

AHD | Series™



AHD Series™

Overview

AHD Series™ connectors were developed in response to the overwhelming need for an economic alternative to today's existing diagnostic product options. Designed specifically as a cost-conscious, reliable alternative, intermateable to industry standard 6 and 9 pin connectors, the AHD Series™ is ideal for any situation where either controlled and/or uncontrolled environmental conditions exist.

AHD Series™ Connectors offer both a smooth, non-sealing option for controlled applications, as well as an environmentally-sealed, threaded option for more demanding applications.

AHD Series™ connectors are completely compatible with all other existing standard products industry-wide.



Features & Benefits

Current Capacity	6 position: Size 12, 25A (max) 9 position: Size 16, 13A (max)
Wire Range	Size 12 contacts will accept wire ranges of 10 thru 14AWG Size 16 contacts will accept wire ranges of 14 thru 20AWG
Temperature	DiagnosticGrade™ / Military Style: Operating temperature range: -55°C TO +125°C at rated current.
Dielectrical Strength	DiagnosticGrade™ / Military Style: 1500 volts minimum
Physical Shock	Military Style: No locking, unmating or other unsatisfactory result after 50 g's in each of three mutually perpendicular planes.
Vibration	Military Style: Maintains continuity and exhibits no mechanical or physical damage after vibration. (20 g's at 10-2000 Hz)
Insulation Resistance	DiagnosticGrade™ / Military Style: 1000 megohms minimum at 25°C.
Durability	DiagnosticGrade™ / Military Style: No electric or mechanical defects after 100 cycles of engagement and disengagement.

AHD Series™

Features & Benefits, cont.

Integrated Alignment Keys	Tactile verification for blind mating
Strong Thermoplastic Housing	Extended service life
Operating Temperature Range	-55°C TO +125°C - Wide range compatibility
Economically Sound	Low overall cost
Rohs Compliant	Environmentally friendly
UI Approval	Certified and compliant
Contact Current Rating	DiagnosticGrade™ / Military Style: At +125°C, continuous, less thru wire: #12 contact = 25A max. current; #16 contact = 13A max. current
Corrosion Resistance	DiagnosticGrade™ / Military Style: Connectors show no evidence of corrosion after exposure to 48 hours of salt spray per MIL-STD 1344 method 1001.

Product Material

Housings	Thermoplastic
Seals	Silicone Elastomer
Contacts	Copper alloy/Gold plated

AHD Series™ Connector Configurations

STEP 1

Choose a Plug

MATING PARTS



STEP 2

Choose Contacts



Need a complete Cable Assembly?

See page 11 or contact the factory for assistance

Toll Free: 1-800-394-7732

STEP 3

Choose a Receptacle



Standard



Jam Mount, Extended Shroud



Flange



Reduced Seal



In-Line Threaded Rear



Diagnostic

STEP 2

Choose Contacts

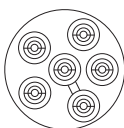


Optional
Receptacle Caps







Optional
Panel Nut



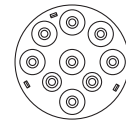


AHD SERIES STANDARD PLUGS & RECEPTACLES

Contact Size:	12
Wire Range (AWG):	10-14 AWG
Amperage:	25

Plug	Part Number	Description
	AHD16-6-12S	6 Position, Plug, Smooth Shell Diagnostic Grade Size 12 socket contacts only
	AHD16-6-12SB010	6 Position, Plug, Locking Ring Size 12 socket contacts only
	P23232	6 -Way Plug, LED. LED light is integrated into a 6 position plug for determining if device is receiving power. Environmentally sealed, field serviceable, and cost effective.
Receptacle	Part Number	Description
	AHD10-6-12P-L	6 Position, Receptacle Size 12 pin contacts only

