

ATM ATMSeries™



Heavy-Duty, Multi-Pin, 7.5A, Thermoplastic Connectors

IP68 IP69K

Available in 2, 3, 4, 6, 8 and 12 positions

Amphenol Sine Systems **ATM Series™ Connectors**, specifically designed for smaller AWG applications, are designed as an IP68 and IP69K rated (in mated condition), high-performance, cost-effective, thermoplastic solution with superior environmental seals and seal retention capabilities. All of our ATM Series™ connectors have been developed to be comparable with all other existing standard products industry-wide. Also available in **BoardLock™** and **PanelMate™ Series** options.

The connector design incorporates an integral latching system that ensures a definitive electrical and mechanical connection. Connector housings are manufactured with a thermoplastic material that is not only durable, but has excellent UV resistance, dielectric/mechanical properties and environmentally RoHS compliant. The sealing system is comprised of an internal and rear silicone, multi-sealing perimeter against environmental ingress. Contacts are derived from quality copper alloy to ensure an electrically-reliable connection.

Applications: Marine, Heavy Equipment, Agricultural, Automotive, Alternative Energy, as well as other demanding interconnect applications

Available in **ATMH Series™, ATM Series™ SF01/02, BoardLock™ ATM Series** and **PanelMate™ ATM Series**.

ATMH ATMHSeries™

ATMH Series™ - High Temperature option which features an increased operating temperature range of -55°C to 150°C, ideal for "under the hood" applications, along with an IP68 (1M of water for a period of 24 hours, mated condition) & IP69K (in mated condition) rating.

ATM ATMSeries™ SF01/02

ATM Series™ SF01/02 (Snap-Fit Caps) options which features an integrated Snap-Fit Cap enhancement that ensures rear seal stability under uncontrolled, harsh environmental conditions, along with an IP68 and IP69K rating.

BL BoardLock™ ATM

BoardLock™ ATM options, featuring flanged, 90° right angle or 180° straight, wire-to-board functionality, along with an IP67 rating (in mated condition).

PM PanelMate™ ATM

PanelMate™ ATM options, engineered with a one-piece, sealed, flanged design for rapid and secure mounting.

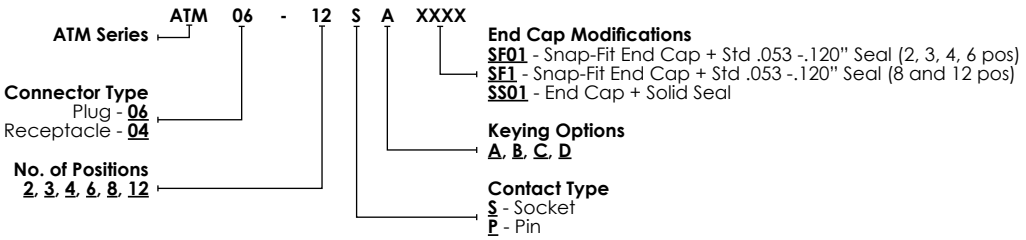
IP Ratings
IP67 rated (Dust tight; 1M of Water for 30 Minutes, in mated condition)
IP68 rated (Dust tight; 1M of Water for 24 Hours, in mated condition)
IP69K rated (Dust tight; High-Pressure Waterproof, 4 Points (0°, 30°, 60°, 90°), in mated condition)

A ASeries™ Family



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

ATM Series™ - Part Numbering Sequence



ATM Series™ - Specifications (See Individual datasheets)

IP Rating (in mated condition)	IP68 and IP69K (See individual datasheets)
Max. Current (Amperage)	7.5A (See individual datasheets)
Max. Voltage Rating	250V
Operating Temperature	-55°C to +125°C
Coupling System	Integrated Latch
Housing Body	Thermoplastic UL94-VO
Contact Types	Stamped & Formed, Machined
Contact Material	Copper Alloy, Nickel Plated, Gold optional
Wire Range	16-22AWG (See individual datasheets)
Sealing Material	Silicone Elastomer
Min. Mating Cycles	>100
Flammability Rating	UL94-VO
Fluid Resistance	Gas, oil, mineral oil, acid bath, basic bath

Insulation Resistance	1000 megohms min. of 25°C
Shock	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)
Vibration	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)
Connector Terminal Retention	When subjected to a direct pull, contacts achieve a minimum pull-out force of 25 lbs.
Connector Retention	A mated connector subjected to a pulling force by the exiting wire bundle at 25 lbs. times the number of contacts to a maximum of 100 lbs. applying load for 30 seconds
Thermal Shock	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector
RoHS Compliant	ALL materials meet the requirements of the European Directive. (See website for documentation)

Custom Color Options

Black	Grey	Brown	Blue	White	Yellow	Green	Red	Orange

ATM Series™ Backshells - Refer to our **A Series Backshells Flyer**.

