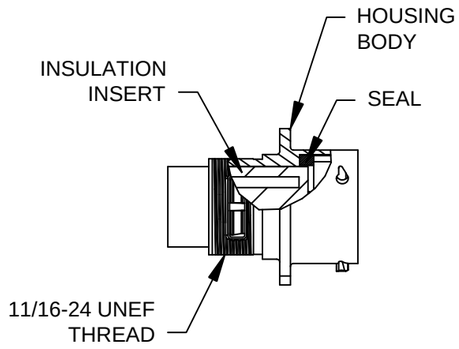
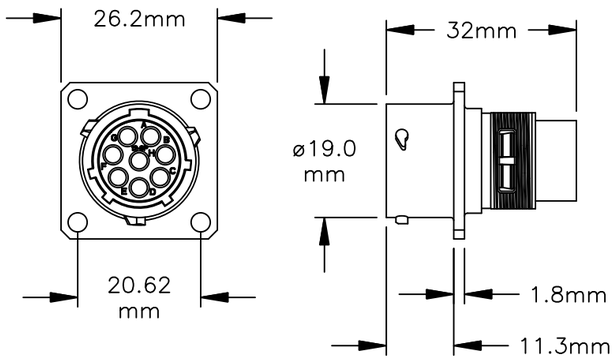
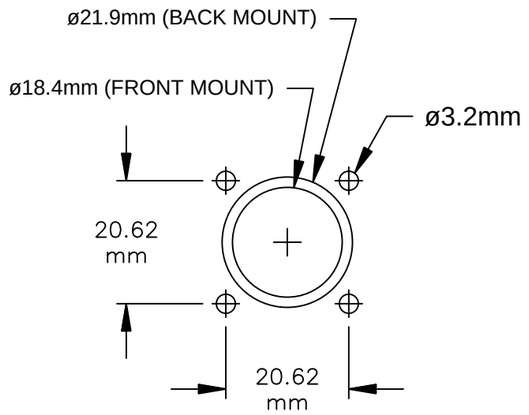
| REVISIONS | | | | | |
|---|---|---|---|---|---|
| REV | ECO | DESCRIPTION | DATE | BY | APPR |
| 01 | - | RELEASE NEW DWG FORMAT | - | - | - |

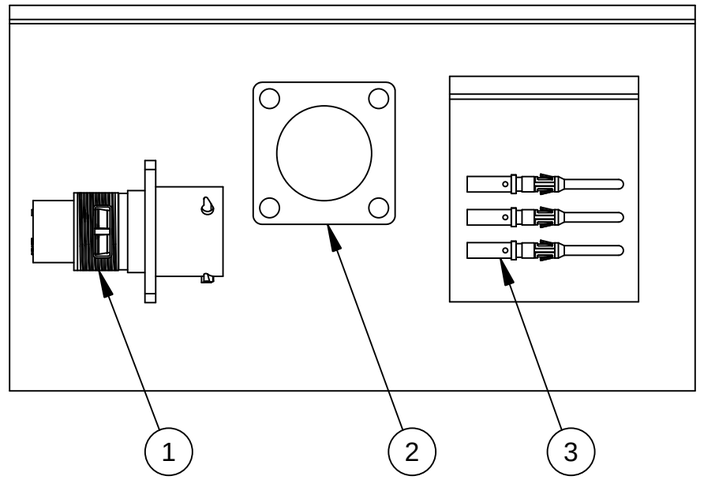



PANEL CUTOUT

ILLUSTRATION: COMPLETE KIT




NOTES:

1) CONTACT BARREL RANGE: 16AWG TO 18AWG

2) RECOMMENDED CRIMP TOOLS:
   HAND CRIMPER: MFX-3959
   PNEUMATIC CRIMPER: MFX-3960

3) EXTRACTION TOOL: QXRT16

4) MATERIALS:
   HOUSING BODY: ZINC DIE CAST, NICKEL PLATED
   INSULATION INSERT: PA66, UL94/V-0
   CONTACT: BRASS, GOLD FLASH PLATED
   SEAL: NBR (NITRILE BUTADIENE RUBBER)

5) ELECTRICAL DATA:
   a) CURRENT (MAX): 13A
   b) VOLTAGE (MAX): 250V AC/DC
   c) INSULATION RESISTANCE (MIN): 5000M OHMS
   d) TEST VOLTAGE (BETWEEN CONTACTS): 3050V

6) TECHNICAL DATA:
   a) TEMPERATURE RANGE: -40°C TO 105°C
   b) PROTECTION: IP67 (MATED CONDITION)
   c) MATING CYCLES: >500
   d) VIBRATION RESISTANCE PER MIL-STD-202 METHOD 204
   e) THERMAL SHOCK PER MIL-STD-202 METHOD 207
   f) 48 HOUR SALT SPRAY PER MIL-STD-202 METHOD 101

7) RoHS COMPLIANT

| QUANTITY | PART NUMBER | DESCRIPTION | ITEM |
|---|---|---|---|
| 8 | MP16M23F | CONTACT, PIN, SIZE 16 | 3 |
| 1 | RTFD12B | GASKET | 2 |
| 1 | RT00128PNH | CONNECTOR | 1 |

