

| REVISIONS |     |                                   |         |     |      |
|-----------|-----|-----------------------------------|---------|-----|------|
| REV       | ECO | DESCRIPTION                       | DATE    | BY  | APPR |
| 01        | -   | CUSTOMER DRAWING                  | -       | -   | -    |
| 02        | -   | CHANGED VOLTAGE FROM 150V TO 250V | 19JAN22 | MRF | DR   |

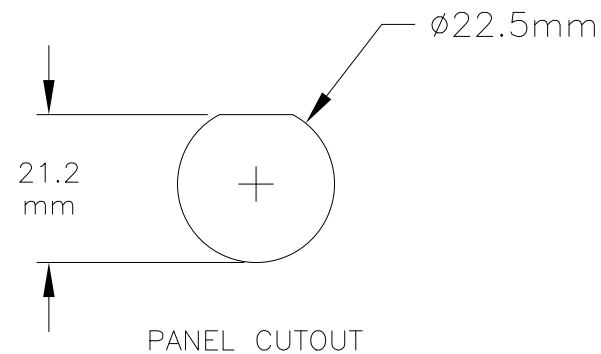
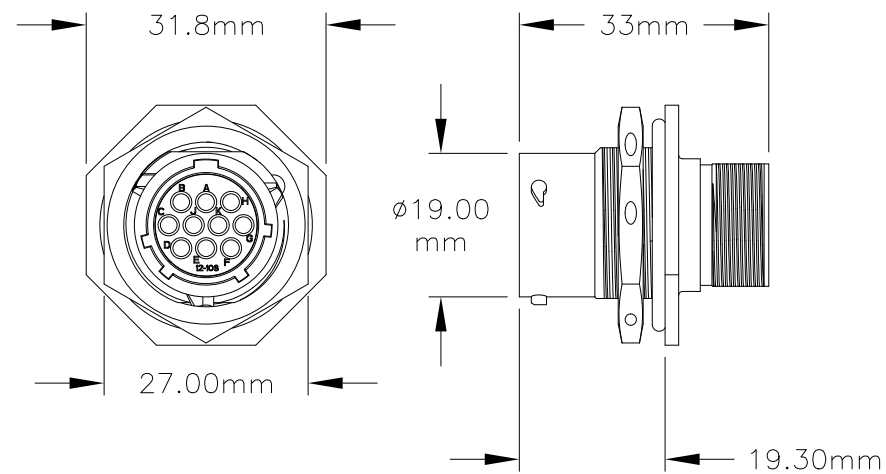
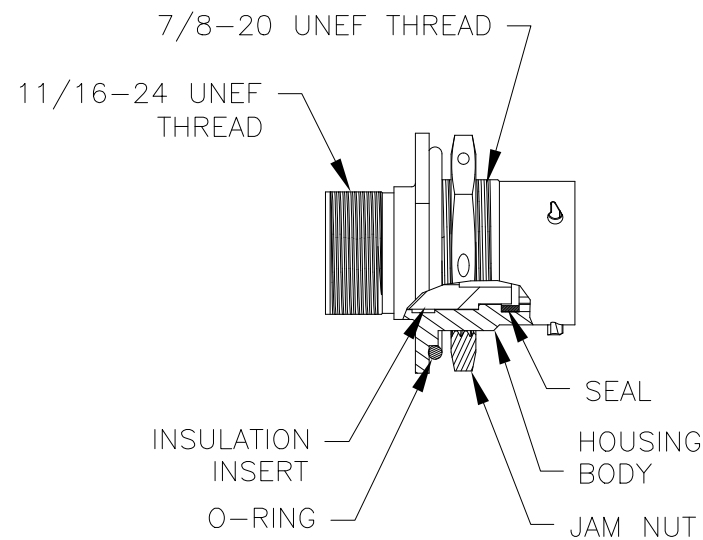
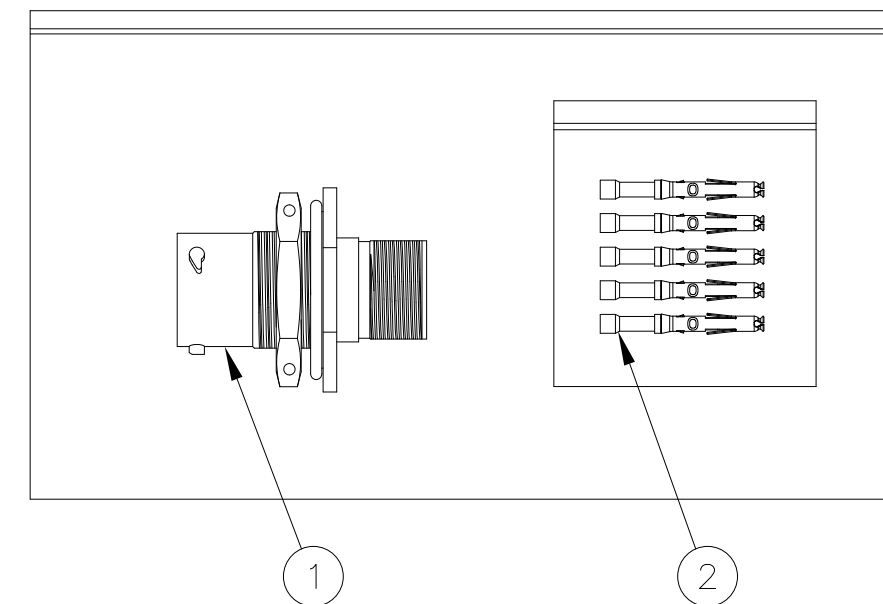