ATM Series™ Contacts - Refer to our **A Series Contacts Flyer**.

ATM Series™ Tooling - Refer to our **A Series Contacts Flyer**.



ATMH Series™



Heavy-Duty, Multi-Pin, 7.5A, **High Temperature** Thermoplastic Connectors

IP68 IP69K

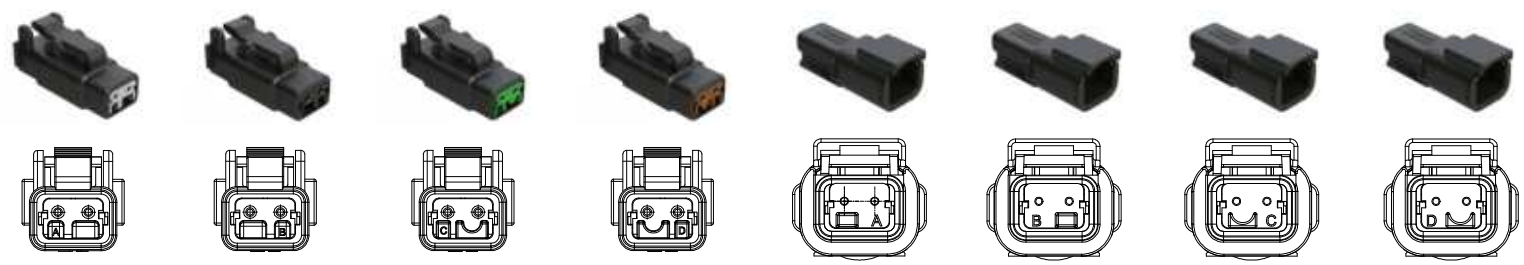
Available in 2 position

Amphenol Sine Systems' **ATMH Series™** connectors, an extension of our ATM Series™, are an IP68/69K rated (mated condition), high-performance, cost-effective solution designed for smaller AWG applications, and ideally suited for "under the hood" applications where higher temperatures are required. While our ATM Series™ connectors have an Operating Temperature Range of -55°C to 125°C, **our ATMH Series™ has an increased operating temperature range of -55°C to 150°C.** All of our ATMH Series™ connectors have been developed to be compatible with other existing standard products industry-wide.

Applications: Marine, Heavy Equipment, Agricultural, Automotive, Alternative Energy, as well as other demanding interconnect applications

ATMH Series™ plugs and receptacles both arrive with an integrated, "unseated", **Terminal Position Assurance (TPA) Lock**. Once the contacts have been installed by the user, the TPA's can then be fully "seated" for proper use. The TPA's are color-coded for their respective keying position: **Keyed A**-Grey, **Keyed B**-Black, **Keyed C**-Green, and **Keyed D**-Brown.

ATMH Series™ Keying Options (Plug TPAs are shown "seated". Receptacle TPAs are hidden from view.)



Keyed A Plug ATMH06-2SA **TPA Color: Grey**	Keyed B Plug ATMH06-2SB **TPA Color: Black**	Keyed C Plug ATMH06-2SC **TPA Color: Green**	Keyed D Plug ATMH06-2SD **TPA Color: Brown**	Keyed A Recep ATMH04-2PA **TPA Color: Grey**	Keyed B Recep ATMH04-2PB **TPA Color: Black**	Keyed C Recep ATMH04-2PC **TPA Color: Green**	Keyed D Recep ATMH04-2PD **TPA Color: Brown**

Important: ATMH Series™ plugs and receptacles are capable of mating with ATM Series™ plugs and receptacles, but will only retain the lower ATM Series™ operating temperature range of -55°C to +125°C when mixed.

IP Ratings
IP67 rated (Dust tight; 1M of Water for 30 Minutes, in mated condition)
IP68 rated (Dust tight; 1M of Water for 24 Hours, in mated condition)
IP69K rated (Dust tight; High-Pressure Waterproof, 4 Points (0°, 30°, 60°, 90°), in mated condition)

A ASeries™ Family



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

ATMH Series™ - Part Numbering Sequence

ATMH Series — ATMH

Connector Type
Plug - **06**
Receptacle - **04**

No. of Positions
2

Contact Type
S - Socket
P - Pin

Keying Options
A, **B**, **C**, **D**

ATMH Series™ - Specifications (See Individual datasheets)

IP Rating (in mated condition)	IP68 and IP69K (See individual datasheets)
Max. Current (Amperage)	7.5A (See individual datasheets)
Max. Voltage Rating	250V
Operating Temperature	-55°C to +150°C
Coupling System	Integrated Latch
Housing Body	Thermoplastic UL94-VO
Contact Types	Stamped & Formed, Machined
Contact Material	Copper Alloy, Nickel Plated, Gold optional
Wire Range	16-22AWG (See individual datasheets)
Sealing Material	Silicone Elastomer
Min. Mating Cycles	>100
Flammability Rating	UL94-VO
Fluid Resistance	Gas, oil, mineral oil, acid bath, basic bath