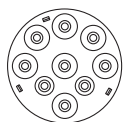
AHD SERIES STANDARD PLUGS & RECEPTACLES



AHD
9 POSITIONS
13A


Contact Size:	16
Wire Range (AWG):	14-20 AWG
Amperage:	13

Plug	Part Number	Description
	AHD16-9-1939S	9 Position, Plug, Locking Ring Size 16 socket contacts only
	AHD16-9-1939SE	9 Position, Plug, Locking Ring, Reduced Seal Size 16 socket contacts only
	AHD17-9-1939S	9 Position, Plug, Smooth Shell Size 16 socket contacts only
	AHD16-9-96S	9 Position, Plug, Locking Ring (non-J1939) Size 16 socket contacts only
	AHD16-9-1939S80	9 Position, Plug, HD Series, Locking Ring, Green, Type II Size 16 socket contacts only
	AHD16-9-1939S8R	9 Position, Plug, HD Series, Locking Ring, Green Reduced Seal, Type II Size 16 socket contacts only
Receptacle	Part Number	Description
	AHD10-9-96P	9 Position, Receptacle Size 16 pin contacts only
	AHD10-9-1939P	9 Position, Receptacle, Flange Size 16 pin contacts only
	AHD10-9-1939PE	9 Position, Receptacle, Flange, Reduced Seal Size 16 pin contacts only
	AHD10-9-1939P80	9 Position, Receptacle, HD Series, Flange, Green, Type II Size 16 pin contacts only
	AHD10-9-1939P8R	9 Position, Receptacle, HD Series, Flange, Reduced Seal, Green, Type II Size 16 pin contacts only
	AHD14-9-96P	9 Position, Receptacle, In Line Threaded Rear Size 16 pin contacts only
	AHD14-9-1939P	9 Position, Receptacle, In-Line Threaded Rear J1939 Size 16 pin contacts only
	AHD17-9-1939PES	AHD Series™, 9-Way, Jam Mount Extended Shroud, Receptacle
	AHD17-9-1939PES80	HD Series 9 Pin Receptacle (TYPE 2) Jam Mount / Extended Shroud
	AHD17-PN01	AHD Series™ Panel Nut (for use with P/N: AHD17-9-1939PES)
	AHD17-PN01-GRN	HD Series 9 Pin PANEL NUT (for use with P/N: AHD17-9-1939PES80) GREEN










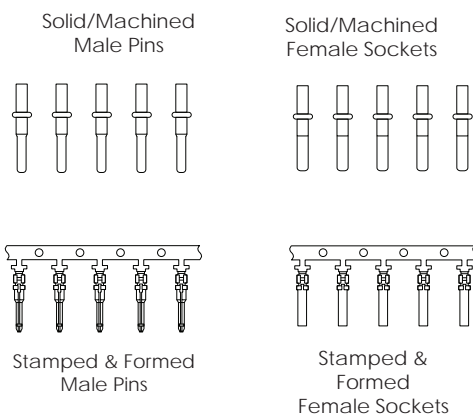
AHD Series™ Unsealed Diagnostic Receptacle

AHD Series™ unsealed diagnostic 9-way receptacle that is cost effective, yet rugged. Mates with industry standard diagnostic 9-way plugs.

Receptacle	Mod. Number	Description
	AHD10-9-1939PNR	AHD Series™, 9-Way, Receptacle, Unsealed

Receptacle Caps - 6 and 9 positions

Cap	Part Number	Description
	AHDC-16-6	6 Position, Receptacle, Cap, Grey
	AHDC-16-9	9 Position, Receptacle, Cap, Grey
	AHDC-16-9-BLK	9 Position, Receptacle, Cap, Black
	AHDC-16-9-OB DGN	9 Position Receptacle Cap, Green, OBD Label
	AHDC-16-9-OB DBK	9 Position, Receptacle, Cap, Black, OBD Label
	AHDC169-T-OB DGN	9 Pin Receptacle Cap w/ Rubber Tether Green, OBD Label
	AHDC169-T-OB DBK	9 Position, Receptacle, Cap w/ Tether, Black, OBD Label
	AHDC169-TMOB DBK	9 Position, Receptacle, Cap w/ Wire Tether, Black, OBD Label
	AHDC169-TMOB DGN	9 Position, Receptacle, Cap w/ Wire Tether, Green, OBD Label
	AHDC169-T	9 Position, Receptacle, Cap w/ Tether, Grey
	AHDC169-T-BLK	9 Position, Receptacle, Cap w/ Tether, Black
	AHDC169-TMBLK	9 Position, Receptacle, Cap w/ Wire Tether, Black
	AHDC169-TM	9 Position, Receptacle, Cap w/ Wire Tether, Grey



