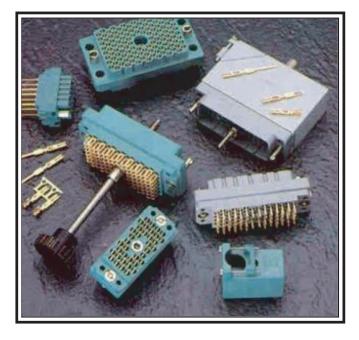
# **516 SERIES RACK & PANEL CONNECTOR**

Plug and Receptacle



# **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 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 Milliohms 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	
							$\top \top \top$	

Series	
Total Number of Contacts ——	
Contact Code	
Style and Material	
Cover Code	
Hardware Code	

#### Series 516

## **Total Number of Contacts**

020, 038, 056, 090 or 120

Contact	Code <sup>1, 2</sup> Description & Tail Size	Tail Length "G"
000	No Contacts Assembled	
500	Wire Hole .110 x .024 (2.79 x 0.61)	.245 (6.22)
520	P.C. Tail .025 x .024 (0.64 x 0.61)	.215 (5.46)
540	Wire Wrap.050 x .024 (1.27 x 0.61)	.600 (15.24)
541	Wire Wrap.026 x .024 (0.66 x 0.61)	.620 (15.75)
542	Wire Wrap.050 x .024 (1.27 x 0.61)	.790 (20.07)

Style and Material <sup>3</sup>	Style	Insulator Material
1	Plug	Green Diallyl Phthalate
2	Receptacle	Green Diallyl Phthalate
3	Plug	Grey Polycarbonate
4	Receptacle	Grey Polycarbonate
5	Plug	Green Polyester
6	Receptacle	Green Polyester

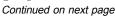
Cover Code 4, 5, 6, 7	Description
0	No Cover Assembled
1	Plastic Cover, Top Entry Standard Clamp
2	Plastic Cover, Side Entry Standard Clamp
3	Plastic Cover, Top Entry Large Clamp
4	Plastic Cover, Side Entry Large Clamp
5	Metal Cover, Side Entry
6	Metal Cover, Top Entry
Hardware Code <sup>8</sup>	Description
0	No Hardware Assembled

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.

Description	Silhouette
Wire Hole	
P.C. Tail	
Wire Wrap	
Wire Wrap	
Wire Wrap	
Crimp - Loose	
Crimp - 1800 Contacts	
per reel	
	Wire Hole P.C. Tail Wire Wrap Wire Wrap Wire Wrap Crimp - Loose Crimp - 1800 Contacts

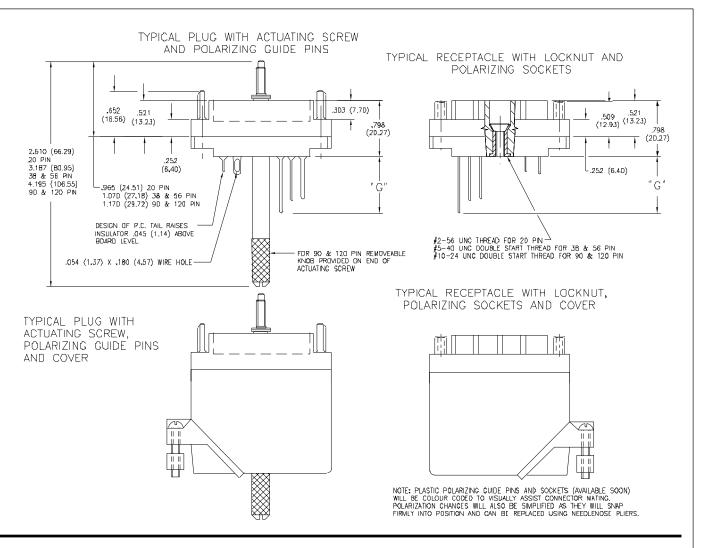






# **RACK & PANEL CONNECTOR SERIES 516**

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.
- 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.
- 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 (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 (28AWG)

# 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:
   P G 4 S 2

   Type of Connector
   P Plug, R Receptacle
  Large Diameter Hardware
   G Guide Pin (at Contact Position "A" End)
   H Guide Pin (at Last Contact Position End)
   S Socket (at Contact Position "A" End)
   T Socket (at Last Contact Position 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
- 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)
   28 AWG 3 lbs (13 N)



