



# ARC ARC Series™

## Harsh Environment Rectangular Connectors

Available in 24, 40, 50 and 70 position

Amphenol Sine Systems **ARC Series™ Connectors** are a rugged, heavy-duty, environmentally-sealed, thermoplastic, rectangular connector series where high pin-counts are required in situations with controlled and/or uncontrolled environmental conditions. Available in Plugs, Flange Mount Receptacles and PCB Receptacles with **BoardLock™**.

All Plugs and Receptacles are IP68/69K rated (in mated condition)

### Key Features

- Utilizes A Series™ Contacts
- Jackscrew w Threaded Insert for Mating
- Bonded Front Seals on Plugs
- Standard or Reduced Diameter Rear Seals
- Available in Multiple Keying Options
- Compatible with existing standard products industry-wide



**Applications:** Transportation, Heavy Equipment, Agricultural, Automotive, Off-Highway, Alternate Energy, Marine and other demanding interconnect architectures.

ARC Series™ - Specifications (Reference Individual Datasheets)

Temperature Range	-55°C to +125°C
Current Range (AMP)	7.5-13A
Voltage Rating (AC/DC)	250V
Contact Size	16 and 20
Wire AWG Range	14-20AWG
IP Rating	IP68 (1M of Water for 24 Hours), IP69K mated
Housing	Thermoplastic, Black
Sealing Material	Silicone Rubber
Threaded Insert/Jackscrew	Stainless Steel
Mating Cycle Durability	>100
Dielectric Value	Less than 2 mA current leakage @1500V AC

Insulation Resistance	1000 megohms minimum at 25°C
Vibration	No unlocking or unmating and exhibits no mechanical or physical damage after sinusoidal vibration levels of 20 G's at 10 to 2000 Hz in each of the three mutually perpendicular planes. No electrical discontinuities longer than 1 micro-second.
Durability	No electrical or mechanical defects after 100 cycles of engagement and disengagement
Thermal Shock	Subjected to 20 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector
RoHS	Compliant



A A Series™ Family



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

24 Position - ARC Series™ Plugs

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

Image	Part Number	Description	Contact Size	AWG	Amp
	ARC16-24SA-P013	24 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed A, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC16-24SB-P013	24 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed B, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC16-24SC-P013	24 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed C, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC16-24SD-P013	24 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed D, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC16-24SAR-P013	24 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed A, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC16-24SBR-P013	24 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed B, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC16-24SCR-P013	24 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed C, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC16-24SDR-P013	24 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed D, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A


24 Position - ARC Series™ Receptacles

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

	ARC12-24PA	24 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed A, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-24PB	24 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed B, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-24PC	24 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed C, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-24PD	24 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed D, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-24PAR	24 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed A, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-24PBR	24 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed B, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-24PCR	24 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed C, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-24PDR	24 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed D, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A

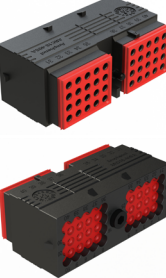
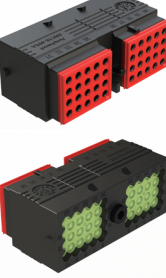
24 Position - ARC Series™ PCB Receptacle with BoardLock™

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

Image	Part Number	Description	Contact Size	AWG	Amp
	ARC23-24PA-BM01SP1	24 Position, PCB Receptacle with Flange, 90° Right Angle, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed A, Black Body	20	-	7.5A
	ARC23-24PB-BM01SP1	24 Position, PCB Receptacle with Flange, 90° Right Angle, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed B, Black Body	20	-	7.5A
	ARC23-24PC-BM01SP1	24 Position, PCB Receptacle with Flange, 90° Right Angle, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed C, Black Body	20	-	7.5A
	ARC23-24PD-BM01SP1	24 Position, PCB Receptacle with Flange, 90° Right Angle, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed D, Black Body	20	-	7.5A

40 Position - ARC Series™ Plugs

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

	ARC18-40SA-P013	40 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed A, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC18-40SB-P013	40 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed B, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC18-40SC-P013	40 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed C, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC18-40SD-P013	40 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed D, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC18-40SAR-P013	40 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed A, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC18-40SBR-P013	40 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed B, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC18-40SCR-P013	40 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed C, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC18-40SDR-P013	40 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed D, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A

