

Series 8016 – .075" x .130" x .150" Grid Pattern

FEATURES

- Available in five sizes: 20, 38, 56, 90 and 120 contacts
- Insertable / removable Varilok contacts
- Crimp, solder, solderless wrap, and taper tab terminations
- Exceptional versatility: all hardware can be mounted on plug or receptacle (see ordering code)
- Actuating screw facilitates mating and unmating, locks mated connectors together
- Polarizing hardware can be set to any of six positions at factory; can also be reset by user (see polarizing code)
- Optional cover with top or side cable entry and clamp
- Optional cable strain relief clamp with adjustable strap for large or small cable bundles (fits on sizes 38 and 56)
- Plug and receptacle contacts are protected from mishandling
- Guide pins and sockets ensure correct alignment when mating
- Aluminum covers
- CSA acceptable polyester material



TECHNICAL SPECIFICATIONS

Current Rating:

8 amperes, maximum

Contact Resistance:

6 milliohms, maximum

Contact Material:

Phosphor bronze

Contact Plating:

Gold, 10 microinches min.,
over Nickel,
50-100 microinches

Insulator Material:

Thermoplastic 94V-O glass
filled polyester

Insulation Resistance:

5,000 megohms, min.
(polyester)

Sea Level: 1250 volts RMS

3.4" Hg: 625 volts RMS

Cover and Clamp Material and Finish:

Aluminum with clear chromate under grey
enamel finish

Series 8016 – Basic Components

CONNECTORS:

Male



(Exposed Contacts)

Female



(Recessed Contacts)

Male, Jackscrew



001/601 Style

Male, Fixed Nut



002/602 Style

Female, Fixed Nut



007/607 Style

Female, Jackscrew



008/608 Style

COVERS:

Top Opening



Side Opening



Top/side Opening
(Removable Side Plate)



CONTACTS:

Crimp



Solder Tab



217 Style

Wire Wrap
14.4mm



218 Style

Wire Wrap
19.3mm



750 Style

Wire Wrap
.567



296 Style

Solder



504 Style

PLUG
Actuating Screw

PLUG
Fixed Nut

SOCKET
Actuating Screw

SOCKET
Fixed Nut

PIN LAYOUT
20 Way

The figure contains five technical drawings. The first four are side and top views of different connector components with dimensions in inches. The fifth is a top view of a 20-pin layout with pin numbers 1 through 20 arranged in two columns.

PLUG Actuating Screw: Side view showing a total height of 47.63. The base has a width of 33.32 and a height of 17.42. The actuating screw is threaded 2-56 UNC - 2A.

PLUG Fixed Nut: Side view showing a total height of 10.16. The base has a width of 33.32 and a height of 17.42. The fixed nut is threaded 2-56 UNC - 2B. Guide pins are shown with dimensions 6.91, 2.29, and 1.93.

SOCKET Actuating Screw: Side view showing a total height of 65.09. The base has a width of 33.32 and a height of 17.42. The actuating screw is threaded 2-56 UNC - 2A. Guide pins are shown with dimensions 6.83, 2.18, and 1.93.

SOCKET Fixed Nut: Side view showing a total height of 10.16. The base has a width of 33.32 and a height of 17.42. The fixed nut is threaded 2-56 UNC - 2B. Guide pins are shown with dimensions 6.83, 2.18, and 1.93.

PIN LAYOUT 20 Way: Top view showing the arrangement of 20 pins. The pins are numbered 1 through 20 in two columns. The overall width is 33.32 and the overall height is 17.42. The pin pitch is 0.100 inches.

