



# Solutions Guide

## Product Line Overview

**Amphenol**  
Industrial Products Group

© 2016 Amphenol Sine Systems Corporation, 44274 Morley Drive, Clinton Township MI 48036 USA. [www.amphenol-sine.com](http://www.amphenol-sine.com). Customer Service +1 800 394 7732  
Every effort has been made to ensure that the information contained in this document is accurate at the time of publication. Specifications or information stated in this document are subject to change without notice.

### Value-Add Custom Connectors and Cable Assemblies

Amphenol Sine Systems offers custom molded cable assembly solutions across all our standard product lines. If one of our standard products doesn't fit your specific needs, our Engineers will work with you to custom design a solution specific to your application. Whether you are looking for a customized connector solution, a complete turn-key cable assembly solution, custom wiring to simplify machine assembly or a specific mold color, Amphenol Sine Systems is your one source for proven, reliable and innovative results.



### Audio & Lighting Connectors

Amphenol Audio, branded as Entertainment@Amphenol, headquartered in Melbourne, Australia, and represented in North America by Amphenol Sine Systems, provides an extensive range of professional connector and cabling solutions specifically for the Audio, Lighting, Broadcast and Entertainment markets. A broad range of products are offered including XLR, Phone, Speaker and Powerplugs, Circular and Rectangular Multipins, Ethernet Data and Coaxial connectors.

Providing an extensive range of professional Audio & Entertainment Lighting connector products.

XLR In-Line	XLR Chassis & PCB	Power	Ethernet	1/4" & 3.5mm
AC and AX Series	AC Series	HP Series	Locking RJ45- XLRnet Series	Phone Plugs & Jacks
AC 3, 4, 5, 6A & 7 pos.	3, 4, 5, 6A & 7 pos.	3 pole, 25A / 250 VAC	Class D, Cat5E, Cat6 Performance Options	1/4" & 3.5mm
AX 3, 4 & 5 pos.	A & B Type w/ H or V PCB tails	Power "In" Blue/Keying	Cable Kit retrofits to preassembled RJ45 assemblies	Musicians & Pro Series Plugs
Satin Nickel or Matte Black	D & P Type flange Chassis Mount	Power "Out" Gray/Keying	H & V /Shielded or Non Shielded PCB Options	Satin Nickel or Matte Black
Gold Contacts Optional	Satin Nickel or Matte Black	Screw Terminals on In-Lines	w/wo Integral LED's	Gold Contacts Optional
Multi-Color Coding Options	Gold Contacts Optional	Chassis w/wo Terminal Barriers	Feed-Thru and IDC Chassis Options	Stereo or Mono w/ over switching and grounding options on jacks
<b>Mini XLR</b>	<b>Loud Speaker</b>	<b>Dante</b>	<b>RCA</b>	<b>Multipin</b>
<b>G Series</b>	<b>SP, EP and AP Series</b>	<b>Digital Network Adapters</b>	<b>M Series</b>	<b>MP-41 &amp; MP-5/6 Series</b>
3, 4, 5 & 6 pos.	SP 2 & 4 pole, 30A 250 VAC	Dante "IN" to Analog "OUT"	Robust Diecast Shell w/ Flexible Grommet	MP-41, 13, 12, 7, 5, 4.5, 8 & 10 pos.
In-Line, Bulkhead and PCB M & F Options	PG Gland & Strain Relief Options	Single or Dual Channel Balanced Analog Outputs	6 Color Coding Options	13A, 200V, 3-8 pos. / 7, 5, 200V, 11 pos.
Positive Latchlock	EP & AP 3, 4, 5 & 6 pos. 20A / 8 pos. 15A	Rugged Overmolded Construction	Gold Plated Contacts	MP-62, 38 & 6 pos.
Bright Nickel or Black Shell Finish	M & F In-Line & Chassis Options	Molded Cable Strain Relief		
	Satin Nickel or Matte Black			