ILLUSTRATION: COMPLETE KIT



NOTES:

- 1) CONTACT BARREL RANGE: 20AWG TO 22AWG
- 2) RECOMMENDED CRIMP TOOLS:  
HAND CRIMPER: MFX-3959  
PNEUMATIC CRIMPER: MFX-3960
- 3) EXTRACTION TOOL: QXRT20
- 4) MATERIALS:  
HOUSING BODY: ZINC DIE CAST, NICKEL PLATED  
INSULATION INSERT: PA66, UL94/V-0  
CONTACT: BRASS, GOLD FLASH PLATED  
SEAL AND O-RING: NBR (NITRILE BUTADIENE RUBBER)
- 5) ELECTRICAL DATA:  
a) CURRENT (MAX): 7.5A  
b) VOLTAGE (MAX): 250V AC/DC  
c) INSULATION RESISTANCE (MIN): 5000M OHMS  
d) TEST VOLTAGE (BETWEEN CONTACTS): 1500V

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 |
|----------|--------------|--------------------------|------|
| 10       | MS20W23F     | CONTACT, SOCKET, SIZE 20 | 2    |
| 1        | RTOW71210SNH | CONNECTOR                | 1    |

| MATERIALS LIST   |  |  |                            |
|--|--|--|----------------------------|
| 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 = $\Delta$ |  | SIGNATURES<br>DRAWN: MRF<br>CHECKED:<br>ENGINEER:<br>APPROVAL:   | DATE<br>10SEP13            |
| MATERIAL SPECIFICATIONS:   |  | CUSTOMER:  |                            |
| 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. |                            |
| NEXT ASSY:   |  | SIZE<br><b>B</b>   | TYPE<br><b>C-</b>          |
|  |  | DWG NO:<br><b>RTOW71210SNH-K</b>   | REVISION<br><b>02</b>      |
|  |  | SCALE:<br><b>NONE</b>  | SHEET <b>1</b> OF <b>1</b> |

TITLE:

KIT, ECO-MATE

DWG NO:

REV:02

SH: 1

DF: 1

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

| Machined, Crimp Contacts |            |                    |                               |            |
|--------------------------|------------|--------------------|-------------------------------|------------|
| Part Number              |            | Contact Size (AWG) | Wire Range (mm <sup>2</sup> ) | Plating    |
| Male                     | Female     |                    |                               |            |
| MP20W23F                 | MS20W23F   | 22-20AWG           | 0.34-0.50 mm <sup>2</sup>     | Gold Flash |
| MP20W23G5                | MS20W23G5  | 22-20AWG           | 0.34-0.50 mm <sup>2</sup>     | Gold 5μ"   |
| MP20W23G10               | MS20W23G10 | 22-20AWG           | 0.34-0.50 mm <sup>2</sup>     | Gold 10μ"  |
| MP20W23G15               | MS20W23G15 | 22-20AWG           | 0.34-0.50 mm <sup>2</sup>     | Gold 15μ"  |
| MP20W23G30               | MS20W23G30 | 22-20AWG           | 0.34-0.50 mm <sup>2</sup>     | Gold 30μ"  |
| MP24W23F                 | MS24W23F   | 26-24AWG           | 0.14-0.25 mm <sup>2</sup>     | Gold Flash |
| MP24W23G5                | MS24W23G5  | 26-24AWG           | 0.14-0.25 mm <sup>2</sup>     | Gold 5μ"   |
| MP24W23G10               | MS24W23G10 | 26-24AWG           | 0.14-0.25 mm <sup>2</sup>     | Gold 10μ"  |
| MP24W23G15               | MS24W23G15 | 26-24AWG           | 0.14-0.25 mm <sup>2</sup>     | Gold 15μ"  |
| MP24W23G30               | MS24W23G30 | 26-24AWG           | 0.14-0.25 mm <sup>2</sup>     | Gold 30μ"  |
| MP28W23F                 | MS28W23F   | 30-28AWG           | 0.05-0.08 mm <sup>2</sup>     | Gold Flash |
| MP28W23G5                | MS28W23G5  | 30-28AWG           | 0.05-0.08 mm <sup>2</sup>     | Gold 5μ"   |
| MP28W23G10               | MS28W23G10 | 30-28AWG           | 0.05-0.08 mm <sup>2</sup>     | Gold 10μ"  |
| MP28W23G15               | MS28W23G15 | 30-28AWG           | 0.05-0.08 mm <sup>2</sup>     | Gold 15μ"  |
| MP28W23G30               | MS28W23G30 | 30-28AWG           | 0.05-0.08 mm <sup>2</sup>     | Gold 30μ"  |

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

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

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

| 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        |