Insulation Resistance	1000 megohms min. of 25°C
Shock	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)
Vibration	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)
Connector Terminal Retention	When subjected to a direct pull, contacts achieve a minimum pull-out force of 25 lbs.
Connector Retention	A mated connector subjected to a pulling force by the exiting wire bundle at 25 lbs. times the number of contacts to a maximum of 100 lbs. applying load for 30 seconds
Thermal Shock	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector
RoHS Compliant	ALL materials meet the requirements of the European Directive. (See website for documentation)

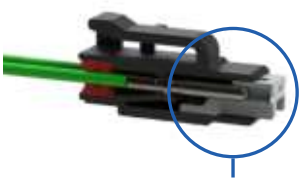
Custom Color Options

Black	Grey	Brown	Blue	White	Yellow	Green	Red	Orange

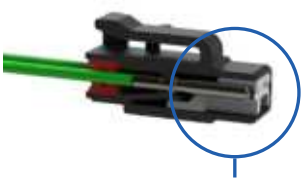
ATMH Series™ - How to Install Contacts with Terminal Position Assurance (TPA) Locks



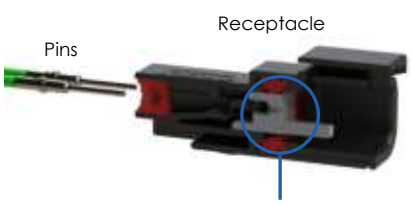
"Unseated" TPA Lock



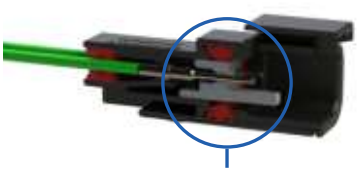
Insert Socket Contacts Into Position



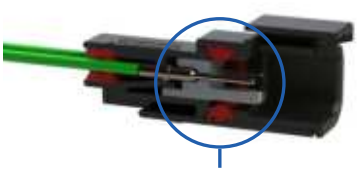
Push TPA Into "Seated" Position To Lock Sockets in Place



"Unseated" TPA Lock



Insert Pin Contacts Into Position



Push TPA Into "Seated" Position To Lock Pins in Place

ATMH™ Series - Plugs

Image	Part Number	Description	Size	Amp
	ATMH06-2SA	2 Position, Plug, Socket, ATMH Series™, High Temperature (+150°C), (TPA) Terminal Position Assurance Lock (Grey), Keyed A, Standard Diameter Rear Seal (Red), Black Body	20	7.5A
	ATMH06-2SB	2 Position, Plug, Socket, ATMH Series™, High Temperature (+150°C), (TPA) Terminal Position Assurance Lock (Black), Keyed B, Standard Diameter Rear Seal (Red), Black Body	20	7.5A
	ATMH06-2SC	2 Position, Plug, Socket, ATMH Series™, High Temperature (+150°C), (TPA) Terminal Position Assurance Lock (Green), Keyed C, Standard Diameter Rear Seal (Red), Black Body	20	7.5A
	ATMH06-2SD	2 Position, Plug, Socket, ATMH Series™, High Temperature (+150°C), (TPA) Terminal Position Assurance Lock (Brown), Keyed D, Standard Diameter Rear Seal (Red), Black Body	20	7.5A

ATMH Series™ - Receptacles

	ATMH04-2PA	2 Position, Receptacle, Pin, ATMH Series™, High Temperature (+150°C), (TPA) Terminal Position Assurance Lock (Grey), Keyed A, Standard Diameter Rear Seal (Red), Black Body	20	7.5A
	ATMH04-2PB	2 Position, Receptacle, Pin, ATMH Series™, High Temperature (+150°C), (TPA) Terminal Position Assurance Lock (Black), Keyed B, Standard Diameter Rear Seal (Red), Black Body	20	7.5A
	ATMH04-2PC	2 Position, Receptacle, Pin, ATMH Series™, High Temperature (+150°C), (TPA) Terminal Position Assurance Lock (Green), Keyed C, Standard Diameter Rear Seal (Red), Black Body	20	7.5A
	ATMH04-2PD	2 Position, Receptacle, Pin, ATMH Series™, High Temperature (+150°C), (TPA) Terminal Position Assurance Lock (Brown), Keyed D, Standard Diameter Rear Seal (Red), Black Body	20	7.5A

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ATMH Series™ Tooling - Refer to our **A Series Contacts Flyer**.

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