



# DM Dura|Mate™ Family

## Plastic and Metal Circular Connectors for Heavy Duty Applications



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** options.



### Key Features:

- **DuraMate™ AHDP: Size 24** with 11 insert arrang. (7, 9, 18, 19, 21, 23, 27, 29, 31, 35 and 47); **Size 18** with 6 insert arrangements (2, 6, 8, 14, 20 and 21)
- **DuraMate™ AHDM: Size 24** with 11 insert arrang. (7, 9, 18, 19, 21, 23, 27, 29, 31, 35 and 47); **Size 18** with 4 insert arrang. (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 housings
- Low insertion force stamped terminals offer improved manufacturing efficiencies
- 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
- Wire entry sealing available in three separate ranges for discrete wire applications



Part of  
**A Series™ Family**



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



# DM DuraMate™ AHDP

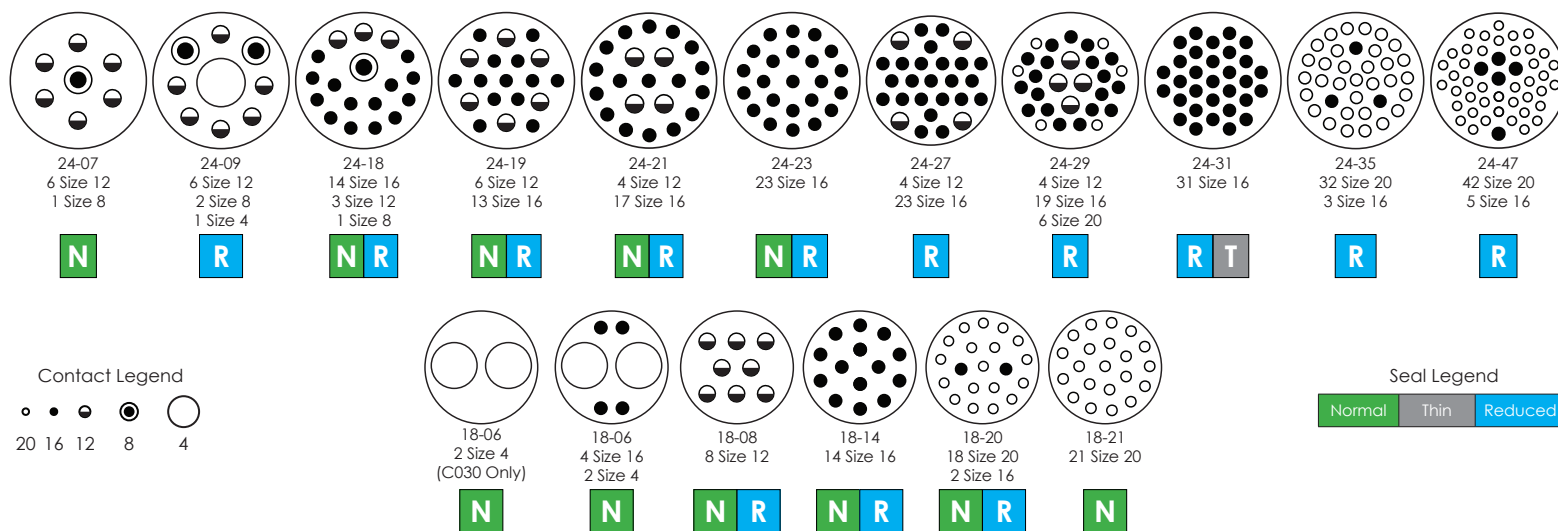
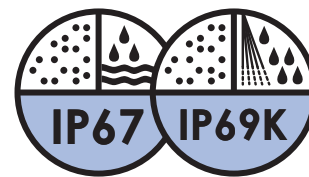
## Plastic Circular Connectors for Heavy Duty Applications



Available in Size 24 with 11 insert arrangements (7, 9, 18, 19, 21, 23, 27, 29, 31, 35 and 47)  
Available in Size 18 with 6 insert arrangements (2, 6, 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
- Wire entry sealing available in three separate ranges for discrete wire applications



Contact Legend



Seal Legend

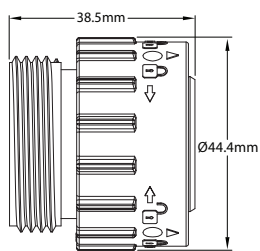


Part of  
A Series™ Family

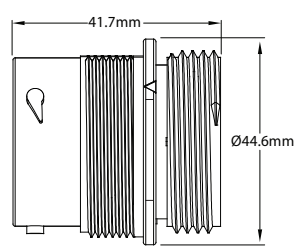


Standard products. Custom solutions  
Customer Service +1 800 394 7732

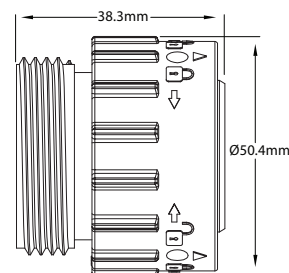
- 1 Wide threaded collar ring for increased serviceability and connector access
- 2 Highly visible indicators for quick alignment and 100% positive mating
- 3 Enclosed 1-piece threaded backshell with low-cost strain relief
- 4 Optional backshells available
- 5 Contact removal tools
- 6 RADSOK® contacts
- 7 Metal Wave Washer
- 8 Plastic Panel Nut
- 9 Plastic Caps



