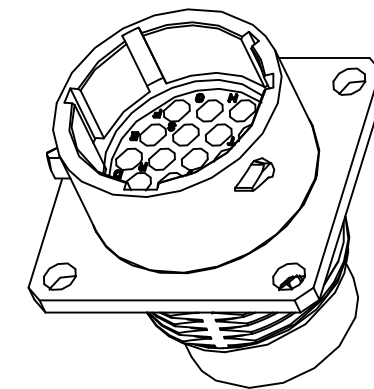
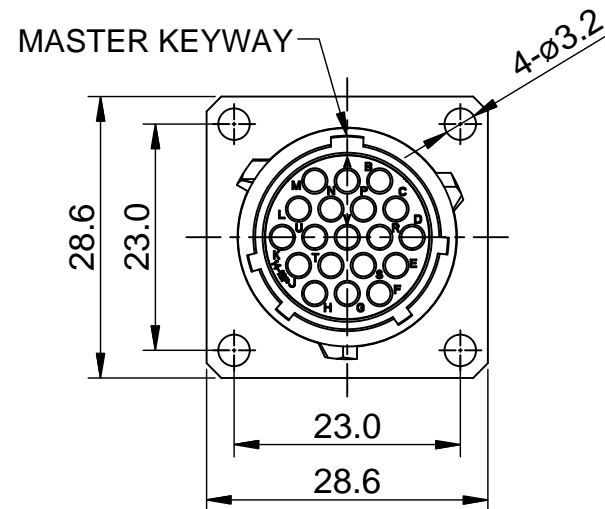
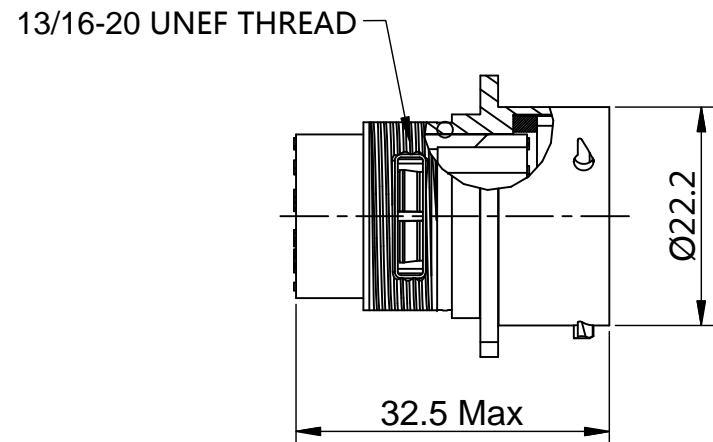
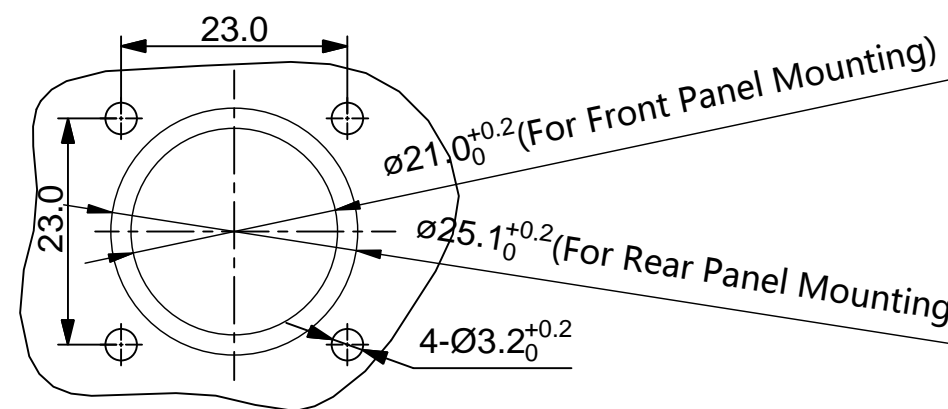


| REVISIONS |     |                  |             |     |       |
|-----------|-----|------------------|-------------|-----|-------|
| REV       | ECO | DESCRIPTION      | DATE        | BY  | APPR  |
| B1        | -   | RELEASED DRAWING | JUN-19-2014 | BEN | TOMMY |



