Polarizing Hardware
- 2 Locknut and Polarizing Hardware
- 5 Actuating Screw with No Polarizing Hardware
- 6 Locknut with No Polarizing Hardware

Ordering Code Notes
1) Crimp contacts are also available for the 516 series connectors. Contacts may be ordered separately for pre-wired or select position assembly.

Part Number  Description  Silhouette
516-290-500  Wire Hole  
516-290-520  P.C. Tail  
516-290-540  Wire Wrap  
516-290-541  Wire Wrap  
516-290-542  Wire Wrap  
516-290-590  Crimp - Loose  
516-290-591  Crimp - 1800 Contacts per reel  

Continued on next page
RACK & PANEL CONNECTOR SERIES 516
Plug and Receptacle

ORDERING CODE NOTES (Continued)
2) For contact installation, removal and crimping tools, refer to page 96.
3) Grey polycarbonate insulator material is not available for the 120 pin size connector.
4) The 20 pin connector cover will not accept the length of the wire wrap contacts.
5) Plastic covers with large clamps are only available for the 38 and 56 pin size connectors.
6) Metal covers with side entry may be converted to top entry by removing side plate and changing clamp orientation.
7) Covers may be ordered separately. Refer to page 93.
8) Insulator design prevents improper mating of individual plug and receptacle. Polarizing hardware enables specific plug and receptacle mating combinations.

CRIMP CHARACTERISTICS
- Contacts and Crimp Tools Accommodate from 28 AWG to 18 AWG, Solid or Stranded Conductor Diameters from .012 (.30) to .049 (1.25) and an Insulation Diameter up to .074 (1.88)
- Multiple Smaller Gauge Wires may be Crimped Together
- Crimp Resistance from 0.5 Milliohms (18 AWG) to 1.5 Milliohms (28AWG)

CRIMP TENSILE STRENGTH FOR WIRE SIZES
- 18 AWG - 40 lbs (178 N)
- 22 AWG - 15 lbs (67 N)
- 26 AWG - 5 lbs (22 N)
- 20 AWG - 25 lbs (111 N)
- 24 AWG - 10 lbs (44 N)
- 28 AWG - 3 lbs (13 N)

POLARIZING CODES
- Polarizing Hardware Changes allow 288 Mating Combinations
- Standard Code Supplied for Plugs PG1G1, for Receptacles RS1S1. Connectors with Special Polarizing Codes Available upon Request
- Example Polarizing Code:
  Type of Connector
  P - Plug, R - Receptacle
  Large Diameter Hardware
  G - Guide Pin (at Contact Position "A" End)
  T - Socket (at Contact Position "A" End)
  Position of Large Diameter Keyway - 1 through 6
  Small Diameter Hardware (Opposite End from Large Diameter)
  G - Guide Pin, S - Socket
  Position of Small Diameter Keyway - 1 through 6
  This Example Mates with Code RS4G2

Fax: (416) 754 - 3299
CRIMP CHARACTERISTICS
- Contacts and Crimp Tools Accommodate from 28 AWG to 18 AWG, Solid or Stranded Conductor Diameters from .012 (0.30) to .049 (1.25) and an Insulation Diameter up to .074 (1.88)
- Multiple Smaller Gauge Wires may be Crimped Together
- Crimp Resistance from 0.5 Milliohms (18 AWG) to 1.5 Milliohms (28 AWG)

ORDERING CODE NOTES (Continued)
2) For contact installation, removal and crimping tools, refer to page 96.
3) Grey polycarbonate insulator material is not available for the 120 pin size connector.
4) The 20 pin connector cover will not accept the length of the wire wrap contacts.
5) Plastic covers with large clamps are only available for the 38 and 56 pin size connectors.
6) Metal covers with side entry may be converted to top entry by removing side plate and changing clamp orientation.
7) Covers may be ordered separately. Refer to page 93.
8) Insulator design prevents improper mating of individual plug and receptacle. Polarizing hardware enables specific plug and receptacle mating combinations.