Series	AHD Series™	AHDP Dura Mate™	AT Series™	AT Board Lock Series™	ATM Series™	ATP Series™	Hydro Net™ Multi-Hub	Magna Mate™	Multi Mate™ Distributed Power System	Panel Mate™	C091 A/D Circular	C091 B Circular	C091 D+ Circular	C16-3 Circular	C16-L Circular	eco mate™ Aquarius™ Waterproof	eco mate™ Circular	
Product Image																		
Typical Applications	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Marine, NMEA Networks	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Industrial Automation, Motion Control, Process Control Equipment, Wireless Infrastructure	Industrial Automation, Motion Control, Process Control Equipment, Wireless Infrastructure	Industrial Automation, Motion Control, Process Control Equipment, Wireless Infrastructure	Industrial Automation, Motion Control, Process Control Equipment, Wireless Infrastructure	Industrial Automation, On-Machine, Process Control, Alternative Energy, Traffic Control	Alternative Energy, Industrial Automation, On-Machine, Process Control	Alternative Energy, Off-Road, Instrumentation, Building Automation, Telecom, Traffic Control	Alternative Energy, Industrial Automation, On-Machine, Process Control	
Coupling System	Bayonet	Twist Lock & Push-On	Integral Latch	Integral Latch	Integral Latch	Integral Latch	Integral Latch & Threaded (M12)	Integral Latch	Integral Latch	Integral Latch	Metal Screw	Bayonet	Metal Screw	Quick Locking	Quick Locking	Bayonet Coupling	Threaded	
Contact Positions	7-31	7-47	2-13	2-13	2-4	4-5	4	2-4	2-13	2-14	2-14	2-14	2-14	3-20	5	8, 10, 12 and 14	4 & 7	
Housing Material	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Metal	Plastic	Metal	Plastic	Plastic	Plastic	Plastic	Plastic	
AWG	10-20 AWG	7-20 AWG	14-20 AWG	12 & 16 AWG	16-22 AWG	12-14 AWG	16 & 20 AWG	8-12 AWG	12 & 20 AWG	18-28 AWG	18-28 AWG	18-28 AWG	10-28 AWG	8-14 AWG	12-28 AWG	4-16 AWG		
Contact Current Ratings	13A	7.5 to 80A	13A	13 to 25A	7.5A	25A	13 to 25A	180 A	13 to 25A	Up to 300V/5A	Up to 300V/5A	Up to 300V/5A	Up to 40A	50A	Up to 500V/23A	10 to 20A		
IP Ratings	IP67 mated	IP67 mated	IP67 mated	IP67 mated	IP67 mated	IP67 mated	IP67 mated	IP67 mated	IP67 mated	IP40/67 mated	IP68 mated	IP65 mated	IP68/69K mated	IP65 mated	IP68/69K mated	IP68/69K mated		
Mating Cycles	100+	100+	100+	100+	100+	100+	100+	100+	100+	Up to 1000	Up to 1000	Up to 1000	500+	500+	500+	500+		
Contact Types	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, "PC Tail"	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Screw and Crimp Termination	Screw and Crimp Termination	Machined, Stamped & Formed, PC Tail	Screw, Solder and Crimp Termination		
Series	eco mate RM™ Circular	eco mate RTHP™ Circular	RADSOK® Ground Mate™	heavy mate E/EE Rectangular	heavy mate M Rectangular	M23 Circular	M23 Hybrid DNC Circular	M23 Motion Cables	M40 Circular	sensor mate M12 Ethernet	sensor mate M12 X-Code	miniBOSS™ M22	PowerBOSSlite™ M35	PowerBOSS™ M40 with CheckMate™	Smart Card C700	VersaBOSS™ M/DF Cable		
Product Image																		
Typical Applications	Motion Control, Industrial Automation, On-Machine, Robotics, Rail transit	Motion Control, Industrial Automation, On-Machine, Robotics	Battery Storage, Heavy Equipment, Industrial Automation, On-Machine	Industrial Automation, On-Machine, Rail Transit, Process Control, Robotics	Motion Control, Industrial Automation, On-Machine, Rail Transit, Process Control, Robotics	Motion Control, Industrial Automation, On-Machine, Packaging, Alternative Energy	Motion Control, Industrial Automation, On-Machine, Packaging, Alternative Energy	Motion Control, Industrial Automation, On-Machine, Allen-Bradley 2090 Series	Motion Control, Industrial Automation, On-Machine, Packaging, Alternative Energy	Industrial Automation, On-Machine, Process Control, Robotics, Motion Control	Industrial Automation, On-Machine, Process Control, Robotics, Motion Control	Industrial Automation, On-Machine, Process Control, Robotics, Motion Control	Industrial Automation, On-Machine, Process Control, Robotics, Motion Control	Industrial Automation, On-Machine, Process Control, Robotics, Motion Control	Industrial Automation, On-Machine, Process Control, Robotics, Motion Control	Point of Sales Terminals, Digital Decoders, Vending	Industrial Automation, On-Machine, Process Control, Robotics	
Coupling System	Metal Bayonet Locking	Metal Bayonet Locking	Press-fit	Quick Latching	Quick Latching	Metal Threaded & Quick Locking	Metal Threaded	Metal Threaded & Quick Locking	Metal Threaded & Quick Locking	Plastic & Metal Threaded	Metal Threaded	Metal Threaded	Metal Threaded	Metal Quick Connect	Push, Push-Pull, Push-Push, Pushmatic	Metal Bayonet Locking		
Contact Positions	3-48	1-3	1	6-48	1-140	6-19	2 Pwr + PE + Signal + 4 Ethernet	6-19	6-8	3-8	4	8	2-6	3 & 4	6	6-20	9	
Housing Material	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Overmolded	Overmolded	Overmolded	Overmolded	Overmolded	Metal & Plastic	Overmolded		
AWG	14-30 AWG	8 to 0/0 AWG	8-12 AWG	10-20 AWG	28 to 000 AWG	12-28 AWG	14-28 AWG	12-28 AWG	8-18 AWG	18 to 24 AWG	24 AWG	26 AWG	12 to 18 AWG	10 AWG	8 & 10 AWG	28 AWG	12 to 18 AWG	
Contact Current Ratings	13 to 45A	86 to 300A	180A	10 to 22A	10 to 300A	7 to 30A	0.5 to 18A	7 to 30A	30 to 75A	2 to 12A	Cat 5e	Cat 6a	8 to 20A	25 & 30A	25 & 32A	N/A	20A	
IP Ratings	IP67 mated	IP67 mated	Up to IP65 mated	IP65, IP67 & IP68 mated	IP65, IP67 & IP68 mated	IP67 mated	IP67 mated	IP67 mated	IP67 mated	IP67 & IP68 mated	IP67 mated	IP67 mated	IP67 mated	IP67 Mated	IP67 Mated	N/A	IP67 Mated	
Mating Cycles	250+	250+	1,000+	500+	500+	500+	500+	500+	500+	500+	500+	500+	500+	500+	500+	500,000+	500+	
Contact Types	Machined, Stamped & Formed, PC Tail	Machined RADSOK®	Machined RADSOK®	Crimp (Turned and Stamped & Formed), Screw, Push-In, Cage Clamp	Crimp (Turned and Stamped & Formed)	Machined	Machined	Machined	Machined	Machined, Stamped & Formed, Machined (Field Installable)	Machined	Machined	Machined	Machined	Chip/Magnetic Stripe	Machined		