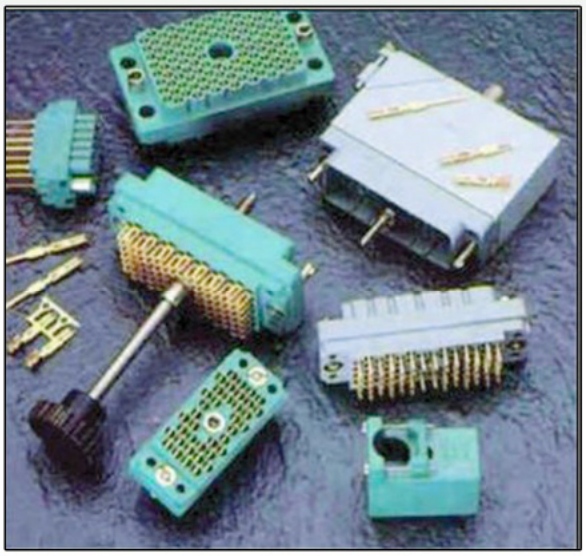
SERIES 516



FEATURES

UL Recognized.

.150 (3.81) Contact Spacing x .150 (3.81) Row Spacing with Staggered Gold

Plug & 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

Insultator Material: Thermoplastic Polyester or Diallyl Phthalate, UL 94V-0, Colour: Green, or Polycarbonate, Colour: Grey

Contact Material: Phosphor Bronze Alloy CA-510

Contact Plating: Gold over Nickel

Cover Material: Poly Carbonate, 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

Example Part Number 516 - 038 - 500 - 2 1 2

- 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	**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 .061)	.790 (20.07)

Style & Material	**Style**	**Insulator Material**
1	Plug	Green Diallyl Phthalate
2	Receptacle	Green Diallyl Phthalate
3	Plug	Grey Polycarbate
4	Receptacle	Grey Polycarbate
5	Plug	Green Polyester
6	Receptacle	Green Polyester

Cover Code	**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	**Description**
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

Crimp contacts are also available for tge 516 series connectors. Contacts be ordered seperately for pre-wired or select position assembly.

Part Number	**Description**	**Sillhouette**
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

Insulation Resistance: 5000 Milliohms Minimum

Operating Temperature: -65 to +125 Degrees C

Insertion and Withdrawal Force: 2 to 16 oz 0 (0.56 to 4.45 N) per Contact Position

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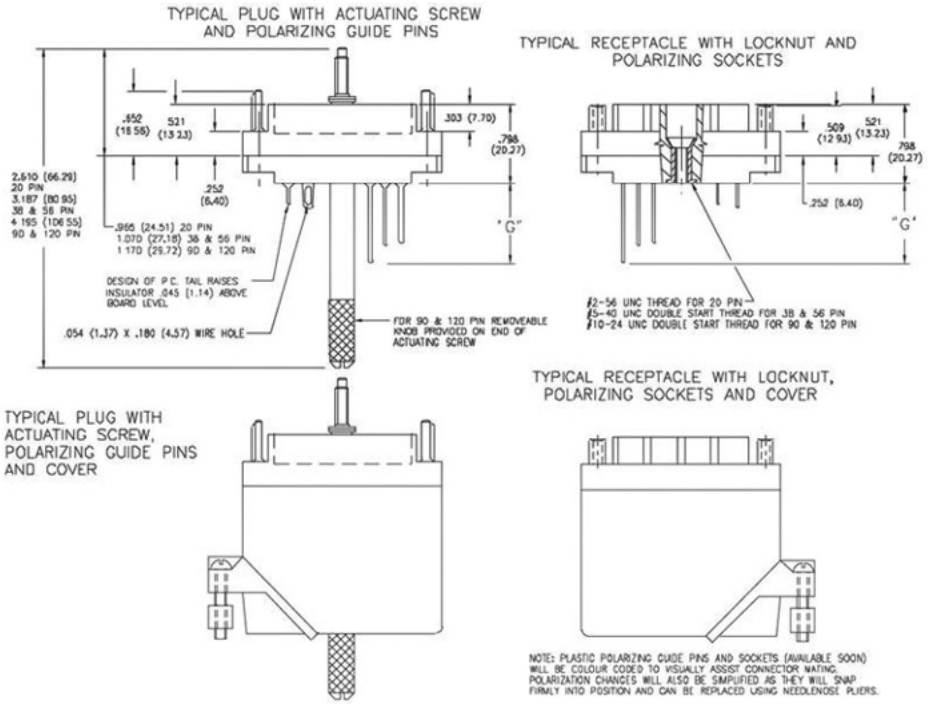
SERIES 516



