

**INDUSTRIAL@AMPHENOL**  
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Amphenol Sine Systems, USA  
Amphenol Tuchel Electronics, GmbH

**ENTERTAINMENT@AMPHENOL**  
TRUSTED GLOBALLY

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# Solutions Guide






## Product Line Overview

**Amphenol**  
Industrial Products Group

## 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.









Series	AHD Series™	AHDP Dura   Mate™	AT Series™	AT Board   Lock Series™	ATM Series™
<b>Product Image</b>					
<b>Typical Applications</b>	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
<b>Coupling System</b>	Bayonet	Twist Lock & Push-On	Integral Latch	Integral Latch	Integral Latch
<b>Contact Positions</b>	7-31	7-47	2-13	2-13	2-13
<b>Housing Material</b>	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
<b>AWG</b>	10-20 AWG	7 thru 20 AWG	14-20 AWG	12 & 16 AWG	16 to 22 AWG
<b>Contact Current Ratings</b>	13A	7.5-80A	13A	13A	7.5A
<b>IP Ratings</b>	IP67 mated	IP68/69K mated	IP67 mated	IP67 mated	IP67 mated
<b>Mating Cycles</b>	100+	100+	100+	100+	100+
<b>Contact Types</b>	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, "PC Tail"	Machined, Stamped & Formed










Series	C16-3 Circular	C16-L Circular	eco   mate™ Aquarius™ Waterproof	eco   mate™ Plastic Circular	eco   mate RM™ Circular
<b>Product Image</b>					
<b>Typical Applications</b>	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	Motion Control, Industrial Automation, On-Machine, Robotics, Rail transit
<b>Coupling System</b>	Quick Locking	Quick Locking	Bayonet Coupling	Threaded	Metal Bayonet Locking
<b>Contact Positions</b>	3-20	5	3-32	4 & 7	3-48
<b>Housing Material</b>	Plastic	Plastic	Plastic	Plastic	Metal
<b>AWG</b>	10-28 AWG	8-14 AWG	12-28 AWG	14-26 AWG	14 to 30 AWG
<b>Contact Current Ratings</b>	5 to 40A	50A	Up to 630V/180A	10 to 20A	7 to 45A
<b>IP Ratings</b>	IP65 mated	IP65 mated	IP68/69K mated	IP67 mated	IP67 mated
<b>Mating Cycles</b>	500+	500+	500+	500+	250+
<b>Contact Types</b>	Screw and Crimp Termination	Screw	Machined, Stamped & Formed, PC Tail	Screw, Solder and Crimp Termination	Machined, Stamped & Formed, PC Tail



Manufacturers of interconnect products in the world. Amphenol designs, manufactures and markets electrical, electronic and fiber optic connectors. Presence in high growth markets including Automotive, Broadband Communications, Commercial Aerospace, Industrial, Information Technology

ATP Series™	Hydro   Net™ Multi-Hub	Magna   Mate™	Multi   Mate™ Distributed Power System	Panel   Mate™	C091 A/D Circular
					
Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Marine, NMEA Networks	Heavy Equipment, Transportation, Marine, Battery Storage, Alternative Energy	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Heavy Equipment, Transportation, Marine, Diagnostic, Alternative Energy	Industrial Automation, Motion Control, Process Control Equipment, Wireless Infrastructure
Integral Latch	Integral Latch & Threaded (M12)	Integral Latch	Integral Latch	Integral Latch	Metal Screw
2-4	4-5	4	2-4	2-13	2-14
Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Metal
12 to 14 AWG	16 & 20 AWG	8 thru 12 AWG	12 & 20 AWG	12 to 20 AWG	18 -28 AWG
25A	13 to 25A	180 A	13 to 25A	13 to 25A	Up to 300V/5A
IP67 mated	IP67 mated	IP67 mated	IP67 mated	IP67 mated	IP40/67 mated
100+	100+	100+	100+	100+	Up to 1000
Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, Stamped & Formed



eco   mate RTHP™ Circular	RADSOK® Ground   Mate™	heavy   mate E/EE Rectangular	heavy   mate M Rectangular	M23 Circular	M23 Hybrid DNC Circular	M23 Hybrid DNC Circular
						
