



DM Dura|Mate™ Family



Environmentally-Sealed, Multi-Pin, Heavy-Duty, Plastic & Metal Circular Connectors

Amphenol Sine Systems' **DuraMate™ Family** of environmentally-sealed, multi-pin, heavy duty, plastic (AHDP) or metal (AHDM), circular connectors provides an economical, quick-connect, bayonet locking system manufactured to withstand the challenges and complexities of harsh environment off-road applications.

Currently available in **DuraMate™ AHDP Series** and **DuraMate™ AHDM Series**.



Key Features

- **DuraMate™ AHDP: Size 24 with 13 insert arrangements** 7(x2), 9, 16, 18, 19, 21, 23, 27, 29, 31, 35 and 47
Size 18 with 6 insert arrangements 6(x2), 8, 14, 20 and 21
- **DuraMate™ AHDM: Size 24 with 13 insert arrangements** 7(x2), 9, 16, 18, 19, 21, 23, 27, 29, 31, 35 and 47
Size 18 with 6 insert arrangements 6(x2), 8, 14, 20 and 21
- 3 key-way bayonet design ensures proper mating of connectors
- High density signal and mixed power insert configurations
- Operating temperature range: -55°C to +125°C
- High current configurations incorporating revolutionary RADSOK® contacts
- High strength impact resistant & lightweight thermoplastic or zinc-alloy metal housings
- Low insertion force stamped terminals offer improved manufacturing efficiencies
- Standard WTA(Wide Thread Adapter) provides maximum access to rear grommet and improved serviceability
- Environmentally-sealed and engineered rapid and secure mating system achieves IP67/IP69K protection (in mated condition) from ingress of dust, water, mud and other contaminants and is vibration resistant
- Sealing features consisting of durable high temperature silicone provide barrier from lubricating oils, hydraulic fluids and fossil fuels
- Backshells maintain a compression-fit design to resist maximum pull-out forces and facilitate strain-relief for jacketed cable ranges
- Utilizes A Series™ standard contact system (Stamped & Formed or Machined)
- Wire entry sealing available in three separate ranges for discrete wire applications

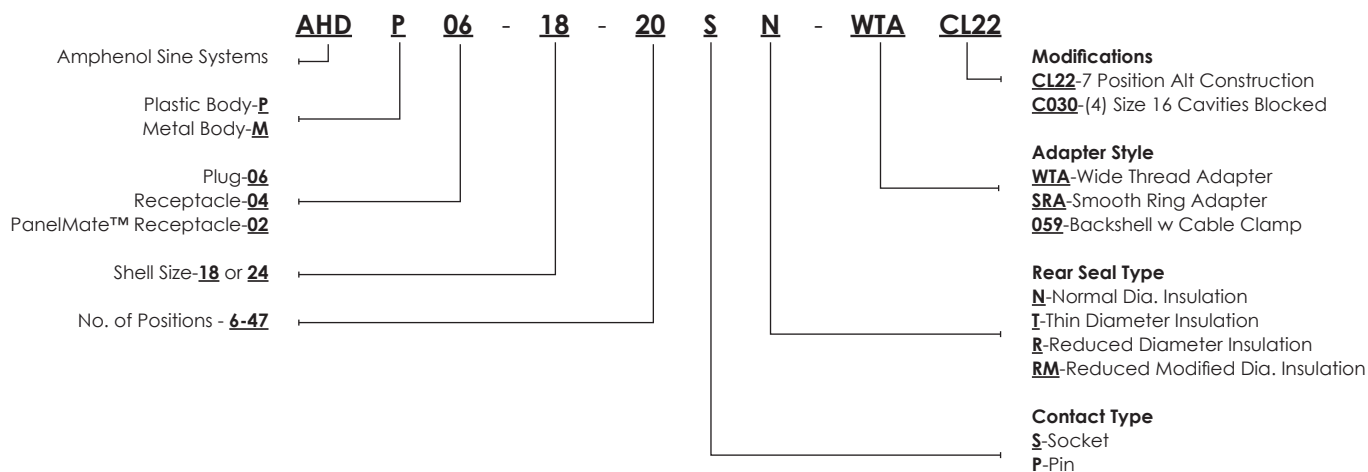


A **A Series™ Family**



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

DuraMate™ Series Part Numbering Sequence



Examples



DM Dura|Mate™ AHDP

AHDP06-18-20SN-SRA
Plastic Body, Plug, Shell Size 18, No. of Positions 20, Socket, Normal Diameter Insulation, Smooth Ring Adapter