MATERIALS LIST

UNLESS OTHERWISE SPECIFIED
1) All dimensions are in metric(mm).
2) Tolerances are as follows:
1 PL DEC ±0.30 | Fractions ±1/64
2 PL DEC ±0.15 | Angles ±1°
3 PL DEC ±0.08
3) Note reference = X

MATERIAL SPECIFICATIONS:

PROCESS SPECIFICATIONS:

NEXT ASS'Y:

| SIGNATURES | | DATE |
|---|---|---|
| DRAWN: | MRF | 10SEP13 |
| CHECKED: | | |
| ENGINEER: | | |
| APPROVAL: | | |
| CUSTOMER: | | |

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Amphenol
Sine Systems - www.amphenol-sine.com
44724 Morley Drive
Clinton Township, MI 48036

KIT, ECO-MATE

| SIZE | TYPE | DWG NO: | REVISION |
|---|---|---|---|
| B | C- | RT00128PNH-K | 01 |

SCALE: NONE | SHEET 1 OF 1

TITLE: KIT, ECO-MATE
DWG NO:
REV: 01
SH: 1
OF: 1

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

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

| Stamped & Formed , Crimp Contacts | | | | |
|---|---|---|---|---|
| Part Number | | Contact Size (AWG) | Wire Range (mm²) | Plating |
| Male | Female | | | |
| SP14M2F | SS14M2F | 14AWG | 2.0-2.5mm² | Gold Flash |
| SP14M2G5 | SS14M2G5 | 14AWG | 2.0-2.5mm² | Gold 5µ" |
| SP14M2G10 | SS14M2G10 | 14AWG | 2.0-2.5mm² | Gold 10µ" |
| SP14M2G15 | SS14M2G15 | 14AWG | 2.0-2.5mm² | Gold 15µ" |
| SP14M2G30 | SS14M2G30 | 14AWG | 2.0-2.5mm² | Gold 30µ" |
| SP16M2F | SS16M2F | 18-16AWG | 0.75-1.5mm² | Gold Flash |
| SP16M2G5 | SS16M2G5 | 18-16AWG | 0.75-1.5mm² | Gold 5µ" |
| SP16M2G10 | SS16M2G10 | 18-16AWG | 0.75-1.5mm² | Gold 10µ" |
| SP16M2G15 | SS16M2G15 | 18-16AWG | 0.75-1.5mm² | Gold 15µ" |
| SP16M2G30 | SS16M2G30 | 18-16AWG | 0.75-1.5mm² | Gold 30µ" |
| SP20M2F | SS20M2F | 22-20AWG | 0.34-0.50mm² | Gold Flash |
| SP20M2G5 | SS20M2G5 | 22-20AWG | 0.34-0.50mm² | Gold 5µ" |
| SP20M2G10 | SS20M2G10 | 22-20AWG | 0.34-0.50mm² | Gold 10µ" |
| SP20M2G15 | SS20M2G15 | 22-20AWG | 0.34-0.50mm² | Gold 15µ" |
| SP20M2G30 | SS20M2G30 | 22-20AWG | 0.34-0.50mm² | Gold 30µ" |
| SP24M2F | SS24M2F | 26-24AWG | 0.14-0.25mm² | Gold Flash |
| SP24M2G5 | SS24M2G5 | 26-24AWG | 0.14-0.25mm² | Gold 5µ" |
| SP24M2G10 | SS24M2G10 | 26-24AWG | 0.14-0.25mm² | Gold 10µ" |
| SP24M2G15 | SS24M2G15 | 26-24AWG | 0.14-0.25mm² | Gold 15µ" |
| SP24M2G30 | SS24M2G30 | 26-24AWG | 0.14-.025mm² | Gold 30µ" |

| Machined, Tooling | |
|---|---|
| **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 |

| Stamped & Formed, Tooling | |
|---|---|
| **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 |

| 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") |

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

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



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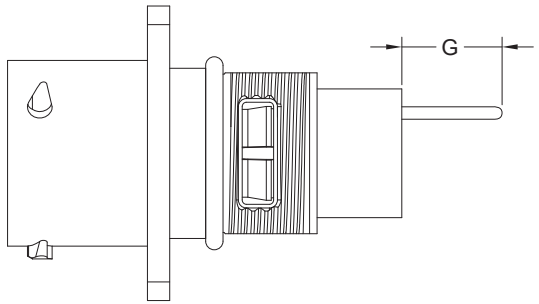
# **ecomate® RM/RSSM** - Contact Size 16, PC Tail Options

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

| Stamped & Formed , PC Tail Contacts | | | | |
|---|---|---|---|---|
| Part Number | | Contact Size (AWG) | Description | Plating |
| Male | Female | | | |
| - | - | - | - | - |
| - | - | - | - | - |
| - | - | - | - | - |
| - | - | - | - | - |
| - | - | - | - | - |
| - | - | - | - | - |
| - | - | - | - | - |
| - | - | - | - | - |
| - | - | - | - | - |
| - | - | - | - | - |

| PCB Contact Dimensions - Nominal Length G<br>(Size 20 PC Tail dimensions for ecomate® RM and ecomate® RSSM connectors only.) | | | | | | |
|---|---|---|---|---|---|---|
| Pin Contact | | | | | | |
| Shell Size | 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 | - | - |

| Socket Contact | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | 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 | Bulk, 500 Pieces |
| Stamped & Formed | - |

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



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