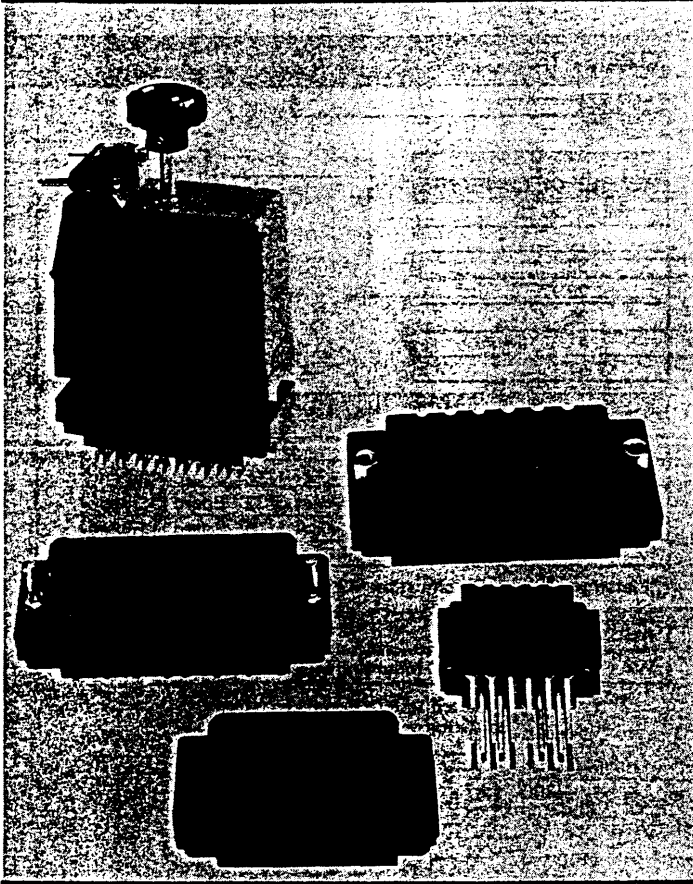


145-150

145-151-159

SERIES 516 RACK AND PANEL CONNECTORS



SPECIFICATIONS

CURRENT RATING: 8.5 Amperes, maximum

CONTACT RESISTANCE: 6 milliohms, maximum

CONTACT MATERIAL: Phosphor Bronze, per QQ-B-750, composition A

CONTACT PLATING: Gold, 10-20 microinches over Nickel, 30-150 microinches

INSULATOR MATERIAL: Glass-filled, flame resistant Diallyl Phthalate per MIL-M-14F, Type SDG-F. Also 20,38,56 and 90 pin available in U.L. Approved Polycarbonate

DIELECTRIC WITHSTANDING VOLTAGE:
2000†/1800 volts RMS at sea level
750†/675 volts RMS at 3.4" (86.4 mm) High

WITHDRAWAL FORCE:
2-16oz. (.56 to 4.45N) per contact pair

INSULATION RESISTANCE
25,000 Megohms at 500 V.D.C.

COVERS

Green, Polycarbonate Cover and Cable Clamp
or
Metal With Universal-Top or Side Clamp

FEATURES

Cable to panel and cable to cable applications

Five standard sizes available: 20, 38, 56, 90 and 120 positions

Insertable/removable EDACON contacts

Tapered solder eyelet, Wire Wrap* and crimp style terminations. (See ordering code for styles and dimensions)

All contacts recessed for maximum protection against mishandling

All contacts will fit both plug and receptacle

Each EDACON contact will withstand an axial load of 31 lbs. after initial insertion into the insulator. The crimp barrel will accommodate wire sizes from AWG No. 18 to No. 30. (For complete crimp characteristics, please refer to chart)

All the equipment necessary to crimp contacts is available from stock. Semi-automatic crimping machines, for production applications, as well as the hand operated crimping pliers, are designed to realize the full electrical and mechanical advantages of the crimp contact. For complete details on this equipment, please refer to pages on Tools

Actuating screw eases mating and unmating of connectors, and secures mated connectors together

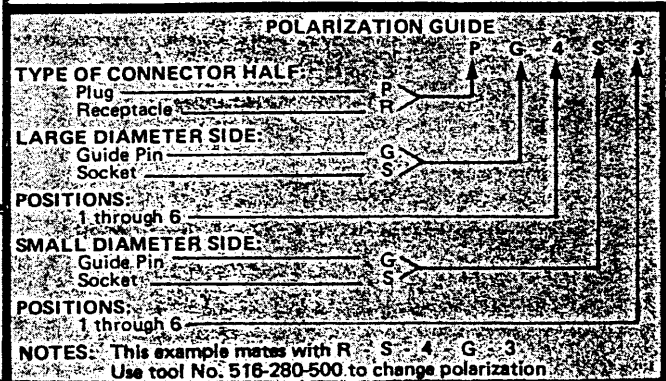
All hardware can be mounted to plug or receptacle