00	8016	020	217	601
└	└	└	└	└
Prefix	Series Number	Number of Contacts		See table below

217 = Solder 0.098" x 2.49mm

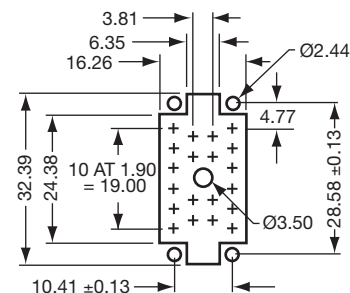
218 = Wire Wrap –
0.025 x 0.050 x 0.567" / 0.64 x 1.27 x 14.4mm

296 = Wire Wrap –
0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

504 = Solder Tail –

750 = Wire Wrap –
0.025 x 0.050 x 0.760" / 0.64 x 1.27 x 19.3mm

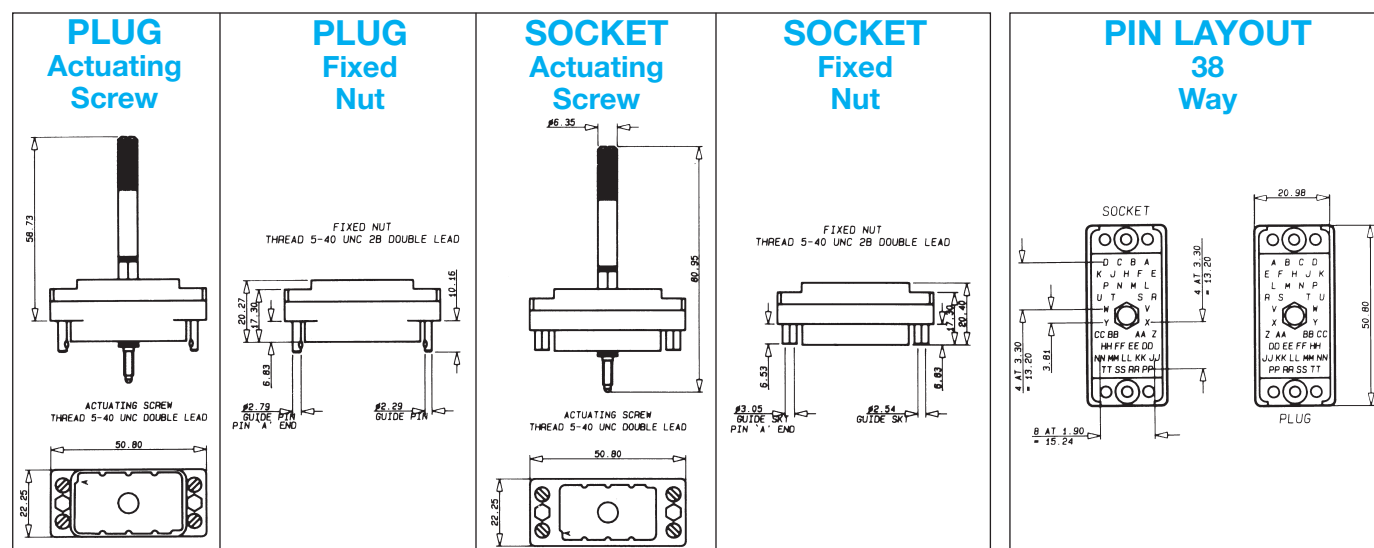
RECOMMENDED LAYOUT FOR FRONT CHASSIS MOUNTING & PCB LAYOUT



20 CONTACTS					COVER			
Insulator Body Type	Basic P/N*	Color	Hardware **Thread	No Cover	Top Std Clamp	Side Std Clamp	Actuating Screw	Fixed Nut
Male	00 8016 020 000 XXX	Green	UNC	601	603	604	Y	N
Male	00 8016 020 000 XXX	Green	UNC	602	605	606	N	Y
Male	00 8016 020 000 XXX	Gray	UNC	001	903	904	Y	N
Male	00 8016 020 000 XXX	Gray	UNC	002	905	906	N	Y
Female	00 8016 020 000 XXX	Green	UNC	608	609	610	Y	N
Female	00 8016 020 000 XXX	Green	UNC	607	611	612	N	Y
Female	00 8016 020 000 XXX	Gray	UNC	008	909	910	Y	N
Female	00 8016 020 000 XXX	Gray	UNC	007	911	912	N	Y

