

## 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**



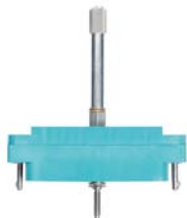
(Exposed Contacts)

**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



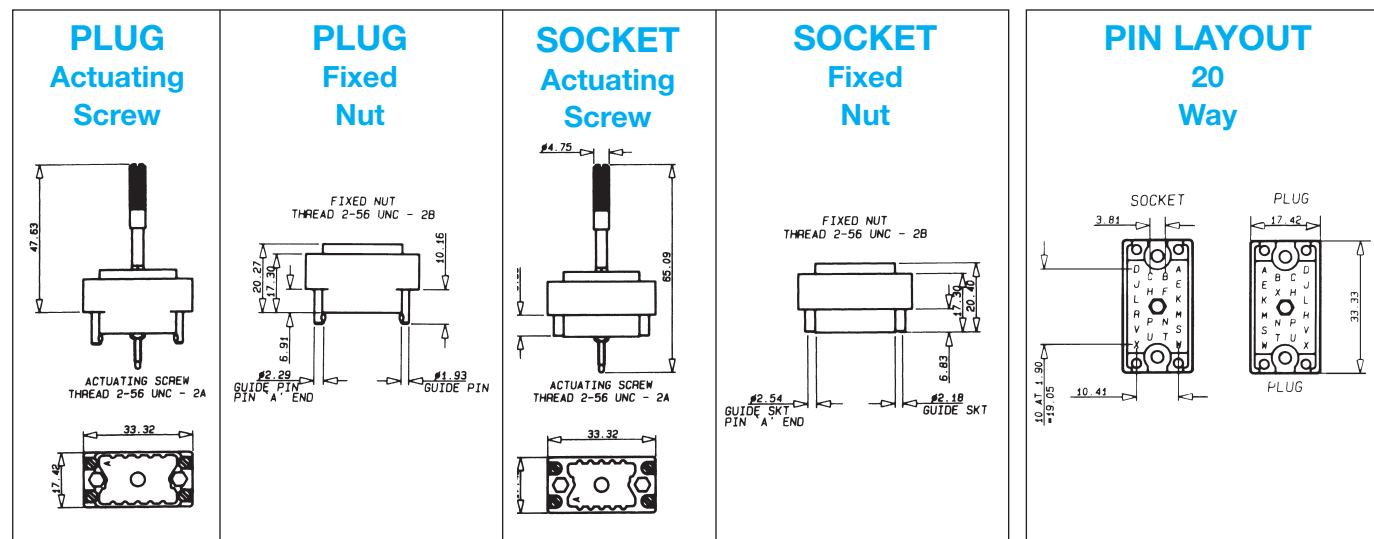
296 Style

**Solder**



504 Style

## Series 8016 – Rectangular Connector – 20 Contact



### ORDERING CODE

**00** Prefix  
**8016** Series Number  
**020** Number of Contacts  
**217**  
**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

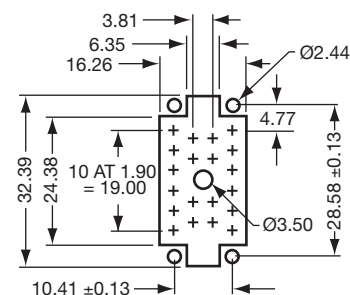
296 = Wire Wrap –   
0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