Polarizing hardware permits 288 polarizing combinations per contact pair and can be easily reset by user

Guide pins and sockets ensure perfect alignment of mating pairs

New, Polycarbonate covers with top or side entry clamp, or Zinc covers with universal top or side clamp are available

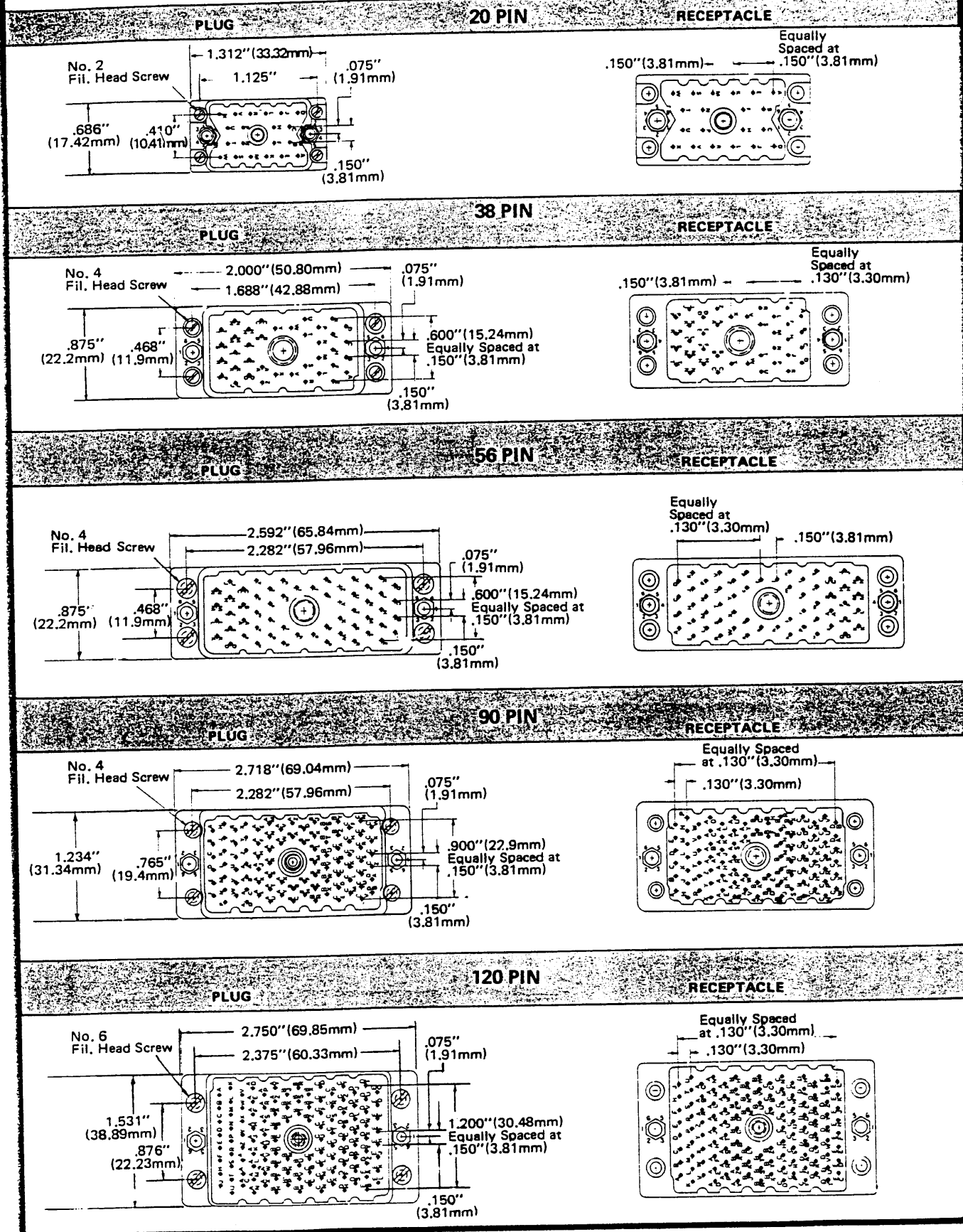
* Wire-Wrap is a registered Trade-Mark of Gardner-Denver Co.



