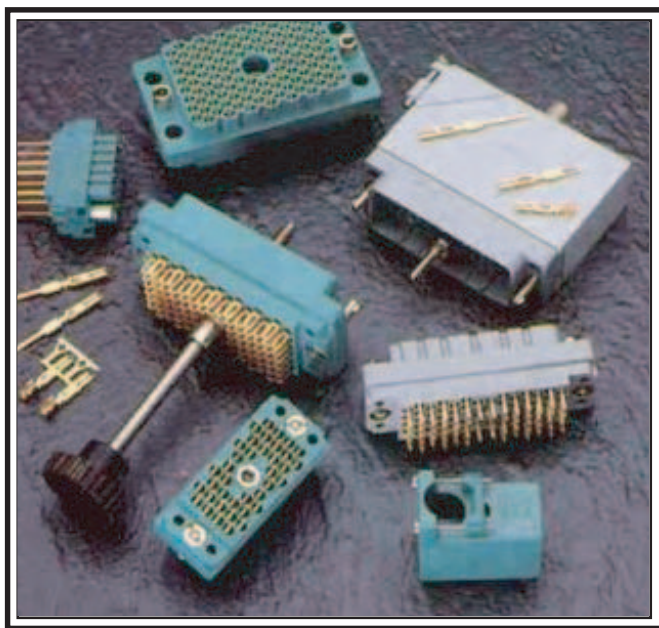


516 SERIES RACK & PANEL CONNECTOR

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 - 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 ^{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

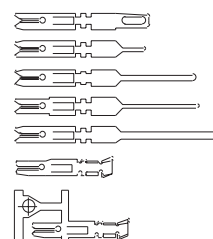
Hardware Code ⁸	Description
0	No Hardware Assembled
1	Actuating Screw and Polarizing Hardware
2	Locknut and Polarizing Hardware
5	Actuating Screw with No Polarizing Hardware
6	Locknut with No Polarizing Hardware

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
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