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



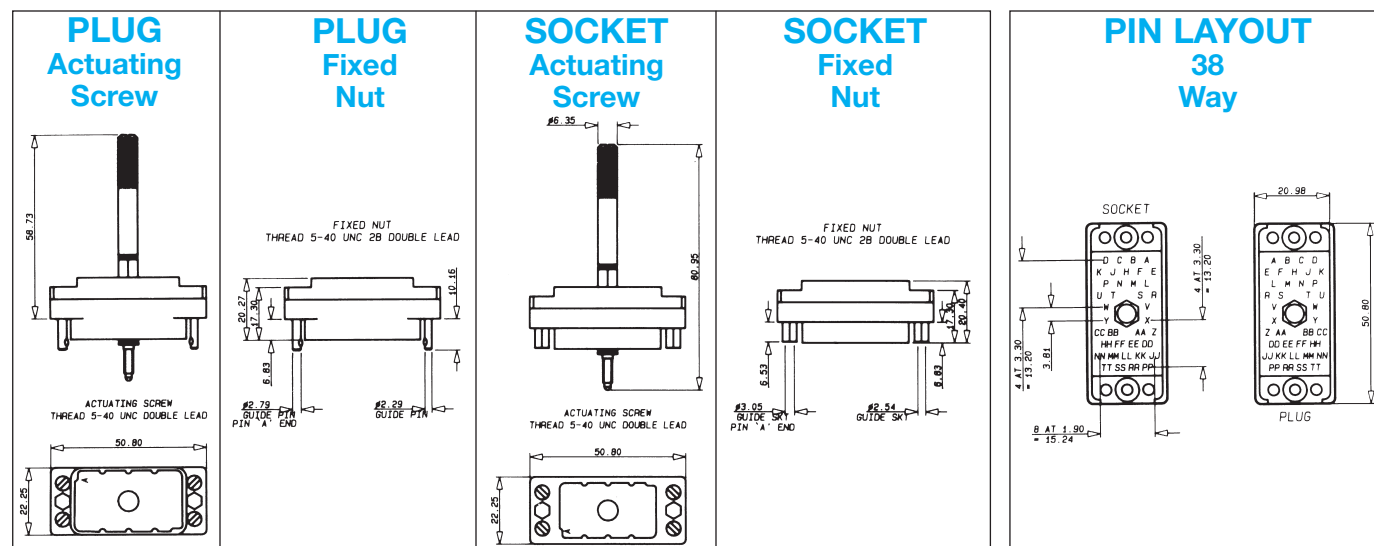
See page 26 for assembly tools.

| 20 CONTACTS         |                     |       |                   |          | COVER         |                | Actuating Screw | Fixed Nut |
|---------------------|---------------------|-------|-------------------|----------|---------------|----------------|-----------------|-----------|
| Insulator Body Type | Basic P/N*          | Color | Hardware **Thread | No Cover | Top Std Clamp | Side Std Clamp |                 |           |
| 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         |

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

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## 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

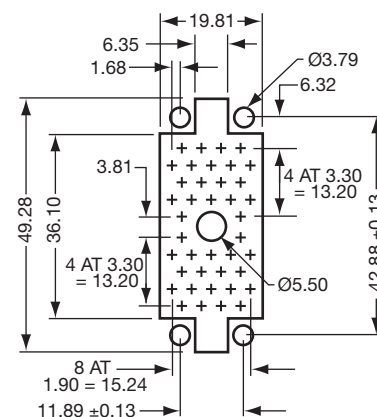
296 = Wire Wrap – 0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

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



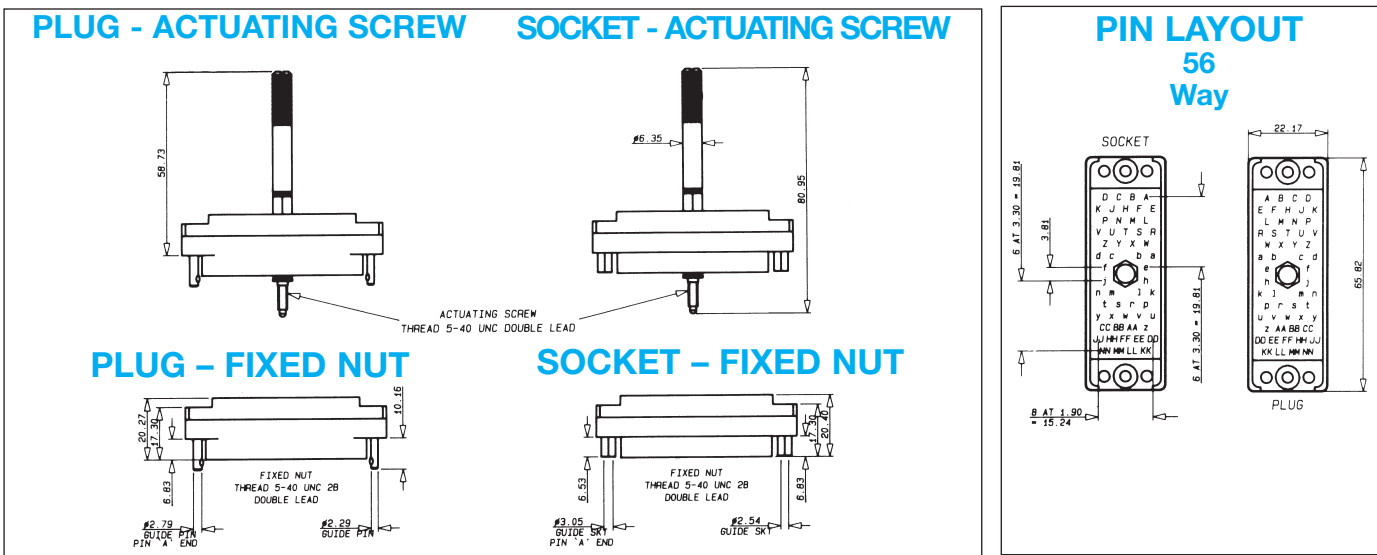
See page 26 for assembly tools.