NOTES : (UNLESS OTHERWISE SPECIFIED)

- MATERIAL :  
SHELL : ZINC ALLOY , NICKEL PLATED.  
INSERT : THERMOPLASTIC , UL94 V-0.  
SEAL GASKET : NBR.  
O-RING : NBR.
- SPECIFICATIONS :  
2.1 RATED CURRENT :  
2.1.1 STAMPED CONTACT : 5A (MAX) .  
2.1.2 MACHINED CONTACT : 7.5A (MAX) .  
2.2 RATED VOLTAGE : 150V ( AC/DC ) .  
2.3 OPERATING TEMPERATURE : -40°C ~ +105°C.  
2.4 DIELECTRIC WITHSTANDING VOLTAGE : LESS THAN  
2 MILLIAMPS CURRENT LEAKAGE@1500 VOLTS AC.  
2.5 INSULATION RESISTANCE : 5000 MEGOHMS MIN.  
2.6 IP--CLASS : IP67.  
2.7 MATING CYCLES DURABILITY : 500 CYCLES(MIN).  
2.8 ROHS COMPLIANT.
- SUITABLE CONTACTS : 20# CONTACTS.
- ALL DIMENSIONS ARE FOR REFERENCE USE ONLY.



PANEL CUT OUT REFERENCE

| KEY POS | PART NUMBER  |
|---------|--------------|
| N       | RT0W01419PNH |
| W       | RT0W01419PWH |
| X       | RT0W01419PXH |
| Y       | RT0W01419PYH |
| Z       | RT0W01419PZH |

| QUANTITY   | SEE PART NUMBER<br>CHART<br>PART NUMBER | DESCRIPTION   | ITEM  |      |      |         |          |   |    |              |    |
|--|---|---|---|------|------|---------|----------|---|----|--------------|----|
| <b>MATERIALS LIST</b>  |   |   |   |      |      |         |          |   |    |              |    |
| UNLESS OTHERWISE SPECIFIED<br>1) All dimensions are in metric (mm).<br>2) Tolerances are as follows:<br>1 PL DEC ±0.30<br>2 PL DEC ±0.15<br>3 PL DEC ±0.08<br>Fractions ±1/64<br>Angles ±1°<br>3) Note reference = |   | SIGNATURES<br>DRAWN: BEN<br>CHECKED:<br>ENGINEER:<br>APPROVAL:  | DATE<br>JUN-19-2014   |      |      |         |          |   |    |              |    |
| MATERIAL SPECIFICATIONS:   |   | <p style="text-align: center;"><b>Amphenol</b></p> <p>Sine Systems - www.amphenol-sine.com<br/>44724 Morley Drive<br/>Clinton Township, MI 48036</p> <p style="text-align: center;">ECO-MATE, RECEPTACLE,<br/>PIN, 19POS, SIZE 14</p>   |   |      |      |         |          |   |    |              |    |
| PROCESS SPECIFICATIONS:  |   |   |   |      |      |         |          |   |    |              |    |
| NEXT ASSY:   |   | CUSTOMER:<br>THIS DRAWING IS SUPPLIED FOR INFORMATION ONLY. DESIGN FEATURES, SPECIFICATIONS AND PERFORMANCE DATA SHOWN HEREON ARE THE PROPERTY OF THE AMPHENOL CORPORATION. NO RIGHTS OF REPRODUCTION ARE IMPLIED. ALL DIMENSIONS ARE SUBJECT TO NORMAL MANUFACTURING VARIATIONS. | <table border="1"> <tr> <td>SIZE</td> <td>TYPE</td> <td>DWG NO.</td> <td>REVISION</td> </tr> <tr> <td>B</td> <td>C-</td> <td>RT0W01419P*H</td> <td>B1</td> </tr> </table> | SIZE | TYPE | DWG NO. | REVISION | B | C- | RT0W01419P*H | B1 |
| SIZE   | TYPE                                    | DWG NO.   | REVISION  |      |      |         |          |   |    |              |    |
| B  | C-                                      | RT0W01419P*H  | B1  |      |      |         |          |   |    |              |    |
|  |   | SCALE: NONE   | SHEET 1 OF 1  |      |      |         |          |   |    |              |    |

