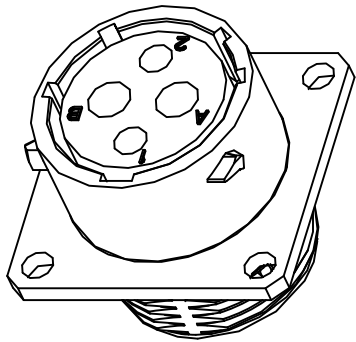
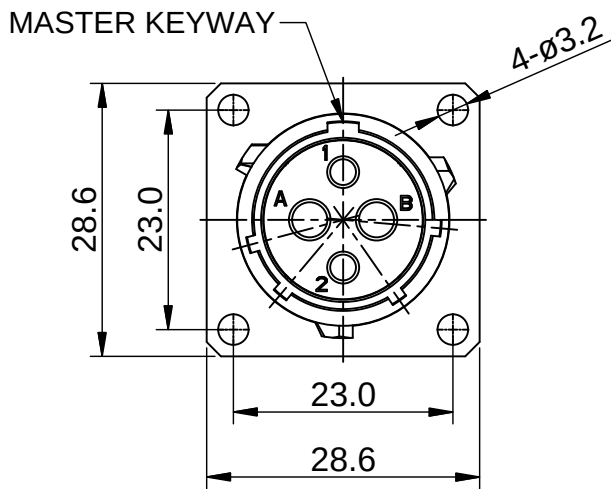
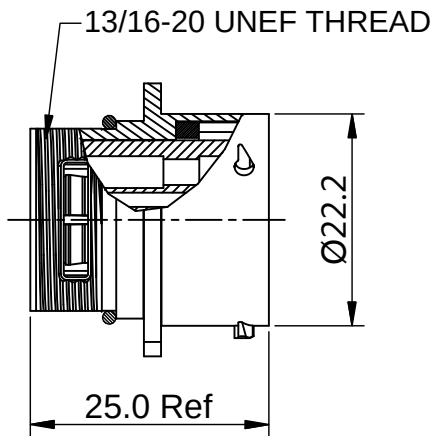
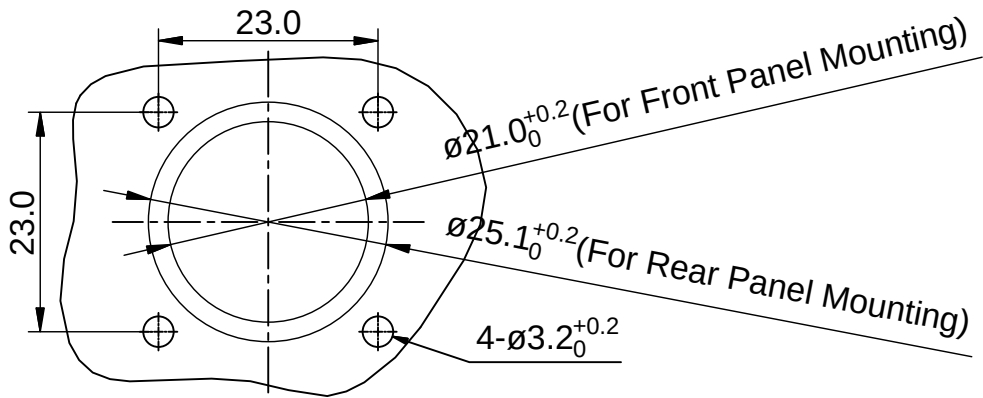


| REVISIONS |     |                  |             |     |       |
|-----------|-----|------------------|-------------|-----|-------|
| REV       | ECO | DESCRIPTION      | DATE        | BY  | APPR  |
| B1        | -   | RELEASED DRAWING | JUN-24-2014 | BEN | TOMMY |



NOTES : (UNLESS OTHERWISE SPECIFIED)