| 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.

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## Series 8016 – Rectangular Connector – 56 Contact



### ORDERING CODE

**00** Prefix  
**8016** Series Number  
**056** 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

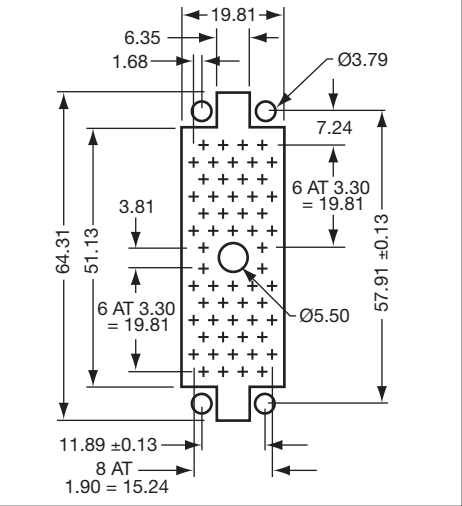
296 = Wire Wrap –   
0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

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



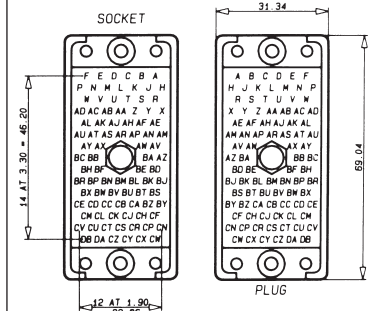
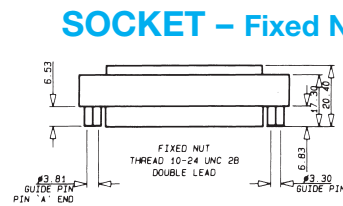
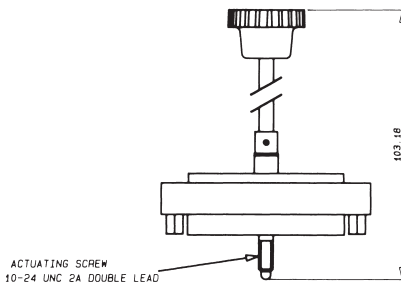
See page 26 for assembly tools.

| 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         |

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

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## PIN LAYOUT



|        |               |                    |     |                 |
|--------|---------------|--------------------|-----|-----------------|
| 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

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

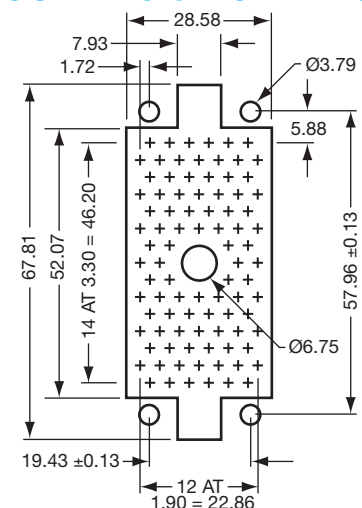
296 = Wire Wrap –  0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

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.

