



# 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)

### A Series™ Family

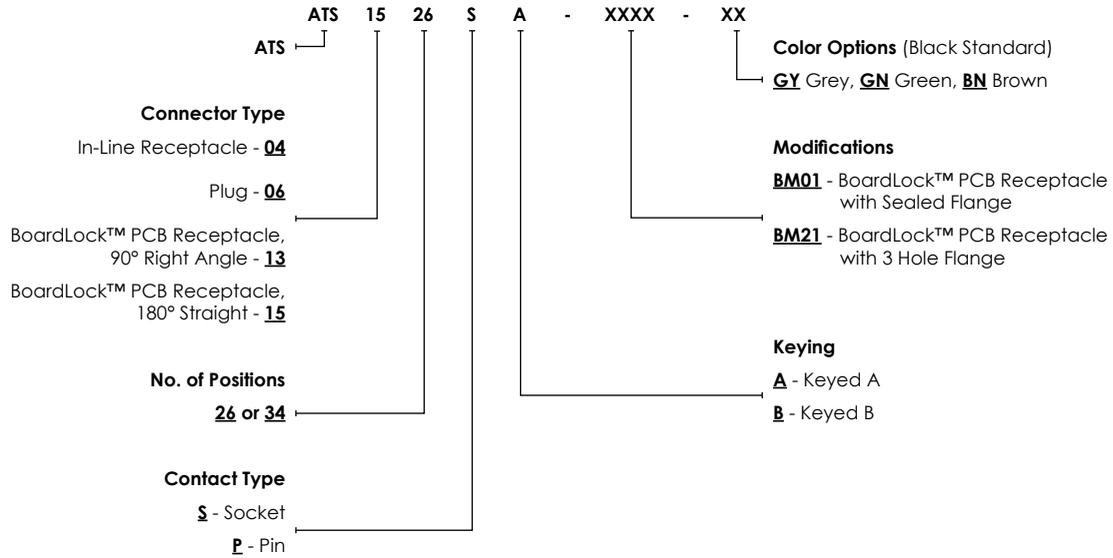


Standard products. Custom solutions  
Customer Service +1 800 394 7732

ATS Series™ - Connector Configurations



ATS Series™ - Part Numbering Sequence



Custom Color Options (Contact Customer Service)



ATS Series™ - Plugs

**Note:** Refer to 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, Size 20, 7.5A, 250V, ATS Series™, Single Latch, Keyed A, End Cap, Black Body	20	7.5
	ATS06-26SB	26 Position, Plug, Socket, Size 20, 7.5A, 250V, ATS Series™, Single Latch, Keyed B, End Cap, Black Body	20	7.5
	ATS06-34SA1	34 Position, Plug, Socket, Size 20, 7.5A, 250V, ATS Series™, Single Latch, Keyed A, End Cap, Black Body	20	7.5
	ATS06-34SB1	34 Position, Plug, Socket, Size 20, 7.5A, 250V, ATS Series™, Single latch, Keyed B, End Cap, Black Body	20	7.5
	ATS06-34SA2	34 Position, Plug, Socket, Size 20, 7.5A, 250V, ATS Series™, Double Latch, Keyed A, End Cap, Black Body	20	7.5
	ATS06-34SB2	34 Position, Plug, Socket, Size 20, 7.5A, 250V, ATS Series™, Double Latch, Keyed B, End Cap, Black Body	20	7.5

ATS Series™ - In-Line Receptacles

**Note:** Refer to 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, Size 20, 7.5A, 250V, Pin Locator, ATS Series™, 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, Size 20, 7.5A, 250V, Pin Locator, ATS Series™, 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

