

Amphenol Industrial



Amphenol Industrial Operations

Products Overview

Amphenol

is one of the largest manufacturers of interconnect products in the world. The company designs, manufactures and markets electrical, electronic and fiber optic connectors, coaxial and flat-ribbon cable, and interconnect systems. Amphenol has long been the accepted leader in providing quality connectors and interconnect systems to the Industrial, Military and Telecommunication markets.



Company Introduction



Amphenol Industrial Operations

Amphenol Industrial Operations (AIO), a division of the Amphenol Corporation, is a prominent manufacturer of cylindrical connectors known around the world. Amphenol Industrial's product lines consist of rectangular, standard miniature, fiber optic, EMI/EMP filter, and a variety of special application connectors.

Manufacturing connectors since 1932, we take pride that Amphenol Industrial Operations is the undisputed leader in interconnect systems for harsh environment applications. Innovations like our RADSOK® contact technology can provide roughly 50% more current through the same size pin. Connectors utilizing this RADSOK® technology will outperform similar products in the market hands down.

The Sidney, NY facility, nestled at the foothills of the Catskill Mountains, is over 307,000 square feet. This complex houses over 1000+employees incorporating state-of-the-art manufacturing technologies. The facility is both ISO9001 certified and qualified to MIL-STD-790 requirements.



Amphenol Technology (Zhuhai) Co., Ltd.

Established in 2007, Amphenol Technology (Zhuhai) Co., Ltd. is a manufacturing facility for Amphenol Industrial Operations, which serves a number of industrial markets, included but not limited to Factory Automation, Transportation, Heavy Equipment, Alternative Energy, Energy Storage, Server/Data Comm and Power Distribution.

Amphenol Technology (Zhuhai) Co., Ltd. covers an area of 28470m² and is equipped with CNC, plating, injection molding and assembly workshops. This plant specializes in the design and manufacturing of industrial connectors featuring high power, high density, medium to high voltage electrical properties, and harsh environment applications.

With industry leading engineering, design and manufacturing expertise, Amphenol Technology (Zhuhai) Co., Ltd. has earned more than 30 utility patents on its innovative interconnects. Many of the products produced have been certified by independent standards including UL, IEC/TUV, ATEX, IECEx and MA. The facility is also certified to ISO 9001, ISO 14001 and IATF 16949.

Industrial Product Guide

Item No.	Product	Ingress Protection	Shell Material	Coupling Style	Pole	Current per Contact	Termination	Applicable Wire	RoHS
1	 97	---	Metal	Threaded	1,2,3,4,5, 6,7,8,9,10,12, 14,15,16,17,19,20,22,23, 24,26,30,31,35,37,47,48,52	13A, 23A, 46A, 80A, 150A	Solder/Crimp	0-20 AWG (50-0.5mm ²)	YES
2	 5015	IP67	Metal	Threaded	1,2,3,4,5,6,7, 8,9,10,12, 14,15,16,17,19,20,22,23, 24,26,30,31,35,37,47,48,52, 53,59,60,61,85,104	13A,23A,46A, 80A, 150A, 250A	Solder	0- 20 AWG (50-0.5mm ²)	NO
3	 AC Threaded	IP67	Metal	Threaded	1,2,3,4,5,6,7,8,9,10,12, 14,15,16,17,19,20,22,23, 24,26,30,31,35,37,47,48,52, 53,59,60,61,85,104	13A,23A,46A, 80A, 150A, 250A	Solder/Crimp	4/0- 20 AWG (100-0.5mm ²)	YES
4	 GT	IP67	Metal	Reverse Bayonet	1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17,19,20,22,23,24, 26,30,31,34,35,37,47,48,54,85	13A,23A,46A, 80A, 150A, 250A	Solder/Crimp	4/0- 20 AWG (100-0.5mm ²)	YES
5	 ACA-B	IP67	Metal	Reverse Bayonet	1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17,19,20,22,23,24, 26,30,31,34,35,37,47,48,54,85	13A,23A,46A, 80A, 150A, 250A	Solder/Crimp	4/0- 20 AWG (100-0.5mm ²)	YES
6	 MIL-DTL-26482 series	IP67	Metal	Bayonet	1,2,3,4,5,6,8,10,11,12,15, 16,18,19,21,23,24,25,26,27,30, 32,34,36,39,41,55,61	7.5A,13A, 23A	Solder/crimp	10- 22 AWG (5-0.3mm ²)	No
7	 PT	IP67	Metal	Bayonet	1,2,3,4,5,6,8,10,11,12,15, 16,18,19,21,23,24,25,26,27,30, 32,34,36,39,41,55,61	7.5A,13A, 23A	Solder/Crimp	10- 22 AWG (5-0.3mm ²)	YES
8	 CMB	IP67	Metal	Bayonet	1,2,3,4,5,6,8,10,11,12,15, 16,18,19,21,23,24,25,26,27,30, 32,34,36,39,41,55,61	7.5A,13A, 23A	Solder/Crimp	10- 22 AWG (5-0.3mm ²)	YES
9	 Amphe-Lite	IP67 & IP69K	Composite/Metal	Acme Thread	2,3,4,5,6,7,10,13,15,18,19,22, 23,26,37,55,56,66,79,100,128	5A,7.5A, 13A, 23A	Crimp	10- 24 AWG (5-0.2mm ²)	YES
10	 UPT	IP67	Plastic	Bayonet	19,32,48	13A,23A	Crimp	10-20 AWG (5-0.5mm ²)	YES
11	 LPT	IP67	Metal	Bayonet	2,4,5,6,8,10,11,16, 19,26,31,32,41,55	7.5A,13A,23A	Crimp	10-22 AWG (5-0.5mm ²)	YES
12	 Micro-B	IP67	Metal	Bayonet	7,9,10,15,23	3A, 7.5A	Crimp	20-24 AWG (0.5-0.2mm ²)	YES
13	 Max-M12	IP67	Metal	Threaded	3,4,5,8	4A	Solder/Crimp	16- 24 AWG (1.5-0.2mm ²)	YES
14	 AT circular	IP67	Plastic	Reverse Bayonet	3,5,9	13A	Crimp	14- 20 AWG (2-0.5mm ²)	YES
15	 Amphe-PRB	IP67	Plastic	Reverse Bayonet	3,4,5	23A,35A,46A,70A	Crimp/Screw	8-14 AWG (10-2mm ²)	YES
16	 Tru-Loc	IP67	Plastic	Latch	2,4,6	13A	Crimp	14-20 AWG (2-0.5mm ²)	YES

