

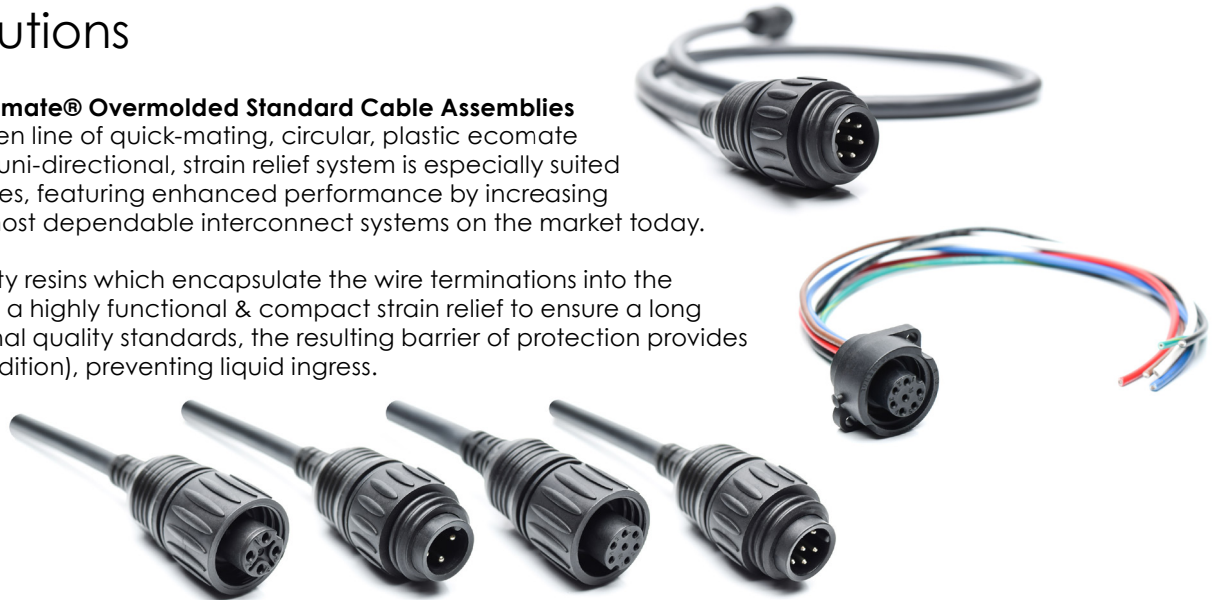


# **em** eco|mate® Overmolded Cable Assemblies

## Assembled Solutions

Amphenol Sine Systems' **ecomate® Overmolded Standard Cable Assemblies** are an extension to the proven line of quick-mating, circular, plastic ecomate connectors. The integrated, uni-directional, strain relief system is especially suited to the ecomate® Plastic Series, featuring enhanced performance by increasing the reliability of one of the most dependable interconnect systems on the market today.

The process utilizes first-quality resins which encapsulate the wire terminations into the connector housing, creating a highly functional & compact strain relief to ensure a long service life. Built to exceptional quality standards, the resulting barrier of protection provides an IP68 rating (in mated condition), preventing liquid ingress.

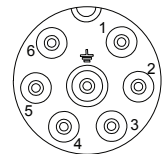
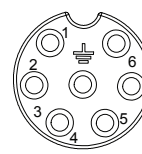
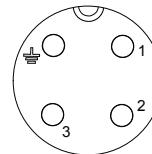
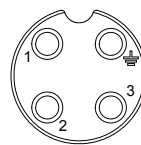


The ergonomic design further enhances ecomate® long standing functionality available in male and female double or single-ended cordsets in silver plated 4 & 7 position configurations. Amphenol offers standard mating receptacles complete with wire leads or field-attachable connectors for a user-friendly & secure connection system.

The UL listed PVC jacketed cable offers the inherent benefits of TC-ER, Submersible Pump, Direct Burial, as well as Sunlight Resistant ratings. Standard wiring is point-to-point, with special wiring available upon request. Each cable assembly is manufactured and tested per the requirements of IPC/WHMA-A-620.