DM Dura|Mate™ AHDP

AHDP02-24-16PR-SRA
Plastic Body, PanelMate™ Receptacle, Shell Size 24, No. of Positions 16, Pin, Reduced Diameter Insulation, Smooth Ring Adapter



DM Dura|Mate™ AHDM

AHDM04-18-08SN
Metal Body, Receptacle, Shell Size 18, No. of Positions 8, Socket, Normal Diameter Insulation



DM Dura|Mate™ AHDM

AHDM06-24-16PR
Metal Body, Plug, Shell Size 24, No. of Positions 16, Pin, Reduced Diameter Insulation



DM Dura|Mate™ AHDM

AHDM06-18-14SR-059
Metal Body, Plug, Shell Size 18, No. of Positions 14, Socket, Reduced Diameter Insulation, Backshell w Cable Clamp



DM Dura|Mate™ AHDM

AHDM04-24-09SR-059
Metal Body, Receptacle, Shell Size 24, No. of Positions 09, Socket, Reduced Diameter Insulation, Backshell w Cable Clamp



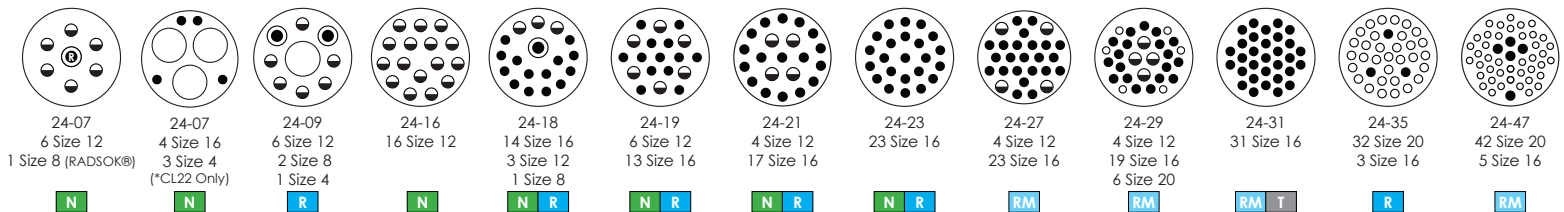
DM DuraMate™ AHDP

Environmentally-Sealed, Multi-Pin, Heavy-Duty, Plastic, Circular Connectors

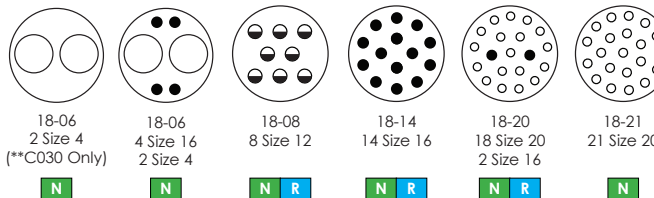
Available in Size 24 with 13 insert arrangements 7(x2), 9, 16, 18, 19, 21, 23, 27, 29, 31, 35 and 47
Available in Size 18 with 6 insert arrangements 6(x2), 8, 14, 20 and 21

The **DuraMate™ AHDP** environmentally-sealed, multi-pin, heavy duty, plastic, circular connector series provides an economical quick-connect bayonet locking system manufactured to withstand the challenges and complexities of harsh environment off-road applications.