POLARIZING CODES
- Polarizing Hardware Changes allow 288 Mating Combinations
- Standard Code Supplied for Plugs PG1G1, for Receptacles RS1S1. Connectors with Special Polarizing Codes Available upon Request
- Example Polarizing Code:

<table>
<thead>
<tr>
<th>Type of Connector</th>
<th>P - Plug, R - Receptacle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Diameter Hardware</td>
<td></td>
</tr>
<tr>
<td>G - Guide Pin (at Contact Position &quot;A&quot; End)</td>
<td></td>
</tr>
<tr>
<td>H - Guide Pin (at Last Contact Position End)</td>
<td></td>
</tr>
<tr>
<td>S - Socket (at Contact Position &quot;A&quot; End)</td>
<td></td>
</tr>
<tr>
<td>T - Socket (at Last Contact Position End)</td>
<td></td>
</tr>
<tr>
<td>Position of Large Diameter Keyway - 1 through 6</td>
<td></td>
</tr>
<tr>
<td>Small Diameter Hardware (Opposite End from Large Diameter)</td>
<td></td>
</tr>
<tr>
<td>G - Guide Pin, S - Socket</td>
<td></td>
</tr>
<tr>
<td>Position of Small Diameter Keyway - 1 through 6</td>
<td></td>
</tr>
</tbody>
</table>
This Example Mates with Code RS4G2

CRIMP TENSILE STRENGTH FOR WIRE SIZES
- 18 AWG - 40 lbs (178 N)
- 20 AWG - 25 lbs (111 N)
- 22 AWG - 15 lbs (67 N)
- 24 AWG - 10 lbs (44 N)
- 26 AWG - 5 lbs (22 N)

Fax: (416) 754 - 3299
RACK & PANEL CONNECTOR SERIES 516
Metal and Plastic Covers

516 SERIES COVER ORDERING CODE
Example Part Number 516 - 230 - 5 56

<table>
<thead>
<tr>
<th>Series</th>
<th>Cover Identification Code</th>
<th>Cover Type</th>
<th>Cover Size</th>
<th>Fits Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>516</td>
<td>230</td>
<td>1, 2</td>
<td>12, 20, 38, 56, 90</td>
<td>516 Series 120 Pin, 20 Pin and 519 Series 14 Pin, 38 Pin and 519 Series 36 Pin, 56 Pin, 90 Pin</td>
</tr>
</tbody>
</table>

Ordering Code Notes
1) Plastic covers with large clamps are only available for the 38 and 56 pin size connectors.
2) Metal covers with side entry may be converted to top entry by removing side plate and changing clamp orientation.

FEATURES
● Available in Metal (Die-Cast Zinc Finished with Grey Enamel Paint) or Plastic (Green Polycarbonate) Material
● Covers with Top or Side Entry Cable Clamp.
● Orientation of Clamp on Metal Covers may be changed by the Customer
● Versatile Metal Cover Design permits Assembly or Disassembly after Cabling is Complete
● Screws for Securing Cover to 516 or 519 Series Connectors Supplied