### Key Features

- Secure for outdoor and indoor applications.
- Rapid Screw Locking Coupling System
- Rugged plastic connector housing
- High flexibility cable
- Resistant to a wide range of chemical fluids
- Mating Cycles: 500
- UV & corrosion resistant
- RoHS compliant



**Potential Applications:** Industrial Control, Lighting Systems, Electronics and Solar



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General Characteristics

	Standard	Characteristics	
		4 (3+PE)	7 (6+PE)
Number of Contacts		4 (3+PE)	7 (6+PE)
Wire Gauge AWG		0.75 - 2.5 mm <sup>2</sup> 18-14AWG	0.14 - 1.5 mm <sup>2</sup> 26-16AWG
Flammability	UL94	VO	
Locking System	Rapid Screw Locking Coupling System		

Electrical Characteristics

Rated Voltage	IEC 60664-1 <sup>1)</sup>	400V	250V
Pollution Degree	IEC 60664-1 <sup>1)</sup>	3	
Installation Category	IEC 60664-1 <sup>1)</sup>	III	
Insulation Group	IEC 60664-1 <sup>1)</sup>	II	
Rated Impulse Withstand Voltage	IEC 60664-1 <sup>1)</sup>	6000V	4000V
Current Rating	IEC 60512-5-2	16A/+55°C	13A/+55°C
Contact Resistance	IEC 60512-2-1	≤ 5m Ω	
Insulation Resistance	IEC 60512-3-1	≥ 10 <sup>8</sup> Ω	

Climatic Characteristics

Climatic Category	IEC 60068-1	40/100/56	40/125/56
Operating Temperature		-40°C to +100°C	

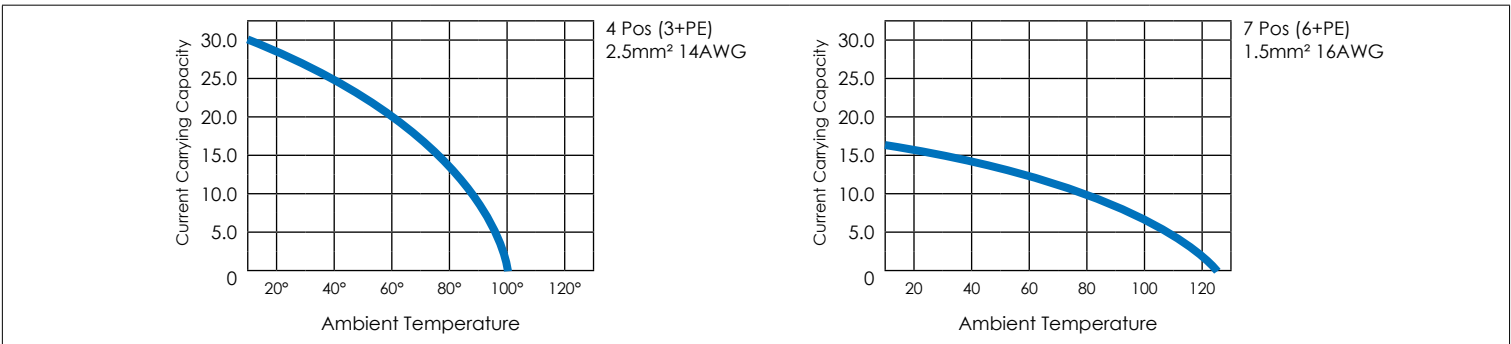
Mechanical Characteristics

IP Rating	IEC 60529	IP65 (unmated) / IP68 (mated)	
Insertion and Withdrawal Forces	IEC 60512-13-2	≤ 15N	≤ 30N
Mechanical Operation	IEC 60512-9-1	≥ 500 Mating Cycles	

Materials

Cable Rating		UL TC-ER, MTW, WTTC, DP-1, AWM 2586, cUL CIC-TC, CSA AWM	
Housing Material		PA 6.6 / PA 6	
Dielectric Material		PA 6.6 / PA 6	
Gasket Material		Neoprene	
Contact Plating		Silver Plating	

Derating Curves<sup>2)</sup>



The stated technical values refer to the use as connector without breaking capacity (COC). If these components are used as plug and socket device a reduced current carrying capacity has to be considered. The characteristics have to be requested from the manufacturer.

<sup>1)</sup> DIN EN 60664-1  $\Delta$ = VDE 0110-1  $\Delta$ = IEC 60664-1 <sup>2)</sup> All contacts under load

**Cable Assemblies** are available in standard lengths (Meters) of: 1, 2, 3, 5, 7, 10 and 15.  
**Receptacles** are available in standard lengths (Meters) of: 0.3, 0.5 and 1.