- 3 key-way bayonet design ensures proper mating of connectors
- High density signal and mixed power insert configurations
- Operating temperature range: -55°C to +125°C
- High current configurations incorporating revolutionary RADSOK® contacts
- High strength impact resistant & lightweight thermoplastic housings
- Low insertion force stamped terminals offer improved manufacturing efficiencies
- Standard WTA(Wide Thread Adapter) provides maximum access to rear grommet and improved serviceability.
- Environmentally-sealed and engineered rapid and secure mating system achieves IP67/IP69K protection (in mated condition) from ingress of dust, water, mud and other contaminants and is vibration resistant.
- Sealing features consisting of durable high temperature silicone provide barrier from lubricating oils, hydraulic fluids and fossil fuels
- Back shells maintain a compression-fit design to resist maximum pull-out forces and facilitate strain-relief for jacketed cable ranges.
- Utilizes A Series™ standard contact system (Stamped & Formed or Machined)
- Wire entry sealing available in four separate ranges for discrete wire applications



Contact Legend (Size/Max. Current)		
○	●	◐
20/ 7.5A	16/ 13A	12/ 25A
⊙	⊗	◯
8/ 86A RADSOK®	8/ 60A	4/ 100A



Seal Legend	
Normal	Green
Thin	Grey
Reduced	Blue
Reduced Modified	Light Blue

*CL22 - Receptacle with Diagnostic Keying; **C030 - Four Size 16 cavities blocked (1, 2, 5, 6)

A Series™ Family



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

DuraMate™ AHDP Material & Performance Specifications

Current Rating per Contact	Size 4, 100A; Size 8, 86A; Size 12, 25A; Size 16, 13A; Size 20, 7.5A	Housing Material	Thermoplastic
Operating Temperature	-55°C to +125°C	Insulation Insert	Thermoplastic
Dielectric Withstanding Voltage	Current Leakage -2mA at 1500 VAC	Seal	Silicone Rubber
Degree of Protection	IP67/69K (in mated condition)	Contact	A Series™ Common System
Mating Cycle Durability	100 Cycles	Compliance	RoHS

DuraMate™ AHDP Recommended Wire Insulation Overall Diameter (OD)

Contact Size	Typical Wire Range	Normal Seal	Thin Seal	Reduced Seal	*Reduced Seal Modified
20	16-22AWG (1.5-0.35mm²)	1.02-2.41mm (0.040-.095")	-	1.02-02.41mm (0.040-0.095")	1.02-2.10mm (0.040-0.083")
16	14-20AWG (2.0-0.5mm²)	2.54-3.40mm (0.100-0.134")	2.23-2.69mm (0.088-.106")	1.35-3.05mm(0.053-0.120")	1.35-2.62mm (0.053-0.103")
12	10-14AWG (6.0 2.0mm²)	3.43-4.32mm (0.135-.170")	-	2.46-4.01mm (0.135-0.158")	2.46-4.01mm (0.135-0.158")
8	8-10AWG (10.0-5.0mm²)	4.83-6.10mm (0.190-0.240")	-	3.43-5.59mm (0.135-0.220")	-
4	6AWG (16.0-13.0mm²)	6.63-7.41mm (0.261-0.292")	-	6.63-7.41mm (0.261-0.292")	-
4+	4AWG (25.0-21.0mm²)	7.9-10.67mm (0.311-0.420")	-	-	-

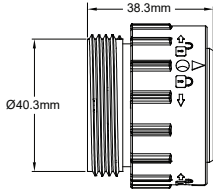
*Arrangements 24-27, 24-29, 24-31 and 24-47 are only available in the modified seals, 4+ contact is only available for 24-07CL22.

DuraMate™ AHDP Backshell Options and Accessory Overview

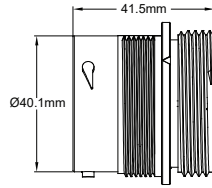


DuraMate™ AHDP Plug & Receptacle Options (Dimensions in mm)

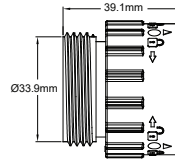
*Refer to page 3 for available insert arrangements



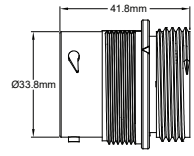
Size 24 Plug
(WTA) Wide Thread Adapter



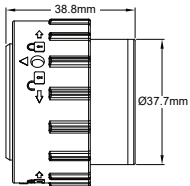
Size 24 Receptacle
(WTA) Wide Thread Adapter