ORDERING CODE NOTES (Continued)

2) For contact installation, removal and crimping tools, refer to page 72.
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 88.
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 (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 Postion "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)

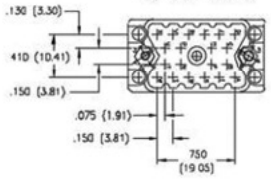
EDAC

SERIES 516

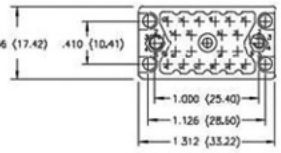
CONNECTOR MATING FACE VIEWS

DIMENSIONS INDICATED FOR EACH SIZE APPLY TO BOTH PLUG AND RECEPTACLE

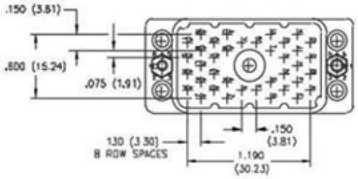
20 PIN PLUG



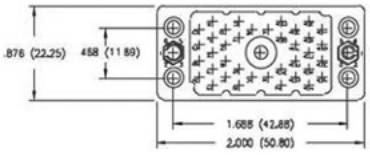
20 PIN RECEPTACLE



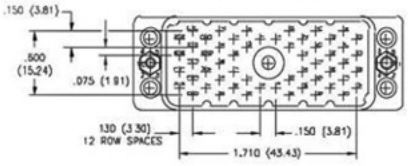
38 PIN PLUG



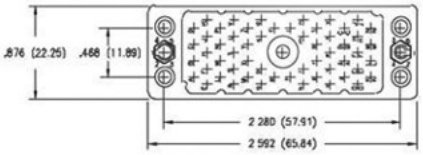
38 PIN RECEPTACLE



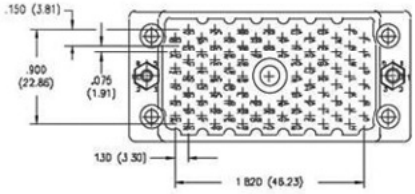
56 PIN PLUG



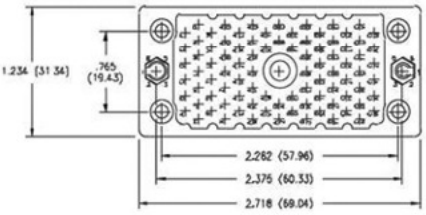
56 PIN RECEPTACLE



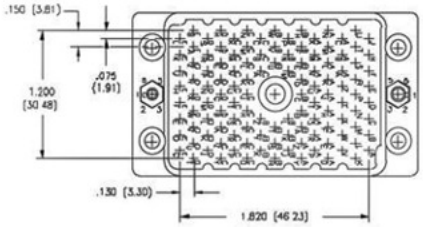
90 PIN PLUG



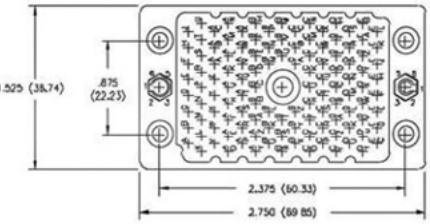
90 PIN RECEPTACLE



120 PIN PLUG



120 PIN RECEPTACLE



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SERIES 516

Example Part Number 516 - 230 - 5 56

- Series
- Cover Identification Code
- Cover Type
- Cover Size

Series 516

Cover Identification Code 230

Cover Type [1,2]	Description
1	Plastic Cover, Side Entry Standard Clamp
2	Plastic Cover, Top Entry Standard Clamp
3	Plastic Cover, Side Entry Large Clamp
4	Plastic Cover, Top Entry Large Clamp
5	Metal Cover, Side Entry
6	Metal Cover, Top Entry
7	Metal Cover, Large Clamp

Cover Size	Fits Connector
12	516 Series 120 Pin
20	516 Series 20 Pin and 519 Series 14 Pin
38	516 Series 38 Pin and 519 Series 36 Pin
56	516 Series 56 Pin
90	516 Series 90 Pin