Item No.	Product	Ingress Protection	Shell Material	Coupling Style	Pole	Current per Contact	Termination	Applicable Wire	RoHS
17	Amphe-PPM 	IP67	Metal	Push-Pull	2,3,4,5,7,9,12	5A, 7.5A, 13A	Solder	Max 2mm ²	YES
18	Amphe-Push Pull 	IP67	Metal	Push-Pull	1	120A,200A,250A, 300A,500A	Crimp/Busbar/ Screw	16mm ² , 25mm ² , 35mm ² , 50mm ² , 70mm ² , 85mm ² , 95mm ²	YES
19	ATHD 	IP67	Plastic	Latch	1	35A,70A	Crimp	8-16 AWG (10-1.5mm ²)	YES
20	Amphe-PD 	—	Plastic	Latch	2	55A, 69A, 120A	Crimp/Busbar	4-12 AWG (16-3.5mm ²)	YES
21	Amphe-OBTS 	IP67	Metal	Bayonet	2,3	16A,26A	Screw	Receptacle: 17AWG-13AWG (2.5mm ² -1mm ²) Field-Installable Plug: 13AWG-7AWG (10mm ² -2.5mm ²)	YES
22	Wind-Lok 	IP67	Metal	Reverse Bayonet	1	800A	Crimp/Busbar/ Screw	80mm ² -250mm ²	YES
23	SurLok 	—	Plastic	Press-Fit	1	100A,120A, 150A, 200A,300A,350A	Crimp/Busbar/ Screw	8mm ² -80mm ²	YES
24	UPC 	IP67	Plastic	Lever-Lock	2,3	200A, 400A	Busbar/Crimp	200A: 25mm ² -50mm ² 400A: 70mm ² -95mm ²	YES
25	ePower-Lite 	IP67	Plastic	Latch	2,3,4	70A	Crimp	2.5mm ² , 4mm ² , 6mm ² , 10mm ²	YES
26	SurLok Plus 	IP67	Plastic	Press-to-Release	1	100A,120A, 150A, 200A,300A,350A	Crimp/Busbar/ Screw	16mm ² , 25mm ² , 35mm ² , 50mm ² , 70mm ² , 85mm ² , 95mm ²	YES
27	ePower 	IP67	Metal	Press Fit	2,3	200A,400A,700A	Crimp/Busbar/ Screw	25mm ² , 35mm ² , 50mm ² , 70mm ² , 95mm ²	YES
28	RadSert 	—	Metal	—	1	36A-400A	Solder	—	YES
29	PowerBlok 	—	Metal	—	1	13A-25A	Solder	—	YES
30	MVC 	IP67	Metal	Bolt Interlock	3	600A	Solder	16mm ² -250mm ²	YES
31	Amphe-309 	IP67,IP44	Plastic	Press-Fit with Twist Lock Ring	3,4,5	16A,20A,30A,32A, 60A,63A,100A,125A	Screw	1.5mm ² -50mm ²	YES

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97 Series



Features and Benefits

- Compatible with MIL-DTL-5015/SAE-AS50151
- Threaded coupling, hard dielectric inserts
- CE certification, UL/CSA recognized
- Wide selection of shell style and insert patterns
- Solder and crimp contacts
- RoHS & Reach compliant with compliant plating

Technical Info.