# **RACK & PANEL CONNECTOR SERIES 516**

Metal and Plastic Covers

		DVER ORDERING CODE METAL COVERS umber $516 - 230 - 5 56$							
Series — Cover Ident Cover Type Cover Size	)	ode				"A"			" <u></u>   .
Series 51	6								
Cover Ident	tification C	ode 230			"C "				
Cover Type 1 2 3 4 5 6	Plastic Co Plastic Co Plastic	over, Top E Cover, Sic Cover, To Me	Desc Intry Standard Intry Standard Ie Entry Large op Entry Large Ital Cover, Sid etal Cover, To	Clamp Clamp Clamp e Entry		—— "В"———			
Cover Size 12 20 38 56 90			Fits Cor 516 Series nd 519 Series nd 519 Series 516 Series 516 Series	120 Pin 14 Pin 36 Pin 56 Pin	(AV ELI TQ DIS	W COVER DESIGN AILABLE SOON) WILL MINATE 3 SCREWS FC SIMPLIFY ASSEMBLY, ASSEMBLY AND CLAM IENTATION CHANGES.	IR SIDE COVER ARE SU	FOR SECURING THE TO THE CONNECTOR PPLIED BY EDAC	
			510 Selles			PL	ASTIC COVERS		
<ul> <li>Ordering Code Notes</li> <li>1) Plastic covers with large clamps are only available for the 38 and 56 pin size connectors.</li> <li>2) Metal covers with side entry may be converted to to pentry by removing side plate and changing clamp orientation.</li> <li>FEATURES</li> <li>Available in Metal (Die-Cast Zinc Finished with Grey Enamel Paint) or Plastic (Green Polycarbonate) Material</li> <li>Covers with Top or Side Entry Cable Clamp. Orientation of Clamp on Metal Covers may be changed by the Customer</li> <li>Versatile Metal Cover Design permits Assembly or Disassembly after Cabling is Complete</li> <li>Screws for Securing Cover to 516 or 519 Series Connectors Supplied</li> </ul>									
						•			
COVERFOR CONNECTOR	COVER MATERIAL	CLAMP SIZE	<b>"A"</b> Inch (mm)	<b>"B"</b> Inch (mm)	<b>"C"</b> Inch (mm)	<b>"D"</b> Inch (mm)	<b>"E"</b> Inch (mm)	<b>"F"</b>	"G"
20 Pin	Plastic	Standard	1.605 (40.77)	1.325 (33.66)	.906 (23.01)	1.190 (30.23)	.715 (18.16)	.450 (11.43)	.450 (11.43)
20 Pin 38 Pin	Metal Plastic	Standard Standard	1.539 (39.09) 2.460 (62.48)	1.325 (33.66) 2.010 (51.05)	.906 (23.01) 1.530 (38.86)	1.120 (28.45) 1.985 (50.42)	.686 (17.42) .910 (23.11)	.446 (11.33) .650 (16.51)	.490 (12.45) .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)	.650 (16.51)	.608 (15.44)
38 Pin	Metal	Standard	2.206 (56.03)	2.006 (50.95)	1.566 (39.78)	1.766 (44.86)	.875 (22.23)	.720 (18.29)	.575 (14.61)
56 Pin 56 Pin	Plastic Plastic	Standard	3.052 (77.52) 3.052 (77.52)	2.602 (66.09) 2.602 (66.09)	1.530 (38.86) 1.530 (38.86)	1.985 (50.42) 1.985 (50.42)	.910 (23.11) 1.110 (28.19)	.650 (16.51) .650 (16.51)	.500 (12.70) .608 (15.44)
56 Pin 56 Pin	Metal	Large Standard	3.052 (77.52) 2.802 (71.17)	2.602 (66.09) 2.602 (66.09)	1.530 (38.86) 1.566 (39.78)	1.985 (50.42) 1.766 (44.86)	1.110 (28.19) .875 (22.23)	.650 (16.51) .720 (18.29)	.608 (15.44) .575 (14.61)
90 Pin	Plastic	Standard	3.124 (79.35)	2.718 (69.04)	1.775 (45.09)	2.181 (55.40)	1.250 (31.75)	.800 (20.32)	.800 (20.32)
90 Pin 120 Pin	Metal	Standard Standard	3.118 (79.20)	2.718 (69.04)	1.775 (45.09)	2.175 (55.25)	1.234 (31.34)	.880 (22.35)	.900 (22.86)
120 Pin 120 Pin	Plastic Metal	Standard Standard	3.156 (80.16) 3.175 (80.65)	2.750 (69.85) 2.750 (69.85)	2.020 (51.31) 2.020 (51.31)	2.426 (61.62) 2.445 (62.10)	1.530 (38.86) 1.531 (38.89)	.800 (20.32) .890 (22.61)	1.080 (27.43) 1.080 (27.43)
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