Motion Control, Industrial Automation, On-Machine, Robotics	Battery Storage, Heavy Equipment, Industrial Automation, On-Machine	Industrial Automation, On-Machine, Rail Transit, Process Control, Robotics	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	Industrial Automation, On-Machine, Robotics
Metal Bayonet Locking	Press-fit	Quick Latching	Quick Latching	Metal Threaded & Quick Locking	Metal Threaded	Metal Threaded
1-3	1	6-48	1-140	6-19	2 PWR + PE + Signal + 4 Ethernet	2 PWR + PE + Signal + 4 Ethernet
Metal	Metal	Metal	Metal	Metal	Metal	Metal
8 to 0/0 AWG	8 to 12 AWG	10 to 20 AWG	28 to 000 AWG	12 to 28 AWG	14 to 28 AWG	14 to 28 AWG
86 to 300A	180A	10 to 22A	10 to 300A	7 to 30A	0.5 to 18A	0.5 to 18A
IP67 mated	Up to IP65 mated	IP65, IP67 & IP68 mated	IP65, IP67 & IP68 mated	IP67 mated	IP67 mated	IP67 mated
250+	1,000+	500+	500+	500+	500+	500+
Machined RADSOK®	Machined RADSOK®	Crimp (Turned and Stamped & Formed), Screw, Push-In, Cage Clamp	Crimp (Turned and Stamped & Formed)	Machined	Machined	Machined

C091 B Circular	C091 D+ Circular	sensor   mate M12	sensor   mate M12 Ethernet	sensor   mate M12 X-Code	miniBOSS™ M22
					
Industrial Automation, Motion Control, Process Control Equipment, Wireless Infrastructure	Industrial Automation, Motion Control, Process Control Equipment, Wireless Infrastructure	Industrial Automation, On-Machine, Marine, 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
Bayonet	Metal Screw	Plastic & Metal Threaded	Metal Threaded	Metal Threaded	Metal Threaded
2-14	2-14	3-8	4	8	2 - 6
Plastic	Metal	Overmolded	Overmolded	Overmolded	Overmolded
18-28 AWG	18 -28 AWG	18 to 24 AWG	24 AWG	26 AWG	12 to 18 AWG
Up to 300V/5A	Up to 300V/5A	2 to 12A	Cat 5e	Cat 6a	8 to 20A
IP40 mated	IP68 mated	IP67 & IP68 mated	IP67 mated	IP67 mated	IP67 mated
Up to 1000	Up to 1000	500+	500+	500+	500+
Machined, Stamped & Formed	Machined, Stamped & Formed	Machined, S&F, Machined (Field Installable)	Machined	Machined	Machined

M23 Motion Cables	M40 Circular	PowerBOSSlite™ M35	PowerBOSS™ M40 with CheckMate™	VersaBOSS™ VFD Cables	Smart Card C700
					
Motion Control, Industrial Automation, On-Machine, Packaging, Len-Bradley 2090 Series	Motion Control, Industrial Automation, On-Machine, Packaging, Alternative Energy	Industrial Automation, On-Machine, Process Control, Robotics	Industrial Automation, On-Machine, Process Control, Robotics	Industrial Automation, On-Machine, Process Control, Robotics	Point of Sales Terminals, Digital Decoders, Vending
Metal Threaded & Quick Locking	Metal Threaded & Quick Locking	Metal Threaded	Metal Quick Connect	Metal Bayonet Locking	Push, Push-Pull, Push-Push, Pushmatic
6 -19	6-8	3 & 4	6	9	6 to 20
Metal	Metal	Overmolded	Overmolded	Overmolded	Metal & Plastic
12 to 28 AWG	8 to 18 AWG	10 AWG	8 & 10 AWG	12 to 18 AWG	28 AWG
7 to 30A	30 to 75A	25 & 30A	25 & 32A	20A	N/A
IP67 mated	IP67 mated	IP67 Mated	IP67 Mated	IP67 Mated	N/A
500+	500+	500+	500+	500+	500,000+
Machined	Machined	Machined	Machined	Machined	Chip/Magnetic Stripe

## 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 Power Plugs, Circular and Rectangular Multipins, Ethernet Data and Coaxial connectors.



XLR In-Line	XLR Chassis & PCB	Power	Ethernet	1/4" & 3.5mm
<b>AC and AX Series</b>	<b>AC Series</b>	<b>HP Series</b>	<b>Locking RJ45- XLRnet Series</b>	<b>Phone Plugs &amp; Jacks</b>
				
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/ Several 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-62/5 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, 19, 25, 37, 54, 85 & 150 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 13-85 pos. / 7.5A, 200 V 150 pos.
Positive Latchlock	EP & AP 3, 4, 5 & 6 pos. 20A / 8 pos. 15A	Rugged Overmolded Construction	Gold Plated Contacts	MP-62/5 39 & 61 pos.
Bright Nickel or Black Shell Finish	M & F In-Line & Chassis Options	Molded Cable Strain Relief		
	Satin Nickel or Matte Black			