Current Rating: 13A ~ 150A (13A ~ 245A at 20°C)

Voltage Rating: 200V ~ 3000V AC

Operating Temperature: -55°C to 125°C

Applicable Cable: 0-20AWG (50-0,2mm²)

IP54 in Mated Condition According to EN 60068-1

Contact Plating: Silver or Gold over Nickel

Application

Servo Motor, Factory Automation/Robotics, Machine Tools, Semiconductor-Fabrication Equipment, Medical Equipment, Welding

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MIL-DTL-5015 Series (MS)



Features and Benefits

- In accordance with MIL-DTL-5015 (SAE-AS50151)
- Over 275 insert patterns available
- Threaded coupling, neoprene inserts
- Solder contacts
- IP67 in mated condition according to EN 60068-1

Technical Info.

Current Rating: 13A ~ 150A (13A ~ 245A at 20°C)

Voltage Rating: 200V ~ 3000V AC

Operating Temperature: -55°C to 125°C

Applicable Cable: 0-20AWG (50-0,5mm²)

Contact Plating: Heavy Silver over Nickel

Application

Servo Motor, Factory Automation/Robotics, Machine Tools, Heavy Equipment, Industrial Machinery

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AC Threaded Series



Features and Benefits

- Commercial version for MIL-DTL-5015 (SAE-AS50151)
- Wide selection of shell style and insert patterns
- Threaded coupling, neoprene inserts
- CE Certification, UL/CSA Recognized
- IP67 in mated condition according to EN 60068-1
- RoHS & Reach compliant with compliant plating

Technical Info.

Current Rating: 13A ~ 150A (13A ~ 245A at 20°C)

Current Rating with RADSOK® Contacts: up to 250A (300A at 20°C)

Voltage Rating: 200V ~ 3000V AC

Operating Temperature: -55°C to 125°C (up to 200°C with Viton inserts)

Applicable Cable: 4/0-20AWG (100-0.5mm²)

Contact Plating: Silver or Gold over Nickel

Application

Servo Motor, Factory Automation/Robotics, Machine Tools, Industrial Machinery

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GT Series



Features and Benefits

- Reverse bayonet coupling and compatible with VG95234 connectors
- High shock and vibration, 2000 mating cycles
- Quick positive coupling
- EN45545-2 approved/ UL recognized
- IP67-IP69K in mated condition according to EN 60068-1
- RoHS & Reach compliant with compliant plating

Technical Info.

Current Rating: 13A ~ 150A (13A ~ 245A at 20°C)

Current Rating with RADSOK® Contacts: up to 250A (300A at 20°C)

Voltage Rating: 200V ~ 3000V AC

Operating Temperature: -55°C to 125°C (up to 200°C with Viton inserts)

Applicable Cable: 4/0-20AWG (100-0.5mm²)

Contact Plating: Silver or Gold over Nickel

Application

Rolling Stock, Electric Vehicle, Servo Motor, Factory Automation/Robotics, Machine Tools, Heavy Equipment

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ACA-B Series



Features and Benefits

- Reverse bayonet coupling and compatible with VG95234 connector
- High shock and vibration, 500 mating cycles
- Quick positive coupling
- IP67-IP69K in mated condition according to EN 60068-1
- RoHS & Reach compliant with compliant plating
- Solder, PCB and crimp contacts available

Technical Info.

Current Rating: 13A ~ 150A (13A ~ 245A at 20°C)
Current Rating with RADSOK® Contacts: up to 250A (300A at 20°C)
Voltage Rating: 200V ~3000V AC
Operating Temperature: -55°C to 125°C (up to 200°C with Viton inserts)
Applicable Cable: 4/0-20AWG (100-0.5mm²)
Contact Plating: Silver or Gold over Nickel

Application

Rolling Stock, Electric Vehicle, Servo Motor, Factory Automation/Robotics, Machine Tools, Heavy Equipment

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MIL-C-26482 Series (MS)



Features and Benefits

- QPL (Qualified Product List)
- Military specified and approved
- Shock and Vibration Resistant
- IP67 in mated condition according to EN 60068-1
- Olive drab cadmium plating (Shell)

Technical Info.