**United Course Thread

Series 8016 – Rectangular Connector – 38 Contact



ORDERING CODE

00 Prefix
8016 Series Number
038 Number of Contacts
217 See table below
601 See table below

Contact Termination

*000 = Contacts not fitted and ordered separately, see page 25 for full list of options

217 = Solder 0.098" x 2.49mm

218 = Wire Wrap – 0.025 x 0.050 x 0.567" / 0.64 x 1.27 x 14.4mm

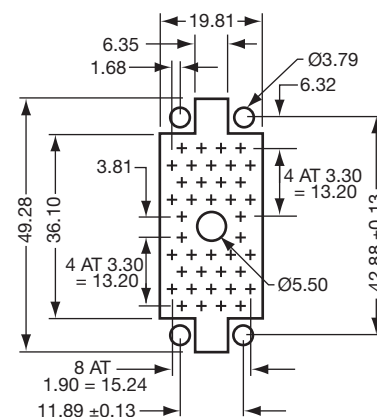
296 = Wire Wrap – 0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

504 = Solder Tail –

750 = Wire Wrap – 0.025 x 0.050 x 0.760" / 0.64 x 1.27 x 19.3mm

*Crimp contacts always ordered separately. See page 25 for details.

RECOMMENDED LAYOUT FOR FRONT CHASSIS MOUNTING & PCB LAYOUT



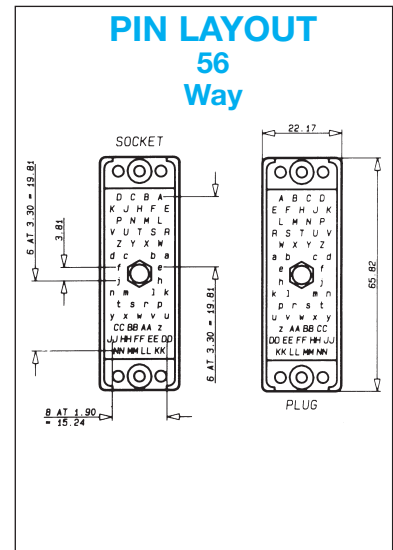
See page 26 for assembly tools.

38 CONTACTS					COVER							
Insulator Body Type	Basic P/N*	Color	Hardware **Thread	No Cover	Top Std Clamp	Side Std Clamp	Top Lge Clamp	Side Lge Clamp	Top EX Lge Clamp	Side EX Lge Clamp	Actuating Screw	Fixed Nut
Male	00 8016 038 000 XXX	Green	UNC	601	603	604	619	620	631	632	Y	N
Male	00 8016 038 000 XXX	Green	UNC	602	605	606	621	622	633	634	N	Y
Male	00 8016 038 000 XXX	Gray	UNC	001	903	904	919	920	931	932	Y	N
Male	00 8016 038 000 XXX	Gray	UNC	002	905	906	921	922	933	934	N	Y
Female	00 8016 038 000 XXX	Green	UNC	608	609	610	623	624	635	636	Y	N
Female	00 8016 038 000 XXX	Green	UNC	607	611	612	625	626	637	638	N	Y
Female	00 8016 038 000 XXX	Gray	UNC	008	909	910	923	924	935	936	Y	N
Female	00 8016 038 000 XXX	Gray	UNC	007	911	912	925	926	937	938	N	Y

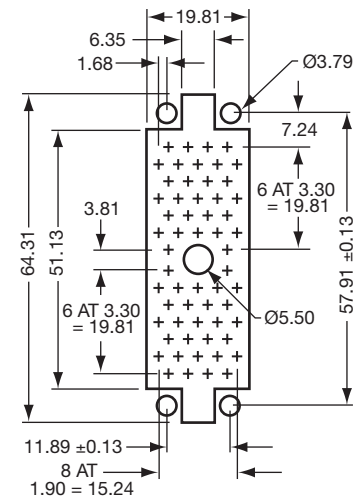
*Select the column desired and replace the XXX with the numbers from column.

