

516 SERIES

RACK AND PANEL CONNECTOR (PLUG AND RECEPTACLE)



FEATURES:

- .150" (3.81mm) Contact Spacing x .130" (3.30mm) or .150" (3.81mm) Row Spacing with staggered Grid
- Plug and Receptacle in 20, 38, 56, 90 and 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
- RoHS Compliant & UL Recognized

Specifications:

Insulator Material	Diallyl Phthalate, Thermoplastic Polyester or Polycarbonate UL 94V-0
Color	Green, or Polycarbonate Color: Grey
Contact Material	Copper Alloy
Contact Plating	Gold Plating over Nickel over entire contact
Current Rating	8.5 Amperes
Contact Resistance	10 milliohms maximum
Withstanding Voltage	2000 VAC rms at sea level
Insulation Resistance	5000 Megohms minimum
Operating Temp	-40°C to +125°C (Diallyl Phthalate Only)
Operating Temp	-40°C to +105°C
Insertion & Withdrawal Force	2 to 16 Oz (0.56 to 4.45N) per contact position

Example Part Number:

516-038-500-212

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

Cover Code 4, 5, 6, 7

Description

0	No Cover Assembly
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

Series 516

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 .25 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 (15.70)
542	Wire Wrap .050 x .024 (1.27 x 0.61)	.790 (20.07)

Style & 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

Hardware Code 8

Description

0	No Hardware
1	Actuating Screw & Polarizing Hardware
2	Locknut & Polarizing Hardware
5	Actuating Screw with No Polarizing Hardware
6	Locknut with No Polarizing Hardware

In2Connect UK Ltd
 Home Farm
 Petersfield Rd
 Ropley
 Alresford
 Hampshire
 SO24 0EF
 UK

Tel: UK 01962 773004 | Fax: UK 01962 600034

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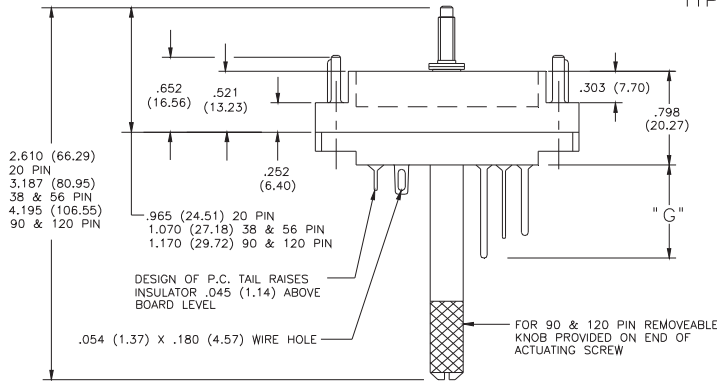
Skype Name "In2Connect" | sales@in2connect.uk.com



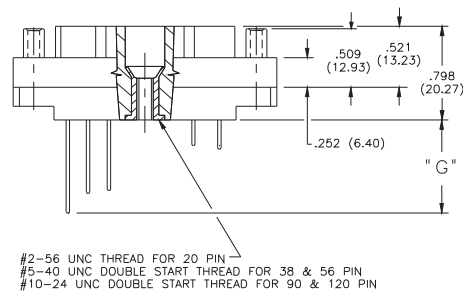
516 SERIES

RACK AND PANEL CONNECTOR (PLUG AND RECEPTACLE)