Current Rating: 7.5A ~ 23A (10A ~ 41A at 20°C)
Voltage Rating: 600V ~1000V AC
Operating Temperature: -55°C to 125°C
Applicable Cable: 10-22AWG (5-0.3mm²)
Contact Plating: Gold over Nickel

Application

Factory Automation/Robotics, Geophysical, Servo Motor, Machine Tools, Traffic Control

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PT Series



Features and Benefits

- Commercial version for MIL-DTL-26482 Series I
- 1/4 Turn mating, bayonet coupling
- Shock and vibration resistant
- IP67 in mated condition according to EN 60068-1
- Variety of shell styles and finishes
- RoHS & Reach compliant with compliant plating

Technical Info.

Current Rating: 7.5A ~ 23A (10A ~ 41A at 20°C)

Voltage Rating: 600V ~ 1000V AC

Operating Temperature: -55°C to 125°C

Applicable Cable: 10-22AWG (5-0.3mm²)

Contact Plating: Silver or Gold over Nickel

Application

Factory Automation, Geophysical, Servo Motor, Machine Tools, Traffic Control

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CMB Series



Features and Benefits

- Compatible with MIL-DTL-26482 Series I
- 1/4 Turn mating, bayonet coupling
- Shock and vibration resistant
- IP67 in mated condition according to EN 60068-1
- Variety of shell styles and finishes
- RoHS & Reach compliant with compliant plating

Technical Info.

Current Rating: 7.5A ~ 23A (10A ~ 41A at 20°C)

Voltage Rating: 600V ~ 1000V AC

Operating Temperature: -55°C to 125°C

Applicable Cable: 10-22AWG (5-0.3mm²)

Contact Plating: Silver or Gold over Nickel

Application

Factory Automation, Geophysical, Servo Motor, Machine Tools, Traffic Control

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Amphe-Lite Series



Features and Benefits

- Commercial version of the 38999 III
- Available in EMI shielded version
- 2000 hours salt spray
- IP67 and IP6K9K in mated condition according to EN 60068-1
- RoHS & Reach compliant, UL recognized

Technical Info.

Current Rating: 5A ~ 23A

Voltage Rating: 300 V ~ 900 V AC

Operating Temperature: -55°C to 150°C

Applicable Cable: 10-22AWG (5-0.2mm²)

Cable Termination: Crimping

Application

Medical Equipment, Test/Measurement Equipment, Telecom Equipment, Sensor, Diesel Engine, Electric Vehicle

Amphe-Lite M3



Features and Benefits

- Aluminum shell
- With Gray ZnNi plating, up to 500H salt spray protection
- Acme thread coupling
- With anti-decoupling ratchet for high vibration applications

Amphe-Lite S1



Features and Benefits

- Bayonet coupling
- Commercial version of MIL-DTL-38999 I
- Aluminum shell
- IP67 in mated condition according to EN 60068-1

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UPT Series



Features and Benefits

- Commercial plastic connector series with metal bayonet coupling nut per MIL-DTL-26482 series 1
- 1/4 Turn mating, bayonet coupling
- Shock and vibration resistant
- IP67 and IP6K9K in mated condition according to EN 60068-1
- Crimp stamped and formed contacts on reels
- RoHS & Reach compliant

Technical Info.

Current Rating: 13 A ~ 23A

Voltage Rating: 250 V AC

Operating Temperature: -55°C to 125°C

Applicable Cable: 10-20AWG (5-0.5mm²)

Durability: 500+ mating cycles

Application

Heavy Equipment, Factory Automation/Robotics, Electric Vehicle

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LPT Series



Features and Benefits

- Compatible with MIL-DTL-26482 Series 1, cost effective
- 1/4 Turn mating, bayonet coupling
- Shock and vibration resistant
- IP67 in mated condition according to EN 60068-1
- Crimp stamped and formed contacts on reels
- RoHS & Reach compliant

Technical Info.

Current Rating: 7.5A ~ 23A

Voltage Rating: 250V ~2300V AC

Operating Temperature: -40°C to 105°C

Applicable Cable: 10-22AWG (5-0.3mm²)

Contacts size: #12, #16, #20

Application

Electric Vehicle, Servo Motor, Factory Automation/Robotics, Machine Tools, Traffic Control

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Micro-B Series



Features and Benefits

- 1/4 Turn mating, Bayonet quick coupling
- Cost effective and light weight
- Excellent shell-to-shell EMI shielding
- Crimp stamped and formed contacts
- IP67 in mated condition according to EN 60068-1
- RoHS & Reach compliant

Technical Info.

