



# ATS ATSSeries™



## Rectangular, Thermoplastic Connectors for Harsh Environment Applications

Available in 26 and 34 position

Amphenol Sine Systems' **ATS Series™ Connectors** are a high-performance, IP67 and IP69K rated (in mated condition), rectangular, thermoplastic, cost-effective solution for harsh environmental applications with superior seals and seal retention capabilities. The connector design incorporates an integral latching system that ensures a definitive electrical and mechanical connection. Receptacles are available in both 90° right angle and 180° straight pin PCB options, as well as traditional in-line options, and have been developed to be compatible with existing standard products industry-wide. ATS Series™ connectors utilize precision-engineered, 3-tang contacts featured in our ecomate® Family of products.

Available in Plugs, Inline Receptacles, Flange Mount Receptacles and with **BoardLock™** PCB Receptacles.

### Key Features

- IP67 and IP69K rated (in mated condition)
- Integrated TPA design, ensures contact alignment and retention
- Available in A and B keying options
- Utilizes ecomate® 1.0 mm receptacle common contacts
- Comparable with existing standard products industry-wide

**Applications:** Harsh Environment, Agricultural Machinery, Automobiles, Military, New Energy, Railways, Navigation and other demanding interconnect applications

ATS Series™ - Specifications (Reference Individual Datasheets)

IP Rating (in mated condition)	IP67 and IP69K
Max Current (Amperage)	Up to 7.5A
Max. Voltage Rating (AC/DC)	250V AC/DC
Operating Temperature	-55°C to +125°C
Coupling Systems	Integrated Latch (Single or Double)
Housing Body	Thermoplastic
Contact Types	Machined, Stamped & Formed, Solder
Contact Material	Copper Alloy, Gold Plating (Nickel Plating available)
Contact Resistance	< 11 mΩ
Insulation Resistance	> 1000 MΩ minimum 500VDC/60 Sec.
Wire Range	18-30AWG (See individual datasheets)
Sealing Material	Silicone Elastomer
Mating Cycles	>500
Dielectric Withstanding Voltage	Neither dielectric breakdown nor spark occurred during in test, current leakage less than 2.0mA under 1500VAC
High Temperature Life	No evidence of cracking, distortion, or other damage detrimental to the normal operation of the connectors. The insulation resistance shall be no less than 500 megohms. IPX7 test shall be good.

Thermal Shock	No cracking, chipping or leaking after 20 test cycles from -55°C to 125°C
Temperature/Humidity Cycling	Subjected to 10 cycles in temperature/humidity chamber with no evidence of cracking, chipping or other damage detrimental to the normal operation of the connectors. The insulation resistance shall be greater than 500 megohms. IPX7 test shall be good.
Durability	Plugs and receptacles are mated and unmated by hand 500 times in a way as to simulate the actual use of customers. No evidence of damage detrimental to their normal operation. IPX7 shall be good.
Drop Test	No evidence of damage detrimental to their normal operation after being dropped from a height of 1200mm on a cement floor 8 times.
Salt Spray	No evidence of corrosion after 48 hrs
Connector Retention Force	The connector retention force exceeds 110N
Contact Retention Force	The contact retention force exceeds 12 lb/ft
Fluid Immersion	No visible evidence of damage detrimental to their normal operation after 5 cycles of immersion in oil, brake fluid, detergent, diesel fuel or antifreeze.
RoHS Compliant	ALL materials meet the requirements of the European Directive. (See website for documentation)

### IP Ratings

IP67 rated (Dust tight; 1M of Water for 30 Minutes, in mated condition)  
IP69K rated (Dust tight; High-Pressure Waterproof, 4 Points (0°, 30°, 60°, 90°), in mated condition)

