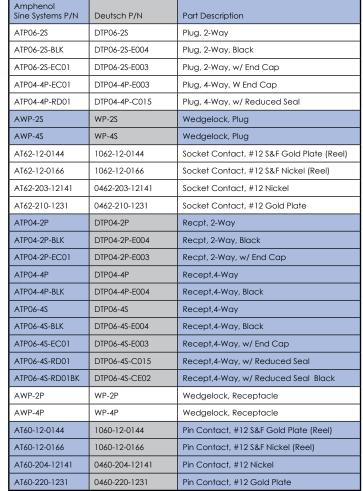




Amphenol Sine Systems ATP Series™ Connectors are designed as a high-performance, cost-effective, thermoplastic solution to be used within the Marine, Heavy Equipment, Agricultural, Automotive, Alternative Energy fields, as well as other demanding interconnect applications. Available in 2 and 4 pin options, our ATP Series™ Connectors contain superior environmental seals, seal retention capabilities and are designed for use with 10-14 AWG with size 12 contacts handling up to 25 amps. In addition, all of our AT SeriesTM connectors have been developed to be completely compatible with all other existing standard products industry-wide.

ATP SERIES™ PART COMPATIBILITY



ATP SERIES™ SPECIFICATIONS

| Durability | No electrical/mechanical defects after 100 cycles of mating/unmating. |
|------------------------------|--|
| Corrosion Resistance | No evidence of corrosion after 48 hours of salt spray per MIL-STD1344, method 1001. |
| Contact Current Rating | #12 size contacts rated at 25 amps continuous at +125°C. Current is fully rated without derating curve. |
| Operating Temperature | -55°C to +125°C |
| Submersion | A mated connection, properly wired, placed in an oven at +125°C for 1 hour, then placed immediately in a depth of water 1 meter deep for 4 hours without loss of electronic performance. |
| Vibration | Continued continuity without degradation to mechanical or physical attributes following vibration. (max acceleration 20 g's at Sine sweep of 10-2000Hz) |

Don Hunsucker, Program Manager

donh@sineco.com



VS.

DTP Series

ATP SERIES™ MATERIAL SPECIFICATIONS

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

DTP MATERIAL SPECIFICATIONS

| Plug/Receptacle | Contacts |
|---------------------------|---------------------------------------|
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| Wedge: Thermoplastic | Socket: Copper Alloy |
| Seals: Silicone Elastomer | Finish: Nickel-plated (optional Gold) |

ATP SERIES™ 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 12 contact: 25 amps | | |
| Corrosion Resistance | | |
| Connectors show no evidence of corrosion of MIL - STD 1344, method 1001. | after exposure to 48 hours of salt spray per | |
| Submersion | Fluid Resistance | |
| IP67. 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 | |
| Maintains continuity and exhibits no mechanical or physical damage after vibration levels of 20 G's at 10-2000 Hz. | Operative at temperatures from -55°C to +125°C. Continuous at rated current. | |
| Contact Retention Contacts withstand a minimum load of: | | |
| 70lbs. for Size 12 contacts. | | |
| 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. | |
| Physical Shock | Contact Millivolt Drop | |
| No unlocking, unmating or other unsatisfactory results during or after 50 G's in each of three usually perpendicular planes. No electrical discontinuities longer than 1 microsecond. MIL-STD 202. Method 213, Condition "C". | No. 16 contacts - 60 millivolt drop using 16 AWG wire (less drop through wire). Test current 13 amps. | |

DTP 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 12 contact: 25 amps

Corrosion Resistance

Connectors show no evidence of corrosion after exposure to 48 hours of salt spray per MIL - STD 1344, method 1001.

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CONTACT RESISTANCE

| CONTACT SIZE | WIRE GUAGE AWG(mm ²) | TEST CURRENT (AMPS) | RESISTANCE SOLIDS | RESISTANCE STAMPED & FORMED |
|--------------|-------------------------------------|---------------------|----------------------|--------------------------------|
| #12 | 12 | 25 | 60 µV | 100 μV |

CONTACT RESISTANCE

| CONTACT SIZE | E WIRE GUAGE AWG(mm ²) | TEST CURRENT (AMPS) | RESISTANCE SOLIDS | RESISTANCE STAMPED & FORMED |
|--------------|---------------------------------------|---------------------|----------------------|--------------------------------|
| #12 | 12 | 25 | 60 µV | 100 μV |

WIRE SEALING RANGE

| CONTACT SIZE | | RECOMMENDED WIRE INSULATION O.D. | | |
|--------------|--------------|----------------------------------|-----------------------|--|
| | CONTACT SIZE | STANDARD (S-Seal) | THIN WALL (RD-Seal) | |
| | #12 | .134170 (3.40 - 4.32) | .097158 (2.46 - 4.01) | |

WIRE SEALING RANGE

| CONTACT SIZE | RECOMMENDED WIRE INSULATION O.D. | | |
|--------------|----------------------------------|-----------------------|--|
| | STANDARD | THIN WALL (E-Seal) | |
| #12 | .134170 (3.40 - 4.32) | .097158 (2.46 - 4.01) | |

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