- MATERIAL :  
SHELL : ZINC ALLOY , NICKEL PLATED.  
INSERT : THERMOPLASTIC , UL94 V-0.  
SEAL GASKET : NBR.  
O-RING : NBR.
- SPECIFICATIONS :
  - RATED CURRENT :
    - 2.5mm CONTACT 23A (MAX) .
    - 16# CONTACT 13A (MAX) .
  - RATED VOLTAGE : 350V ( AC/DC ) .
  - OPERATING TEMPERATURE : -40°C ~ +105°C.
  - DIELECTRIC WITHSTANDING VOLTAGE : LESS THAN 2 MILLIAMPS CURRENT LEAKAGE@2000 VOLTS AC.
  - INSULATION RESISTANCE : 5000 MEGOHMS MIN.
  - IP--CLASS : IP67.
  - MATING CYCLES DURABILITY : 500 CYCLES MIN.
  - ROHS COMPLIANT.
- SUITABLE CONTACTS : 2.5mm & 16# CONTACTS.
- ALL DIMENSIONS ARE FOR REFERENCE USE ONLY.



PANEL CUT OUT REFERENCE

| KEY POS | PART NUMBER |
|---------|-------------|
| N       | RT00142SNH  |
| W       | RT00142SWH  |
| X       | RT00142SXH  |
| Y       | RT00142SYH  |
| Z       | RT00142SZH  |

|                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                      |  |             |  |                                                                                                                                                                                    |  |              |            |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------|------------|----------|
|                                                                                                                                                                                                                                                                                               |  | SEE PART NUMBER                                                                                                                                                                                                                                                      |  |             |  |                                                                                                                                                                                    |  |              |            |          |
| QUANTITY                                                                                                                                                                                                                                                                                      |  | CHART                                                                                                                                                                                                                                                                |  | PART NUMBER |  | DESCRIPTION                                                                                                                                                                        |  | ITEM         |            |          |
| MATERIALS LIST                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                      |  |             |  |                                                                                                                                                                                    |  |              |            |          |
| <div>UNLESS OTHERWISE SPECIFIED</div> <div>1) All dimensions are in metric(mm).</div> <div>2) Tolerances are as follows:</div> <div>1 PL DEC ±0.30</div> <div>2 PL DEC ±0.15</div> <div>3 PL DEC ±0.08</div> <div>Fractions ±1/64</div> <div>Angles ±1°</div> <div>3) Note reference = </div> |  | SIGNATURES                                                                                                                                                                                                                                                           |  | DATE        |  | <div>Amphenol</div> <div>Sine Systems - <a href="http://www.amphenol-sine.com">www.amphenol-sine.com</a></div> <div>44724 Morley Drive</div> <div>Clinton Township, MI 48036</div> |  |              |            |          |
|                                                                                                                                                                                                                                                                                               |  | DRAWN: BEN                                                                                                                                                                                                                                                           |  | JUN-24-2014 |  |                                                                                                                                                                                    |  |              |            |          |
|                                                                                                                                                                                                                                                                                               |  | CHECKED:                                                                                                                                                                                                                                                             |  |             |  |                                                                                                                                                                                    |  |              |            |          |
|                                                                                                                                                                                                                                                                                               |  | ENGINEER:                                                                                                                                                                                                                                                            |  |             |  |                                                                                                                                                                                    |  |              |            |          |
|                                                                                                                                                                                                                                                                                               |  | APPROVAL:                                                                                                                                                                                                                                                            |  |             |  |                                                                                                                                                                                    |  |              |            |          |
| MATERIAL SPECIFICATIONS:                                                                                                                                                                                                                                                                      |  | CUSTOMER:                                                                                                                                                                                                                                                            |  |             |  | ECO-MATE,RECEPTACLE,<br>SIZE 14 ,2POS,SOCKET.                                                                                                                                      |  |              |            |          |
|                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                      |  |             |  |                                                                                                                                                                                    |  |              |            |          |
| PROCESS SPECIFICATIONS:                                                                                                                                                                                                                                                                       |  | 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. |  |             |  | SIZE                                                                                                                                                                               |  | TYPE         | DWG NO:    | REVISION |
|                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                      |  |             |  | B                                                                                                                                                                                  |  | C-           | RT00142S*H | B1       |
| NEXT ASSY:                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                      |  |             |  | SCALE: NONE                                                                                                                                                                        |  | SHEET 1 OF 1 |            |          |