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

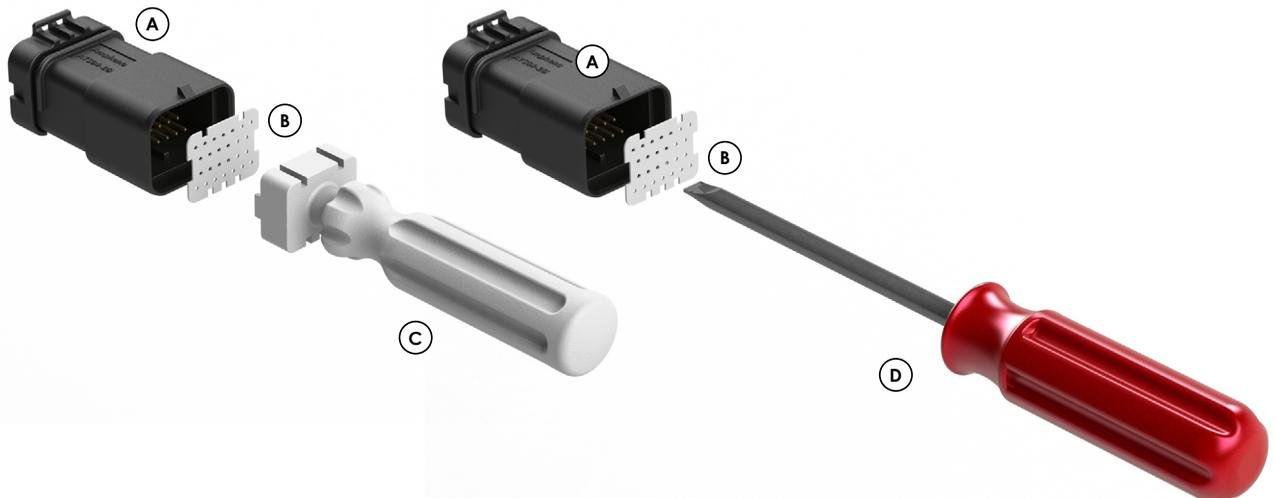
Image	Part Number	Description	Size	Amp
	ATS13-26PA-BM01	26 Position, PCB Receptacle with Sealed Flange, 90° Right Angle, Pin, Size 20, 7.5A, 250V, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Keyed A, Black Body	20	7.5
	ATS13-26PB-BM01	26 Position, PCB Receptacle with Sealed Flange, 90° Right Angle, Pin, Size 20, 7.5A, 250V, 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, Size 20, 7.5A, 250V, 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, Size 20, 7.5A, 250V, 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, Size 20, 7.5A, 250V, ATS Series™ with BoardLock™, Self-Threading, Single Latch, Keyed A, Black Body	20	7.5
	ATS13-34PB1-BM01	34 Position, PCB Receptacle with Sealed Flange, 90° Right Angle, Pin, Size 20, 7.5A, 250V, 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, Size 20, 7.5A, 250V, 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, Size 20, 7.5A, 250V, 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, 20, 7.5A, 250V, 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, 20, 7.5A, 250V, 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, 20, 7.5A, 250V, 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, 20, 7.5A, 250V, 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, 20, 7.5A, 250V, 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, 20, 7.5A, 250V, ATS Series™ with BoardLock™, Self-Threading, Double Latch, Keyed B, Black Body	20	7.5

