



# 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**.

### DM Dura|Mate™ AHDP      DM Dura|Mate™ AHDM

#### 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

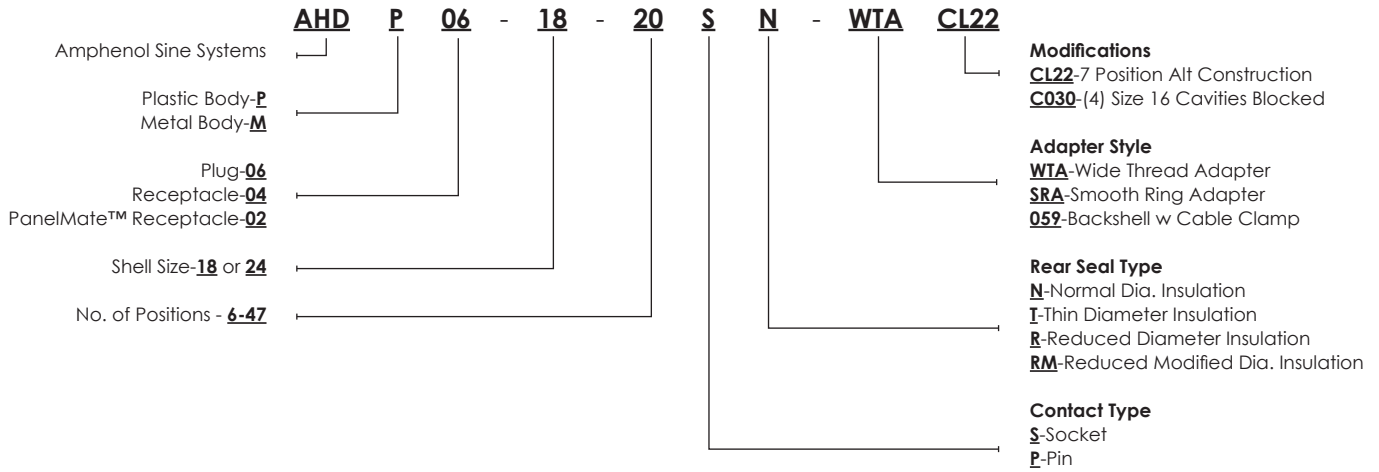


A **ASeries™ Family**



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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

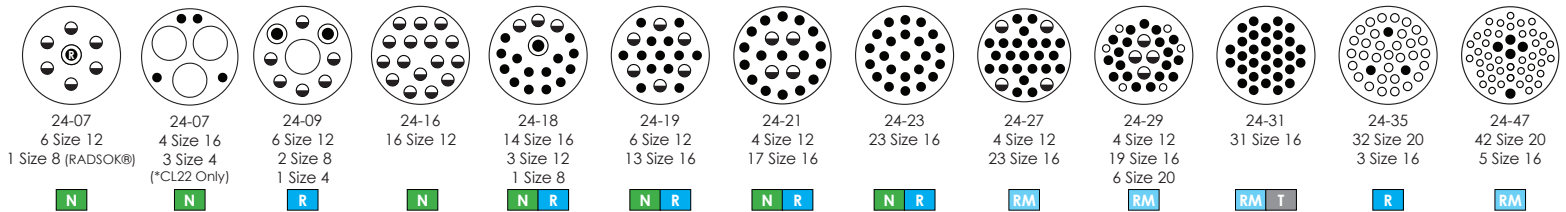
## Environmentally-Sealed, Multi-Pin, Heavy-Duty, Plastic, Circular Connectors



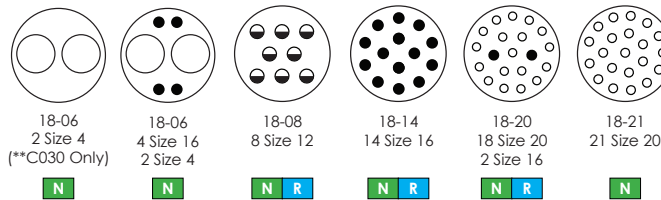
Available in Size 24 with 13 insert arrangements 7(x2), 9, 16, 18, 19, 21, 23, 27, 29, 31, 35 and 47  
Available in Size 18 with 6 insert arrangements 6(x2), 8, 14, 20 and 21