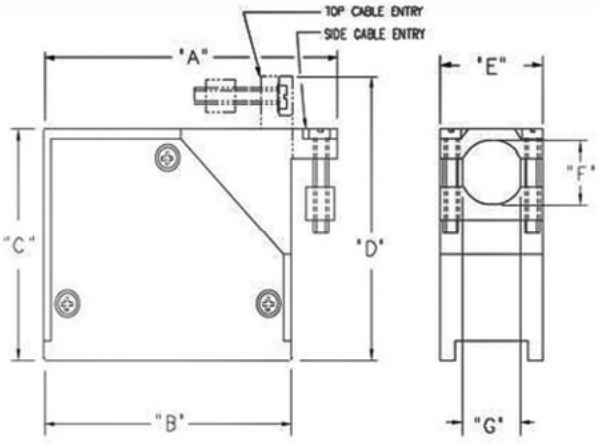
Ordering Code Notes

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

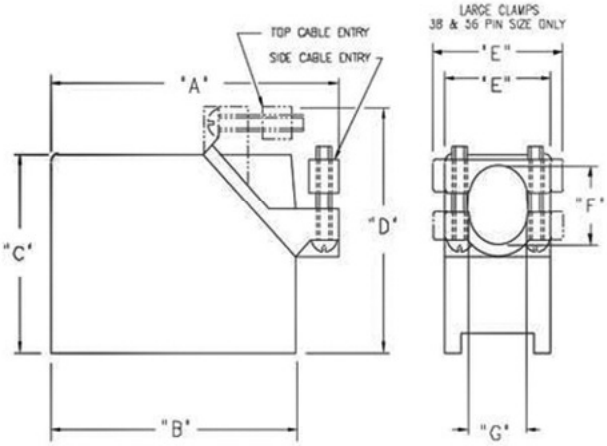
METAL COVERS



NEW COVER DESIGN (AVAILABLE SOON) WILL ELIMINATE 3 SCREWS FOR SIDE TO SIMPLIFY ASSEMBLY, DISASSEMBLY AND CLAMP ORIENTATION CHANGES

SCREWS FOR SECURING THE COVER TO THE CONNECTOR ARE SUPPLIED BY EDAC

PLASTIC COVERS



COVER FOR CONNECTOR	COVER MATERIAL	CLAMP SIZE	"A" Inch	"A" (mm)	"B" Inch	"B" (mm)	"C" Inch	"C" (mm)	"D" Inch	"D" (mm)	"E" Inch	"E" (mm)	"F" Inch	"F" (mm)	"G" Inch	"G" (mm)
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	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	Standard	2.460	(62.48)	2.010	(51.05)	1.530	(38.86)	1.985	(50.42)	.910	(23.11)	.650	(16.51)	.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	Plastic	Standard	3.052	(77.52)	2.602	(66.09)	1.530	(38.86)	1.985	(50.42)	.910	(23.11)	.650	(16.51)	.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	Metal	Standard	2.802	(71.17)	2.602	(66.09)	1.566	(39.78)	1.766	(44.86)	.875	(22.23)	.720	(18.29)	.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	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	Plastic	Standard	3.156	(80.16)	2.750	(69.85)	2.020	(51.31)	2.426	(61.62)	1.530	(38.86)	.800	(20.32)	1.080	(27.43)
120 Pin	Metal	Standard	3.175	(80.65)	2.750	(69.85)	2.020	(51.31)	2.445	(62.10)	1.531	(38.89)	.890	(22.61)	1.080	(27.43)