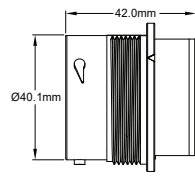
Size 18 Plug
(WTA) Wide Thread Adapter



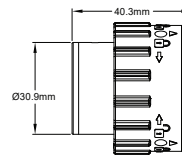
Size 18 Receptacle
(WTA) Wide Thread Adapter



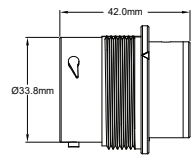
Size 24 Plug
(SRA) Smooth Ring Adapter



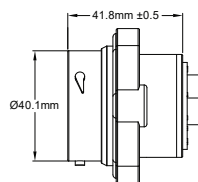
Size 24 Receptacle
(SRA) Smooth Ring Adapter



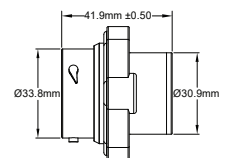
Size 18 Plug
(SRA) Smooth Ring Adapter



Size 18 Receptacle
(SRA) Smooth Ring Adapter



Size 24 Receptacle
PanelMate™ (w SRA)



Size 18 Receptacle
PanelMate™ (w SRA)

DuraMate™ AHDP Backshell Options and Accessories

Image	Part Number	Description
	AHDPBS-011-2405	Size 24 , Backshell, Conduit, Snap Over, Right Angle 90°, DuraMate™ AHDP *For use with Wide Thread Adapter (WTA) May also be used on DuraMate™ AHDM with P/N AHDM-BS-24NUT Adapter (see page 10)
	AHDPBS-015-1805	Size 18 , Backshell, Conduit, Snap Over, Right Angle 90°, Duramate™ AHDP *For use with Wide Thread Adapter (WTA) May also be used on DuraMate™ AHDM with P/N AHDM-BS-18NUT Adapter (see page 10)
	AHDPBS-010-2405	Size 24 , Backshell, Conduit, Snap Over, Straight 180°, DuraMate™ AHDP *For use with Wide Thread Adapter (WTA) May also be used on DuraMate™ AHDM with P/N AHDM-BS-24NUT Adapter (see page 10)
	AHDPBS-016-1805	Size 18 , Backshell, Conduit, Snap Over, Straight 180°, Duramate™ AHDP *For use with Wide Thread Adapter (WTA) May also be used on DuraMate™ AHDM with P/N AHDM-BS-18NUT Adapter (see page 10)
	AHDPBS-0406-001	Size 24 , Backshell, Tie Wrap, Wide Thread Adapter (WTA), DuraMate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDPBS-18-001	Size 18 , Backshell, Tie Wrap, Wide Thread Adapter (WTA) Cable Diameter Range 14.5mm - 18.0mm, Duramate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDPBS-0406-002	Size 24 , Backshell, Wide Thread Adapter (WTA), 2 PC, Compression Nut Cable Diameter Range 14.5mm - 18.0mm, DuraMate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDPBS-0406-003	Size 24 , Backshell, Wide Thread Adapter (WTA), 2 PC, Compression Nut Cable Diameter Range 19.5mm - 24.1mm, DuraMate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDPBS-18-002	Size 18 , Backshell, Wide Thread Adapter (WTA), 2PC, Compression Nut Cable Diameter Range 14.5mm-18.0mm, Duramate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDPBS-0406-SM01	Size 24 , Backshell, Sealed, Cable Grommet, DuraMate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDPBS-18-SM01	Size 18 , Backshell, Sealed, Cable Grommet, Duramate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDC06-24	Size 24 , Receptacle Cap, Sealed, DuraMate™ AHDP
	AHDC06-18	Size 18 , Receptacle Cap, Sealed, DuraMate™ AHDP
	AHDC04-24	Size 24 , Plug Cap, Sealed, DuraMate™ AHDP
	AHDC04-18	Size 18 , Plug Cap, Sealed, DuraMate™ AHDP
	AHDC04-24-PM	Size 24 , Plug Cap, Sealed, Threaded, DuraMate™ AHDP

