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

Series 516

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Total Number of Contacts

020, 038, 056, 090 or 120

Contact	Code ^{1, 2} 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 ³	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 8	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.

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.
- 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

516 SER Example	IES CO Part Nui	VER OF mber 5	RDERING 16 - 230	CODE - 5 56		Ν	IETAL COVERS		
Series — Cover Ident Cover Type Cover Size	tification C	- ode				'A"			
Series 51	6							Ш	F"
Cover Iden	tification C	ode 230							
Cover Type 1 2 3 4 5 6	Plastic Co Plastic Co Plastic C Plastic Plastic	over, Side E over, Top E Cover, Sid C Cover, To Me Me	Desc Entry Standard Entry Standard de Entry Large op Entry Large etal Cover, Sid letal Cover, To	Clamp Clamp Clamp Clamp Clamp Clamp le Entry p Entry		— "В"——		- "G	
Cover Size 12 20 38 56	516 Serie 516 Serie	es 20 Pin a es 38 Pin a	Fits Cor 516 Series and 519 Series 516 Series 516 Series	nnector 120 Pin 5 14 Pin 5 36 Pin 56 Pin	NE (A) ELI TO D!S OR	W COVER DESIGN MILAELE SOON) WILL SIMPLES SCREWS FC SIMPLIFY ASSEMBLY, ASSEMBLY AND CLAM IENTATION CHANGES.	SCREWS IR SIDE COVER ARE SL P	S FOR SECURING THE TO THE CONNECTOR IPPLIED BY EDAC	:
30			510 Selles			PL	ASTIC COVERS	5	
 Plastic co for the 38 Metal cov top entry clamp or FEATU Available Enamel F Material Covers wi Orientation changed Versatile Disasser 	JRES in Metal (D Paint) or Pla th Top or Si of Clamp by the Cust Metal Cove ably after Co	arge clamp n size conn de entry ma ng side plat ie-Cast Zir istic (Greer de Entry Ca on Metal C comer er Design p abling is C Cover to 5	as are only ava lectors. ay be converte te and changin the Finished with Polycarbona able Clamp. covers may be ermits Asseml omplete 16 or 519 Ser	ailable ed to ng th Grey te) bly or	"C"	A"	TOP CABLE ENTRY		LAWPS SIZE UNLY
		4				—— "B" ——		- - "G	• +-
COVERFOR	COVER	CLAMP	"A"	"B"	"C"	"D"	"E"	"F"	"G"
CONNECTOR 20 Pin	MATERIAL Plastic	SIZE Standard	Inch (mm) 1.605 (40.77)	Inch (mm)	Inch (mm) .906 (23.01)	Inch (mm)	Inch (mm)	Inch (mm) .450 (11.43)	Inch (mm) .450 (11.43)
20 Pin	Metal	Standard	1.539 (39.09)	1.325 (33.66)	.906 (23.01)	1.120 (28.45)	.686 (17.42)	.446 (11.33)	.490 (12.45)
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 (12.70)
38 Pin 56 Pin	Metal Plastic	Standard Standard	2.206 (56.03) 3.052 (77.52)	2.006 (50.95) 2.602 (66.09)	1.566 (39.78) 1.530 (38.86)	1.766 (44.86) 1.985 (50.42)	.875 (22.23) .910 (23.11)	.720 (18.29)	.575 (14.61) .500 (12.70)
56 Pin	Plastic	Large	3.052 (77.52)	2.602 (66.09)	1.530 (38.86)	1.985 (50.42)	1.110 (28.19)	.650 (16.51)	.608 (15.44)
56 Pin 90 Pin	Metal Plastic	Standard Standard	2.802 (71.17) 3.124 (79.35)	2.602 (66.09) 2.718 (69.04)	1.566 (39.78) 1.775 (45.09)	1.766 (44.86) 2.181 (55.40)	.875 (22.23) 1.250 (31.75)	.720 (18.29) .800 (20.32)	.575 (14.61) .800 (20.32)
90 Pin	Metal	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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