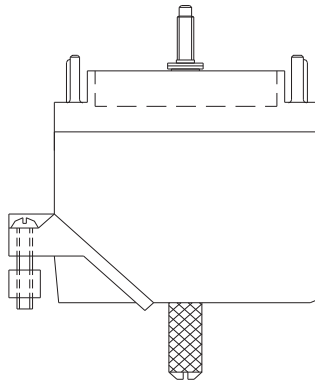
TYPICAL PLUG WITH ACTUATING SCREW AND POLARIZING GUIDE PINS



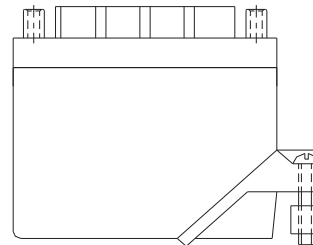
TYPICAL RECEPTACLE WITH LOCKNUT AND POLARIZING SOCKETS



TYPICAL PLUG WITH ACTUATING SCREW, POLARIZING GUIDE PINS AND COVER



TYPICAL RECEPTACLE WITH LOCKNUT, POLARIZING SOCKETS AND COVER



NOTE: PLASTIC POLARIZING GUIDE PINS AND SOCKETS (AVAILABLE SOON) WILL BE COLOUR CODED TO VISUALLY ASSIST CONNECTOR MATING. POLARIZATION CHANGES WILL ALSO BE SIMPLIFIED AS THEY WILL SNAP FIRMLY INTO POSITION AND CAN BE REPLACED USING NEEDLENOSE PLIERS.

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 Contact/Reel	

- 2) For contact installation, removal and crimping tools, Please contact EDAC.
- 3) Grey Polycarbonate insulator material is not available for 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 38 and 56 pin sizes only
- 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
- 8) Insulator design prevents improper mating of individual plug and receptacle. Polarizing hardware enables specific plug and receptacle combinations

Crimp Characteristics

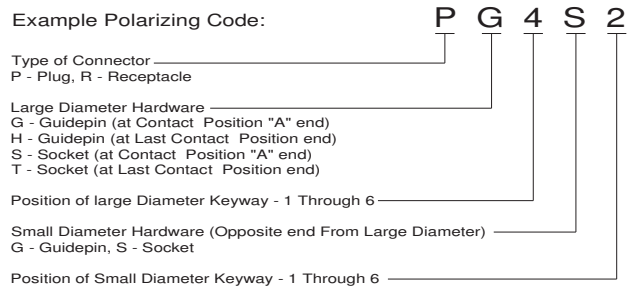
- Contacts and Crimp Tool Accommodate from 28AWG to 18AWG, Solid or Stranded Conductor Diameters from .012 (0.30) to .049 (1.25) and an Insulation diameter up to 0.074 (1.88)
- Multiple Smaller Gauge Wires may be Crimped Together
- Crimp Resistance from 0.5 Milliohms (18AWG) to 1.5 Milliohms(28AWG)
- Crimp Tensile Strength for Wire Sizes

18AWG - 40 lbs (178 N)	20AWG - 25 lbs (111 N)
22AWG - 15 lbs (67 N)	24AWG - 10 lbs (44 N)
26AWG - 5 lbs (22 N)	28AWG - 3 lbs (13 N)

Polarizing Codes

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

Example Polarizing Code:



This Example mates with Code RS4G2



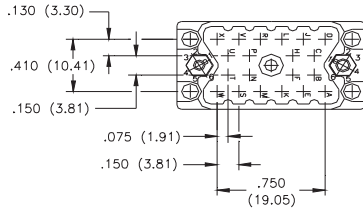
516 SERIES

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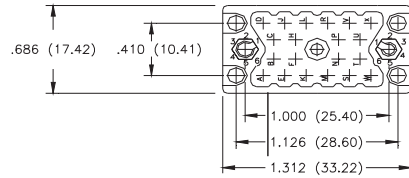
CONNECTOR MATING FACE VIEWS