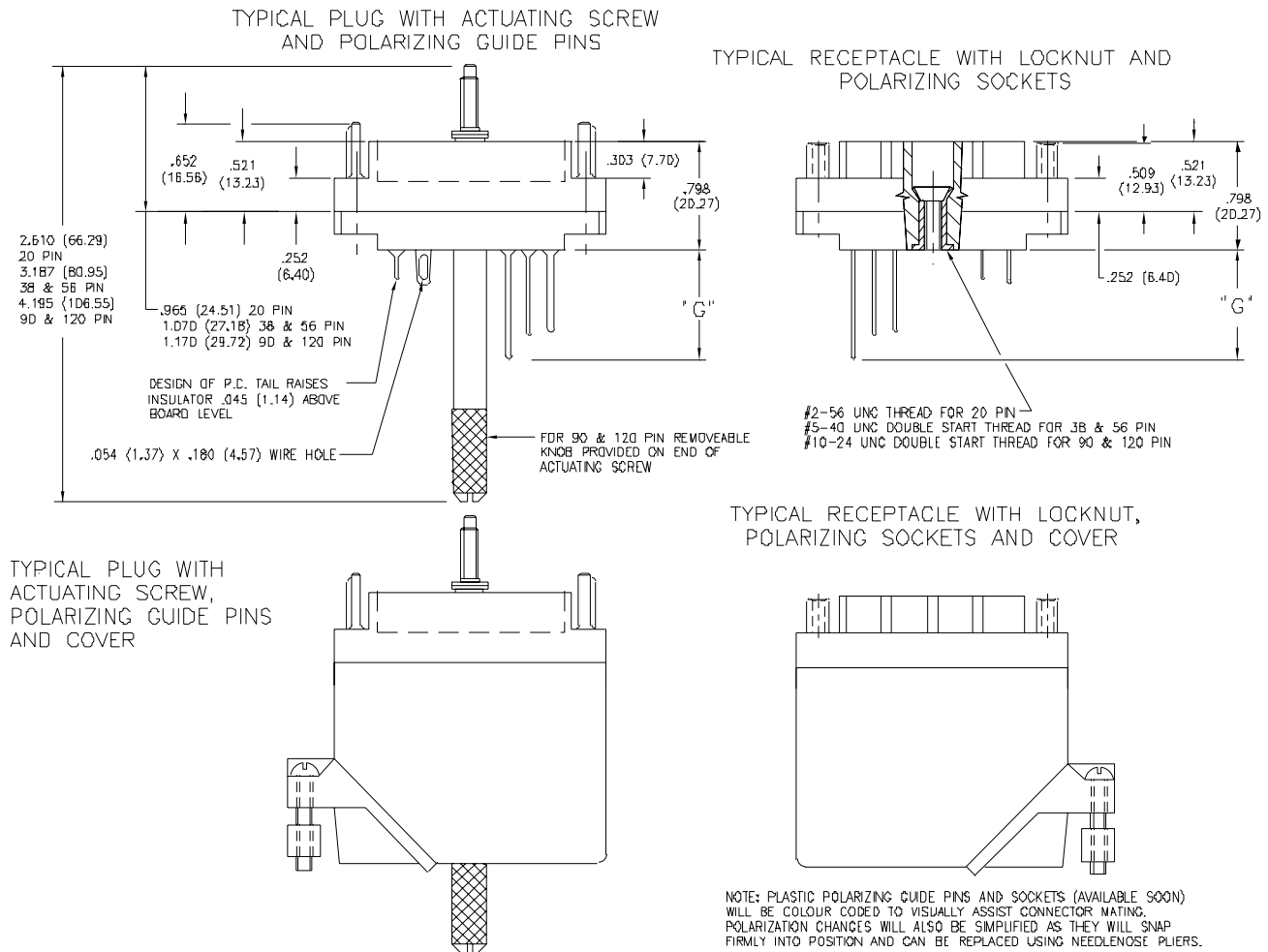
Silhouette



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 (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 _____