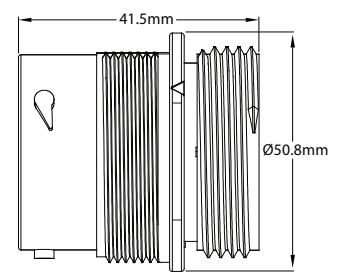
Shell Size 18 Plug



Shell Size 18 Receptacle



Shell Size 24 Plug



Shell Size 24 Receptacle

Material & Performance Specifications

Current Rating per Contact	Size 4, 100A; Size 8, 80A; 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 -12mA 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

Recommended Wire Insulation Overall Diameter (OD)

Contact Size	Normal Seal	Thin Seal	Reduced Seal
20	1.02mm (.040") - 2.10mm (.083")	N/A	1.02mm (.040") - 2.41mm (.095")
16	2.54mm (.100") - 3.40mm (.134")	2.23mm (.088") - 3.40mm (.134")	1.35mm (.053") - 3.05mm (.120")
12	3.43mm (.135") - 4.32mm (.170")	N/A	2.46mm (.097") - 4.01mm (.158")
8	4.83mm (.190") - 6.10mm (.240")	N/A	N/A
4	N/A	N/A	6.63mm (.261") - 7.42mm (.292")

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



# DM DuraMate™ AHDM

## Metal Circular Connectors for Heavy Duty Applications



Available in Size 24 with 11 insert arrangements (7, 9, 18, 19, 21, 23, 27, 29, 31, 35 and 47)  
Available in Size 18 with 4 insert arrangements (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
- Low insertion force stamped terminals offer improved manufacturing efficiencies
- 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
- Wire entry sealing available in three separate ranges for discrete wire applications



24-07 6 Size 12 1 Size 8	24-09 6 Size 12 2 Size 8 1 Size 4	24-18 14 Size 16 3 Size 12 1 Size 8	24-19 6 Size 12 13 Size 16	24-21 4 Size 12 17 Size 16	24-23 23 Size 16	24-27 4 Size 12 23 Size 16	24-29 4 Size 12 19 Size 16 6 Size 20	24-31 31 Size 16	24-35 32 Size 20 3 Size 16	24-47 42 Size 20 5 Size 16
<b>N</b>	<b>R</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>	<b>R</b>	<b>R</b>	<b>RT</b>	<b>R</b>	<b>R</b>

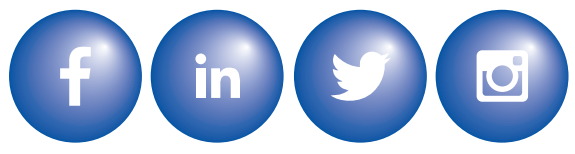
  

18-08 8 Size 12	18-14 14 Size 16	18-20 18 Size 20 2 Size 16	18-21 21 Size 20
<b>NR</b>	<b>NR</b>	<b>NR</b>	<b>N</b>

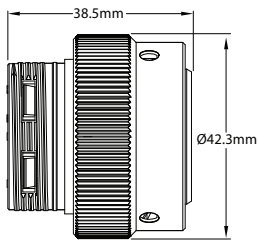
Contact Legend:

Seal Legend: **Normal** **Thin** **Reduced**

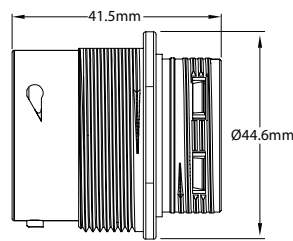


Standard products. Custom solutions  
Customer Service +1 800 394 7732

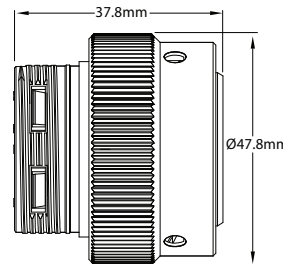
- ① Wide threaded adapter for increased serviceability and connector access
- ② Optional backshells available
- ③ Contact removal tools
- ④ RADSOK® contacts
- ⑤ Metal Panel Nut
- ⑥ Metal Locking Washer
- ⑦ Metal Caps



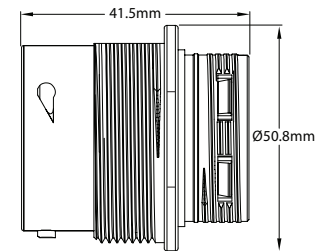
Shell Size 18 Plug



Shell Size 18 Receptacle



Shell Size 24 Plug



Shell Size 24 Receptacle

Material & Performance Specifications

Current Rating per Contact	Size 4, 100A; Size 8, 80A; 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-12mA 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

Recommended Wire Insulation Overall Diameter (OD)

Contact Size	Normal Seal	Thin Seal	Reduced Seal
20	1.02mm (.040") - 2.10mm (.083")	-	1.02mm (.040") - 2.41mm (.095")
16	2.54mm (.100") - 3.40mm (.134")	2.23mm (.088") - 3.40mm (.134")	1.35mm (.053") - 3.05mm (.120")
12	3.43mm (.135") - 4.32mm (.170")	-	2.46mm (.097") - 4.01mm (.158")
8	4.83mm (.190") - 6.10mm (.240")	-	-
4	-	-	6.63mm (.261") - 7.42mm (.292")

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

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



**Amphenol**  
INDUSTRIAL PRODUCTS GROUP