**United Course Thread

SOCKET - ACTUATING SCREW

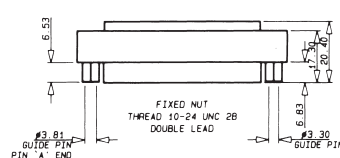
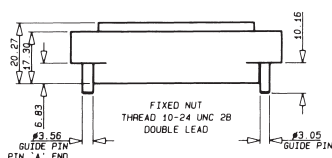


00	8016	056	217	601
└	└	└	└	└
Prefix	Series Number	Number of Contacts		See table below



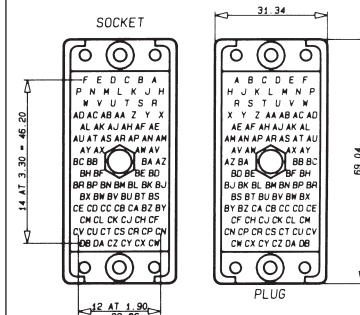
56 CONTACTS						
Insulator Body Type	Basic P/N*	Color	Hardware **Thread	No Cover	Actuating Screw	Fixed Nut
Male	00 8016 056 000 XXX	Green	UNC	601	Y	N
Male	00 8016 056 000 XXX	Green	UNC	602	N	Y
Male	00 8016 056 000 XXX	Gray	UNC	001	Y	N
Male	00 8016 056 000 XXX	Gray	UNC	002	N	Y
Female	00 8016 056 000 XXX	Green	UNC	608	Y	N
Female	00 8016 056 000 XXX	Green	UNC	607	N	Y
Female	00 8016 056 000 XXX	Gray	UNC	008	Y	N
Female	00 8016 056 000 XXX	Gray	UNC	007	N	Y

SOCKET - Actuating Screw



PIN LAYOUT

90 Way



00	8016	090	217	601
└	└	└	└	└
Prefix	Series Number	Number of Contacts		See table below

*000 = Contacts not fitted and ordered separately,
see page 25 for full list of options

217 = Solder 0.098" x 2.49mm

218 = Wire Wrap – 0.025 x 0.050 x 0.567" / 0.64 x 1.27 x 14.4mm

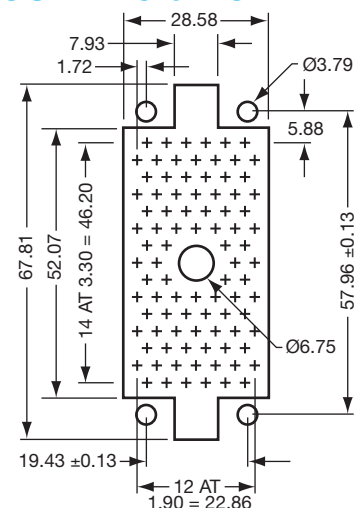
296 = Wire Wrap –  0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

504 = Solder Tail – 

750 = Wire Wrap – 
0.025 x 0.050 x 0.760" / 0.64 x 1.27 x 19.3mm

*Crimp contacts always ordered separately.
See page 25 for details.