DIMENSIONS INDICATED FOR EACH SIZE APPLY TO BOTH PLUG AND RECEPTACLE

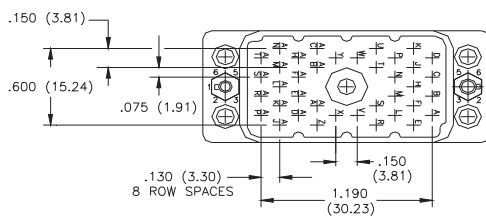
20 PIN PLUG



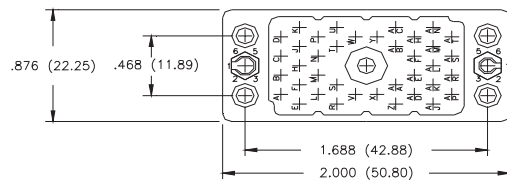
20 PIN RECEPTACLE



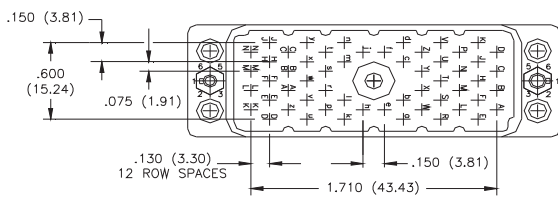
38 PIN PLUG



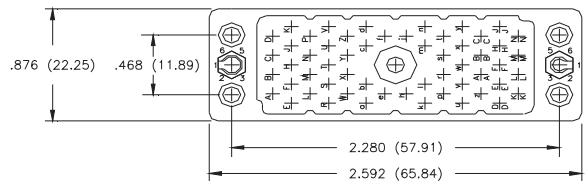
38 PIN RECEPTACLE



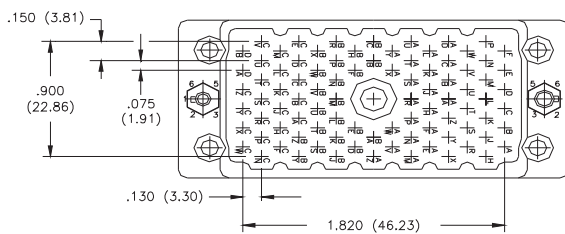
56 PIN PLUG



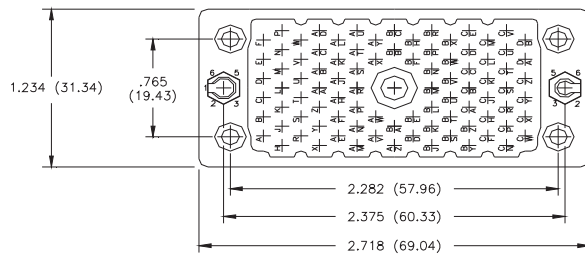
56 PIN RECEPTACLE



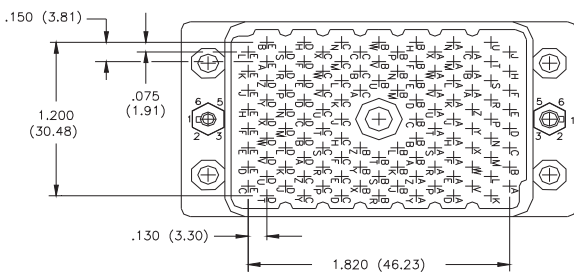
90 PIN PLUG



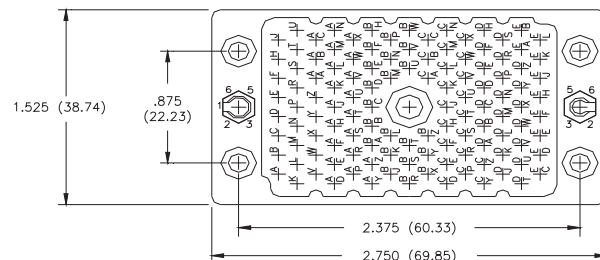
90 PIN RECEPTACLE



120 PIN PLUG



120 PIN RECEPTACLE





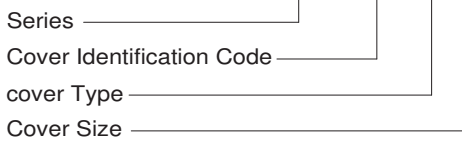
516 SERIES

METAL AND PLASTIC COVERS



- **FEATURES:**
- Available in Metal (Die-Cast Zinc Finished with Grey enamel Paint) or Plastic (Green polycarbonate) Material
- Covers with Top and Side Entry Cable Clamp. Orientation of Clamp 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 516 Series Connectors Supplied.
- RoHS Compliant & UL Recognized