DuraMate™ AHDP Backshell Options and Accessories

Image	Part Number	Description
	AHDC04-24-PMT	Size 24 , Plug Cap, w Tether, Threaded, Lock Washer, Sealed, DuraMate™ AHDP
	AHDC04-24-T	Size 24 , Plug Cap, w Tether, Sealed, DuraMate™ AHDP
	AHDP24-PN01	Size 24 , Panel Nut, Duramate™ AHDP
	AHDP18-PN01	Size 18 , Panel Nut, DuraMate™ AHDP
	AT14-001-2486	Size 24 , Lock Washer, Wave, Duramate™ AHDP
	AT14-002-1886	Size 18 , Lock Washer, Wave, DuraMate™ AHDP
	AHDP-16-04477	Size 24 , Rubber Flange Seal, Duramate™ AHDP
	AHDP-16-04978	Size 18 , Rubber Flange Seal, DuraMate™ AHDP
	A114019	Size 4 , Blank Seal Plug
	A114018	Size 8 , Blank Seal Plug
	A114017	Size 12/16 , Blank Seal Plug
	AT13-217-1605	Size 16 , Locking Seal Plug
	AT114009	Size 4 , Contact Removal Tool, 6AWG
	AT114008	Size 8 , Contact Removal Tool, 8-10AWG
	AT11-027-0405	Size 4 , Contact Removal Tool, 4AWG
	AT11-240-2005	Size 20 , Contact Removal Tool, 20-22AWG
	AT11-310-1605	Size 16 , Contact Removal Tool, 16-20AWG
	AT11-337-1205	Size 12 , Contact Removal Tool, 12-14AWG
	AT11-001-3.6M	Size 8 , Contact Removal Tool, 7-10AWG



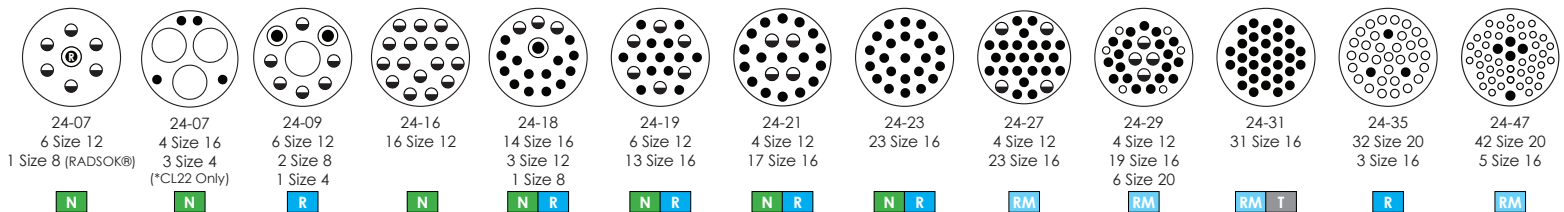
DM Dura|Mate™ AHDM

Environmentally-Sealed, Multi-Pin, Heavy-Duty, Metal, Circular Connectors

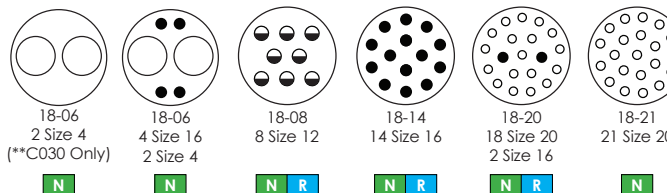
Available in Size 24 with 13 insert arrangements 7(x2), 9, 16, 18, 19, 21, 23, 27, 29, 31, 35 and 47
Available in Size 18 with 6 insert arrangements 6(x2), 8, 14, 20 and 21

The **DuraMate™ AHDM** environmentally-sealed, multi-pin, heavy duty, metal, circular connector series provides an economical quick-connect bayonet locking system manufactured to withstand the challenges and complexities of harsh environment off-road applications.