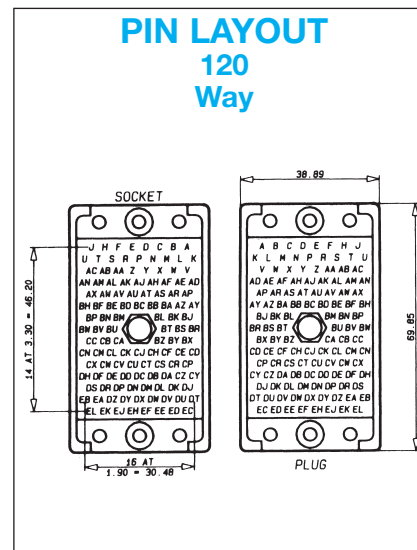
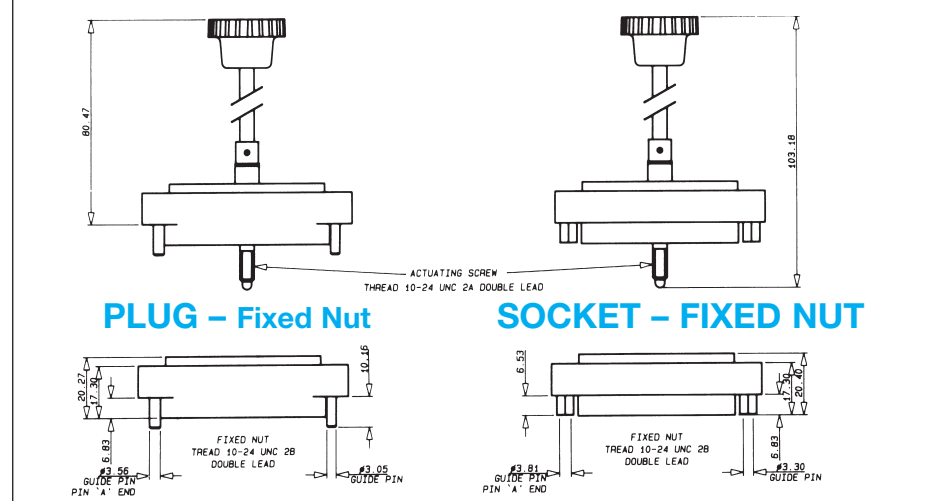
RECOMMENDED LAYOUT FOR FRONT CHASSIS MOUNTING & PCB LAYOUT



See page 26 for assembly tools.

*Select the column desired and replace the XXX with the numbers from column.
 **United Course Thread

PLUG - ACTUATING SCREW SOCKET - ACTUATING SCREW



00	8016	120	217	601
└	└	└	└	└
Prefix	Series Number	Number of Contacts		See table below

*000 = Contacts not fitted and ordered separately,
see page 25 for full list of options

217 = Solder 0.098" x 2.49mm 

218 = Wire Wrap –  0.025 x 0.050 x 0.567" / 0.64 x 1.27 x 14.4mm

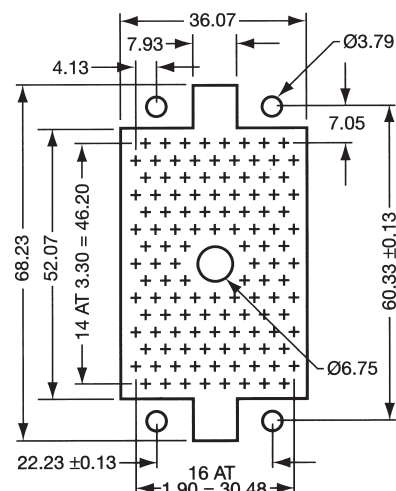
296 = Wire Wrap –  0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

504 = Solder Tail –

750 = Wire Wrap – 
0.025 x 0.050 x 0.760" / 0.64 x 1.27 x 19.3mm

*Crimp contacts always ordered separately.
See page 25 for details.

RECOMMENDED LAYOUT FOR FRONT CHASSIS MOUNTING & PCB LAYOUT



See page 26 for assembly tools.

120 CONTACTS					COVER			
Insulator Body Type	Basic P/N*	Color	Hardware **Thread	No Cover	Top Lge Clamp	Side Lge Clamp	Actuating Screw	Fixed Nut
Male	00 8016 120 000 XXX	Green	UNC	601	603	604	Y	N
Male	00 8016 120 000 XXX	Green	UNC	602	605	606	N	Y
Male	00 8016 120 000 XXX	Gray	UNC	001	N/A	N/A	Y	N
Male	00 8016 120 000 XXX	Gray	UNC	002	N/A	N/A	N	Y
Female	00 8016 120 000 XXX	Green	UNC	608	609	610	Y	N
Female	00 8016 120 000 XXX	Green	UNC	607	611	612	N	Y
Female	00 8016 120 000 XXX	Gray	UNC	008	N/A	N/A	Y	N
Female	00 8016 120 000 XXX	Gray	UNC	007	N/A	N/A	N	Y