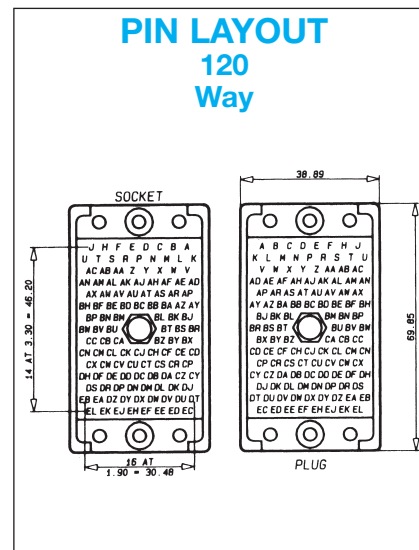
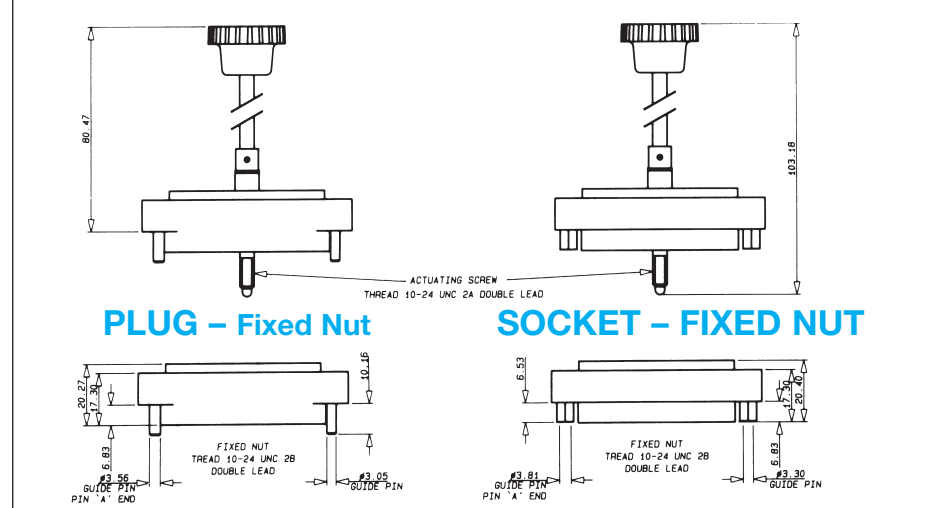
## RECOMMENDED LAYOUT FOR FRONT CHASSIS MOUNTING & PCB LAYOUT



| 90 CONTACTS               |                     |       |                      |          | COVER            |                   |                        |                         |                    |              |
|---------------------------|---------------------|-------|----------------------|----------|------------------|-------------------|------------------------|-------------------------|--------------------|--------------|
| Insulator<br>Body<br>Type | Basic P/N*          | Color | Hardware<br>**Thread | No Cover | Top Lge<br>Clamp | Side Lge<br>Clamp | Top<br>EX Lge<br>Clamp | Side<br>EX Lge<br>Clamp | Actuating<br>Screw | Fixed<br>Nut |
| Male                      | 00 8016 090 000 XXX | Green | UNC                  | 601      | 603              | 604               | 631                    | 632                     | Y                  | N            |
| Male                      | 00 8016 090 000 XXX | Green | UNC                  | 602      | 605              | 606               | 633                    | 634                     | N                  | Y            |
| Male                      | 00 8016 090 000 XXX | Gray  | UNC                  | 001      | 903              | 904               | 931                    | 932                     | Y                  | N            |
| Male                      | 00 8016 090 000 XXX | Gray  | UNC                  | 002      | 905              | 906               | 933                    | 934                     | N                  | Y            |
| Female                    | 00 8016 090 000 XXX | Green | UNC                  | 608      | 609              | 610               | 635                    | 636                     | Y                  | N            |
| Female                    | 00 8016 090 000 XXX | Green | UNC                  | 607      | 611              | 612               | 637                    | 638                     | N                  | Y            |
| Female                    | 00 8016 090 000 XXX | Gray  | UNC                  | 008      | 909              | 910               | 935                    | 936                     | Y                  | N            |
| Female                    | 00 8016 090 000 XXX | Gray  | UNC                  | 007      | 911              | 912               | 937                    | 938                     | N                  | Y            |

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## 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

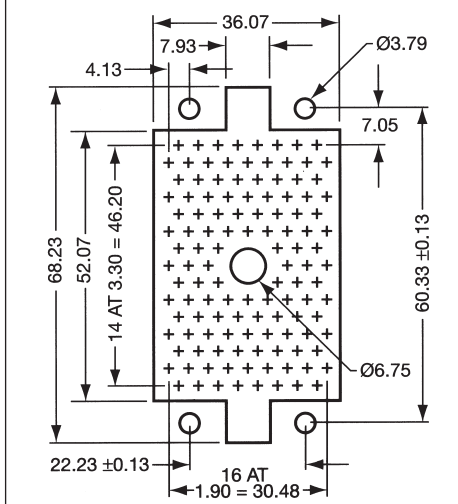
296 = Wire Wrap –  0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