To specify Length, replace the **XXX** in the Part Number with the specific 3-digit number from the **Length Indicator Chart** of your choice. See examples below.

Length Indicator Chart	
Replace <b>XXX</b> with:	Length (Meters)
<b>003</b>	0.3 Meter
<b>005</b>	0.5 Meter
<b>010</b>	1 Meter
<b>020</b>	2 Meter
<b>030</b>	3 Meter
<b>050</b>	5 Meter
<b>070</b>	7 Meter
<b>100</b>	10 Meter
<b>150</b>	15 Meter

**CA0161B223XXX12 @ 1 Meter Length = CA0161B22301012**  
4 Pos Circular Molded Cable Assy, Std. Strain Relief, Female to Leads, 14AWG, **1M Length**

**CA0162C223XXX12 @ 10 Meter Length = CA0162C22310012**  
4 Pos Circular Molded Cable Assy, Std. Strain Relief, M-F, 14AWG, **10M Length**

**CA0161F116XXX @ 0.5 Meter Length = CA0161F116005**  
7 Pos Female Receptacle, UL1015, 16AWG Leads, **0.5 Length**

4 Position - Molded Cable Assemblies and Receptacles

Part Number	Description	Length (Meters)
CA0161B223XXX12	4 Pos Circular Molded Cable Assy, Std. Strain Relief, Female to Leads, 14AWG	See Length Indicator Chart
CA0161A223XXX12	4 Pos Circular Molded Cable Assy, Std. Strain Relief, Male to Leads, 14AWG	See Length Indicator Chart
CA0162C223XXX12	4 Pos Circular Molded Cable Assy, Std. Strain Relief, M-F, 14AWG	See Length Indicator Chart
CA0161F113XXX	4 Pos Female Receptacle, UL1015, 14AWG Leads	See Length Indicator Chart
CA0161G113XXX	4 Pos Male Receptacle, UL1015, 14AWG Leads	See Length Indicator Chart



7 Position - Molded Cable Assemblies and Receptacles

Part Number	Description	Length (Meters)
CA0161B226XXX12	7 Pos Circular Molded Cable Assy, Std. Strain Relief, Female to Leads, 16AWG	See Length Indicator Chart
CA0161A226XXX12	7 Pos Circular Molded Cable Assy, Std. Strain Relief, Male to Leads, 16AWG	See Length Indicator Chart
CA0162C226XXX12	7 Pos Circular Molded Cable Assy, Std. Strain Relief, M-F, 16AWG	See Length Indicator Chart
CA0161F116XXX	7 Pos Female Receptacle, UL1015, 16AWG Leads	See Length Indicator Chart
CA0161G116XXX	7 Pos Male Receptacle, UL1015, 16AWG Leads	See Length Indicator Chart



4 and 7 Position - Mating Connectors

Part Number	Description
C01620H00310012	4 Pos Male Cable Connector, Straight, Silver Plated Contacts, Field Installable, Str. Relief w Clamping Ring 6-12.5mm, Black
C01620D00310012	4 Pos Female Cable Connector, Straight, Silver Plated Contacts, Field Installable, Str. Relief w Clamping Ring 6-12.5mm, Black
C01610H00600012	7 Pos Male Cable Connector, Straight, Silver Plated Contacts, Crimp Termination, Str. Relief w Clamping Ring 6-12.5mm, Black
C01610D00600012	7 Pos Female Cable Connector, Straight, Silver Plated Contacts, Crimp Termination, Str. Relief w Clamping Ring 6-12.5mm, Black



4 and 7 Position - Protective Caps

Part Number	Description
C01600U00000012	Protective Cap for Male Receptacle with Tether
C01600V00000012	Protective Cap for Female Receptacle with Tether
C01600U00001012	Protective Cap for Male Cable Connector with Tether
C01600V00001012	Protective Cap for Female Cable Connector with Tether



**em** eco|mate® Family

Our **ecomate® Family** of circular, multiway connectors provide an IP65-69K rating range (in mated condition) for indoor/outdoor industrial applications and feature robust, durable, plastic or metal construction with either a circular bayonet, a quick-locking automatic, or a rapid coupling system option. With a max. amperage/voltage range of 45A-300A/600V-900V, depending on the series, our ecomate® Family of products are perfect for a wide range of Factory Automation, Industrial, Heavy Equipment, Heavy Duty, Transportation, and Entertainment/Lighting markets. For other assembled solution options across our product lines, contact Customer Service at +1 800 394 7732.

