



em eco|mate® RM

Circular, Rugged Metal Connectors for Industrial Applications



Available in 8 Shell Sizes and 32 Insert Arrangements

Amphenol Sine Systems' **ecomate® RM (Rugged Metal) Series** of circular, metal connectors provide an IP67 rating (in mated condition) for industrial applications, all in a sealed connector system. With a circular bayonet coupling system and a maximum current rating of 45A/600V, the ecomate® RM (Rugged Metal) Series is perfect for Indoor/Outdoor applications in Factory Automation, Industrial, Heavy Equipment, Heavy Duty, Transportation, and Entertainment/Lighting markets. Design is based on MIL-DTL-26482 specifications. All ecomate® RM products are compatible with other industry standard mating connectors.

Contacts are available in Machined or PCB (loose piece/bagged), or Stamped & Formed (reels) options and can be shared with the ecomate® Aquarius™, Aquarius™ Fathom Lock, and RSSM series.

Also available in an **ecomate® RM High Amperage Series** option with up to 300A/630V feat **RADSOK®** Contact Technology.

Key Features

- IP67 rated (in mated condition)
- Circular Bayonet Coupling System
- Machined, Stamped & Formed, and PCB Contacts
- MIL-DTL-26482-based Design
- EMI/RFI Shielding Capabilities
- Kits Available



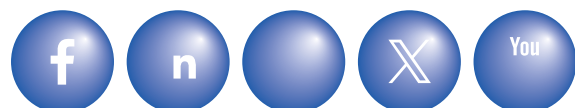
Potential Applications: Factory Automation, Industrial, Heavy Equipment, Heavy Duty, Transportation, and Entertainment/Lighting markets.

ecomate® RM - Specifications (Reference Individual Datasheets)

IP Rating	IP67 (in mated condition)
Max. Current Amperage	Up to 45A
Max. Voltage Rating (AC/DC)	600V
Operating Temperature	-40°C to +125°C
Coupling System	Circular Bayonet
Housing Body	Body-Zinc Alloy; Coupling-Nickel Alum.
Contact Types	Machined, Stamped & Formed, PCB
Contact Termination	Crimp, Solder
Contact Material	Copper Alloy (Gold, Tin & Silver Plating are available)
Wire AWG Range	30 - 8AWG (0.05 - 10.0 mm²)
Sealing Material	NBR/Silicone Rubber
Min. Mating Cycles	>500
Shielding	EMI/RFI Available

Flammability Rating	UL 94 V-0
Fluid Resistance	Gas, oil, mineral oil, acid bath, basic bath
Test Voltage Rating	1500V/2000V
Overvoltage Category	III
Strain Relief Clamp Range	1.5 - 14.0mm
Insulation Resistance	5000 megohms
Thermal Shock	No cracking, chipping or leaking after 20 test cycles from -55°C to 125°C
RoHS Compliant	RoHS ALL materials meet the requirements of the European Directive. (See website for documentation)
Approvals	UL ECBT2 & ECBT8

Connector Configurations



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

Contact Legend (Size (mm²) Amperage)

Size 20 (0.5mm ²) 7.5A	Size 16 (1.5mm ²) 13A	Size 12 (2.5mm ²) 23A	Size 8 (3.6mm ²) 45A

Recommended Wire Insulation Overall Diameter (OD) for End Caps

Contact Size	Typical Wire Range	(N) Normal Wire Seal	(R) Reduced Wire Seal
20	20-30AWG (0.50-0.05mm ²)	1.6-2.6mm (0.063-0.102 in)	1.2mm-1.6mm (0.047-0.063 in)
16	14-24AWG (2.5-0.14mm ²)	2.0-3.2mm (0.079-0.126 in)	1.2mm-2.1mm (0.047-.083 in)
12	12-14AWG (3.5-2.5mm ²)	3.3-4.3mm (0.130-0.169 in)	-
8	10-12AWG (16.0-10.0mm ²)	2.8-5.8mm (0.110-0.228 in)	-
8*	8-16AWG (10.0-1.5mm ²)	2.8-4.1mm (0.110-0.161 in)	-

NOTE: * Applies to 14-3 insert arrangement only. See chart below.

ecomate® RM - Shell Sizes & Insert Arrangements

(Front view of pin insert/rear view of socket insert shown for reference only)