EDAC INC.

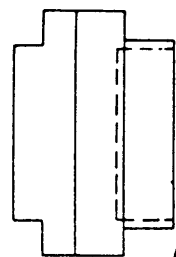
SERIES 516 RACK AND PANEL CONNECTORS

516 SERIES RACK AND PANEL PIN-OUT PATTERNS

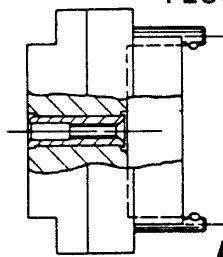


SERIES 516 RACK AND PANEL CONNECTORS

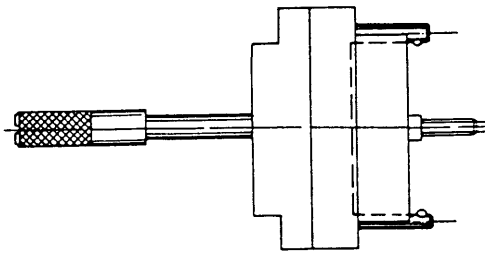
PLUG



NO HARDWARE

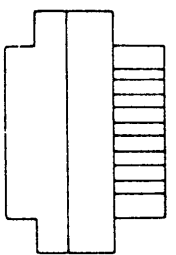


WITH LOCKING NUT

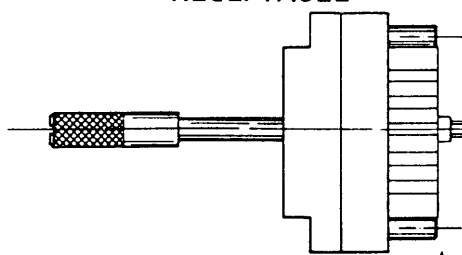


WITH ACTUATING SCREW

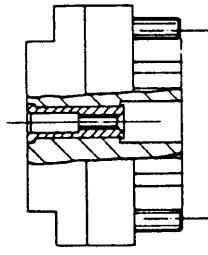
RECEPTACLE



NO HARDWARE

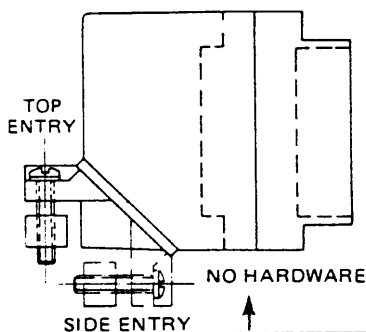


WITH ACTUATING SCREW

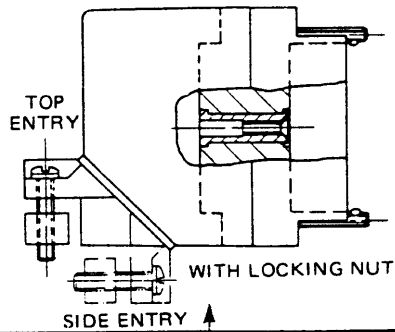


WITH LOCKING NUT

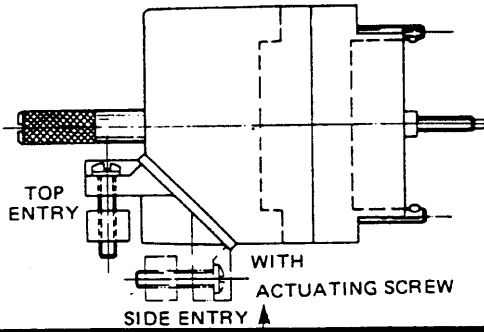
PLUG WITH COVER



NO HARDWARE

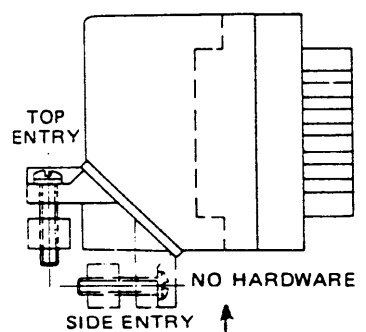


WITH LOCKING NUT

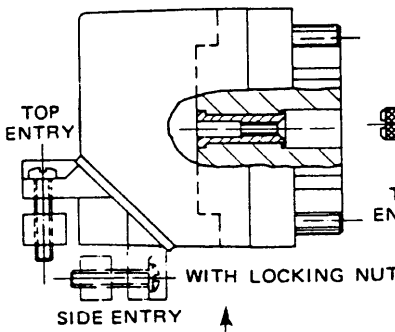


WITH ACTUATING SCREW

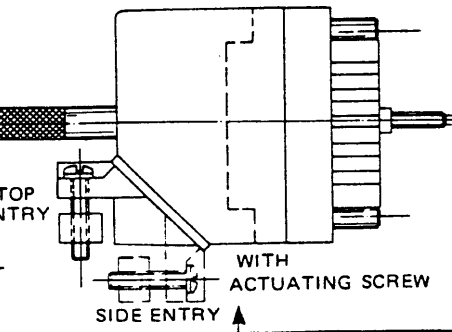
RECEPTACLE WITH COVER



NO HARDWARE



WITH LOCKING NUT



WITH ACTUATING SCREW

EDAC INC.

SERIES 516 RACK AND PANEL CONNECTORS

ORDERING CODE 516 056 540 102

SERIES

NUMBER OF CONTACTS (20, 38, 56, 90, 120)

CONTACT CODE

NOTE: Contacts may be either factory installed or supplied loose for installation by customer. For factory installed contacts, use corresponding three digit Code No. For loose contacts, use Code No. 000 and order contacts separately by Part Number shown below. (Crimp type contacts must be ordered separately.)

CODE	PART NUMBER	DESCRIPTION
* 500	516-290-500	SOLDER EYELET .098" (2.49mm)
520	516-290-520	P.C. TAB .024" x .025" x .170" (.610 x .635 x 4.32mm)
* 540	516-290-540	WIRE WRAP .024" x .050" x .567" (.61 x 1.27 x 14.40mm)