Current Rating: 3A ~ 7.5A

Voltage Rating: 250 V AC

Operating Temperature: -40°C to 125°C

Applicable Cable: 20-24AWG (0.5-0.2mm²)

Application

Electric Vehicle, Servo Motor, Factory Automation/Robotics, Semiconductor-Fabrication Equipment, Monitoring Equipment

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Max-M12 Series



Features and Benefits

- Meets SAE J2839
- 440 N (100 lbs.) pull force
- Codes A, B, D, and P available
- Shock and vibration resistant
- IP67-IP69K according to EN 60068-1

Technical Info.

Current Rating: 4 A

Voltage Rating: 60V AC ~250 V AC

Operating Temperature: -55°C to 125°C

Applicable Cable: 16-24AWG (1.5-0.2mm²)

Salt spray: 240+ hours

Application

Heavy Equipment, Rolling Stock, Factory Automation/Robotics, Industrial Instrumentation, Telecommunications, Sensor

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AT Circular Series



Features and Benefits

- Quick positive mating and unmating
- Molded thermoplastic receptacle, light weight
- Waterproof to IP67 with cap according to EN 60068-1
- Jam nut and panel mounting receptacle available
- In accordance with J1939 for the 9-way receptacle

Technical Info.

Current Rating: 13A

Voltage Rating: 1500 V AC

Operating Temperature: -55°C to 125°C

Applicable Cable: 14-20AWG (2-0.5mm²)

Contact Plating: Gold or Silver over Nickel

Application

Heavy Equipment, Container Cooling Systems, Refrigeration Equipment

15

Amphe-PRB Series



Features and Benefits

- Reverse Bayonet coupling, quick positive mating
- High shock and vibration resistance
- Touch proof
- IP67 in mated condition according to EN 60068-1
- RoHS & Reach compliant, UL recognized

Technical Info.

Current Rating: 23A-70A

Voltage Rating: 500 V AC

Operating Temperature: -40°C to 100°C

Applicable Cable: 8-14AWG (10-2mm²)

Plastic Shell: UL 94-V0

Application

Inverter/Converter, Factory Automation/Robotics

16

Tru-Loc Series



Features and Benefits

- Plug body with secondary latch
- Resistant to fluids aided by a fluoroelastomer seal
- Waterproof to IP67 according to EN 60068-1
- Vibration resistant to EN 60068-1
- Stamped and formed contacts

Technical Info.

Current Rating: 13A

Voltage Rating: 1600 V AC

Operating Temperature: -40°C to 125°C

Application

Heavy Equipment, Diesel Engine

17

Amphe-PPM Series



Features and Benefits

- Push/pull rapid mate connection system
- Designed to IEC 61984
- Non-reflective nickel or black epoxy finish
- Inserts have a UL94V-0 flammability rating
- Waterproof to IP67 according to EN 60068-1

Technical Info.

Current Rating: 5A-13A

Voltage Rating: 250 V AC

Operating Temperature: -40°C to 100°C

Durability: 500+ mating cycles

Application

Medical Equipment, Instrumentation/Test & Measurement, Communication Equipment

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Amphe-Push Pull Series



Features and Benefits

- Push-Pull quick mating coupling and locking
- Vibration resistant
- EMI Shielding available
- Current up to 500A
- Minimum of 500 mating cycles

Technical Info.

Current Rating: 120A, 200A, 250A, 300A, 500A
 Voltage Rating: 2500 VAC
 Operating Temperature: -40°C to 125°C
 Various Termination Options: Lug, Crimp, Busbar

Application

Power Converters, Hybrid Electric Vehicles, Heavy Equipment Electrification, Starter Generators

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ATHD Series



Features and Benefits

- Single pole, in-line connection system
- Easy field installable
- Waterproof to IP67 according to EN 60068-1
- Seals for harsh fluid applications
- Clip slots for mounting solutions

Technical Info.

Current Rating: 35A, 70A
 Voltage Rating: 500V AC
 Operating Temperature: -55°C to 125°C
 Durability: 100+ mating cycles

Application

Heavy Equipment, Mining Equipment

20

Amphe-PD Series



Features and Benefits

- Uses proven RADSOK® technology
- 3.6mm version, UL listed at 69A and CSA listed at 55A
- Integrated latching mechanism
- Low insertion force, high reliability
- RoHS & Reach compliant

Technical Info.

Current Rating: 55A~120A

Voltage Rating: 1000 V AC

Operating Temperature: -40°C to 105°C

Applicable Cable: 4-12AWG (16-3.5mm²)

Application

Datacom, Factory Automation/Robotics

21

Amphe-OBTS Series



Features and Benefits

- Based on the MIL-C-26482 series 2
- Zinc shell construction, excellent EMI-shielding
- Screw termination, easy field installation
- UL1977 certified, IEC 61984 and 60950-22 certified
- Waterproof to IP67 according to EN 60068-1

Technical Info.