Shell Size 10	Shell Size 10	Shell Size 10	Shell Size 10	Shell Size 10	Shell Size 12	Shell Size 12	Shell Size 12	Shell Size 12	Shell Size 12
10-03 3 x Size 16 (1.5mm ²) 13A/500V	10-04 4 x Size 16 (1.5mm ²) 13A/500V (N)	10-04 (2+2) MIX 2 x Size 16 (1.5mm ²) 13A 2 x Size 20 (0.5mm ²) 7.5A 500V (N)	10-06 6 x Size 20 (0.5mm ²) 7.5A/250V (N)	10-06 (3+3) MIX 3 x Size 16 (1.5mm ²) 13A 3 x Size 20 (0.5mm ²) 7.5A 500V	12-03 3 x Size 16 (1.5mm ²) 13A/600V (N)	12-04 4 x Size 16 (1.5mm ²) 13A/500V (N) (R)	12-04 (2+2) MIX 2 x Size 12 (2.5mm ²) 23A 2 x Size 20 (0.5mm ²) 7.5A 500V (N)	12-08 8 x Size 16 (1.5mm ²) 13A/500V (N) (R)	12-10 10 x Size 20 (0.5mm ²) 7.5A/250V (N)

Shell Size 14	Shell Size 14	Shell Size 14	Shell Size 14	Shell Size 14	Shell Size 14	Shell Size 14	Shell Size 14	Shell Size 14	Shell Size 14
14-03 3 x Size 8* (3.6mm ²) 45A/600V (N)	14-04 4 x Size 12 (2.5mm ²) 23A/500V (N)	14-04 (2+2) MIX 2 x Size 12 (2.5mm ²) 23A 2 x Size 16 (1.5mm ²) 13A 500V (N)	14-07 7 x Size 16 (1.5mm ²) 13A/500V (N) (R)	14-07 (3+4) MIX 3 x Size 12 (2.5mm ²) 23A 4 x Size 16 (0.5mm ²) 13A 500V	14-08 8 x Size 16 (1.5mm ²) 13A/500V (N)	14-12 12 x Size 16 (1.5mm ²) 13A/500V (N) (R)	14-12 (8+4) MIX 8 x Size 20 (0.5mm ²) 7.5A 4 x Size 16 (1.5mm ²) 13A 500V (N)	14-15 (14+1) MIX 14 x Size 20 (0.5mm ²) 7.5A 1 x Size 16 (1.5mm ²) 13A 500V (N)	14-19 19 x Size 20 (0.5mm ²) 7.5A/250V (N)

Shell Size 16	Shell Size 16	Shell Size 16	Shell Size 16	Shell Size 16	Shell Size 18	Shell Size 18	Shell Size 18	Shell Size 20	Shell Size 22
16-04 4 x Size 8 (3.6mm ²) 45A/600V (N)	16-09 (4+5) MIX 4 x Size 12 (2.5mm ²) 23A 5 x Size 16 (1.5mm ²) 13A 500V (N)	16-13 (3+10) MIX 3 x Size 12 (2.5mm ²) 20A 10 x Size 20 (0.5mm ²) 5A 500V (N)	16-19 19 x Size 16 (1.5mm ²) 13A/500V (N)	16-26 26 x Size 20 (0.5mm ²) 7.5A/250V (N)	18-08 8 x Size 12 (2.5mm ²) 23A/500V (N)	18-23 23 x Size 16 (1.5mm ²) 13A/500V (N) (R)	18-32 32 x Size 20 (0.5mm ²) 7.5A/250V (N)	20-28 * 28 x Size 16 (1.5mm ²) 13A/500V (N) (R)	22-35 35 x Size 16 (1.5mm ²) 13A/500V

Shell Size 22	Shell Size 24
22-38 38 x Size 16 (1.5mm ²) 13A/500V	24-48 48 x Size 16 (1.5mm ²) 13A/500V

Backshell Cable Diameters	
Shell Size 10	4.0 - 8.8mm
Shell Size 12	6.0 - 12.0mm
Shell Size 14	6.0 - 14.0mm
Shell Size 16	10.0 - 17.0mm
Shell Size 18	10.0 - 18.0mm
Shell Size 20	10.0 - 18.0mm
Shell Size 22	13.5 - 24.0mm
Shell Size 24	20.5 - 22.5mm