- 3 key-way bayonet design ensures proper mating of connectors
- High density signal and mixed power insert configurations
- Operating temperature range: -55°C to +125°C
- High current configurations incorporating revolutionary RADSOK® contacts
- High strength impact resistant & lightweight zinc-alloy metal housings
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Contact Legend (Size/Max. Current)		
○	●	◐
20/ 7.5A	16/ 13A	12/ 25A
⊙	⊗	◯
8/ 86A RADSOK®	8/ 60A	4/ 100A



Seal Legend	
Normal	Green
Thin	Grey
Reduced	Blue
Reduced Modified	Light Blue

*CL22 - Receptacle with Diagnostic Keying; **C030 - Four Size 16 cavities blocked (1, 2, 5, 6)

A Series™ Family



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

DuraMate™ AHDM Material & Performance Specifications

Current Rating per Contact	Size 4, 100A; Size 8, 86A; Size 12, 25A; Size 16, 13A; Size 20, 7.5A	Housing Material	Zinc-alloy
Operating Temperature	-55°C to +125°C	Insulation Insert	Thermoplastic
Dielectric Withstanding Voltage	Current Leakage-2mA at 1500 VAC	Seal	Silicone Rubber
Degree of Protection	IP67/69K (in mated condition)	Contact	A Series™ Common System
Mating Cycle Durability	100 Cycles	Compliance	RoHS

DuraMate™ AHDM Recommended Wire Insulation Overall Diameter (OD)

Contact Size	Typical Wire Range	Normal Seal	Thin Seal	Reduced Seal	*Reduced Seal Modified
20	16-22AWG (1.5-0.35mm²)	1.02-2.41mm (0.040-.095")	-	1.02-02.41mm (0.040-0.095")	1.02-2.10mm (0.040-0.083")
16	14-20AWG (2.0-0.5mm²)	2.54-3.40mm (0.100-0.134")	2.23-2.69mm (0.088-.106")	1.35-3.05mm(0.053-0.120")	1.35-2.62mm (0.053-0.103")
12	10-14AWG (6.0 2.0mm²)	3.43-4.32mm (0.1350-.170")	-	2.46-4.01mm (0.135-0.158")	2.46-4.01mm (0.135-0.158")
8	8-10AWG (10.0-5.0mm²)	4.83-6.10mm (0.190-0.240")	-	3.43-5.59mm (0.135-0.220")	-
4	6AWG (16.0-13.0mm²)	6.63-7.41mm (0.261-0.292")	-	6.63-7.41mm (0.261-0.292")	-
4+	4AWG (25.0-21.0mm²)	7.9-10.67mm (0.311-0.420")	-	-	-

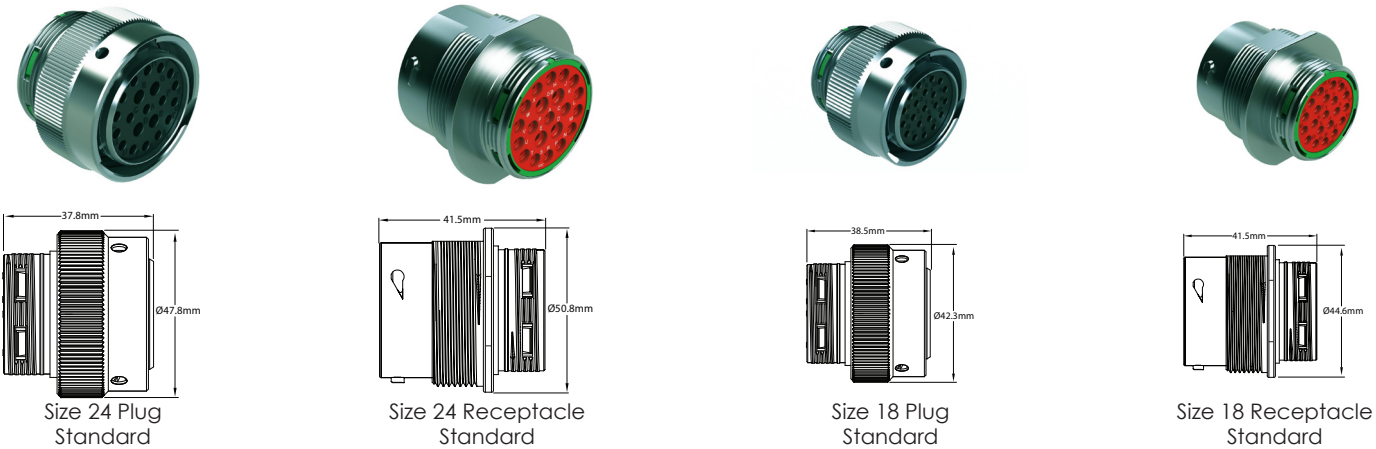
*Arrangements 24-27, 24-29, 24-31 and 24-47 are only available in the modified seals, 4+ contact is only available for 24-07CL22.