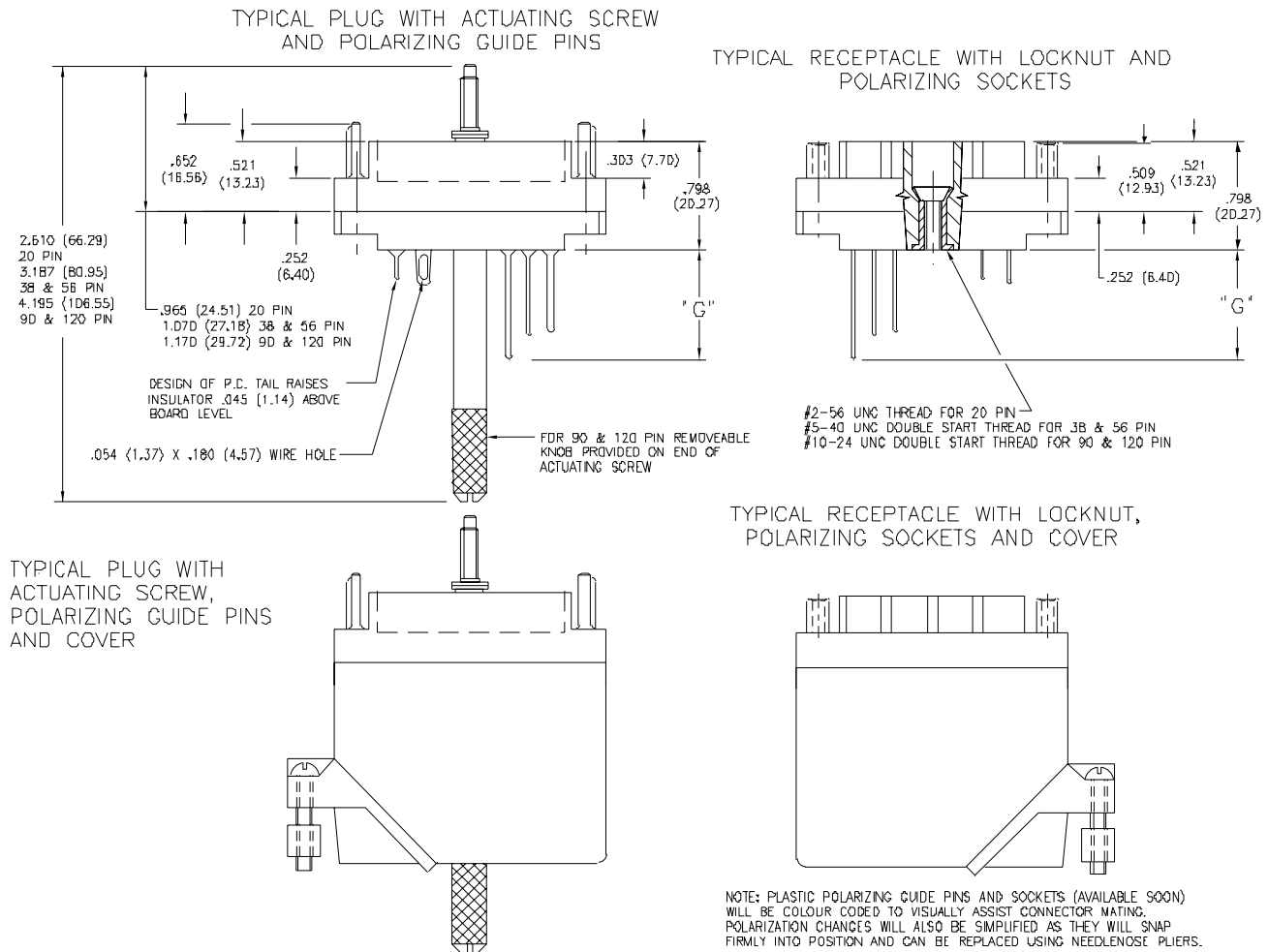
This Example Mates with Code RS4G2

- 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

Plug and Receptacle



ORDERING CODE NOTES (Continued)

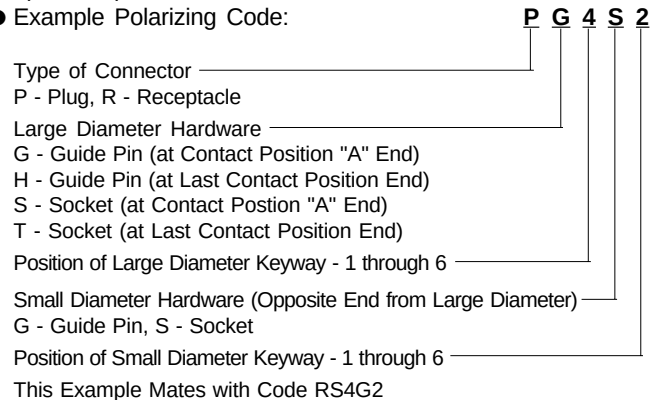
- 2) For contact installation, removal and crimping tools, refer to page 96.
- 3) Grey polycarbonate insulator material is not available for the 120 pin size connector.
- 4) The 20 pin connector cover will not accept the length of the wire wrap contacts.
- 5) Plastic covers with large clamps are only 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 (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:



- 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 SERIES COVER ORDERING CODE

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

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

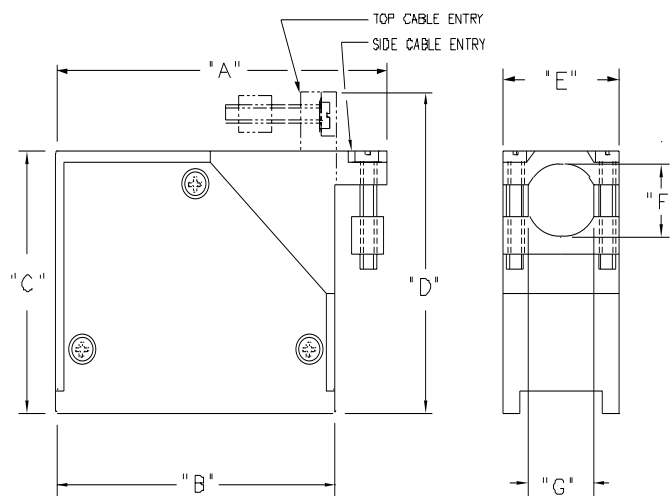
Ordering Code Notes

- 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

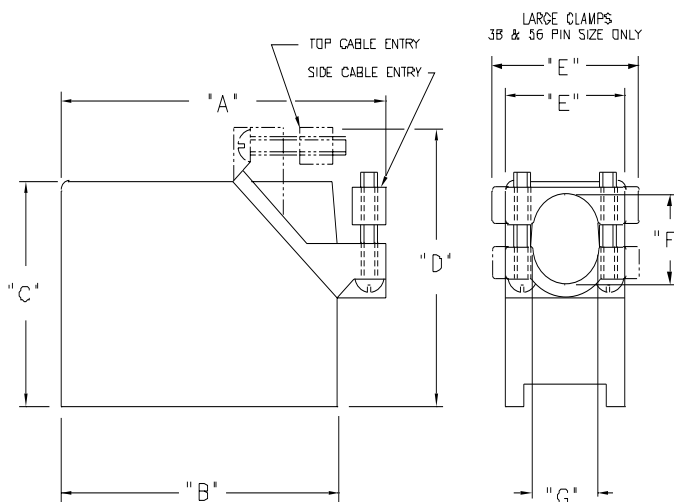
METAL COVERS



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"		"B"		"C"		"D"		"E"		"F"		"G"	
			Inch	(mm)	Inch	(mm)	Inch	(mm)	Inch	(mm)	Inch	(mm)	Inch	(mm)	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)
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)