ecomate® RM - Accessories

Image	Part Number	Description
	RT0B-12CG-NS1	Shell Size 12, Cord Grip Right Angle, ecomate® RM, Cable OD Range 6.5-10.0mm, Zinc Alloy, Silver Body
	RT0B-12CG-NS2	Shell Size 12, Cord Grip Right Angle, ecomate® RM, Cable OD Range 9.0-12.5mm, Zinc Alloy, Silver Body
	RT0B-14CG-NS1	Shell Size 14, Cord Grip Right Angle, ecomate® RM, Cable OD Range 6.5-10.0mm, Zinc Alloy, Silver Body
	RT0B-14CG-NS2	Shell Size 14, Cord Grip Right Angle, ecomate® RM, Cable OD Range 9.0-12.5mm, Zinc Alloy, Silver Body
	RT0B-16CG-NS1	Shell Size 16, Cord Grip Right Angle, ecomate® RM, Cable OD Range 10.0-14.0mm, Zinc Alloy, Silver Body
	RT0B-16CG-NS2	Shell Size 16, Cord Grip Right Angle, ecomate® RM, Cable OD Range 13.5-17.0mm, Zinc Alloy, Silver Body
	RT0L-10CG-NS1	Shell Size 10, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 3.0-5.0mm, Zinc Alloy, Silver Body
	RT0L-10CG-NS2	Shell Size 10, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 5.0-8.5mm, Zinc Alloy, Silver Body
	RT0L-12CG-NS1	Shell Size 12, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 6.5-10.0mm, Zinc Alloy, Silver Body
	RT0L-12CG-NS2	Shell Size 12, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 9.0-12.5mm, Zinc Alloy, Silver Body
	RT0L-14CG-NS1	Shell Size 14, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 6.5-10.0mm, Zinc Alloy, Silver Body
	RT0L-14CG-NS2	Shell Size 14, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 9.0-12.5mm, Zinc Alloy, Silver Body
	RT0L-16CG-NS1	Shell Size 16, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 10.0-14.0mm, Zinc Alloy, Silver Body
	RT0L-16CG-NS2	Shell Size 16, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 13.5-17.0mm, Zinc Alloy, Silver Body
	RT0L-18CG-NS1	Shell Size 18, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 10.0-14.0mm, Zinc Alloy, Silver Body
	RT0L-18CG-NS2	Shell Size 18, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 13.5-17.0mm, Zinc Alloy, Silver Body
	RT0L-20CG-S6	Shell Size 20, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 15.0-17.0mm, Zinc Alloy, Silver Body
	RT0L-20CPG-S1	Shell Size 20, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 16.0-17.0mm, Zinc Alloy, Silver Body
	RT0L-20CPG-S2	Shell Size 20, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 20.5-22.5mm, Zinc Alloy, Silver Body
	RT0L-20CPG-S3	Shell Size 20, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 13.5-15.0mm, Zinc Alloy, Silver Body
	RT0L-20CPG-S5	Shell Size 20, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 13.5-14.0mm, Zinc Alloy, Silver Body
	RT0L-20CPG-S6	Shell Size 20, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 16.0-21.0mm, Zinc Alloy, Silver Body
	RT0L-22CG-NS1	Shell Size 22, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 13.5-18.0mm, Zinc Alloy, Silver Body
	RT0L-22CG-NS2	Shell Size 22, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 18.0-24.0mm, Zinc Alloy, Silver Body
	RT0L-24CPG-S1	Shell Size 24, Cord Grip Straight - Long, ecomate® RM, Cable OD Range 20.5-22.5mm, Zinc Alloy, Silver Body
	RT0S-10CG-NS1	Shell Size 10, Cord Grip Straight - Short, ecomate® RM, Cable OD Range 3.0-5.0mm, Zinc Alloy, Silver Body
	RT0S-10CG-NS2	Shell Size 10, Cord Grip Straight - Short, ecomate® RM, Cable OD Range 5.0-8.5mm, Zinc Alloy, Silver Body
	RT0S-12CG-NS1	Shell Size 12, Cord Grip Straight - Short, ecomate® RM, Cable OD Range 6.5-10.0mm, Zinc Alloy, Silver Body
	RT0S-12CG-NS2	Shell Size 12, Cord Grip Straight - Short, ecomate® RM, Cable OD Range 9.0-12.5mm, Zinc Alloy, Silver Body
	RT0S-14CG-NS1	Shell Size 14, Cord Grip Straight - Short, ecomate® RM, Cable OD Range 6.5-10.0mm, Zinc Alloy, Silver Body
	RT0S-14CG-NS2	Shell Size 14, Cord Grip Straight - Short, ecomate® RM, Cable OD Range 9.0-12.5mm, Zinc Alloy, Silver Body
	RT0S-16CG-NS1	Shell Size 16, Cord Grip Straight - Short, ecomate® RM, Cable OD Range 10.0-14.0mm, Zinc Alloy, Silver Body
	RT0S-16CG-NS2	Shell Size 16, Cord Grip Straight - Short, ecomate® RM, Cable OD Range 13.5-17.0mm, Zinc Alloy, Silver Body
	RT610DCG	Shell Size 10, Dust Cap w Chain for Plug, ecomate® RM, Zinc Alloy, Silver Body
	RT612DCG	Shell Size 12, Dust Cap w Chain for Plug, ecomate® RM, Zinc Alloy, Silver Body
	RT614DCG	Shell Size 14, Dust Cap w Chain for Plug, ecomate® RM, Zinc Alloy, Silver Body
	RT616DCG	Shell Size 16, Dust Cap w Chain for Plug, ecomate® RM, Zinc Alloy, Silver Body
	RT618DCG	Shell Size 18, Dust Cap w Chain for Plug, ecomate® RM, Zinc Alloy, Silver Body
	RT620DCG	Shell Size 20, Dust Cap w Chain for Plug, ecomate® RM, Zinc Alloy, Silver Body
	RB00011910	Shell Size 10, Dust Cap for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RB00011912	Shell Size 12, Dust Cap for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RB00011914	Shell Size 14, Dust Cap for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RB00011916	Shell Size 16, Dust Cap for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RB00011918	Shell Size 18, Dust Cap for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RB00011920	Shell Size 20, Dust Cap for Receptacle, ecomate® RM, Silicone Rubber, Black Body