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
Thin
Reduced
Reduced Modified

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

**A Series™ Family**



Standard products. Custom solutions  
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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 (1.5-0.35mm <sup>2</sup> )	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 (2.0-0.5mm <sup>2</sup> )	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 2.0mm <sup>2</sup> )	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 (10.0-5.0mm <sup>2</sup> )	4.83-6.10mm (0.190-0.240")	-	3.43-5.59mm (0.135-0.220")	-
4	6AWG (16.0-13.0mm <sup>2</sup> )	6.63-7.41mm (0.261-0.292")	-	6.63-7.41mm (0.261-0.292")	-
4+	4AWG (25.0-21.0mm <sup>2</sup> )	7.9-10.67mm (0.311-0.420")	-	-	-

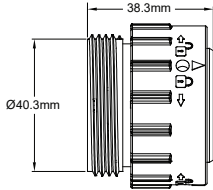
\*Arrangements 24-27, 24-29, 24-31 and 24-47 are only available in the modified seals, 4+ contact is only available for 24-07CL22.

DuraMate™ AHDP Backshell Options and Accessory Overview

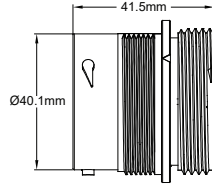


DuraMate™ AHDP Plug & Receptacle Options (Dimensions in mm)

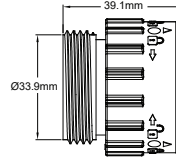
\*Refer to page 3 for available insert arrangements



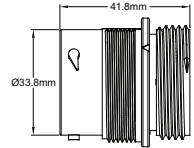
**Size 24 Plug**  
(WTA) Wide Thread Adapter



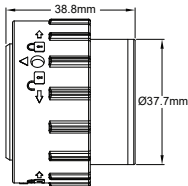
**Size 24 Receptacle**  
(WTA) Wide Thread Adapter



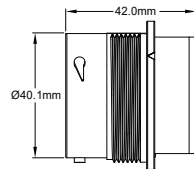
**Size 18 Plug**  
(WTA) Wide Thread Adapter



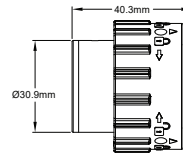
**Size 18 Receptacle**  
(WTA) Wide Thread Adapter



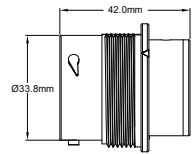
**Size 24 Plug**  
(SRA) Smooth Ring Adapter



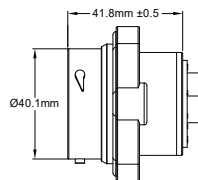
**Size 24 Receptacle**  
(SRA) Smooth Ring Adapter



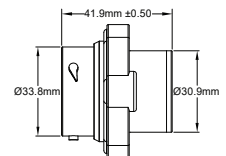
**Size 18 Plug**  
(SRA) Smooth Ring Adapter