DuraMate™ AHDM Backshell Options and Accessory Overview



DuraMate™ AHDM Plug & Receptacle Options (Dimensions in mm)

*Refer to page 8 for available insert arrangements



DuraMate™ AHDM Backshell Options and Accessories

Image	Part Number	Description
	AHDMBS-24-002	Size 24 , Backshell, 2 PC, DuraMate™ AHDM
	AHDMBS-18-002	Size 18 , Backshell, 2 PC, DuraMate™ AHDM
	AHDMBS-24-001	Size 24 , Backshell, Tie Wrap, End Bell, DuraMate™ AHDM
	AHDMBS-18-001	Size 18 , Backshell, Tie Wrap, End Bell, DuraMate™ AHDM
	AHDMBS-24-059	Size 24 , Backshell, w Cable Clamp, DuraMate™ AHDM
	AHDMBS-18-059	Size 18 , Backshell, w Cable Clamp, DuraMate™ AHDM
	AHDMBS-24-SM01	Size 24 , Backshell, Metal, DuraMate™ AHDM
	AHDMBS-18-SM01	Size 18 , Backshell, Metal, DuraMate™ AHDM
	AHDM-BS-24NUT	Size 24 , Adapter for use with: AHDPBS-010-2405 AHDP Backshell, Conduit, Snap-Over, Straight 180 (See page 6) AHDPBS-011-2405 AHDP Backshell, Conduit, Snap-Over, Right Angle 90 (See page 6)
	AHDM-BS-18NUT	Size 18 , Adapter for use with: AHDPBS-015-1805 AHDP Backshell, Conduit, Snap-Over, Straight 180 (See page 6) AHDPBS-016-1805 AHDP Backshell, Conduit, Snap-Over, Right Angle 90 (See page 6)
	AHDC34-24	Size 24 , Protective Cap for Plug, DuraMate™ AHDM
	AHDC34-18	Size 18 , Protective Cap for Plug, DuraMate™ AHDM
	AHDC36-24	Size 24 , Protective Cap for Receptacle, DuraMate™ AHDM
	AHDC36-18	Size 18 , Protective Cap for Receptacle, DuraMate™ AHDM

DuraMate™ AHDM Backshell Options and Accessories

Image	Part Number	Description
	A112264	Size 24 , Lockwasher, DuraMate™ AHDM
	A114021	Size 18 , Lockwasher, DuraMate™ AHDM
	A112263-90	Size 24 , Nut, DuraMate™ AHDM
	A114020-90	Size 18 , Nut, DuraMate™ AHDM
	A114019	Size 4 , Blank Seal Plug
	A114018	Size 8 , Blank Seal Plug
	A114017	Size 12/16 , Blank Seal Plug
	AT13-217-1605	Size 16 , Locking Seal Plug
	AT114009	Size 4 , Contact Removal Tool, 6AWG
	AT114008	Size 8 , Contact Removal Tool, 8-10AWG
	AT11-027-0405	Size 4 , Contact Removal Tool, 4AWG
	AT11-240-2005	Size 20 , Contact Removal Tool, 20-22AWG
	AT11-310-1605	Size 16 , Contact Removal Tool, 16-20AWG
	AT11-337-1205	Size 12 , Contact Removal Tool, 12-14AWG
	AT11-001-3.6M	Size 8 , Contact Removal Tool, 7-10AWG

For more information, contact: Customer Service, +1 800 394 7732, csr@amphenol-sine.com

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