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<br>Body<br>Type | Basic P/N*          | Color | Hardware<br>**Thread | No Cover | Top Lge<br>Clamp | Side Lge<br>Clamp | Actuating<br>Screw | Fixed<br>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            |

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

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## Series 8016 Covers

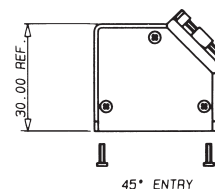
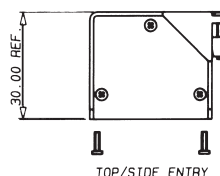
| Part Number         | For Size | Hardware Threads | Cable Entrance | Clamp Type | Size mm (inches)              |
|---------------------|----------|------------------|----------------|------------|-------------------------------|
| 30 8016 9829 00 000 | 20       | Metric           | Side           | 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

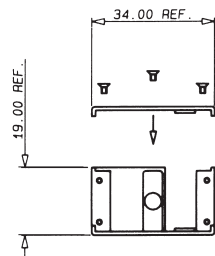
### OPTIONAL REMOVABLE SIDE PLATE COVER

#### 20 CONTACTS

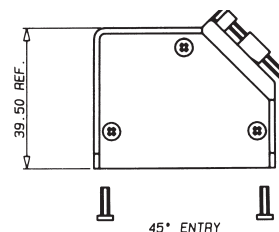
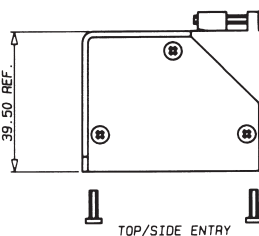


| Part Number     | Opening  |
|-----------------|----------|
| 308016020000413 | Side/Top |
| 308016020000415 | 45°      |

| 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) |

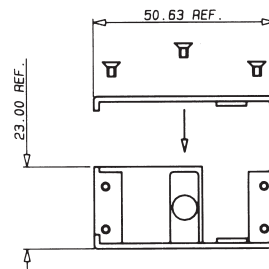


#### 38 CONTACTS

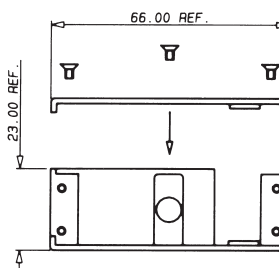
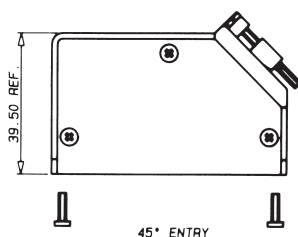


| Part Number     | Opening  |
|-----------------|----------|
| 308016038000413 | Side/Top |
| 308016038000415 | 45°      |

| 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 |

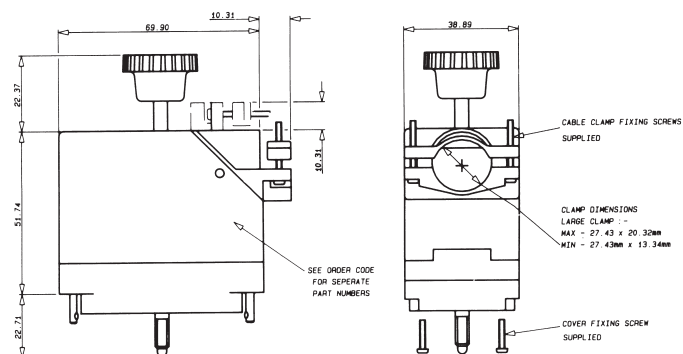
| CLAMP                  |                         |
|------------------------|-------------------------|
| Minimum Size           | Maximum Size            |
| 6 x 14 (0.236 x 0.551) | 17 x 14 (0.669 x 0.551) |
| 6 x 14 (0.236 x 0.551) | 17 x 14 (0.669 x 0.551) |

### CLAMPING AND COVER DIMENSIONS

#### 90 CONTACTS



#### 120 CONTACTS



See page 21 for part numbers