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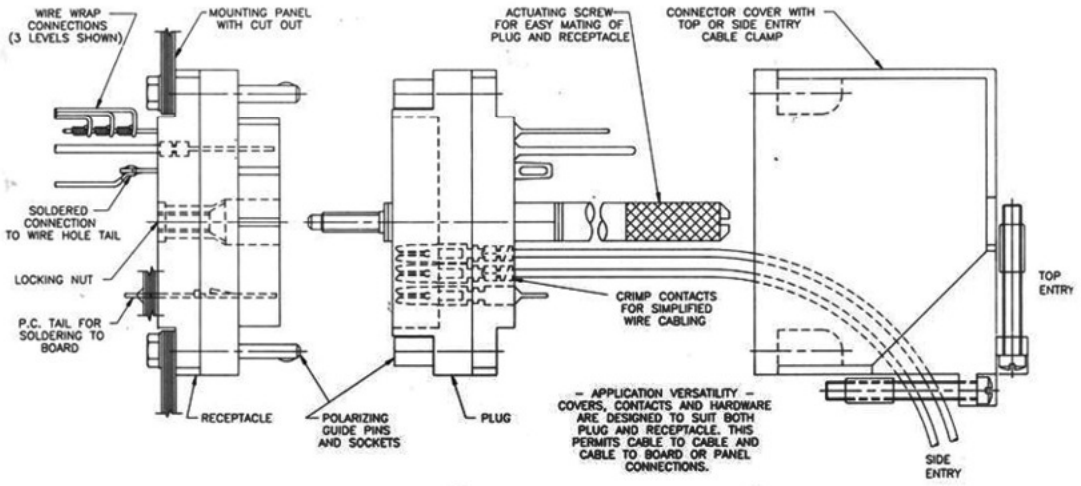
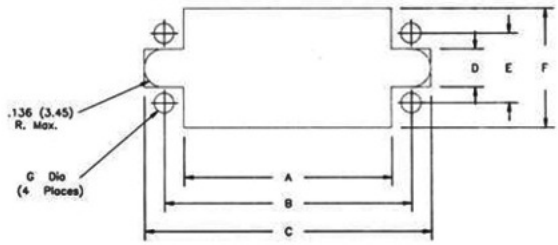
SERIES 516

RACK AND PANEL CONNECTORS



516 / 519 SERIES CONNECTOR
PANEL MOUNTING CUT–OUT



516 SERIES CONNECTOR CUT OUTS

CONNECTOR SIZE	A	B	C	D	E	F	G Dia
20 pin	.960 (24.38)	1.126 (28.6)	1.270 (32.26)	.260 (6.60)	.410 (10.41)	.640 (16.26)	.104 (2.64)
38 pin	1.420 (36.07)	1.688 (42.87)	1.958 (49.73)	.260 (6.60)	.468 (11.89)	.816 (20.73)	.136 (3.45)
56 pin	1.940 (49.28)	2.280 (57.91)	2.550 (64.77)	.260 (6.60)	.468 (11.89)	.816 (20.73)	.136 (3.45)
90 pin	2.050 (52.07)	2.282 (57.96)	2.675 (67.95)	.300 (7.62)	.765 (19.43)	1.120 (36.07)	.136 (3.45)
120 pin	2.050 (52.07)	2.375 (60.32)	2.675 (67.95)	.300 (7.62)	.875 (22.22)	1.420 (36.07)	.156 (3.96)

519 SERIES CONNECTOR CUT OUTS

CONNECTOR SIZE	A	B	C	D	E	F	G Dia
14 pin	.960 (24.38)	1.126 (28.6)	1.270 (32.26)	.260 (6.60)	.410 (10.41)	.640 (16.26)	.104 (2.64)
36 pin	1.420 (36.07)	1.688 (42.87)	1.958 (49.73)	.260 (6.60)	.468 (11.89)	.816 (20.73)	.136 (3.45)