Example Part Number: **516-230-556**



Series **516**

Cover Identification Code **230**

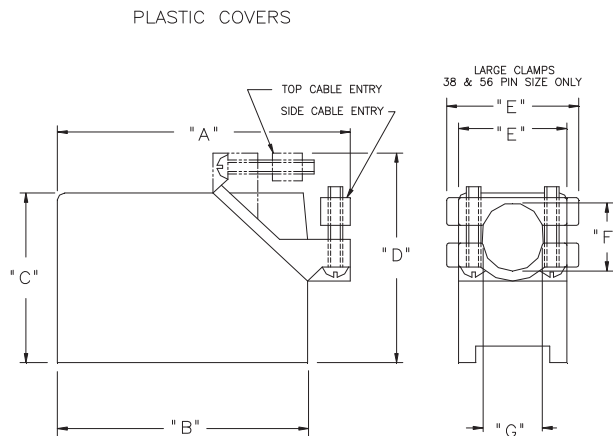
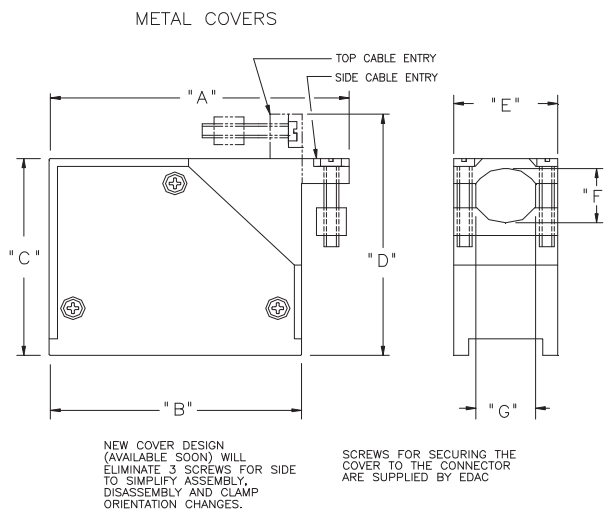
Cover Type 1, 2	Description
1	Plastic Cover, Top Entry Standard Clamp
2	Plastic Cover, Side Entry Standard Clamp
3	Plastic Cover, Top Entry Large Clamp
4	Plastic Cover, Side Entry Large Clamp
5	Metal Cover, Side Entry
6	Metal Cover, Top Entry
7	Metal Cover, Large Clamp