40 Position - ARC Series™ Receptacles

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

	ARC12-40PA	40 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed A, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-40PB	40 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed B, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-40PC	40 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed C, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-40PD	40 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed D, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm²)	13A


40 Position - ARC Series™ Receptacles

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

Image	Part Number	Description	Contact Size	AWG	Amp
	ARC12-40PAR	40 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jack-screw, Keyed A, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-40PBR	40 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jack-screw, Keyed B, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-40PCR	40 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jack-screw, Keyed C, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A
	ARC12-40PDR	40 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jack-screw, Keyed D, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm²)	13A

40 Position - ARC Series™ PCB Receptacle with BoardLock™

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

	ARC23-40PA-N012SP1	40 Position, PCB Receptacle with Flange, 90° Right Angle, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed A, Black Body	20	-	7.5A
	ARC23-40PB-N012SP1	40 Position, PCB Receptacle with Flange, 90° Right Angle, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed B, Black Body	20	-	7.5A
	ARC23-40PC-N012SP1	40 Position, PCB Receptacle with Flange, 90° Right Angle, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed C, Black Body	20	-	7.5A
	ARC23-40PD-N012SP1	40 Position, PCB Receptacle with Flange, 90° Right Angle, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed D, Black Body	20	-	7.5A

50 Position - ARC Series™ PCB Receptacle with BoardLock™



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	ARC22-50P01-BM01SP1	50 Position, PCB Receptacle with Flange, 180° Straight, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed 01, Black Body	20	-	7.5A
	ARC22-50P02-BM01SP1	50 Position, PCB Receptacle with Flange, 180° Straight, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed 02, Black Body	20	-	7.5A
	ARC22-50P03-BM01SP1	50 Position, PCB Receptacle with Flange, 180° Straight, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed 03, Black Body	20	-	7.5A
	ARC22-50P04-BM01SP1	50 Position, PCB Receptacle with Flange, 180° Straight, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed 04, Black Body	20	-	7.5A
	ARC22-50P05-BM01SP1	50 Position, PCB Receptacle with Flange, 180° Straight, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed 05, Black Body	20	-	7.5A
	ARC22-50P07-BM01SP1	50 Position, PCB Receptacle with Flange, 180° Straight, Size 20, Selective Plating, ARC Series™ with BoardLock™, Self-Threading, Threaded Insert for Jackscrew, Keyed 07, Black Body	20	-	7.5A



70 Position - ARC Series™ Plugs

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

Image	Part Number	Description	Contact Size	AWG	Amp
	ARC16-70SA-P013	70 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed A, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC16-70SB-P013	70 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed B, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC16-70SC-P013	70 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed C, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC16-70SD-P013	70 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed D, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC16-70SAR-P013	70 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed A, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC16-70SBR-P013	70 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed B, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC16-70SCR-P013	70 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed C, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC16-70SDR-P013	70 Position, Plug, Socket, Size 16, ARC Series™, Jackscrew, Bonded Front Seal, Keyed D, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A








70 Position - ARC Series™ Receptacles

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

	ARC12-70PA	70 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed A, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC12-70PB	70 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed B, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC12-70PC	70 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed C, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC12-70PD	70 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed D, Flanged, Standard Diameter Rear Seal (Red), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC12-70PAR	70 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed A, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC12-70PBR	70 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed B, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC12-70PCR	70 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed C, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A
	ARC12-70PDR	70 Position, Receptacle, Pin, Size 16, ARC Series™, Threaded Insert for Jackscrew, Keyed D, Flanged, Reduced Diameter Rear Seal (Green), Black Body	16	14-20AWG (2.0-0.5mm <sup>2</sup> )	13A

ARC Series™ Accessories

(See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

Image	Part Number	Description	Contact Size	AWG	Amp
	ARC24-GKT	24 Position Gasket, Receptacle, Black	-	-	-
	ARC40-BT	40 Position, Boot, Black (For use on both Plug and Receptacle)	-	-	-
	ARC40-BT-RA	40 Position, 90 Degree Boot, Black (For use on both Plug and Receptacle)	-	-	-
	ARC40-GKT	40 Position Gasket, Receptacle, Black	-	-	-
	ARC70-BT	70 Position, Boot, ARC Series, Black Body (For use on both Plug and Receptacle)	-	-	-
	ARC70-GKT	70 Position, Gasket, Receptacle, ARC Series, Black Body	-	-	-
	A114017	Sealing Plugs, Size 16, White	-	-	-