Image	Part Number	Description
	RT010RL	Shell Size 10, Dust Cap w Tether for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RT012RL	Shell Size 12, Dust Cap w Tether for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RT014RL	Shell Size 14, Dust Cap w Tether for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RT016RL	Shell Size 16, Dust Cap w Tether for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RT018RL	Shell Size 18, Dust Cap w Tether for Receptacle, ecomate® RM, Silicone Rubber, Black Body
	RT020RL	Shell Size 20, Dust Cap w Tether for Receptacle, ecomate® RM, Silicone Rubber, Black Body

	RT010DCG	Shell Size 10, Dust Cap w Chain for Receptacle, ecomate® RM, Zinc Alloy, Silver Body
	RT012DCG	Shell Size 12, Dust Cap w Chain for Receptacle, ecomate® RM, Zinc Alloy, Silver Body
	RT014DCG	Shell Size 14, Dust Cap w Chain for Receptacle, ecomate® RM, Zinc Alloy, Silver Body
	RT016DCG	Shell Size 16, Dust Cap w Chain for Receptacle, ecomate® RM, Zinc Alloy, Silver Body
	RT018DCG	Shell Size 18, Dust Cap w Chain for Receptacle, ecomate® RM, Zinc Alloy, Silver Body
	RT020DCG	Shell Size 20, Dust Cap w Chain for Receptacle, ecomate® RM, Zinc Alloy, Silver Body
	RT024DCG	Shell Size 24, Dust Cap w Chain for Receptacle, ecomate® RM, Zinc Alloy, Silver Body

	RTFD08B	Shell Size 8, Gasket for Square Flange Receptacle, ecomate® RM, EPDM, Black Body
	RTFD10B	Shell Size 10, Gasket for Square Flange Receptacle, ecomate® RM, EPDM, Black Body
	RTFD12B	Shell Size 12, Gasket for Square Flange Receptacle, ecomate® RM, EPDM, Black Body
	RTFD14B	Shell Size 14, Gasket for Square Flange Receptacle, ecomate® RM, EPDM, Black Body
	RTFD16B	Shell Size 16, Gasket for Square Flange Receptacle, ecomate® RM, EPDM, Black Body
	RTFD18B	Shell Size 18, Gasket for Square Flange Receptacle, ecomate® RM, EPDM, Black Body
	RTFD22B	Shell Size 22, Gasket for Square Flange Receptacle, ecomate® RM, EPDM, Black Body
	RTFD24B	Shell Size 24, Gasket for Square Flange Receptacle, ecomate® RM, EPDM, Black Body

	108039110	Shell Size 10, Locking Clip w Lanyard, ecomate® RM, Black Body
	108039112	Shell Size 12, Locking Clip w Lanyard, ecomate® RM, Black Body
	108039114	Shell Size 14, Locking Clip w Lanyard, ecomate® RM, Black Body
	108039116	Shell Size 16, Locking Clip w Lanyard, ecomate® RM, Black Body
	108039118	Shell Size 18, Locking Clip w Lanyard, ecomate® RM, Black Body
	108039120	Shell Size 20, Locking Clip w Lanyard, ecomate® RM, Black Body
	108039122	Shell Size 22, Locking Clip w Lanyard, ecomate® RM, Black Body
	108039124	Shell Size 24, Locking Clip w Lanyard, ecomate® RM, Black Body