TITLE: ECO-MATE,RECEPTACLE,SIZE 14,2POS,SOCKET. DWG NO: RT00142S\*H REV: B1 SH: 1 OF: 1

ecomate® RM/RSSM/Aquarius™ - Contact Size 16 Options

| Crimp Contacts, Machined |            |       |                  |            |
|--------------------------|------------|-------|------------------|------------|
| Part Number              |            | AWG   | Wire Range (mm²) | Plating    |
| Male                     | Female     |       |                  |            |
| MP14M23F                 | MS14M23F   | 14    | 2.0-2.5          | Gold Flash |
| MP14M23G5                | MS14M23G5  | 14    | 2.0-2.5          | Gold 5µ"   |
| MP14M23G10               | MS14M23G10 | 14    | 2.0-2.5          | Gold 10µ"  |
| MP14M23G15               | MS14M23G15 | 14    | 2.0-2.5          | Gold 15µ"  |
| MP14M23G30               | MS14M23G30 | 14    | 2.0-2.5          | Gold 30µ"  |
| MP16M23F                 | MS16M23F   | 18-16 | 0.75-1.5         | Gold Flash |
| MP16M23G5                | MS16M23G5  | 18-16 | 0.75-1.5         | Gold 5µ"   |
| MP16M23G10               | MS16M23G10 | 18-16 | 0.75-1.5         | Gold 10µ"  |
| MP16M23G15               | MS16M23G15 | 18-16 | 0.75-1.5         | Gold 15µ"  |
| MP16M23G30               | MS16M23G30 | 18-16 | 0.75-1.5         | Gold 30µ"  |
| MP20M23F                 | MS20M23F   | 22-20 | 0.34-0.50        | Gold Flash |
| MP20M23G5                | MS20M23G5  | 22-20 | 0.34-0.50        | Gold 5µ"   |
| MP20M23G10               | MS20M23G10 | 22-20 | 0.34-0.50        | Gold 10µ"  |
| MP20M23G15               | MS20M23G15 | 22-20 | 0.34-0.50        | Gold 15µ"  |
| MP20M23G30               | MS20M23G30 | 22-20 | 0.34-0.50        | Gold 30µ"  |
| MP24M23F                 | MS24M23F   | 26-24 | 0.14-0.25        | Gold Flash |
| MP24M23G5                | MS24M23G5  | 26-24 | 0.14-0.25        | Gold 5µ"   |
| MP24M23G10               | MS24M23G10 | 26-24 | 0.14-0.25        | Gold 10µ"  |
| MP24M23G15               | MS24M23G15 | 26-24 | 0.14-0.25        | Gold 15µ"  |
| MP24M23G30               | MS24M23G30 | 26-24 | 0.14-.025        | Gold 30µ"  |

| Tooling, Machined |                                              |
|-------------------|----------------------------------------------|
| Part Number       | Description                                  |
| QXRT16            | Contact Extraction Tool, #16 (Ø 1.6) Contact |
| MFx-3959          | Hand Crimp Tool for Machined Contacts        |
| MFx-3960          | Pneumatic Crimp Tool for Machined Contact    |