* 541	516-290-541	WIRE WRAP .024" x .026" x .580" (.61 x .66 x 14.73mm)
* 542	516-290-542	WIRE WRAP .024" x .050" x .760" (.61 x 1.27 x 19.30mm)
590	516-290-590	CRIMP (Loose)
591	516-290-591	CRIMP (1800 per Reel)

*Insulation on contact termination is recommended because of protrusion from top of insulator. Also note that whether or not a cover can be used depends on wire size, insulation thickness, number of contacts, etc.

VARIATION CODE

D.A.P. CODE	STYLE	DESCRIPTION	POLYCARBONATE CODE
101	PLUG	ACTUATING SCREW	301
102		LOCKING NUT	302
100		NO HARDWARE	300
202	RECEPTACLE	LOCKING NUT	402
201		ACTUATING SCREW	401
200		NO HARDWARE	400

POLYCARBONATE AVAILABLE IN 20, 38, 56 and 90 PIN ONLY.

VARIATION CODE D.A.P. (WITH COVERS)

CODE	STYLE	DESCRIPTION	CODE
STANDARD CLAMP			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	130
120		NO HARDWARE, SIDE ENTRY	140
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

CRIMP CHARACTERISTICS

TENSILE STRENGTH

WIRE SIZE (AWG)	No. 18	No. 20	No. 22	No. 24
SOLID WIRE	41 lbs. 18.6Kg	23 lbs. 10.4Kg	16.5lbs. 7.49Kg	11.5lbs. 5.22Kg
STRANDED WIRE	42 lbs. 19.0Kg	24 lbs. 10.9Kg	17 lbs. 7.72Kg	12 lbs. 5.45Kg
WIRE SIZE (AWG)	No. 26	No. 28	No. 30	
SOLID WIRE	7.5 lbs. 3.40Kg	2.5 lbs. 1.14Kg	2 lbs. .908Kg	
STRANDED WIRE	8 lbs. 3.63Kg	3 lbs. 1.36Kg	2.5lbs. 1.134Kg	

CRIMP RESISTANCE (IN MILLIOHMS)

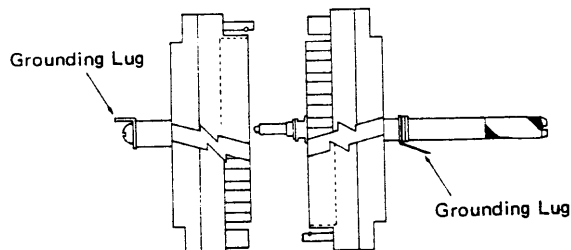
WIRE SIZE (AWG)	No. 18	No.20	No.22	No.24	No.26	No.28	No.30
AVERAGE	.47	.50	.58	.73	.98	1.22	1.64
MAXIMUM	.52	.54	.68	.78	1.15	1.135	1.88