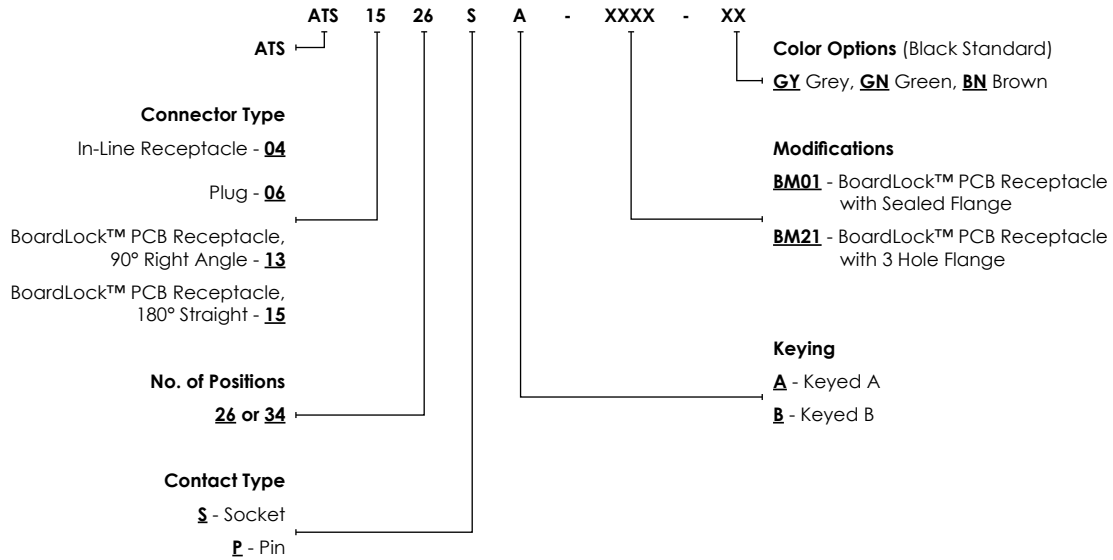


Standard products. Custom solutions  
Customer Service +1 800 394 7732

ATS Series™ - Connector Configurations



ATS Series™ - Part Numbering Sequence



Custom Color Options (Contact Customer Service)



ATS 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	Size	Amp
	ATS06-26SA	26 Position, Plug, Socket, Contact Size 20, ATS Series™, Single Latch, Keyed A, End Cap, Black Body	20	7.5
	ATS06-26SB	26 Position, Plug, Socket, Contact Size 20, ATS Series™, Single Latch, Keyed B, End Cap, Black Body	20	7.5
	ATS06-34SA1	34 Position, Plug, Socket, Contact Size 20, ATS Series™, Single Latch, Keyed A, End Cap, Black Body	20	7.5
	ATS06-34SB1	34 Position, Plug, Socket, Contact Size 20, ATS Series™, Single latch, Keyed B, End Cap, Black Body	20	7.5
	ATS06-34SA2	34 Position, Plug, Socket, Contact Size 20, ATS Series™, Double Latch, Keyed A, End Cap, Black Body	20	7.5
	ATS06-34SB2	34 Position, Plug, Socket, Contact Size 20, ATS Series™, Double Latch, Keyed B, End Cap, Black Body	20	7.5

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

	ATS04-26PA	26 Position, In-Line Receptacle, Pin, Contact Size 20, Pin Locator, ATS Series™, Single Latch, Keyed A, End Cap, Black Body <b>Note:</b> FT-ATS26P Installation Fixture Tool required for installation of Pin Locator	20	7.5
	ATS04-26PB	26 Position, In-Line Receptacle, Pin, Contact Size 20, Pin Locator, ATS Series™, Single Latch, Keyed B, End Cap, Black Body <b>Note:</b> FT-ATS26P Installation Fixture Tool required for installation of Pin Locator	20	7.5

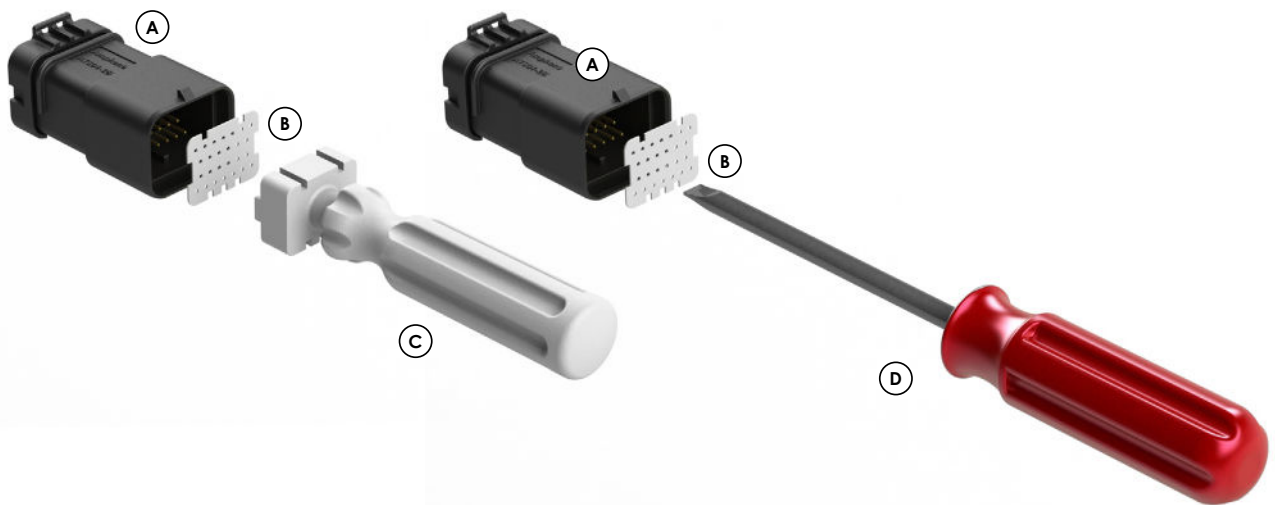
ATS Series™ with BoardLock™ - PCB Receptacles (See individual datasheets on [www.amphenol-sine.com](http://www.amphenol-sine.com) for full specs, faceviews, keying location and product dimensions.)