Standard Contacts - Solid Sockets & Pins

Series	Size	AWG	Type	Part Number	Description
AHD-6	12	12-14	Solid	AT62-210-1231	Female Contact - Socket, Gold-plated
AHD-6	12	12-14	Solid	AT62-203-12141	Female Contact - Socket, Nickel-plated
AHD-9	16	14	Solid	AT62-209-1631	Female Contact - Socket, Gold-plated
AHD-9	16	14	Solid	AT62-209-16141	Female Contact - Socket, Nickel-plated
AHD-9	16	16-20	Solid	AT62-201-1631	Female Contact - Socket, Gold-plated
AHD-9	16	16-20	Solid	AT62-201-16141	Female Contact - Socket, Nickel-plated
AHD-6	12	12-14	Solid	AT60-220-1231	Male Contact - Pin, Gold-plated
AHD-6	12	12-14	Solid	AT60-204-12141	Male Contact - Pin, Nickel-plated
AHD-9	16	14	Solid	AT60-215-1631	Male Contact - Pin, Gold-plated
AHD-9	16	14	Solid	AT60-215-16141	Male Contact - Pin, Nickel-plated
AHD-9	16	16-20	Solid	AT60-202-1631	Male Contact - Pin, Gold-plated
AHD-9	16	16-20	Solid	AT60-202-16141	Male Contact - Pin, Nickel-plated

Standard Contacts - Stamped & Formed Sockets & Pins

Series	Size	AWG	Type	Part Number	Description
AHD-6	12	12-14	S & F	AT62-12-0166	Female Contact - Socket, Nickel-plated
AHD-6	12	12-14	S & F	AT62-12-0144	Female Contact - Socket, Gold-plated
AHD-9	16	14-16	S & F	AT62-14-0122	Female Contact - Socket, Nickel-plated
AHD-9	16	14-16	S & F	AT62-14-0144	Female Contact - Socket, Gold-plated
AHD-9	16	16-18	S & F	AT62-16-0122	Female Contact - Socket, Nickel-plated
AHD-9	16	16-18	S & F	AT62-16-0144	Female Contact - Socket, Gold-plated
AHD-9	16	18-20	S & F	AT62-16-0622	Female Contact - Socket, Nickel-plated
AHD-9	16	18-20	S & F	AT62-16-0644	Female Contact - Socket, Gold-plated
AHD-6	12	12-14	S & F	AT60-12-0166	Male Contact - Pin, Nickel-plated
AHD-6	12	12-14	S & F	AT60-12-0144	Male Contact - Pin, Gold-plated
AHD-9	16	14-16	S & F	AT60-14-0122	Male Contact - Pin, Nickel-plated
AHD-9	16	14-16	S & F	AT60-14-0144	Male Contact - Pin, Gold-plated
AHD-9	16	16-18	S & F	AT60-16-0122	Male Contact - Pin, Nickel-plated
AHD-9	16	16-18	S & F	AT60-16-0144	Male Contact - Pin, Gold-plated
AHD-9	16	18-20	S & F	AT60-16-0622	Male Contact - Pin, Nickel-plated
AHD-9	16	18-20	S & F	AT60-16-0644	Male Contact - Pin, Gold-plated

Crimp Tools

Amphenol offers two types of contacts for use in our products: Solid and Stamped & Formed. Both types of contacts utilize the simple crimp-style requiring no solder usage. Below are the tools available to assist with your crimping needs to ensure a proper connection between contact and wire.

Part	Part Number	Description
	CA-5D12	Universal Hand Crimp Tool, Size 12/16/20 *Solid contacts only
	CA-5E12	Pneumatic Crimp Tool, Size 12/16/20 *Solid contacts only
	MFX-3973	Crimp Die - Size 12 (Stamped & Formed Contacts)
	MFX-3950	Crimp Die - Size 16, 18-20AWG (Stamped & Formed Contacts)
	MFX-3953	Crimp Die - Size 16, 16-18AWG (Stamped & Formed Contacts)
	MFX-3975	Crimp Die - Size 16, 14-16AWG (Stamped & Formed Contacts)
	ATT-12-00	Size 12, 12AWG, Stamped & Formed Contact Tool
	ATT-16-00	Size 16, 14-16AWG, Stamped & Formed Contact Tool
	ATT-16-01	Size 16, 18-20AWG, Stamped & Formed Contact Tool

AT Series™ Contact Removal Tool

Part	Part Number	Description
	AT11-337-1205	Contact Removal Tool, plastic Size 12
	AT11-310-1605	Contact Removal Tool, plastic, Size 16

Seal Plugs



AHD	16	12-16	-	A114017	Seal Plugs, White
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Amphenol Sine Systems offers customized solutions across all our standard product lines. Whether you are looking for a custom connector solution or a complete turn-key cable assembly solution, Amphenol Sine Systems is your one source for proven, reliable and innovative results on a global level. While our Standard products are a competitive option on a Global level, it is our Custom solutions that set us apart.

Contact Customer Service today to speak with one of our Program Managers or Engineers regarding your next custom project using our live chat, call toll free +1 800 394 7732 or email at csr@amphenol-sine.com.