ATS Series™ In-Line Receptacle - Installation of Pin Locator

**Note:** 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 - Machined

Part Number	Type	Style	Contact Size	Amp	Wire Range (AWG)	Wire Range (mm <sup>2</sup> )	Insulation OD (mm)	Plating	Reel Size	Packaging
MP18W23F	Pin	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Gold Flash	-	-
MP18W23G10	Pin	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Gold 10µ" Flash	-	-
MP18W23G15	Pin	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Gold 15µ" Flash	-	-
MP18W23G30	Pin	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Gold 30µ" Flash	-	-
MP20W23F	Pin	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold Flash	-	-
MP20W23G5	Pin	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold 5µ" Flash	-	-
MP20W23G10	Pin	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold 10µ" Flash	-	-
MP20W23G15	Pin	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold 15µ" Flash	-	-
MP20W23G30	Pin	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold 30µ" Flash	-	-
MP24W23F	Pin	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold Flash	-	-
MP24W23G5	Pin	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold 5µ" Flash	-	-
MP24W23G10	Pin	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold 10µ" Flash	-	-
MP24W23G15	Pin	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold 15µ" Flash	-	-
MP24W23G30	Pin	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold 30µ" Flash	-	-
MP28W23F	Pin	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold Flash	-	-
MP28W23G5	Pin	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold 5µ" Flash	-	-
MP28W23G10	Pin	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold 10µ" Flash	-	-
MP28W23G15	Pin	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold 15µ" Flash	-	-
MP28W23G30	Pin	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold 30µ" Flash	-	-
MS18W23F	Socket	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Gold Flash	-	-
MS18W23G10	Socket	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Gold 10µ" Flash	-	-
MS18W23G15	Socket	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Gold 15µ" Flash	-	-
MS18W23G30	Socket	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Gold 30µ" Flash	-	-
MS20W23T	Socket	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Tin-Plated	-	-
MS20W23S	Socket	Machined	Size 20	7.5A	18-20AWG	0.75-0.50mm <sup>2</sup>	-	Silver-Plated	-	-
MS20W23F	Socket	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold Flash	-	-
MS20W23G5	Socket	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold 5µ" Flash	-	-
MS20W23G10	Socket	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold 10µ" Flash	-	-
MS20W23G15	Socket	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold 15µ" Flash	-	-
MS20W23G30	Socket	Machined	Size 20	7.5A	20-22AWG	0.34-0.50mm <sup>2</sup>	-	Gold 30µ" Flash	-	-
MS24W23T	Socket	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Tin-Plated	-	-
MS24W23S	Socket	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Silver-Plated	-	-
MS24W23F	Socket	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold Flash	-	-
MS24W23G5	Socket	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold 5µ" Flash	-	-
MS24W23G10	Socket	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold 10µ" Flash	-	-
MS24W23G15	Socket	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold 15µ" Flash	-	-
MS24W23G30	Socket	Machined	Size 20	7.5A	24-26AWG	0.14-0.25mm <sup>2</sup>	-	Gold 30µ" Flash	-	-
MS28W23F	Socket	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold Flash	-	-
MS28W23G5	Socket	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold 5µ" Flash	-	-
MS28W23G10	Socket	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold 10µ" Flash	-	-
MS28W23G15	Socket	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold 15µ" Flash	-	-
MS28W23G30	Socket	Machined	Size 20	7.5A	28-30AWG	0.05-0.08mm <sup>2</sup>	-	Gold 30µ" Flash	-	-
SP20W2T	3 Tang Pin	S&F	Size 20	5A	18-22AWG	-	2.6mm	Tin-Plated	-	-

ATS Series™ Contacts - Stamped & Formed

SP20W2N	3 Tang Pin	S&F	Size 20	5A	18-22AWG	-	2.6mm	Nickel-Plated	-	-
SP20W2F	3 Tang Pin	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold Flash	-	-
SP20W2G5	3 Tang Pin	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold 5µ"	-	-