**United Course Thread

Series 8016 Covers

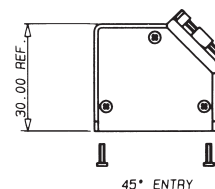
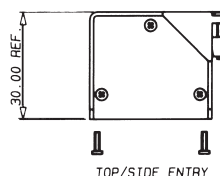
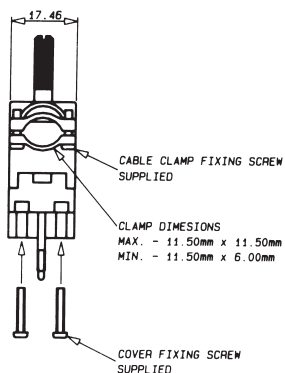
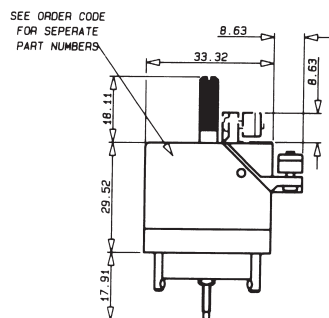
Part Number	For Size	Hardware Threads	Cable Entrance	Clamp Type	Size mm (inches)
30 8016 9829 00 000	20	Metric	Side	Standard	11.53 (0.454) Dia
30 8016 9831 00 000	20	Metric	Top	Standard	11.53 (0.454) Dia
30 8016 0200 00 415	20	UNC	45	Standard	5 x 10 (0.197 x 0.394) min
30 8016 9821 00 000	38	Metric	Side	Standard	16.51 x 12.70 (0.650 x 0.500)
30 8016 9822 00 000	38	Metric	Top	Standard	16.51 x 12.70 (0.650 x 0.500)
30 8016 9825 00 000	38	Metric	Side	Large	16.51 x 15.44 (0.650 x 0.608)
30 8016 9826 00 000	38	Metric	Top	Large	16.51 x 15.44 (0.650 x 0.608)
30 8016 9838 00 000	38	Metric	Side	Ex-Large	20.83 x 15.60 (0.820 x 0.614)
30 8016 9839 00 000	38	Metric	Top	Ex-Large	20.83 x 15.60 (0.820 x 0.614)
30 8016 0560 00 413	56	UNC	Top/Side	Standard	6 x 14 (0.236 x 0.551) min
30 8016 9832 00 000	90	Metric	Side	Large	20.32 (0.800) Dia
30 8016 9833 00 000	90	Metric	Top	Large	20.32 (0.800) Dia
30 8016 9843 00 000	90	Metric	Side	Ex-Large	25.40 x 20.32 (1.00 x 0.800)
30 8016 9844 00 000	90	Metric	Top	Ex-Large	25.40 x 20.32 (1.00 x 0.800)
30 8016 9834 00 000	120	Metric	Side	Large	20.32 x 27.43 (0.800 x 1.080)
30 8016 9835 00 000	120	Metric	Top	Large	20.32 x 27.43 (0.800 x 1.080)

Series 8016 Covers

CLAMPING AND COVER DIMENSIONS

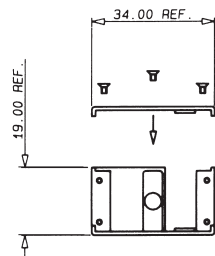
OPTIONAL REMOVABLE SIDE PLATE COVER

20 CONTACTS

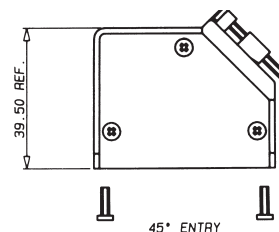
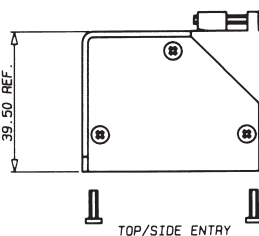
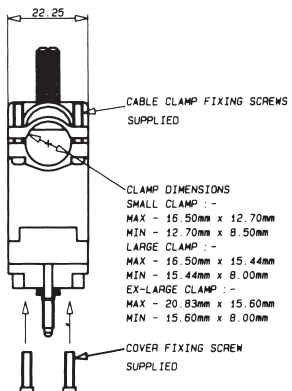
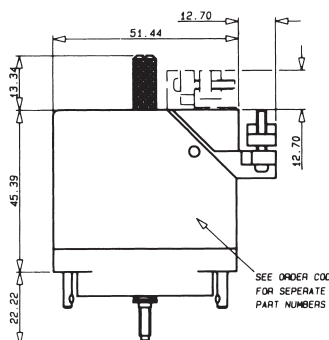