WIRE SIZES(AWG)		INSULATOR	
SINGLE WIRE	CONDUCTOR DIAMETER (MINIMUM)	DIAMETER (MAXIMUM OVERALL)	
No. 18	.058"	.147mm	.071"
No. 20	.038"	.097mm	.062"
No. 22	.031"	.079mm	.056"
No. 24	.023"	.059mm	.049"
No. 26	.021"	.053mm	.039"
No. 28	.015"	.038mm	.037"
No. 30 (stranded)	.013"	.033mm	.038"
No. 30 (solid)	.010"	.025mm	.019"

VARIATION CODE POLYCARBONATE (WITH COVERS)

WHEN USING THE VARIATION CODE (WITH COVERS) FOR ORDERING POLYCARBONATE INSULATORS, CHANGE THE FIRST DIGIT FROM 1 TO 3 FOR PLUGS, AND 2 TO 4 FOR RECEPTACLES.

GROUNDING FEATURE



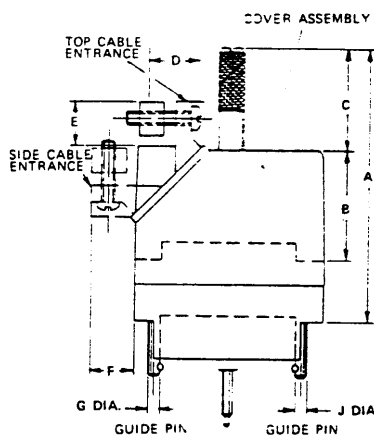
For 20 pin insulator, soldering lug is rotated 90° on actuating screw. Plug or Receptacle

VARIATION CODE WITH GROUNDING FEATURE

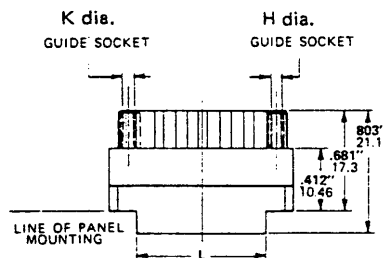
WHEN ORDERING INSULATORS WITH GROUNDING FEATURE (D.A.P. OR POLYCARBONATE) CHANGE THIRD DIGIT FROM 1 TO 3 FOR ACTUATING SCREWS AND 2 TO 4 FOR LOCKNUTS

NOTES: 90 and 120 pin connectors not available in 100 and 200 variation. Covers for 20 pin connectors may not be used with *Wire-Wrap contacts. Large clamp covers are available for 38 and 56 pin connectors only.

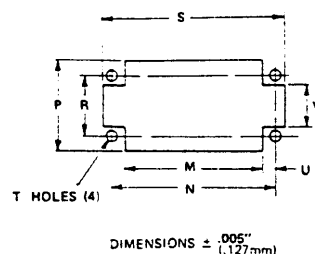
SERIES 516 RACK AND PANEL CONNECTORS



RECEPTACLE



MOUNTING PATTERN

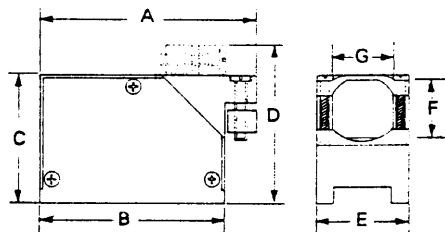


DIMENSIONS CHART FOR PLASTIC COVERS

Connector Size	A		B		C		D		E		F		G		H		J	
	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm
20 PIN	1.875	47.6	.750	19.1	.713	18.1	.454 DIA.	11.5 DIA.	.343	8.71	.343	8.71	.090	2.28	.100	2.54	.076	1.93
38 PIN	2.312	58.7	1.375	34.9	.525	13.3	.650x.500	16.5x12.7	.453	11.5	.453	11.5	.110	2.79	.120	3.04	.090	2.28
*38 PIN							.650x.608	16.5x15.4										
56 PIN	2.312	58.7	1.375	34.9	.525	13.3	.650x.500	16.5x12.7	.453	11.5	.453	11.5	.110	2.79	.120	3.04	.090	2.28
*56 PIN							.650x.608	16.5x15.4										
90 PIN	3.168	80.5	1.625	41.3	1.131	28.7	.800 DIA.	20.3 DIA.	.406	10.3	.406	10.3	.140	3.55	.150	3.81	.120	3.04
120 PIN	3.168	80.5	1.875	47.6	.881	22.4	1.080x.800	27.4x20.3	.453	11.5	.453	11.5	.140	3.55	.150	3.81	.120	3.04

