



**em** eco|mate® AQUARIUS™

**PCB Mounted Jam Nut Receptacles**  
for Heavy Duty, Harsh Environment Applications

Available in 8, 10, 12, 14, 16 and 18 Shell Sizes and 18 Insert Arrangements



Amphenol Sine Systems' ecomate® Aquarius™ PCB Mounted Jam Nut Receptacles are designed specifically for mounting to Printed Circuit Boards (PCB) or Flex Circuits. As part of the ecomate® Aquarius Waterproof Connector series, they 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 ecomate® Aquarius™ connectors include optional In-Line, Jam-Nut, Square-Flanged, and End Cap configurations. Their 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**

- **Built-In Stand-Off's** for consistent height off PCB for ease of cleaning
- **Optional Locking Posts** for secure mounting for harsh environments
- **Lower Profile** than industry standard Jam Nut receptacles
- Bayonet Rapid Coupling System
- Colored Rings for Visual Identification Available

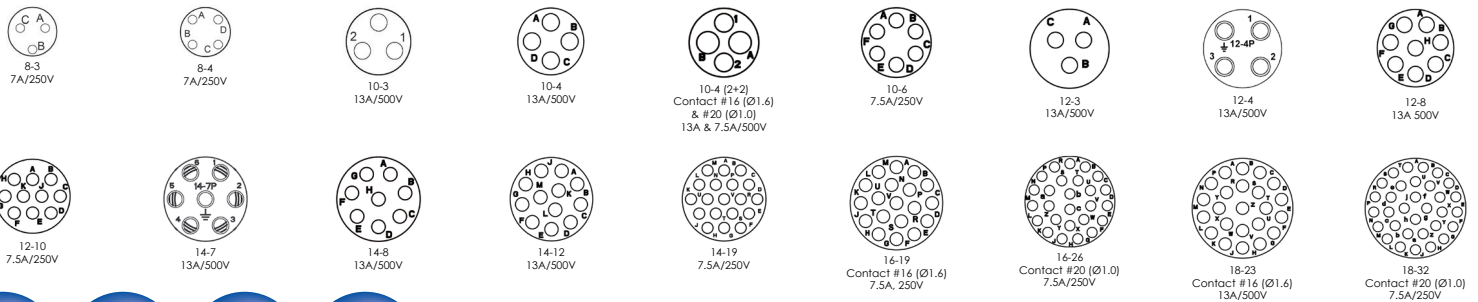
**Applications:** Solar Energy – Power; Off-Road – Mining, Railway, Marine; Instrumentation – Measurement, Water Metering; Building Automation - HVAC, Lighting, Closed Circuit TV; Telecom – Data Infrastructure, Traffic Control



**Technical Specifications**

IP Rating	IP67/69K in mated condition	Dielectric Withstanding Voltage	Less than 2 milliamps current leakage @2000V AC
Housing Body/Insert	Thermoplastic UL94-V0	Insulation Resistance	5000 megohms minimum of 25°C
O-Ring/Seal Gasket	Silicone Rubber	Min. Mating Cycles	>500
Jam Nut Material	Aluminum Alloy, Black Anodizing	UV/Corrosion Resistance	Salt Spray Test 500 Hrs
Contacts	Copper Alloy, Gold-Plated (See specific datasheets)	Fluid Resistance	Gas, Oil, Mineral Oil, Acid Bath, Basic Bath
Locking Posts	Copper Alloy, Tin-Plated	Thermal Shock	No cracking/chipping/leaking after 20 test cycles from -55°C to 125°C
Contact Current Ratings	16# 13A Max; 20# 7.5A Max	Vibration	10-2000 Hz, Level of 20 G's
Max. Voltage Rating (AC/DC)	Up to 500V	Approvals	UL ETCB2 & UL ETCB8 Pending
Operating Temperature	-40°C to 125°C (Silicone Rubber Seal); -40°C to 105°C (NBR Seal)	RoHS	Compliant

**Available Insert Arrangements**





Standard products. Custom solutions  
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ecomate® Aquarius™ PCB Mounted Jam Nut Receptacles

**Note:** RTS710ND3S0332 for optional PCB Mounted Jam Nut Receptacle w Locking Post (Must add 32 to end of standard part number.)