Current Rating: 16A, 26A

Voltage Rating: 60V AC ~400 V AC

Operating Temperature: -55°C to 125°C

Applicable Cable: 16-24AWG (1.6-0.2mm²)

Corrosion Resistance: 720 hours according to ISO 21207 Method B

Application

Base Station, Telecommunication Equipment

Amphe-BTS

- Brass shell construction with tin/nickel plating
- 20A per contact (two pole)
- 10A per contact (three pole)
- Working temperature of -55°C to +85°C
- IP67 according to EN 60068-1



22

Wind-Lok® Series



Features and Benefits

- 2000 mating cycles, 300 days salt spray rating
- High shock and vibration resistance
- Touch proof
- IP67 in mated condition according to EN 60068-1
- RoHS & Reach compliant

Technical Info.

Current Rating: 800A (1200A at 20°C)

Voltage Rating: 2500 V AC

Operating Temperature: -55°C to 125°C

Applicable Cable: 80mm²-250mm²

Application

Wind Turbines, Offshore Wind Farm, Electrical Generators, Charging Systems

23

SurLok Series



Features and Benefits

- High ampacity in a smaller package
- Integral locking feature plus locking cap
- Easy field installation
- High reliability
- RoHS compliant

Technical Info.

Current Rating: 100A-350A

Voltage Rating: 1000 V AC

Operating Temperature: -40°C to 125°C

Applicable Cable: 2/0-8 AWG (80 mm² - 10 mm²)

Engagement Force: 2 lbs. – 5 lbs

Separation force: 10 lbs. – 15 lb

Application

Medical Equipment, Test Equipment, Heavy Equipment, Energy Storage

24

UPC Series



Features and Benefits

- Compact design for space considerations with EVs
- Touch proof(UL 2251), EMI(60db/100M), HVIL
- Wide amperage range (200A-400A)
- Plastic shell, light weight, UL 94V-0
- Waterproof to IP67 according to EN 60068-1

Technical Info.

Current Rating: 200A, 400A

Voltage Rating: 1000 V AC

Operating Temperature: -40°C to 125°C

Applicable Cable: 200A: 25mm²-50mm²
400A: 70mm²-95mm²

Durability: 500+ mating cycles

Application

Automotive/HEV/EV/Energy Storage

25

ePower-Lite Series



Features and Benefits

- Compact design for space considerations with EVs
- Touch proof(IEC 60529), EMI(60db/100M), HVIL
- Secondary locking feature
- Plastic shell, light weight, flammability: UL 94V-0
- Waterproof to IP67 according to EN 60068-1

Technical Info.

Current Rating: 70A

Voltage Rating: 1000 V AC

Operating Temperature: -40°C to 125°C

Applicable Cable: 2.5mm², 4mm², 6mm², 10mm²

Durability: 500+ mating cycles

Application

Automotive/HEV/EV/Energy Storage

26

SurLok Plus Series



Features and Benefits

- Quick lock and press-to-release design
- Touch proof, EMI version available
- 360° rotating plug
- Compact robust design
- Waterproof to IP67 according to EN 60068-1

Technical Info.

Current Rating: 100A-350A

Voltage Rating: 1000 V AC

Operating Temperature: -40°C to 125°C

Applicable Cable: 2.5mm², 4mm², 6mm², 10mm²

Various Termination Options: Thread, Crimp, Busbar

Application

Automotive/HEV/EV/Energy Storage

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ePower Series



Features and Benefits

- IP2X on pin and socket
- Two HVIL circuits
- Excellent vibration resistance
- Waterproof to IP67 according to EN 60068-1
- Integrated EMI shielding

Technical Info.

Current Rating: 200A, 400A, 700A

Voltage Rating: 1000 V AC

Operating Temperature: -40°C to 125°C

Applicable Cable: 25mm² -95mm²

Various Termination Options: Lug, Crimp, Busbar

Application

Power Converters, Hybrid Electric Vehicles, Heavy Equipment Electrification, Starter Generators

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RadSert™



Features and Benefits

- Applicable to any Board thickness
- Wide amperage range (36A-400A)
- Low profile, single point, high current contact
- Available in press-fit, knurl, solder or bolt-on termination
- RoHS compliant

Technical Info.