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SERIES 516

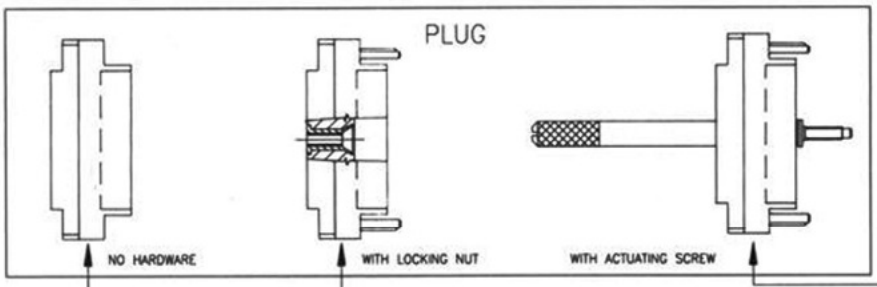
ORDERING CODE

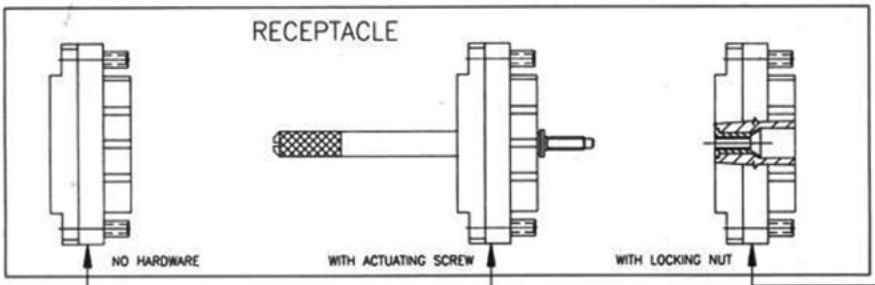
516 056 540 102

SERIES

NUMBER OF CONTACTS

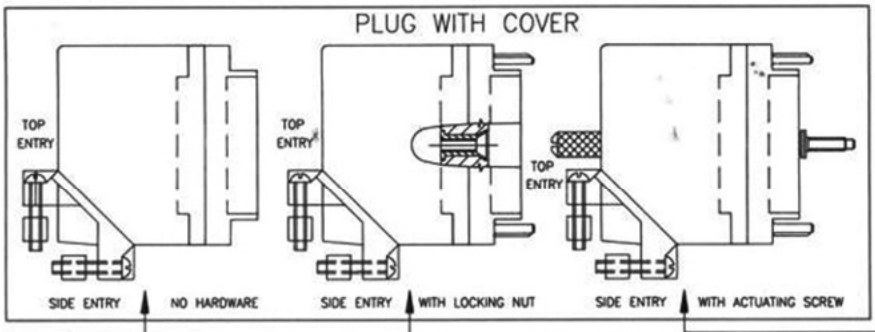
CONTACT CODE

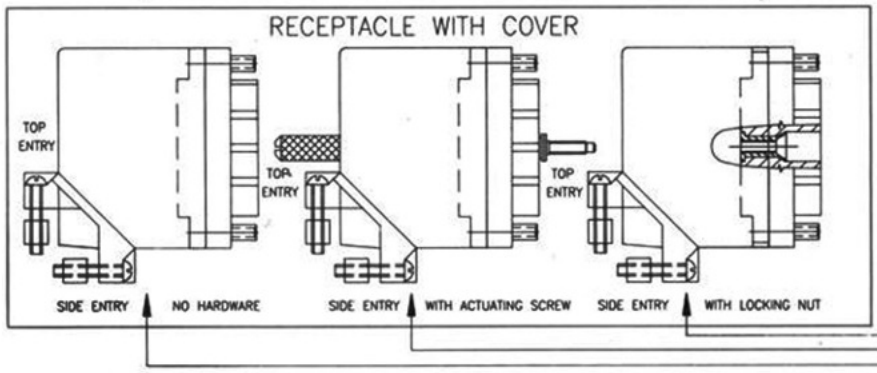




DAP CODE	STYLE	DESCRIPTION	POLYCARB CODE
101	PLUG	ACTUATING SCREW	301
102		LOCKING NUT	302
100		NO HARDWARE	300
202	RECPT	ACTUATING SCREW	402
201		LOCKING NUT	401
200		NO HARDWARE	400

POLYCARBONATE CONNECTORS AVAILABLE IN 20,38,56 AND 90 PINS SIZES ONLY





CODE REG. CLAMP	STYLE	DESCRIPTION	CODE LARGE CLAMP
111	PLUG	ACTUATING SCREW, TOP ENTRY	131
121		ACTUATING SCREW, SIDE ENTRY	141
151		ACTUATING SCREW, METAL COVER	151
112		LOCKING, NUT TOP ENTRY	132
122		LOCKING, NUT SIDE ENTRY	142
152		LOCKING, NUT METAL COVER	152
110		NO HARDWARE, TOP ENTRY	152
120		NO HARDWARE, SIDE ENTRY	130
150		NO HARDWARE METAL COVER	150
211	RECEPTACLE	ACTUATING SCREW, TOP ENTRY	231
221		ACTUATING SCREW, SIDE ENTRY	241
251		ACTUATING SCREW, METAL COVER	251
212		LOCKING, NUT TOP ENTRY	232
222		LOCKING, NUT SIDE ENTRY	242
252		LOCKING, NUT METAL COVER	252
210		NO HARDWARE, TOP ENTRY	230
220		NO HARDWARE, SIDE ENTRY	240
250		NO HARDWARE METAL COVER	250

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