Image	Part Number	Description	Size	Amp
	ATS13-26PA-BM01	26 Position, PCB Receptacle with Sealed Flange, 90° Right Angle, Pin, Contact Size 20, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Keyed A, Black Body	20	7.5
	ATS13-26PB-BM01	26 Position, PCB Receptacle with Sealed Flange, 90° Right Angle, Pin, Contact Size 20, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Keyed B, Black Body	20	7.5
	ATS13-26PA-BM21	26 Position, PCB Receptacle with 3 Hole Flange, 90° Right Angle, Pin, Contact Size 20, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Keyed A, Black Body	20	7.5
	ATS13-26PB-BM21	26 Position, PCB Receptacle with 3 Hole Flange, 90° Right Angle, Pin, Contact Size 20, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Keyed B, Black Body	20	7.5
	ATS13-34PA1-BM01	34 Position, PCB Receptacle with Sealed Flange, 90° Right Angle, Pin, Contact Size 20, ATS Series™ with BoardLock™, Self-Threading, Double Latch, Keyed A, Black Body	20	7.5
	ATS13-34PB1-BM01	34 Position, PCB Receptacle with Sealed Flange, 90° Right Angle, Pin, Contact Size 20, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Keyed B, Black Body	20	7.5
	ATS13-34PA2-BM01	34 Position, PCB Receptacle with Sealed Flange, 90° Right Angle, Pin, Contact Size 20, ATS Series™ with BoardLock™, Self-Threading, Double Latch, Keyed A, Black Body	20	7.5
	ATS13-34PB2-BM01	34 Position, PCB Receptacle with Sealed Flange, 90° Right Angle, Pin, Contact Size 20, ATS Series™ with BoardLock™, Self-Threading, Double Latch, Keyed B, Black Body	20	7.5
	ATS15-26PA-BM01	26 Position, PCB Receptacle with Flange, 180° Straight, Pin, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Gasket, Keyed A, Black Body	20	7.5
	ATS15-26PB-BM01	26 Position, PCB Receptacle with Flange, 180° Straight, Pin, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Gasket, Keyed B, Black Body	20	7.5
	ATS15-34PA1-BM01	34 Position, PCB Receptacle with Sealed Flange, 180° Straight, Pin, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Keyed A, Black Body	20	7.5
	ATS15-34PB1-BM01	34 Position, PCB Receptacle with Sealed Flange, 180° Straight, Pin, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Keyed B, Black Body	20	7.5
	ATS15-34PA2-BM01	34 Position, PCB Receptacle with Sealed Flange, 180° Straight, Pin, ATS Series™ with BoardLock™, Self-Threading, Double Latch, Keyed A, Black Body	20	7.5
	ATS15-34PB2-BM01	34 Position, PCB Receptacle with Sealed Flange, 180° Straight, Pin, ATS Series™ with BoardLock™, Self-Threading, Double Latch, Keyed B, Black Body	20	7.5

ATS Series™ In-Line Receptacle - Installation of Pin Locator (Assembly Instructions can be found at [www.amphenol-sine.com/assembly-instructions](http://www.amphenol-sine.com/assembly-instructions))

Once the pins have been inserted into the In-Line Receptacle housing, the Pin Locator is installed to ensure the proper alignment of the pins. Installation of the Pin Locator can be accomplished with the use of either the FT-ATS26P Installation Fixture Tool (purchased separately), or a standard flathead screwdriver.