TITLE: ECO-MATE, RECEPTACLE, PIN, 19POS, SIZE 14

DWG NO: RT0W01419P\*H

REV: B1

SH: 1

OF: 1

## ecomate® RM/RSSM/Aquarius™ - Contact Size 20 Options

| Crimp Contacts, Machined |            |       |                               |            |
|--------------------------|------------|-------|-------------------------------|------------|
| Part Number              |            | AWG   | Wire Range (mm <sup>2</sup> ) | Plating    |
| Male                     | Female     |       |                               |            |
| MP20W23F                 | MS20W23F   | 22-20 | 0.34-0.50                     | Gold Flash |
| MP20W23G5                | MS20W23G5  | 22-20 | 0.34-0.50                     | Gold 5μ"   |
| MP20W23G10               | MS20W23G10 | 22-20 | 0.34-0.50                     | Gold 10μ"  |
| MP20W23G15               | MS20W23G15 | 22-20 | 0.34-0.50                     | Gold 15μ"  |
| MP20W23G30               | MS20W23G30 | 22-20 | 0.34-0.50                     | Gold 30μ"  |
| MP24W23F                 | MS24W23F   | 26-24 | 0.13-0.25                     | Gold Flash |
| MP24W23G5                | MS24W23G5  | 26-24 | 0.13-0.25                     | Gold 5μ"   |
| MP24W23G10               | MS24W23G10 | 26-24 | 0.13-0.25                     | Gold 10μ"  |
| MP24W23G15               | MS24W23G15 | 26-24 | 0.13-0.25                     | Gold 15μ"  |
| MP24W23G30               | MS24W23G30 | 26-24 | 0.13-0.25                     | Gold 30μ"  |
| MP28W23F                 | MS28W23F   | 30-28 | 0.05-0.08                     | Gold Flash |
| MP28W23G5                | MS28W23G5  | 30-28 | 0.05-0.08                     | Gold 5μ"   |
| MP28W23G10               | MS28W23G10 | 30-28 | 0.05-0.08                     | Gold 10μ"  |
| MP28W23G15               | MS28W23G15 | 30-28 | 0.05-0.08                     | Gold 15μ"  |
| MP28W23G30               | MS28W23G30 | 30-28 | 0.05-0.08                     | Gold 30μ"  |

| Tooling, Machined |  |
|-------------------|--|
| Part Number       | Description                                  |
| QXRT20            | Contact Extraction Tool, #20 (Ø 1.0) Contact |
| MFY-3959          | Hand Crimp Tool for Machined Contacts        |
| MFY-3960          | Pneumatic Crimp Tool for Machined Contact    |

| Plating Options, All |  |
|----------------------|--|
| Symbol               | Plating                                    |
| T                    | Tin Plated (for Stamped & Formed Contacts) |
| S                    | Silver Plated 5Um (for Machined Contacts)  |
| F                    | Gold Plated                                |
| G5                   | Gold Plated (Thickness 5μ")                |
| G10                  | Gold Plated (Thickness 10μ")               |
| G15                  | Gold Plated (Thickness 15μ")               |
| G30                  | Gold Plated (Thickness 30μ")               |