Part Number	Opening
308016020000413	Side/Top
308016020000415	45°

CLAMP	
Minimum Size	Maximum Size
5 x 10 (0.197 x 0.394)	10 x 10 (0.394 x 0.394)
5 x 10 (0.197 x 0.394)	10 x 10 (0.394 x 0.394)

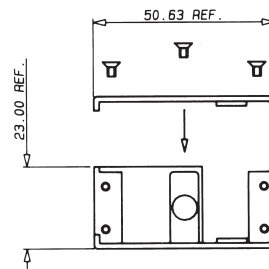


38 CONTACTS

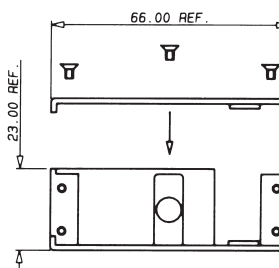
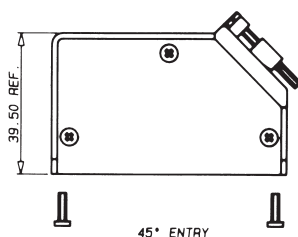


Part Number	Opening
308016038000413	Side/Top
308016038000415	45°

CLAMP	
Minimum Size	Maximum Size
6 x 14 (0.236 x 0.551)	17 x 14 (0.669 x 0.551)
6 x 14 (0.236 x 0.551)	17 x 14 (0.669 x 0.551)



56 CONTACTS

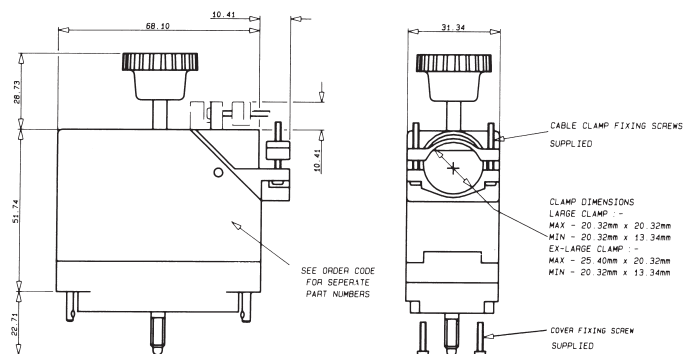


Part Number	Opening
308016056000413	Side/Top

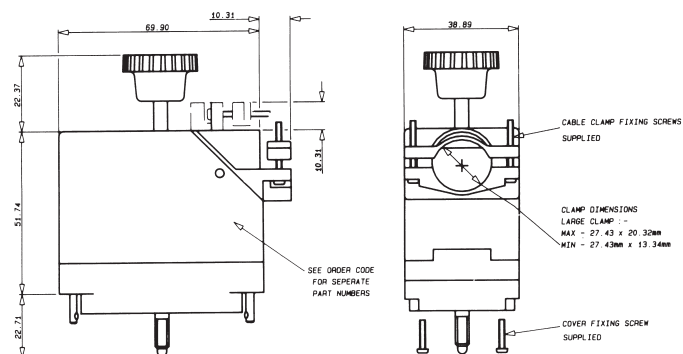
CLAMP	
Minimum Size	Maximum Size
6 x 14 (0.236 x 0.551)	17 x 14 (0.669 x 0.551)
6 x 14 (0.236 x 0.551)	17 x 14 (0.669 x 0.551)

CLAMPING AND COVER DIMENSIONS

90 CONTACTS



120 CONTACTS



See page 21 for part numbers