- (A) In-Line Receptacle
- (B) Pin Locator
- (C) FT-ATS26P Installation Fixture Tool
- (D) Screwdriver



ATS Series™ Contacts & Tooling

Machined, Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm <sup>2</sup> )	Plating
Male	Female			
MP18W23F	MS18W23F	18-20AWG	0.75-0.5 mm <sup>2</sup>	Gold Flash
MP18W23G10	MS18W23G10	18-20AWG	0.75-0.5 mm <sup>2</sup>	Gold 10µ"
MP18W23G15	MS18W23G15	18-20AWG	0.75-0.5 mm <sup>2</sup>	Gold 15µ"
MP18W23G30	MS18W23G30	18-20AWG	0.75-0.5 mm <sup>2</sup>	Gold 30µ"
MP20W23F	MS20W23F	20-22AWG	0.34-0.50 mm <sup>2</sup>	Gold Flash
MP20W23G5	MS20W23G5	20-22AWG	0.34-0.50 mm <sup>2</sup>	Gold 5µ"
MP20W23G10	MS20W23G10	20-22AWG	0.34-0.50 mm <sup>2</sup>	Gold 10µ"
MP20W23G15	MS20W23G15	20-22AWG	0.34-0.50 mm <sup>2</sup>	Gold 15µ"
MP20W23G30	MS20W23G30	20-22AWG	0.34-0.50 mm <sup>2</sup>	Gold 30µ"
MP24W23F	MS24W23F	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold Flash
MP24W23G5	MS24W23G5	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold 5µ"
MP24W23G10	MS24W23G10	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold 10µ"
MP24W23G15	MS24W23G15	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold 15µ"
MP24W23G30	MS24W23G30	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold 30µ"
MP28W23F	MS28W23F	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold Flash
MP28W23G5	MS28W23G5	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold 5µ"
MP28W23G10	MS28W23G10	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold 10µ"
MP28W23G15	MS28W23G15	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold 15µ"
MP28W23G30	MS28W23G30	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold 30µ"

Machined, Tooling	
Part Number	Description
MF3-3959	Hand Crimp Tool for Machined Contacts
MF3-3960	Pneumatic Crimp Tool for Machined Contact

Plating Options, All	
Symbol	Plating
T	Tin Plated (for Stamped & Formed Contacts)
S	Silver Plated 5Um (for Machined Contacts)
F	Gold Plated
G5	Gold Plated (Thickness 5µ")
G10	Gold Plated (Thickness 10µ")
G15	Gold Plated (Thickness 15µ")
G30	Gold Plated (Thickness 30µ")

Stamped & Formed, Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm <sup>2</sup> )	Plating
Male	Female			
SP20W2F	SS20W2F	18-22AWG	0.34-0.50 mm <sup>2</sup>	Gold Flash
SP20W2G5	SS20W2G5	18-22AWG	0.34-0.50 mm <sup>2</sup>	Gold 5µ"
SP20W2G10	SS20W2G10	18-22AWG	0.34-0.50 mm <sup>2</sup>	Gold 10µ"
SP20W2G15	SS20W2G15	18-22AWG	0.34-0.50 mm <sup>2</sup>	Gold 15µ"
SP20W2G30	SS20W2G30	18-22AWG	0.34-0.50 mm <sup>2</sup>	Gold 30µ"
SP24W2F	SS24W2F	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold Flash
SP24W2G5	SS24W2G5	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold 5µ"
SP24W2G10	SS24W2G10	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold 10µ"
SP24W2G15	SS24W2G15	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold 15µ"
SP24W2G30	SS24W2G30	24-26AWG	0.14-0.25 mm <sup>2</sup>	Gold 30µ"
SP28W2F	SS28W2F	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold Flash
SP28W2G5	SS28W2G5	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold 5µ"
SP28W2G10	SS28W2G10	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold 10µ"
SP28W2G15	SS28W2G15	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold 15µ"
SP28W2G30	SS28W2G30	28-30AWG	0.05-0.08 mm <sup>2</sup>	Gold 30µ"

Stamped & Formed, Tooling	
Part Number	Description
MF3-3958	Hand Tool, Stamped & Formed Contact, Size 20
MF3-3957	Crimp Die for Stamped & Formed Contact

Tooling, All	
Part Number	Description
AT13-204-2005	Standard Sealing Plug, Size 20
ATRT-100	Standard Contact and Wedgelock Extraction Tool
FT-ATS26P	Installation Fixture Tool for ATS04-26PX
ISRT20	Contact Insertion Tool, Size 20
QXRT20-ATS26P	Contact Extraction Tool, Size 20

Standard Quantity Order Options	
Machined	Bulk Package, 500 Pieces
Stamped & Formed	Reel, 3000 Pieces