| Crimp Contacts, Stamped & Formed |           |       |                               |            |
|----------------------------------|-----------|-------|-------------------------------|------------|
| Part Number                      |           | AWG   | Wire Range (mm <sup>2</sup> ) | Plating    |
| Male                             | Female    |       |                               |            |
| SP20W2F                          | SS20W2F   | 22-20 | 0.34-0.50                     | Gold Flash |
| SP20W2G5                         | SS20W2G5  | 22-20 | 0.34-0.50                     | Gold 5μ"   |
| SP20W2G10                        | SS20W2G10 | 22-20 | 0.34-0.50                     | Gold 10μ"  |
| SP20W2G15                        | SS20W2G15 | 22-20 | 0.34-0.50                     | Gold 15μ"  |
| SP20W2G30                        | SS20W2G30 | 22-20 | 0.34-0.50                     | Gold 30μ"  |
| SP24W2F                          | SS24W2F   | 26-24 | 0.14-0.25                     | Gold Flash |
| SP24W2G5                         | SS24W2G5  | 26-24 | 0.14-0.25                     | Gold 5μ"   |
| SP24W2G10                        | SS24W2G10 | 26-24 | 0.14-0.25                     | Gold 10μ"  |
| SP24W2G15                        | SS24W2G15 | 26-24 | 0.14-0.25                     | Gold 15μ"  |
| SP24W2G30                        | SS24W2G30 | 26-24 | 0.14-0.25                     | Gold 30μ"  |
| SP28W2F                          | SS28W2F   | 30-28 | 0.05-0.08                     | Gold Flash |
| SP28W2G5                         | SS28W2G5  | 30-28 | 0.05-0.08                     | Gold 5μ"   |
| SP28W2G10                        | SS28W2G10 | 30-28 | 0.05-0.08                     | Gold 10μ"  |
| SP28W2G15                        | SS28W2G15 | 30-28 | 0.05-0.08                     | Gold 15μ"  |
| SP28W2G30                        | SS28W2G30 | 30-28 | 0.05-0.08                     | Gold 30μ"  |

| Tooling, Stamped & Formed |  |
|---------------------------|--|
| Part Number               | Description  |
| QXRT20                    | Contact Extraction Tool, #20 (Ø 1.0) Contact           |
| MFY-3958                  | Hand Tool, Stamped & Formed Contact, Size 20, 20-28AWG |
| MFY-3957                  | Crimp Die for Stamped & Formed Contact                 |

| Misc Tooling, All |                            |
|-------------------|----------------------------|
| Part Number       | Description                |
| CA-4020-59        | Sealing Plug, Size 16 & 20 |

| Standard Quantity Order Options |                   |
|---------------------------------|-------------------|
| Machined                        | Stamped & Formed  |
| Bulk Package, 500 Pieces        | Reel, 3000 Pieces |

## ecomate® RM/RSSM - Contact Size 20, PC Tail Options

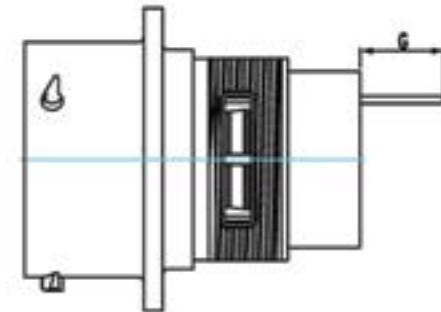
| PC Tail Contacts, Machined |               |     |               |            |
|----------------------------|---------------|-----|---------------|------------|
| Part Number                |               | AWG | Description   | Plating    |
| Male                       | Female        |     |               |            |
| MP20W12E06F                | MS20W12E06F   | 20  | Short Version | Gold Flash |
| MP20W12E06G5               | MS20W12E06G5  | 20  | Short Version | Gold 5µ"   |
| MP20W12E06G10              | MS20W12E06G10 | 20  | Short Version | Gold 10µ"  |
| MP20W12E06G15              | MS20W12E06G15 | 20  | Short Version | Gold 15µ"  |
| MP20W12E06G30              | MS20W12E06G30 | 20  | Short Version | Gold 30µ"  |
| MP20W12E09F                | MS20W12E09F   | 20  | Long Version  | Gold Flash |
| MP20W12E09G5               | MS20W12E09G5  | 20  | Long Version  | Gold 5µ"   |
| MP20W12E09G10              | MS20W12E09G10 | 20  | Long Version  | Gold 10µ"  |
| MP20W12E09G15              | MS20W12E09G15 | 20  | Long Version  | Gold 15µ"  |
| MP20W12E09G30              | MS20W12E09G30 | 20  | Long Version  | Gold 30µ"  |

