

Amphenol

SINE SYSTEMS

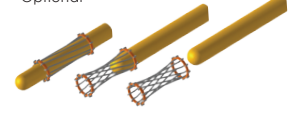
AT Series™ Connectors

Amphenol Sine Systems AT Series™ connectors were designed as a high-performance, cost-effective solution to be used within the Heavy Equipment, Agricultural, Automotive, Military, Alternative Energy and other demanding interconnect architectures.

The AT Series™ connectors contain superior environmental seals, seal retention capabilities and feature Amphenol Sine Systems RockSolid™ Contact technology. In addition, all of our AT Series™ connectors have been developed to be completely compatible with all other existing standard products industry-wide.

RockSolid™
Connections

Hyperbolic Contacts
- Optional



- Longer contact life
- Lower contact resistance
- Immunity to shock and vibration
- Low insertion and extraction forces
- Contact area extends 360° around pins

SEALING PLUGS
- Optional



Back Cap
- Optional



Rear Seal

- Also available in **Reduced Diameter** or **Solid**

ERGONOMICALLY DESIGNED CLIP
The increased size and tactile design of our clips allow for easier mating and unmating.

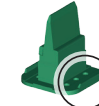


RECESSED SEALING AREA
The recessed cavity allows for a secure fitting front seal.



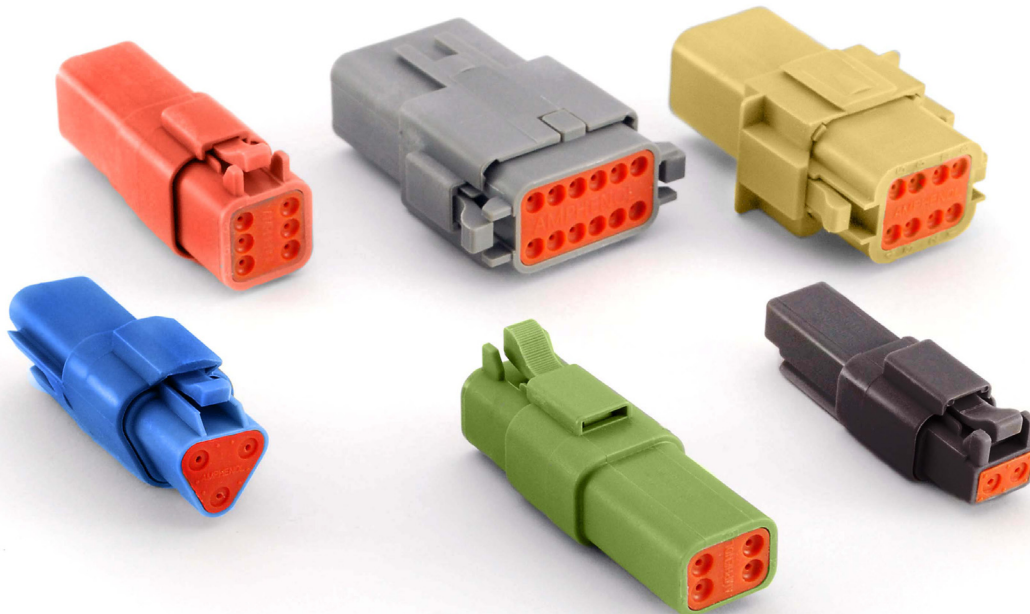
FRONT SEAL

The superior design ensures a tight environmental seal when used in conjunction with the recessed cavity of the connector body.



WEDGE with Added Seal Retention

The added seal retention feature ensures that the Front Seal does not move out of place.



AT Series™

MATERIAL SPECIFICATIONS

Plug/Receptacle	Contacts
Shell: Thermoplastic	Pin: Copper Alloy
Wedge: Thermoplastic	Socket: Copper Alloy
Grommet: Silicone Rubber	Finish: Nickel-plated (optional Gold)

Sealing Plugs

Thermoplastic: All Sizes

GENERAL SPECIFICATIONS

Dielectric Withstanding Voltage	Insulation Resistance
Current leak less than 2 milliamps at 1500 VAC	1000 megohms minimum 25°C

Current Ratings (Contact current rating at 125°C continuous)

Size 16: 13 amps

Submersion	Fluid Resistance
Wired and mated connection will withstand immersion under three feet of water without loss of electronic qualities or leakage.	Connectors show no damage when exposed to most fluids used in industrial application.

Vibration	Temperature
No unlocking or unmating. Exhibits no mechanical or physical damage after sinusoidal vibration levels of 20G's at 10 to 2000 Hz in each of the three mutually perpendicular planes. No electrical discontinuities longer than 1 microsecond.	Operative at temperatures from -55°C to +125°C. Continuous at rated current.

Contact Retention Contacts withstand a minimum load of:

25lbs. (89N) for Size 16

Thermal Cycle	Durability
No cracking, chipping or leaking after 20 test cycles from -55°C to +125°C.	No electrical or mechanical defects after 100 cycles of engagement and disengagement.

CONTACT RESISTANCE

CONTACT SIZE	WIRE GAUGE AWG(mm ²)	TEST CURRENT (AMPS)	RESISTANCE SOLIDS	RESISTANCE STAMPED & FORMED
16	20 (.50)	7.5	60	100
	18 (.80)	10	60	100
	16 (1.0)	13	60	100
	14 (2.0)	13	60	100

WIRE SEALING RANGE

CONTACT SIZE	RECOMMENDED WIRE INSULATION O.D.	
	S-SEAL	RD-SEAL
#16	.088 - .145 (2.24 - 3.68)	.053 - .120 (1.35 - 3.05)

DT Series

MATERIAL SPECIFICATIONS

Plug/Receptacle	Contacts
Shell: Thermoplastic	Pin: Copper Alloy
Wedge: Thermoplastic	Socket: Copper Alloy
Grommet: Silicone Rubber	Finish: Nickel-plated (optional Gold)

Sealing Plugs

Thermoplastic: All Sizes

GENERAL SPECIFICATIONS

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Size 16: 13 amps

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	14 (2.0)	13	60	100

WIRE SEALING RANGE

CONTACT SIZE	RECOMMENDED WIRE INSULATION O.D.	
	N-SEAL	E-SEAL
#16	.088 - .145 (2.24 - 3.68)	.053 - .120 (1.35 - 3.05)

Customized Colors

Depending on your needs, Amphenol Sine Systems is able to produce your parts in a range of colors allowing you complete control over your project. Below is a sampling of the colors available. Please contact a Sales Representative for more details.



Don Hunsucker, Program Manager

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