<table>
<thead>
<tr>
<th>COVER FOR CONNECTOR</th>
<th>COVER MATERIAL</th>
<th>CLAMP SIZE</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
<th>&quot;C&quot;</th>
<th>&quot;D&quot;</th>
<th>&quot;E&quot;</th>
<th>&quot;F&quot;</th>
<th>&quot;G&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Pin</td>
<td>Plastic</td>
<td>Standard</td>
<td>1.655 (41.77)</td>
<td>1.325 (33.66)</td>
<td>0.906 (23.01)</td>
<td>1.190 (30.23)</td>
<td>0.715 (18.16)</td>
<td>0.450 (11.43)</td>
<td>0.450 (11.43)</td>
</tr>
<tr>
<td>20 Pin</td>
<td>Metal</td>
<td>Standard</td>
<td>1.539 (39.09)</td>
<td>1.325 (33.66)</td>
<td>0.906 (23.01)</td>
<td>1.120 (28.45)</td>
<td>0.666 (17.42)</td>
<td>0.446 (11.33)</td>
<td>0.490 (12.45)</td>
</tr>
<tr>
<td>38 Pin</td>
<td>Plastic</td>
<td>Standard</td>
<td>2.460 (62.48)</td>
<td>2.010 (51.05)</td>
<td>1.530 (38.86)</td>
<td>1.985 (50.42)</td>
<td>0.910 (23.11)</td>
<td>0.650 (16.51)</td>
<td>0.500 (12.70)</td>
</tr>
<tr>
<td>38 Pin</td>
<td>Plastic</td>
<td>Large</td>
<td>2.460 (62.48)</td>
<td>2.010 (51.05)</td>
<td>1.530 (38.86)</td>
<td>1.985 (50.42)</td>
<td>1.110 (28.19)</td>
<td>0.650 (16.51)</td>
<td>0.608 (15.44)</td>
</tr>
<tr>
<td>38 Pin</td>
<td>Metal</td>
<td>Standard</td>
<td>2.256 (57.18)</td>
<td>2.006 (50.88)</td>
<td>1.566 (39.78)</td>
<td>1.766 (44.86)</td>
<td>0.875 (22.23)</td>
<td>0.720 (18.29)</td>
<td>0.575 (14.61)</td>
</tr>
<tr>
<td>56 Pin</td>
<td>Plastic</td>
<td>Standard</td>
<td>3.052 (77.52)</td>
<td>2.602 (66.09)</td>
<td>1.530 (38.86)</td>
<td>1.985 (50.42)</td>
<td>0.910 (23.11)</td>
<td>0.650 (16.51)</td>
<td>0.500 (12.70)</td>
</tr>
<tr>
<td>56 Pin</td>
<td>Plastic</td>
<td>Large</td>
<td>3.052 (77.52)</td>
<td>2.602 (66.09)</td>
<td>1.530 (38.86)</td>
<td>1.985 (50.42)</td>
<td>1.110 (28.19)</td>
<td>0.650 (16.51)</td>
<td>0.608 (15.44)</td>
</tr>
<tr>
<td>56 Pin</td>
<td>Metal</td>
<td>Standard</td>
<td>2.632 (66.85)</td>
<td>2.602 (66.09)</td>
<td>1.566 (39.78)</td>
<td>1.766 (44.86)</td>
<td>0.875 (22.23)</td>
<td>0.720 (18.29)</td>
<td>0.575 (14.61)</td>
</tr>
<tr>
<td>90 Pin</td>
<td>Plastic</td>
<td>Standard</td>
<td>3.118 (79.23)</td>
<td>2.718 (69.04)</td>
<td>1.775 (45.09)</td>
<td>2.181 (55.44)</td>
<td>1.390 (35.29)</td>
<td>0.880 (22.35)</td>
<td>0.600 (15.20)</td>
</tr>
<tr>
<td>90 Pin</td>
<td>Metal</td>
<td>Standard</td>
<td>3.118 (79.23)</td>
<td>2.718 (69.04)</td>
<td>1.775 (45.09)</td>
<td>2.181 (55.44)</td>
<td>1.390 (35.29)</td>
<td>0.880 (22.35)</td>
<td>0.600 (15.20)</td>
</tr>
<tr>
<td>120 Pin</td>
<td>Plastic</td>
<td>Standard</td>
<td>3.156 (80.16)</td>
<td>2.790 (66.85)</td>
<td>2.030 (51.31)</td>
<td>2.426 (61.62)</td>
<td>1.530 (38.86)</td>
<td>0.800 (20.32)</td>
<td>1.080 (27.43)</td>
</tr>
<tr>
<td>120 Pin</td>
<td>Metal</td>
<td>Standard</td>
<td>3.175 (80.65)</td>
<td>2.790 (66.85)</td>
<td>2.030 (51.31)</td>
<td>2.426 (61.62)</td>
<td>1.530 (38.86)</td>
<td>0.800 (20.32)</td>
<td>1.080 (27.43)</td>
</tr>
</tbody>
</table>