Part Number	Type	Style	Contact Size	Amp	Wire Range (AWG)	Wire Range (mm <sup>2</sup> )	Insulation OD (mm)	Plating	Reel Size	Packaging
SP20W2G10	3 Tang Pin	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold 10µ"	-	-
SP20W2G15	3 Tang Pin	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold 15µ"	-	-
SP20W2G30	3 Tang Pin	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold 30µ"	-	-
SP24W2T	3 Tang Pin	S&F	Size 20	5A	24-26AWG	-	2.2mm	Tin-Plated	-	-
SP24W2N	3 Tang Pin	S&F	Size 20	5A	24-26AWG	-	2.2mm	Nickel-Plated	-	-
SP24W2F	3 Tang Pin	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold Flash	-	-
SP24W2G5	3 Tang Pin	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold 5µ" Flash	-	-
SP24W2G10	3 Tang Pin	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold 10µ" Flash	-	-
SP24W2G15	3 Tang Pin	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold 15µ" Flash	-	-
SP24W2G30	3 Tang Pin	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold 30µ" Flash	-	-
SP28W2T	3 Tang Pin	S&F	Size 20	5A	28-30AWG	-	1.8mm	Tin-Plated	-	-
SP28W2N	3 Tang Pin	S&F	Size 20	5A	28-30AWG	-	1.8mm	Nickel-Plated	-	-
SP28W2F	3 Tang Pin	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold Flash	-	-
SP28W2G5	3 Tang Pin	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold 5µ" Flash	-	-
SP28W2G10	3 Tang Pin	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold 10µ" Flash	-	-
SP28W2G15	3 Tang Pin	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold 15µ" Flash	-	-
SP28W2G30	3 Tang Pin	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold 30µ" Flash	-	-
SS20W2T	3 Tang Socket	S&F	Size 20	5A	18-22AWG	-	2.6mm	Tin-Plated	-	-
SS20W2N	3 Tang Socket	S&F	Size 20	5A	18-22AWG	-	2.6mm	Nickel-Plated	-	-
SS20W2F	3 Tang Socket	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold Flash	-	-
SS20W2G5	3 Tang Socket	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold 5µ"	-	-
SS20W2G10	3 Tang Socket	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold 10µ"	-	-
SS20W2G15	3 Tang Socket	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold 15µ"	-	-
SS20W2G30	3 Tang Socket	S&F	Size 20	5A	18-22AWG	-	2.6mm	Gold 30µ"	-	-
SS24W2T	3 Tang Socket	S&F	Size 20	5A	24-26AWG	-	2.2mm	Tin-Plated	-	-
SS24W2N	3 Tang Socket	S&F	Size 20	5A	24-26AWG	-	2.2mm	Nickel-Plated	-	-
SS24W2F	3 Tang Socket	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold Flash	-	-
SS24W2G5	3 Tang Socket	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold 5µ"	-	-
SS24W2G10	3 Tang Socket	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold 10µ"	-	-
SS24W2G15	3 Tang Socket	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold 15µ"	-	-
SS24W2G30	3 Tang Socket	S&F	Size 20	5A	24-26AWG	-	2.2mm	Gold 30µ"	-	-
SS28W2T	3 Tang Socket	S&F	Size 20	5A	28-30AWG	-	1.8mm	Tin-Plated	-	-
SS28W2N	3 Tang Socket	S&F	Size 20	5A	28-30AWG	-	1.8mm	Nickel-Plated	-	-
SS28W2F	3 Tang Socket	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold Flash	-	-
SS28W2G5	3 Tang Socket	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold 5µ"	-	-
SS28W2G10	3 Tang Socket	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold 10µ"	-	-
SS28W2G15	3 Tang Socket	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold 15µ"	-	-
SS28W2G30	3 Tang Socket	S&F	Size 20	5A	28-30AWG	-	1.8mm	Gold 30µ"	-	-

ATS Series™ Contacts - Tooling

Part Number	Tool Name	Style	Contact Size	Wire Range (AWG)	Material	Color
MFY-3959	Hand Crimp Tool	Machined	Size 20	12-26AWG	-	-
MFY-3960	Pneumatic Crimp Tool	Machined	Size 12/16/20	12-26AWG	-	-
FT-ATS26P	Installation Fixture for ATS04-26P	Machined	-	-	Resin	White
MFY-3957	Crimp Die	S&F	Size 16/20	16-20AWG	-	-
MFY-3958	Hand Crimp Tool	S&F	Size 20	20-28AWG	-	-
AT13-204-2005	Seal Plug	Universal	Size 20	-	Thermoplastic	White
ATRT-100	Contact and Wedglock Extraction Tool	Universal	n/a	-	Steel	Silver
ISRT20	Contact Insertion Tool	Universal	Size 20	24-28AWG	Plastic	Red
QXRT20-ATS26P	Contact Extraction Tool	Universal	Size 20	-	Aluminum Alloy	Black