



# em eco|mate® AQUARIUS™

## Waterproof Circular Connectors for Indoor/Outdoor Applications

Available in 8, 10, 12, 14, 16, and 18 Shell Sizes and 25 Insert Arrangements for Power, Mixed Power and Signal layouts.

Amphenol Sine Systems' **ecomate® Aquarius Waterproof Connectors** provide an IP67/69K waterproof rating when in a mated condition for industrial applications, and incorporates the latest technology in high impact thermoplastic design, offering advantages of lightweight, lower-cost, sealed connector systems on the market today. **ecomate® Aquarius Waterproof Connectors** are ideal for Indoor/Outdoor applications and the MIL-DTL-26482 based design provides a quick, reliable, 1/3 turn bayonet coupling. Additional features include optional In-Line, Jam-Nut, PCB Mounted, Square-Flanged, PCB, and End Cap configurations. The pin and socket contacts are available on reels, in strip form, for high volume, low cost, automatic machine terminations. They are also available in loose piece, machined, contact forms and can be shared with the ecomate® RM Rugged Metal Connectors multi-way connector series.



### Key Features

- IP67/69K in mated condition
- Bayonet Rapid Coupling System
- Power, Mixed Power and Signal Layouts
- Machined, Stamped & Formed, and PCB Contacts
- Lightweight, High-Strength, Impact Resistant, Thermoplastic Housing



- UL94-VO Flammability Rating
- MIL-DTL-26482-based Design
- UV/Corrosion Resistant: Salt Spray Test 500 hours
- Colored Rings for Visual Identification Available

**Applications:** Solar Energy – Power; Off-Road – Mining, Railway, Marine; Instrumentation – Measurement, Water Metering; Building Automation - HVAC, Lighting, Closed Circuit TV; Telecom – Data Infrastructure, Traffic Control

**Available Connector Configurations** (Available in both Male & Female arrangements)



em eco|mate® Family



Standard products. Custom solutions  
Customer Service +1 800 394 7732

ecomate® Aquarius™ - Technical Specifications

|                             |   |
|-----------------------------|---|
| IP Rating                   | IP67/69K in mated condition   |
| Flammability Rating         | UL94-VO   |
| Fluid Resistance            | Gas, oil, mineral oil, acid bath, basic bath  |
| RoHS Compliant              | <b>RoHS</b> ALL materials meet the requirements of the European Directive 2002/95/EC, Issue 13.2.2003 |
| Approvals                   | UL ETCB2 & UL ETCB8 Pending   |
| Temperature Range           | -40°C to +105°C   |
| Max. Current (Amperage)     | 45A   |
| Max. Voltage Rating (AC/DC) | 500V  |
| Contact Resistance          | #16 <6 mΩ<br>#20 <15 mΩ<br>2.5mm <5 mΩ  |
| Min. Mating Cycles          | >500 mating cycles per MIL-C-26482  |

|                           |   |
|---------------------------|---|
| Vibration                 | 10-2000 Hz, level of 20 G's   |
| Test Voltage Rating       | 1500V or 2000V  |
| Overvoltage Category      | III   |
| Strain Relief Clamp Range | 1.5 - 14.0mm  |
| Wire Range                | 10-28AWG  |
| Housing Body              | Thermoplastic UL94-VO   |
| Insulation Resistance     | 5000 megohms min. of 25°C   |
| Contacts                  | Copper Alloy (Gold, Tin & Silver Plating are available)                   |
| Sealing Material          | SR/NBR  |
| Thermal Shock             | No cracking, chipping or leaking after 20 test cycles from -55°C to 125°C |

| Shell Size | Contact #8   | Contact #16 (Ø 1.6)                                  | Mixed Power & Signal   | Contact 2.5mm  | Contact #20 (Ø 1.0)   |   |  |
|------------|--|--|--|--|---|---|--|
| 8          | -  | *Shell Size 8 ships pre-loaded with solder contacts: |  |  | <br>3 positions<br>7A/250V  |   |  |
| 10         | -  | <br>3 positions<br>13A/500V                          | <br>4 positions<br>13A/500V  | <br>4 positions<br>Contact #16 (Ø 1.6)<br>& #20 (Ø 1.0)<br>13A & 7.5A/5A<br>500V AC/DC | <br>6 positions<br>5A, 7A(machined) 250V  |   |  |
| 12         | -  | <br>3 positions<br>13A/600V                          | <br>4 positions<br>13A/500V  | <br>8 positions<br>13A 500V  | <br>4 positions<br>Contact #16(Ø 1.6)<br>& #20 (Ø 1.0)<br>23A & 7.5A/5A<br>350V AC/DC | <br>10 positions<br>5A, 7.5A(machined) 250V |  |
| 14         | <br>3 positions<br>Contact #8<br>45A/600V AC/DC          | <br>7 positions<br>13A/500V AC/DC                    | <br>8 positions<br>13A/500V AC/DC  | <br>12 positions<br>13A/500V   | <br>4 positions<br>Contact 2.5mm<br>#16 (Ø 1.6); 23A & 13A<br>500V/AC/DC              | <br>4 positions<br>23A/500V AC/DC           | <br>19 positions<br>5A, 7.5A (machined) 250V |
| 16         | <br>4 positions<br>Contact #8 (Ø 3,6)<br>45A, 500V AC/DC | <br>19 positions<br>Contact #16 (Ø 1.6)<br>13A, 500V | <br>9 positions<br>Contact 2.5mm &<br>#16 (Ø 1.6)<br>23A & 13A<br>350V AC/DC | <br>26 positions<br>#20 (Ø 1.0) 5A, 7.5A(machined) 250V                                | <br>19 positions<br>5A, 7.5A (machined) 250V  |   |  |
| 18         | -  | <br>23 positions<br>Contact #16 (Ø 1.6)<br>13A 500V  | <br>8 positions<br>Contact 2.5mm<br>23A 500V AC/DC                           | <br>32 positions<br>Contact #20 (Ø 1.0)<br>5A, 7.5A 250V                               |   |   |  |

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