Cover Size **Fits Connector**

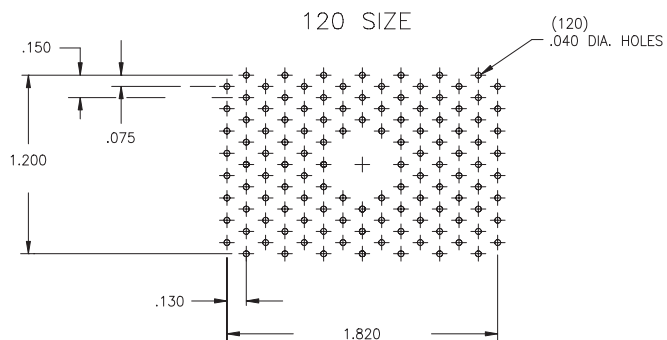
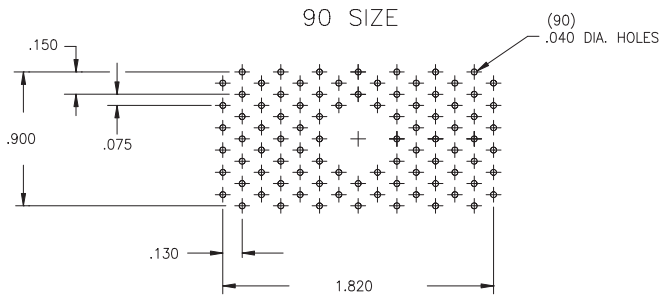
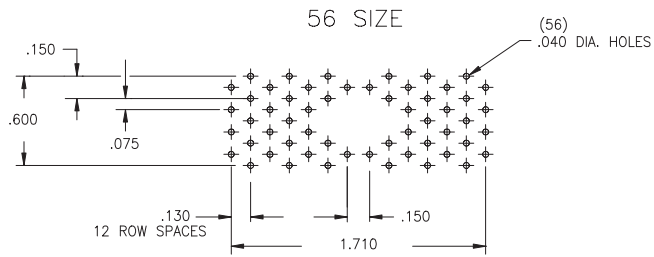
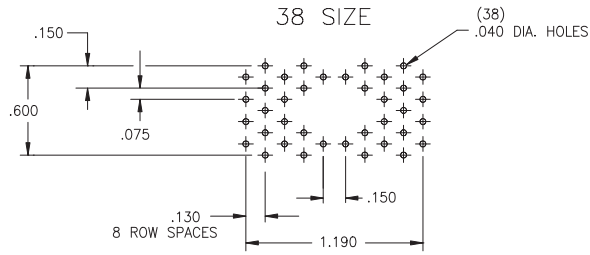
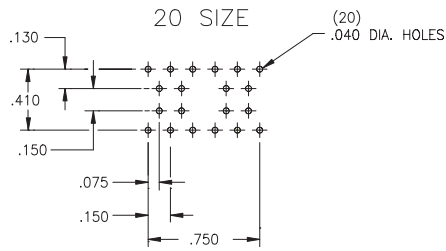
12	516 Series 120 Pin
20	516 Series 20 Pin and 519 Series 14 Pin
38	516 Series 38 Pin and 519 Series 36 Pin
56	516 Series 56 Pin
90	516 Series 90 Pin

Ordering Code Notes

- 1) Plastic Covers with Large Clamps are only Available for 38 and 56 Pin Connectors.
- 2) Metal Covers with side entry may be converted to top entry by removing side plate and changing clamp orientation.



COVER FOR CONNECTOR	COVER MATERIAL	CLAMP SIZE	"A" Inch (mm)	"B" Inch (mm)	"C" Inch (mm)	"D" Inch (mm)	"E" Inch (mm)	"F" Inch (mm)	"G" Inch (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)					
	METAL	STANDARD	1.539(39.09)							.686(17.42)	.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)					
		LARGE	2.460(62.48)							1.985(50.42)	1.110(28.19)	.608(15.44)		
	PLASTIC	STANDARD	2.206(56.03)							1.566(39.78)	1.766(44.86)	.875(22.23)	.720(18.29)	.575(14.61)
		METAL	STANDARD							2.206(56.03)	1.566(39.78)	1.766(44.86)	.875(22.23)	.720(18.29)
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)					
		LARGE	3.052(77.52)							1.985(50.42)	1.110(28.19)	.650(16.51)	.608(15.44)	
	PLASTIC	STANDARD	2.802(71.17)							1.566(39.78)	1.766(44.86)	.875(22.23)	.720(18.29)	.575(14.61)
		METAL	STANDARD							2.802(71.17)	1.566(39.78)	1.766(44.86)	.875(22.23)	.720(18.29)
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)					
			3.118(79.20)			2.175(55.25)	1.234(31.34)	.880(22.35)	.900(22.86)					
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)	.800(20.32)				
		3.175(80.65)					2.445(62.10)	1.531(38.89)	.890(22.61)	1.080(27.43)				
METAL	STANDARD	3.175(80.65)		2.445(62.10)	1.531(38.89)		.890(22.61)	1.080(27.43)						



516 SERIES PCB LAYOUT

ACAD REFERENCE NO. 516 PCB LAYOUT

DRAWN: F.BRIONES

DATE: OCT. 27/03

CHECKED:

DATE:

SCALE:

SHEET 1 OF 1

DRAWING NUMBER

516-PCB LAYOUT

ISSUE

.1

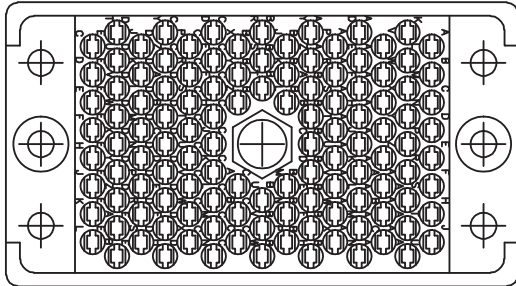


EDAC INC
TORONTO, ONTARIO
CANADA

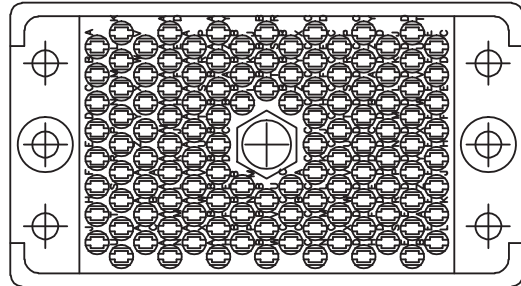
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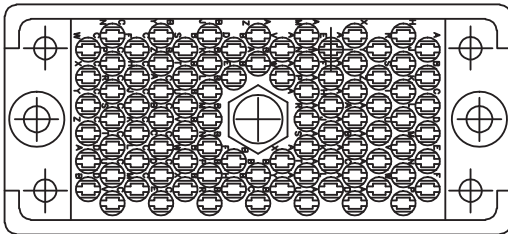
INSULATOR PLUG 120 CONTACTS



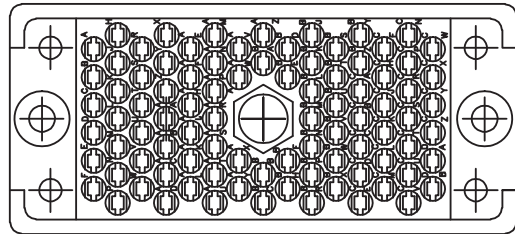
INSULATOR RECEPTACLE 120 CONTACTS



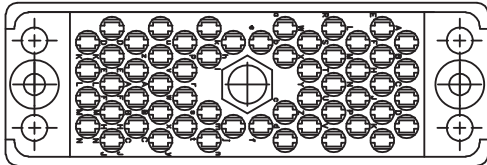
INSULATOR PLUG 90 CONTACTS



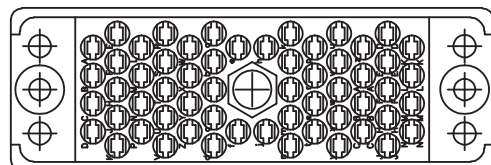
INSULATOR RECEPTACLE 90 CONTACTS



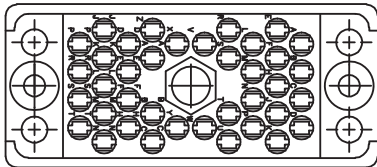
INSULATOR PLUG 56 CONTACTS



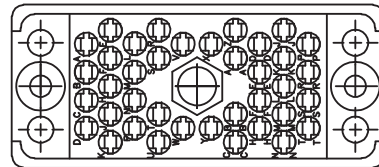
INSULATOR RECEPTACLE 56 CONTACTS



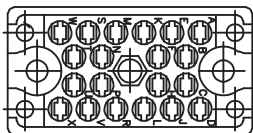
INSULATOR PLUG 38 CONTACTS



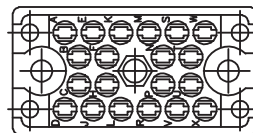
INSULATOR RECEPTACLE 38 CONTACTS



INSULATOR PLUG 20 CONTACTS



INSULATOR RECEPTACLE 20 CONTACTS



TERMINATION IDENTIFICATION
516 SERIE CONNECTORS

ACAD REFERENCE NO. 516IDENT

DRAWN: F.BRIONES

DATE: SEP. 10/99

CHECKED:

DATE:

SCALE:

SHEET 1 OF 1

DRAWING NUMBER

516 IDENTIFICATION

ISSUE

12



EDAC INC
TORONTO, ONTARIO
CANADA

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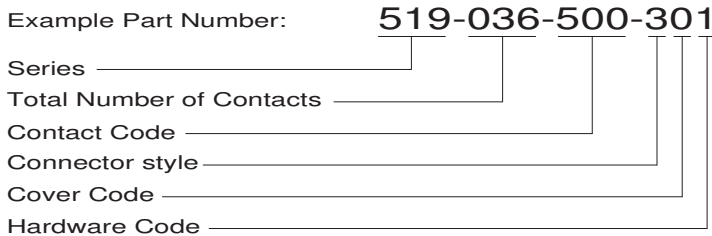


FEATURES:

- .150" (3.81mm) Contact Spacing x .130" (3.30mm) or .150" (3.81mm) Row Spacing with staggered Grid
- Plug and Receptacle in 14 or 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
- RoHS Compliant & UL Recognized

Specifications:

Insulator Material	Polycarbonate UL 94V- 0
Color	Grey
Contact Material	Copper Alloy
Contact Plating	Gold Plating over Nickel over entire contact
Current Rating	8.5 Amperes
Contact Resistance	10 milliohms maximum
Withstanding Voltage	2000 VAC rms at sea level
Insulation Resistance	5000 Megohms minimum
Operating Temp	-40°C to +125°C (Diallyl Phthalate Only)
Operating Temp	-40°C to +105°C
Insertion & Withdrawal Force	2 to 16 Oz (0.56 to 4.45N) per contact position



Series 519

Total Number of Contacts 014, 036

Cover Code 1, 2, 3, 4	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

Connector Style	Style
1	Plug
2	Receptacle

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 .25 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 (15.70)
542	Wire Wrap .050 x .024 (1.27 x 0.61)	.790 (20.07)

Hardware Code s	Description
0	No Hardware
1	Actuating Screw & Polarizing Hardware
2	Locknut & Polarizing Hardware
5	Actuating Screw with No Polarizing Hardware
6	Locknut with No Polarizing Hardware

Ordering Code Notes

- 1) The 14 Pin connector cover will not accept the length of wire wrap contacts.
- 2) Plastic covers with large clamps are only available for 36 Pin size connectors.
- 3) metal covers with side entry may be converted to top entry by removing side plate and changing clamp orientation.
- 4) Covers may be ordered separately.
- 5) Insulator design prevents improper mating of individual plug and receptacle. Polarizing hardware enables specific plug and receptacle combinations.



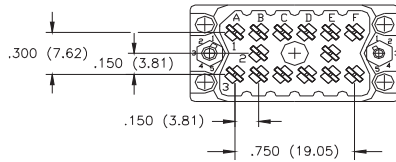
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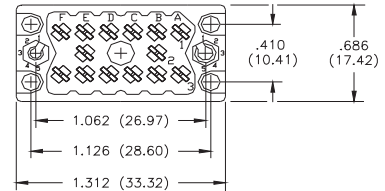
CONNECTOR MATING FACE VIEWS