| Plating Options, All |                                            |
|----------------------|--------------------------------------------|
| Symbol               | Plating                                    |
| T                    | Tin Plated (for Stamped & Formed Contacts) |
| S                    | Silver Plated 50µm (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 (mm²) | Plating    |
| Male                             | Female    |       |                  |            |
| SP14M2F                          | SS14M2F   | 14    | 2.0-2.5          | Gold Flash |
| SP14M2G5                         | SS14M2G5  | 14    | 2.0-2.5          | Gold 5µ"   |
| SP14M2G10                        | SS14M2G10 | 14    | 2.0-2.5          | Gold 10µ"  |
| SP14M2G15                        | SS14M2G15 | 14    | 2.0-2.5          | Gold 15µ"  |
| SP14M2G30                        | SS14M2G30 | 14    | 2.0-2.5          | Gold 30µ"  |
| SP16M2F                          | SS16M2F   | 18-16 | 0.75-1.5         | Gold Flash |
| SP16M2G5                         | SS16M2G5  | 18-16 | 0.75-1.5         | Gold 5µ"   |
| SP16M2G10                        | SS16M2G10 | 18-16 | 0.75-1.5         | Gold 10µ"  |
| SP16M2G15                        | SS16M2G15 | 18-16 | 0.75-1.5         | Gold 15µ"  |
| SP16M2G30                        | SS16M2G30 | 18-16 | 0.75-1.5         | Gold 30µ"  |
| SP20M2F                          | SS20M2F   | 22-20 | 0.34-0.50        | Gold Flash |
| SP20M2G5                         | SS20M2G5  | 22-20 | 0.34-0.50        | Gold 5µ"   |
| SP20M2G10                        | SS20M2G10 | 22-20 | 0.34-0.50        | Gold 10µ"  |
| SP20M2G15                        | SS20M2G15 | 22-20 | 0.34-0.50        | Gold 15µ"  |
| SP20M2G30                        | SS20M2G30 | 22-20 | 0.34-0.50        | Gold 30µ"  |
| SP24M2F                          | SS24M2F   | 26-24 | 0.14-0.25        | Gold Flash |
| SP24M2G5                         | SS24M2G5  | 26-24 | 0.14-0.25        | Gold 5µ"   |
| SP24M2G10                        | SS24M2G10 | 26-24 | 0.14-0.25        | Gold 10µ"  |
| SP24M2G15                        | SS24M2G15 | 26-24 | 0.14-0.25        | Gold 15µ"  |
| SP24M2G30                        | SS24M2G30 | 26-24 | 0.14-0.25        | Gold 30µ"  |

| Tooling, Stamped & Formed |                                                        |
|---------------------------|--------------------------------------------------------|
| Part Number               | Description                                            |
| QXRT16                    | Contact Extraction Tool, #16 (Ø 1.6) Contact           |
| MFx-3954                  | Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG |
| MFx-3957                  | Crimp Die, 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/Aquarius™ - Contact Size 12 Options

| Crimp Contacts, Machined |        |     |                  |         |
|--------------------------|--------|-----|------------------|---------|
| Part Number              |        | AWG | Wire Range (mm²) | Plating |
| Male                     | Female |     |                  |         |
| N/A                      |        |     |                  |         |

| Tooling, Machined |             |
|-------------------|-------------|
| Part Number       | Description |
| N/A               | N/A         |
| N/A               | N/A         |

| Plating Options, All |         |
|----------------------|---------|
| Symbol               | Plating |
| N/A                  | N/A     |

| Crimp Contacts, Stamped & Formed |         |       |                  |         |
|----------------------------------|---------|-------|------------------|---------|
| Part Number                      |         | AWG   | Wire Range (mm²) | Plating |
| Male                             | Female  |       |                  |         |
| SP12A1T                          | SS12A1T | 14-12 | 2.5-3.5          | Tin     |

| Tooling, Stamped & Formed |                                                    |
|---------------------------|----------------------------------------------------|
| Part Number               | Description                                        |
| QXRT12S                   | Contact Extraction Tool, 2.5mm Contact             |
| MFx-3962                  | Hand Tool, Stamped & Formed Contact, 2.5mm Contact |

| Misc Tooling, All |                       |
|-------------------|-----------------------|
| Part Number       | Description           |
| CA-4012-59        | Sealing Plug, Size 12 |

| Standard Quantity Order Options |                   |
|---------------------------------|-------------------|
| Machined                        | Stamped & Formed  |
| N/A                             | Reel, 1000 Pieces |