| PC Tail Contacts, Stamped & Formed |        |     |             |         |
|------------------------------------|--------|-----|-------------|---------|
| Part Number                        |        | AWG | Description | Plating |
| Male                               | Female |     |             |         |
|                                    |        | N/A |             |         |
|                                    |        | N/A |             |         |
|                                    |        | N/A |             |         |
|                                    |        | N/A |             |         |
|                                    |        | N/A |             |         |
|                                    |        | N/A |             |         |
|                                    |        | N/A |             |         |
|                                    |        | N/A |             |         |
|                                    |        | N/A |             |         |
|                                    |        | N/A |             |         |

| PCB Contact Dimensions - Nominal Length G<br>(Size 20 PC Tail dimensions for ecomate® RM and ecomate® RSSM connectors only.) |              |              |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| Shell Size   | Pin Contact  |              |              |              |              |              |
|  | MP20W12E06xx | MP20W12E09xx | MP16M12E04xx | MP16M12E06xx | MP10B12E05xx | MP10B12E08xx |
| 10   | 4.0mm        | 9.5mm        | 4.0mm        | 8.0mm        | -            | -            |
| 12   | 4.0mm        | 9.5mm        | 4.0mm        | 8.0mm        | 5.0mm        | -            |
| 14   | 4.0mm        | 9.5mm        | 4.0mm        | 8.0mm        | 5.2mm        | -            |
| 16   | 4.0mm        | 9.5mm        | 4.0mm        | 8.0mm        | -            | -            |
| 18   | -            | 9.5mm        | 4.0mm        | 8.0mm        | -            | -            |
| 20   | -            | 9.5mm        | 4.0mm        | 8.0mm        | -            | -            |
| 24   | -            | -            | -            | 3.9mm        | -            | -            |

| Shell Size | Socket Contact |              |              |              |              |              |
|------------|----------------|--------------|--------------|--------------|--------------|--------------|
|            | MP20W12E06xx   | MP20W12E09xx | MP16M12E04xx | MP16M12E06xx | MP10B12E05xx | MP10B12E08xx |
| 10         | 3.3mm          | 8.5mm        | 2.4mm        | 3.0mm        | -            | -            |
| 12         | 3.3mm          | 8.5mm        | 2.4mm        | 3.0mm        | -            | -            |
| 14         | 3.3mm          | 8.5mm        | 2.4mm        | 3.0mm        | -            | -            |
| 16         | 3.3mm          | 8.5mm        | 2.4mm        | 3.0mm        | -            | -            |
| 18         | --             | 8.5mm        | 2.4mm        | -            | -            | -            |
| 20         | --             | 8.5mm        | 2.4mm        | -            | -            | -            |
| 24         | -              | -            | -            | -            | -            | -            |

| Standard Quantity Order Options |                  |
|---------------------------------|------------------|
| Machined                        | Stamped & Formed |
| Bulk Package, 500 Pieces        | N/A              |



**NOTE:** For ecomate® Aquarius™ PC Tail options, see our [ecomate® Aquarius™ PCB Mount Jam Nut Receptacles Flyer](#) online at [www.amphenol-sine.com](http://www.amphenol-sine.com).

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