Lead-in and mis-alignment tolerances available
T&R packaging available

Contact plating available in gold or silver

Operating Temperature: -40°C to 125°C

Durability: 100+ mating cycles

Application

Power-to-Board, Datacom, Server, Telecomm

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PowerBlok Series



Features and Benefits

- Robust mechanical and RADSOK® radial contact design
- Press fit compliant pin termination
- Available with current rating from 35A up to 200A (2.4mm~8.0mm)
- Compact and light weight
- Touch proof cap

Technical Info.

Lead-in and mis-alignment tolerances available

Contact plating available in gold or silver

Operating Temperature: -40°C to 125°C

Durability: 100+ mating cycles

Tube packaging

Application

Power-to-Board, Datacom, Server, Telecomm

WTB



- RADSOK® size 2.4mm and 3.6mm
- 35A and 70A rated single point of contact
- Low profile right angle exist less than ½ inch mated height
- 12-14 AWG or 6-8 AWG crimp contact with insulated latching housings
- RADSOK® socket and pin /silver over nickel plating

30

MVC Series



Features and Benefits

- Up to 15KV / 600Amps
- Incorporates RADSOK® Contact technology
- Rapid-Couple mating technology
- All parts are replaceable and can be serviced easily in the field, equaling less downtime for repairs
- Fire retardant insulators

Technical Info.

Current Rating: Up to 600A

Voltage Rating: Up to 15,000 VAC

Operating Temperature: -40°C to 125°C

Applicable Cable: 16mm² -250mm²

Application

Shore Power, Tunneling and Utility

31

Amphe-309 Series



Features and Benefits

- Plug, receptacle, connector, inlet and mechanical interlock
- ATEX version available
- Custom Amphe-309 cable assemblies
- Low voltage <50V available
- UL, CAS, CE, CCC certified

Technical Info.

Current Rating: 16A-125A

Voltage Rating: Up to 690 V AC

Operating Temperature: -25°C to 40°C

IP44-IP67 according to IEC 60529

Application

Domestic Electric, Construction Sites, Data Center & Server Industry, Lighting and Audio Power

RADSOK® Contact Technology



RADSOK® is a technology based upon a stamp and formed flat grid, uniquely twisted into a hyperbolic geometry to provide robust, high density contact to the mating pin contact. This patented capability allows up to 50% more current to flow through the same size terminal. It features high reliability, low contact engagement/separation forces, low resistance, high mating cycle durability, low voltage drop and high power in a smaller footprint.

RADSOK® Technology Advantages

- HIGH RELIABILITY**
 Unique RADSOK® design and construction technology create an electrical contact interface that exceeds typical interconnect requirements. Applications in aerospace, medical, industrial, automotive, mining, offshore, and other harsh environments depend on high reliability of the Amphenol RADSOK® technology.
- LOW CONTACT ENGAGEMENT/SEPARATION FORCES**
 The hyperbolic lamella socket contact construction distributes normal forces over a high percentage of the mating pin surface. This creates a smooth, even engagement effort. This force distribution also contributes to excellent performance in vibration applications with resistance to typical fretting corrosion.
- LOW CONTACT RESISTANCE**
 The large interface area between the socket lamella and pin surface result in very low contact resistance, enabling the RADSOK® contacts' high current ratings compared to traditional power contact designs.

- EXCELLENT DURABILITY AND VIBRATION RESISTANCE**
 Due to its unique design and material used, the RADSOK® contact has been confirmed to maintain electrical continuity when subjected to vibration. It is ideally fitted for applications with a high number of mating cycles while maintaining the ability to carry high current capacity and withstand vibrations.

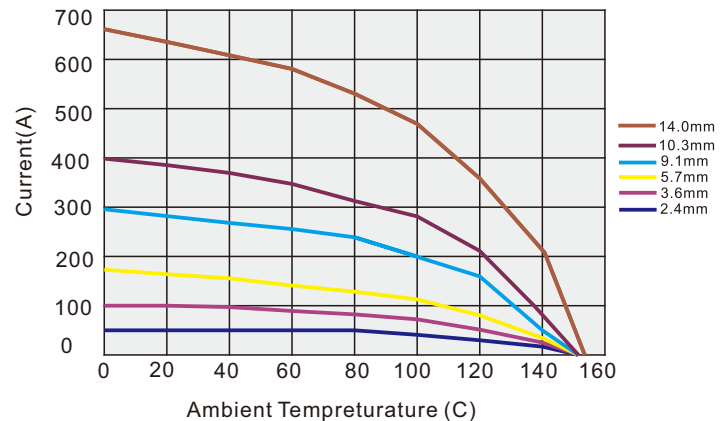
RADSOK®

It allows up to 50% more current to flow through the same size terminal.