DIMENSIONS INDICATED FOR EACH SIZE APPLY TO BOTH PLUG AND RECEPTACLE

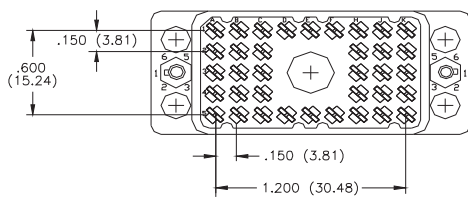
14 PIN PLUG



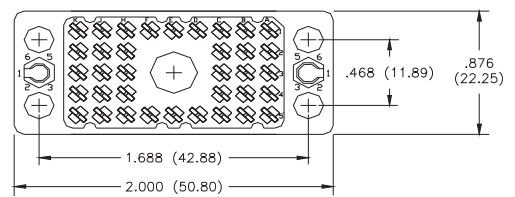
14 PIN RECEPTACLE



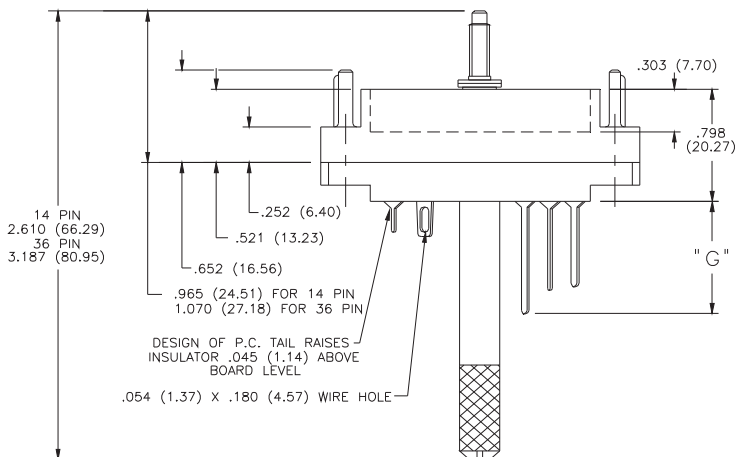
36 PIN PLUG



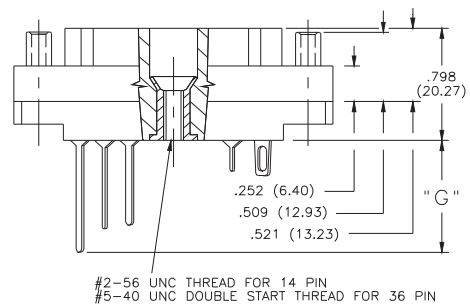
36 PIN RECEPTACLE



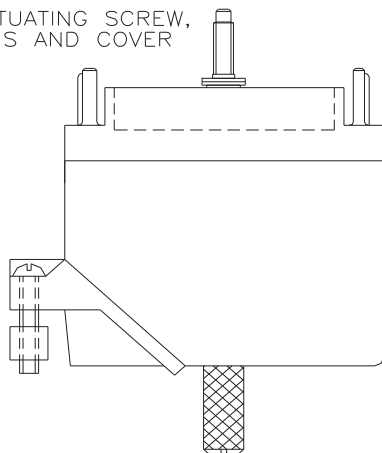
TYPICAL PLUG WITH ACTUATING SCREW AND POLARIZING GUIDE PINS



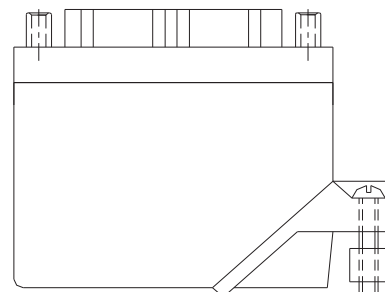
TYPICAL RECEPTACLE WITH LOCKNUT AND POLARIZING SOCKETS



TYPICAL PLUG WITH ACTUATING SCREW, POLARIZING GUIDE PINS AND COVER



TYPICAL RECEPTACLE WITH LOCKNUT, POLARIZING SOCKETS AND COVER



NOTE: PLASTIC POLARIZING GUIDE PINS AND SOCKETS (AVAILABLE SOON) WILL BE COLOUR CODED TO VISUALLY ASSIST CONNECTOR MATING. POLARIZATION CHANGES WILL ALSO BE SIMPLIFIED AS THEY SNAP FIRMLY INTO POSITION AND CAN BE REPLACED USING NEEDLENOSE PLIERS.