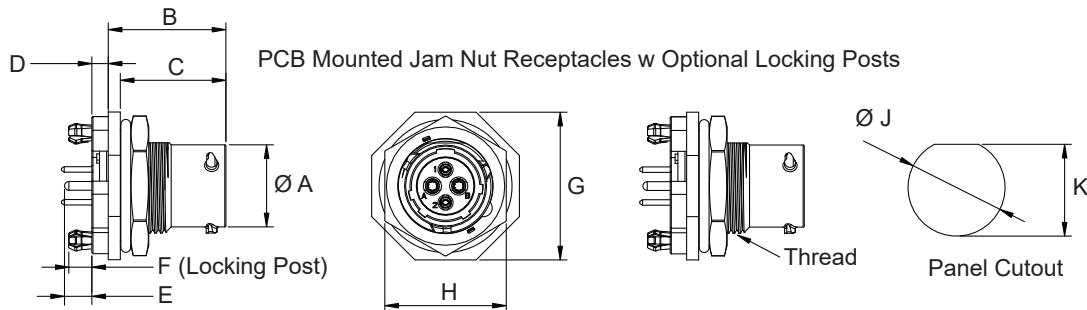
Part Number	Description	Size	Positions	Contact	Amps	Voltage
RTS78ND3S	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, NBR Seal	08	3	Socket	7	250
RTS78ND4S	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, NBR Seal	08	4	Socket	7	250
RTS710ND3S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	10	3	Socket	13	500
RTS710ND2S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	10	2+2	Socket	13 & 7.5	500
RTS710ND4S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	10	4	Socket	13	500
RTS710ND6S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	10	6	Socket	7.5	250
RTS712ND3S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	12	3	Socket	13	500
RTS712ND4S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	12	4	Socket	13	500
RTS712ND8P03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	12	8	Pin	13	500
RTS712ND8S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	12	8	Socket	13	500
RTS712ND10S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	12	10	Socket	7.5	250
RTS714ND7S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	14	7	Socket	13	500
RTS714ND8S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	14	8	Socket	13	500
RTS714ND12S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	14	12	Socket	13	500
RTS714ND19P03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	14	19	Pin	7.5	250
RTS714ND19S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	14	19	Socket	7.5	250
RTS716ND19S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	16	19	Socket	7.5	250
RTS716ND26S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	16	26	Socket	7.5	250
RTS718ND23S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	18	23	Socket	13	500
RTS718ND32S03	ecomate® Aquarius™, PCB Mounted (Contacts Included), Jam Nut, Receptacle, Silicone Rubber Seal	18	32	Socket	7.5	250

ecomate® Aquarius™ Jam Nut Receptacle Accessories

Image	Part Number	Description	Size
	RTS(XX)CCR(X)	ecomate® Aquarius™, Coding Color Ring - Available in Green (G), Yellow (Y) or Red (R) <b>Example:</b> RTS10CCRG = ecomate® Aquarius™, Coding Color Ring, Green	08, 10, 12, 14, 16, 18
	RTS0(XX)DCG	ecomate® Aquarius™, Dust Cap for Receptacle <b>Example:</b> RTS010DCG = ecomate® Aquarius™, Dust Cap for Receptacle, Size 10	10, 12, 14, 16, 18

ecomate® Aquarius™ PCB Mounted Jam Nut Receptacles w Locking Posts - Dimensions (in mm)

Size	Ø A	B	C	D	E	F	G	H	Thread	Ø J	K
08	11.9	21.7	19.5	2.9	5.0	4.1	24.0	19.1	7/16" - 28 UNEF	14.6	13.8
10	15.0	21.5	19.3	3.0	5.0	4.1	27.0	22.2	9/16" - 24 UNEF	17.8	16.8
12	19.0	21.5	19.3	3.0	5.0	4.1	27.0	31.7	11/16" - 24-2A UNEF	22.5	21.2
14	22.2	21.5	19.3	3.0	5.0	4.1	35.0	30.2	13/16" - 20 UNEF	25.6	24.2
16	25.3	21.5	19.3	3.0	5.0	4.1	38.1	33.3	15/16" - 20 UNEF	28.9	27.6
18	28.6	21.5	19.3	3.0	5.0	4.1	41.3	36.5	1" 1/16-18 UNEF	32.1	30.6



**For more information, contact:** Customer Service, +1 800 394 7732, [csr@amphenol-sine.com](mailto:csr@amphenol-sine.com)

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