**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	<b>Size 24</b> , Backshell, Conduit, Snap Over, Right Angle 90°, DuraMate™ AHDP *For use with Wide Thread Adapter (WTA) <b>May also be used on DuraMate™ AHDM with P/N AHDM-BS-24NUT Adapter (see page 10)</b>
	AHDPBS-015-1805	<b>Size 18</b> , Backshell, Conduit, Snap Over, Right Angle 90°, Duramate™ AHDP *For use with Wide Thread Adapter (WTA) <b>May also be used on DuraMate™ AHDM with P/N AHDM-BS-18NUT Adapter (see page 10)</b>
	AHDPBS-010-2405	<b>Size 24</b> , Backshell, Conduit, Snap Over, Straight 180°, DuraMate™ AHDP *For use with Wide Thread Adapter (WTA) <b>May also be used on DuraMate™ AHDM with P/N AHDM-BS-24NUT Adapter (see page 10)</b>
	AHDPBS-016-1805	<b>Size 18</b> , Backshell, Conduit, Snap Over, Straight 180°, Duramate™ AHDP *For use with Wide Thread Adapter (WTA) <b>May also be used on DuraMate™ AHDM with P/N AHDM-BS-18NUT Adapter (see page 10)</b>
	AHDPBS-0406-001	<b>Size 24</b> , Backshell, Tie Wrap, Wide Thread Adapter (WTA), DuraMate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDPBS-18-001	<b>Size 18</b> , 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	<b>Size 24</b> , 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	<b>Size 24</b> , 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	<b>Size 18</b> , 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	<b>Size 24</b> , Backshell, Sealed, Cable Grommet, DuraMate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDPBS-18-SM01	<b>Size 18</b> , Backshell, Sealed, Cable Grommet, Duramate™ AHDP *For use with Wide Thread Adapter (WTA)
	AHDC06-24	<b>Size 24</b> , Receptacle Cap, Sealed, DuraMate™ AHDP
	AHDC06-18	<b>Size 18</b> , Receptacle Cap, Sealed, DuraMate™ AHDP
	AHDC04-24	<b>Size 24</b> , Plug Cap, Sealed, DuraMate™ AHDP
	AHDC04-18	<b>Size 18</b> , Plug Cap, Sealed, DuraMate™ AHDP
	AHDC04-24-PM	<b>Size 24</b> , Plug Cap, Sealed, Threaded, DuraMate™ AHDP

DuraMate™ AHDP Backshell Options and Accessories

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



# DM Dura|Mate™ AHDM

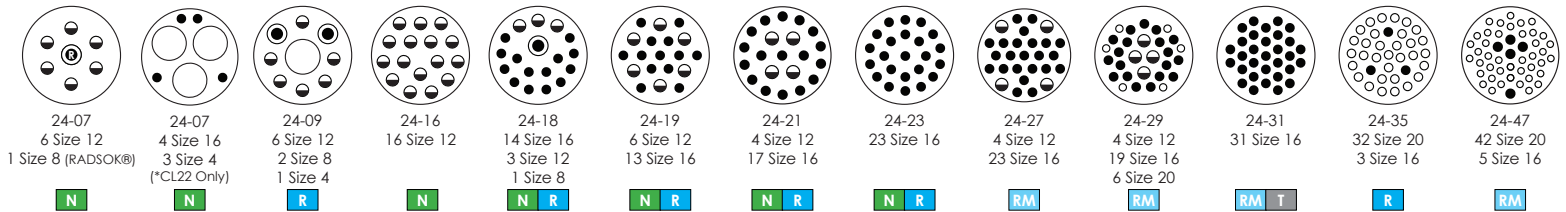
## Environmentally-Sealed, Multi-Pin, Heavy-Duty, Metal, Circular Connectors



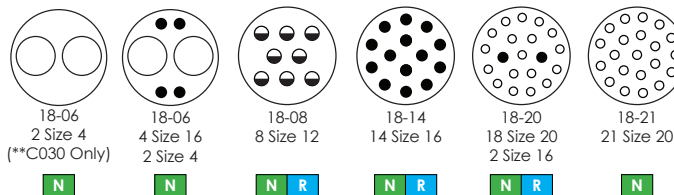
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- Operating temperature range: -55°C to +125°C
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Contact Legend (Size/Max. Current)		
○	●	◐
20/ 7.5A	16/ 13A	12/ 25A
⊙	⦿	◯
8/ 86A RADSOK®	8/ 60A	4/ 100A



Seal Legend
Normal
Thin
Reduced
Reduced Modified

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

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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 (1.5-0.35mm <sup>2</sup> )	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 (2.0-0.5mm <sup>2</sup> )	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 2.0mm <sup>2</sup> )	3.43-4.32mm (0.1350-.170")	-	2.46-4.01mm (0.135-0.158")	2.46-4.01mm (0.135-0.158")
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4+	4AWG (25.0-21.0mm <sup>2</sup> )	7.9-10.67mm (0.311-0.420")	-	-	-

