



A Wide Spectrum of Color Options For You

In addition to providing you with a series of high-performance and cost-effective intermatable connectors, Amphenol Sine Systems offers the ability to customize your color needs to give you complete control over your project.

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

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 RESISTENCE

| 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) |

For more information, contact:

Don Hunsucker, Project Manager, +1 586 913 8638, dhunsucker@amphenol-sine.com
Eric Schwegman, Market Manager, +1 937 242 6212, eschwegman@amphenol-sine.com

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