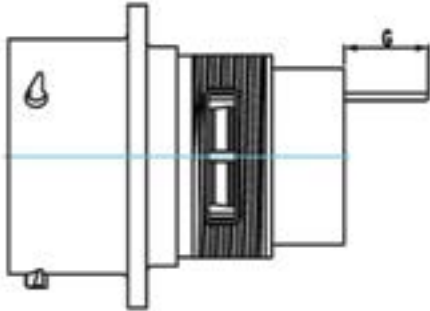
ecomate® RM/RSSM - Contact Size 16, PC Tail Options

| PC Tail Contacts, Machined |               |     |               |            |
|----------------------------|---------------|-----|---------------|------------|
| Part Number                |               | AWG | Description   | Plating    |
| Male                       | Female        |     |               |            |
| MP16M12E06F                | MS16M12E06F   | 16  | Short Version | Gold Flash |
| MP16M12E06G5               | MS16M12E06G5  | 16  | Short Version | Gold 5µ"   |
| MP16M12E06G10              | MS16M12E06G10 | 16  | Short Version | Gold 10µ"  |
| MP16M12E06G15              | MS16M12E06G15 | 16  | Short Version | Gold 15µ"  |
| MP16M12E06G30              | MS16M12E06G30 | 16  | Short Version | Gold 30µ"  |
| MP16M12E09F                | MS16M12E09F   | 16  | Long Version  | Gold Flash |
| MP16M12E09G5               | MS16M12E09G5  | 16  | Long Version  | Gold 5µ"   |
| MP16M12E09G10              | MS16M12E09G10 | 16  | Long Version  | Gold 10µ"  |
| MP16M12E09G15              | MS16M12E09G15 | 16  | Long Version  | Gold 15µ"  |
| MP16M12E09G30              | MS16M12E09G30 | 16  | 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 |             |         |

| 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).

ecomate® RM/RSSM - Contact Size 12, PC Tail Options

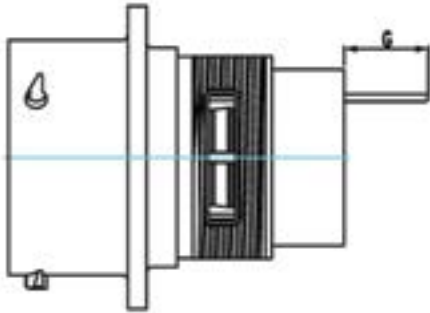
| Machined, PC Tail Contacts |               |        |               |            |
|----------------------------|---------------|--------|---------------|------------|
| Part Number                |               | AWG    | Description   | Plating    |
| Male                       | Female        |        |               |            |
| MP10B12E05F                | MS10B12E05F   | 2.5 mm | Short Version | Gold Flash |
| MP10B12E05G5               | MS10B12E05G5  | 2.5 mm | Short Version | Gold 5µ"   |
| MP10B12E05G10              | MS10B12E05G10 | 2.5 mm | Short Version | Gold 10µ"  |
| MP10B12E05G15              | MS10B12E05G15 | 2.5 mm | Short Version | Gold 15µ"  |
| MP10B12E05G30              | MS10B12E05G30 | 2.5 mm | Short Version | Gold 30µ"  |
| MP10B12E08F                | MS10B12E08F   | 2.5 mm | Long Version  | Gold Flash |
| MP10B12E08G5               | MS10B12E08G5  | 2.5 mm | Long Version  | Gold 5µ"   |
| MP10B12E08G10              | MS10B12E08G10 | 2.5 mm | Long Version  | Gold 10µ"  |
| MP10B12E08G15              | MS10B12E08G15 | 2.5 mm | Long Version  | Gold 15µ"  |
| MP10B12E08G30              | MS10B12E08G30 | 2.5 mm | Long Version  | Gold 30µ"  |

| Stamped & Formed, PC Tail Contacts |        |     |             |         |
|------------------------------------|--------|-----|-------------|---------|
| 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](#).