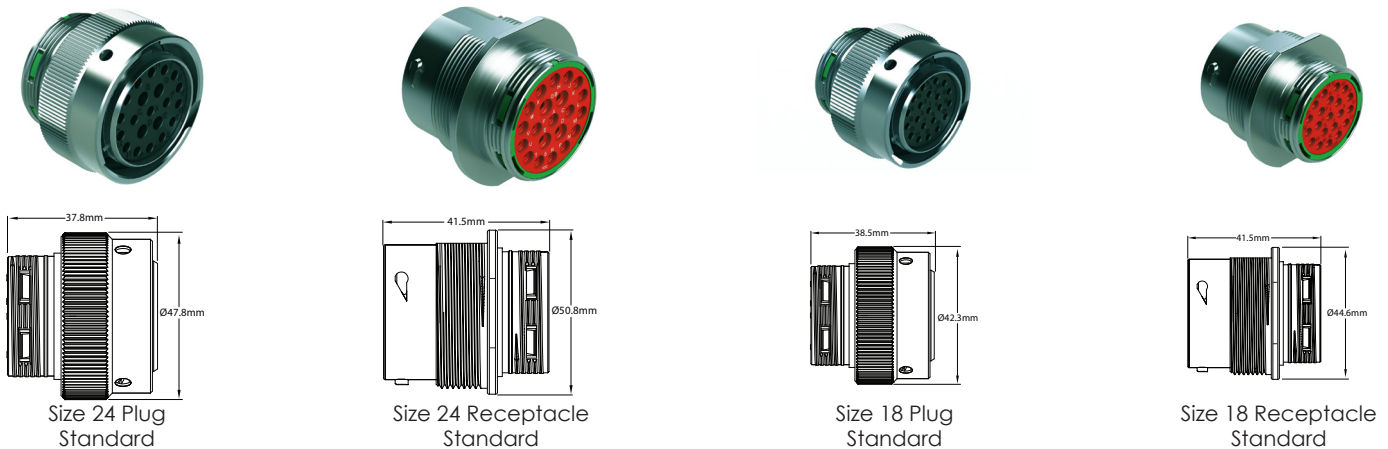
\*Arrangements 24-27, 24-29, 24-31 and 24-47 are only available in the modified seals, 4+ contact is only available for 24-07CL22.

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	<b>Size 24</b> , Backshell, 2 PC, DuraMate™ AHDM
	AHDMBS-18-002	<b>Size 18</b> , Backshell, 2 PC, DuraMate™ AHDM
	AHDMBS-24-001	<b>Size 24</b> , Backshell, Tie Wrap, End Bell, DuraMate™ AHDM
	AHDMBS-18-001	<b>Size 18</b> , Backshell, Tie Wrap, End Bell, DuraMate™ AHDM
	AHDMBS-24-059	<b>Size 24</b> , Backshell, w Cable Clamp, DuraMate™ AHDM
	AHDMBS-18-059	<b>Size 18</b> , Backshell, w Cable Clamp, DuraMate™ AHDM
	AHDMBS-24-SM01	<b>Size 24</b> , Backshell, Metal, DuraMate™ AHDM
	AHDMBS-18-SM01	<b>Size 18</b> , Backshell, Metal, DuraMate™ AHDM
	AHDM-BS-24NUT	<b>Size 24</b> , 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	<b>Size 18</b> , 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	<b>Size 24</b> , Protective Cap for Plug, DuraMate™ AHDM
	AHDC34-18	<b>Size 18</b> , Protective Cap for Plug, DuraMate™ AHDM
	AHDC36-24	<b>Size 24</b> , Protective Cap for Receptacle, DuraMate™ AHDM
	AHDC36-18	<b>Size 18</b> , Protective Cap for Receptacle, DuraMate™ AHDM

DuraMate™ AHDM Backshell Options and Accessories

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

**For more information, contact:** Customer Service, +1 800 394 7732, [csr@amphenol-sine.com](mailto:csr@amphenol-sine.com)

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