Rate current $T_{amp} = 40^{\circ}C$

Contact Performance	12 AWG	8 AWG	4 AWG	0 AWG	2/0 AWG	4/0 AWG
Radsok	35A	70A	120A	250A	350A	400A
Normal Contact	23A	46A	80A	150A	185A	225A

RADSOK® Derating Chart – Temperature vs. Current
 Based on single conductors in free air. Wire cross-section same size as pin contact cross-sectional area.



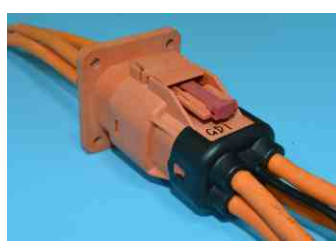
Value Added Products

Amphenol Industrial Operations (AIO) has vast experience in cable assembly manufacturing throughout the industrial world. AIO has been building and supplying cable assemblies for markets in Heavy Equipment, HEV/EV, Energy Storage, RMT, Machine Tool, Process Control and others for over 20 years. Amphenol Industrial Operations is capable of providing a complete range of cable assembly solutions. Our Zhuhai factory is furnished with assembly lines, prototype facilities, cutting & stripping equipment, overmold machines, and test equipment. Providing better performance at a lower cost, our cable harness series' can complement all of our existing connector families, and offers our customers the convenience and flexibility of one-stop shopping.

Signal application



Power application



Busbars



Lugs



Featured Products & Technology

Power-to-Board Connectors



Amphenol Industrial Operations' RADSOK® solution offers options for high current single-point connections with a compact footprint design that can supply up to 120 Amps to the board. The hyperbolic grid contact provides more surface area with many points of contact for heat dissipation at the pin and socket interface. This lowers temperature rise and reduces potential failures. RADSOK® Power-to-Board products are designed to be applied manually by press-fit or by a re-flow solder process eliminating the need for additional wires and/or special crimp tools.

Brush Contact



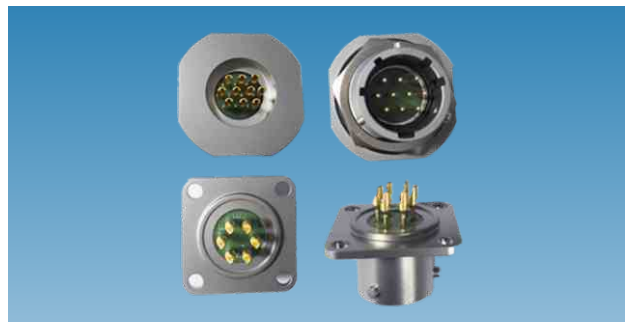
Amphenol Industrial offers a revolutionary high vibration brush terminal series designed to withstand harsh environments. By intermeshing two small wire bundles together, a superior electrical connection is made with 14 to 70 points of contact per mated pair. The brush-like terminal technology is comprised of multiple strands of high tensile strength wire bundled together on each side of the contact and hooded for protection. These compact size 22 signal terminals are able to accommodate up to size 16 gage cable or a PCB tail and are rated up to 5 A continuous.

Gray ZnNi Plating



Gray ZnNi is a RoHS compliant plating for harsh environment applications. Gray Zinc over an Electroless Nickel (Gray ZnNi) base, with a Light Gun Metal Gray appearance. This Plating was initially developed for Harsh Marine environments given its high corrosion resistance. There is no significant galvanic reaction when mated with leading standard market plating options, and it is Cadmium Free, making this the ideal solution for high corrosive environments and is available on all your favorite Amphenol Industrial Connectors.

Industrial Hermetics



Designed for environmental moisture sealing with fused compression glass sealed inserts. Available in MIL-C-26482 and MIL-5015 connectors for industrial applications. Receptacle mounting styles: box mount, wall mount, jam nut, solder and weld mount. Leakage rate with hermetically sealed inserts is less than 1.0×10^{-6} cc/sec. at a 15 psi differential. Solder cup, flat eyelet or PCB termination. Contact counts from 2 to 128 are available.

MRO Products

Industrial Cable Glands



Amphenol's Industrial Cable Gland series is available with metric and PG threads, the liquid tight cable glands come in either a UL 94 V-2 rated Nylon material or nickel plated brass material. Suitable for a wide range of industrial applications.

Amphe-HST



Amphe-HST (HST - Heat Shrink Technologies) is a heat shrink tubing series that is ideal, but not limited to, the markets of Energy, Rail Mass Transit, Heavy Equipment, Hybrid/Electrical Vehicles, Server/Data Center Power, Mining and other major industries. Made from a cross-linked polyolefin material, most of our shrinkable products have been tested and comply with UL/CSA, IEC, ASTM, MIL, ISO specifications. Amphe-HST provides effective insulation and protection to your functional parts, components and systems at an affordable cost.

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