Connector Size	K		L		M		N		P		R		S		T Dia.		U		V	
	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm
20 PIN	.086	2.18	.920	23.4	.960	24.4	1.126	28.6	.640	16.3	.410	10.4	1.275	32.4	.096	2.44	.084	2.13	.275	6.99
38 PIN	.100	2.54	1.380	35.1	1.420	36.1	1.688	42.9	.780	19.8	.468	11.9	1.940	49.2	.136	3.45	.134	3.40	.250	6.35
56 PIN	.100	2.54	1.900	48.3	1.940	49.3	2.282	57.9	.780	19.8	.468	11.9	2.530	64.2	.136	3.45	.171	4.34	.250	6.35
90 PIN	.130	3.30	2.010	51.1	2.050	52.1	2.282	57.9	1.125	28.6	.765	19.4	2.670	67.8	.136	3.45	.116	2.95	.312	7.92
120 PIN	.130	3.30	2.010	51.1	2.050	52.1	2.375	60.2	1.420	36.1	.875	22.2	2.687	68.2	.149	3.78	.162	4.11	.312	7.92

DIMENSIONS CHART FOR METAL COVERS



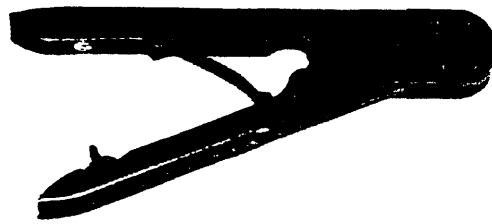
Connector Size	A		B		C		D		E		F		G	
	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm
20 PIN	1.539	39.09	1.325	33.66	.906	23.01	1.120	28.45	.686	12.42	.446	11.33	.490	12.45
38 PIN	2.206	56.03	2.006	50.95	1.566	39.78	1.766	44.86	.875	22.23	.720	18.29	.575	14.61
56 PIN	2.802	71.17	2.602	66.09	1.566	39.78	1.766	44.86	.875	22.23	.720	18.29	.575	14.61
90 PIN	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	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

ORDERING CODE FOR COVERS ONLY

TYPE	SIZE	WITH STANDARD CLAMP		WITH LARGE CLAMP	
		SIDE	TOP	SIDE	TOP
Plastic	20 PIN	516-230-120	516-230-220	Not Available	Not Available
Metal		516-230-520		516-230-520	
Plastic	38 PIN	516-230-138	516-230-238	516-230-338	516-230-438
Metal		516-230-538		516-230-538	
Plastic	56 PIN	516-230-156	516-230-256	516-230-356	516-230-456
Metal		516-230-556		516-230-556	
Plastic	90 PIN	516-230-190	516-230-290	Not Available	Not Available
Metal		516-230-590		516-230-590	
Plastic	120 PIN	516-230-112	516-230-212	Not Available	Not Available
Metal		516-230-512		516-230-512	

EDAC INC.

TOOLS



HAND OPERATED CRIMPING TOOL

A precision engineered tool for hand crimping contacts. It is designed to give fast, trouble-free operation. This tool has a built-in ratchet, to prevent under-crimping.

516-280-200 for Rack and Panel - 516 & 519 Series



CONTACT EJECTION TOOL

This tool will locate accurately on the contact tails to give convenient ejection of contacts without damage to the insulator.

516-280-200 for SERIES 333, 337, 342, 345, 346, 387, 392, 395, 396

018 Square, 025 Square, 018, 030 Contact tails



CONTACT EJECTION TOOL

This tool releases the contacts from the insulator. It will provide quick, easy, positive ejection of the contact without damage to the insulator.

516-280-300 for Rack and Panel - 516 & 519 Series



CONTACT INSERTION TOOL

This tool is recommended for the insertion of crimp contacts into the insulator. The wire groove locates the tool onto the back of the crimp form for a positive non-slip action.

516-280-400 for Rack and Panel - 516 & 519 Series



POLARIZING HARDWARE WRENCH

This tool will simplify the procedure for the user when changing the orientation of polarizing pins and sockets.

516-280-500 for Rack and Panel - 516 & 519 Series



CONTACT INSERTION TOOL

This tool was especially designed for wire wrap tail contact insertion. The tubular shroud positively covers the slender tail and gives all-round support when applying insertion pressure. It is designed to eliminate distortion and bending.

516-280-600 for Rack and Panel - 516 & 519 Series