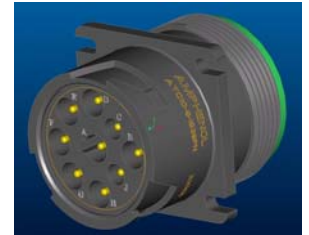


# Product Data Sheet Preliminary

## Amphenol AT Circular J1939 Diagnostic Connector featuring AT Contact technology

No. 199

Amphenol Industrial Operations introduces a pair of 9-pin receptacles featuring Amphenol's AT contact technology. The new 9-pin connectors are part of a series designed to perform in the demanding environment found on construction and farm equipment as well as truck environment. The AT Circular series is a molded thermoplastic receptacle with a positive retention system and sealed by redundant grommet wire sealing. The square flange design ensures a drop in replacement to existing panel design and the jam nut design makes for easy installation. The interface is in accordance with the diagnostic connector of the J1939/13.



ATC10-9-1939PN

The AT Contact technology is already used successfully at major OEM's and feature machined contacts with both Nickel and Gold plating.



ATC17-9-1939PN

### **Material Specification**

Receptacle Square Flange	Thermoplastic
Grommet Seal	Silicone Rubber
Contact (AT Series)	Copper Alloy (Nickel and Gold plating available)

### **Electrical Specifications based on AT Machined**

Dielectric Withstanding Voltage (Test Voltage)	Current leakage less than 2 milliamps at 1500 VAC
Current Rating at 125 degree C	13 A
Contact Millivolt Drop	60 (AWG 16 Wire, 13 A)
Insulation Resistance	1000 megaohms min. at 25 °C

### **Mechanical Specifications**

Durability (Mating Cycle)	No electrical or mechanical defects after 100 cycles of engagement or disengagement
Corrosion Resistance	Connectors show no evidence of corrosion after exposure to 48 hours of salt spray per MIL STD 1344 method 1001
Moisture Resistance	Water does not penetrate seals when submerged in 3 feet of water
Fluid Resistance	Connectors show no damage when exposed to most fluids used in industrial applications
Vibration	Maintains continuity and exhibits no mechanical or physical damage during or while subject to sinusoidal vibration, having an amplitude of .060 inches double amplitude and the frequency varied linearly between limits of 10 to 2000 to 10 Hz with a maximum force of 20g's. No electrical
Operating Temperature Range	-40°/+125°C
Thermal Shock	-40°/+125°C, 100 cycles, 1 hour per cycle
Physical Shock	No unlocking, unmating or other unsatisfactory result during or after 50 g's in each of three mutually perpendicular planes. No electrical discontinuities longer than 1 microsecond. MIL STD 202, Method 213, Condition "C"
Crimp Tensile Strength	25 lbs

## Connector

<u>AIO Part Number</u>	<u>Description</u>	<u>Additional Information</u>
ATC10-9-1939PN	Square Flange Receptacle	In Production
ATC17-9-1939PN	Jam Nut Receptacle	In Production
ALHN-19	Hex Nut for Jam Nut Receptacle	Thermoplastic Available Q1/2006
ALHN-192	Hex Nut for Jam Nut Receptacle Recommend Hex Nut Torque Force	Black Anodized Aluminum Max. 10 ft-lbs
ATC10-RC9	Protective Cover	In Production
ATC10-RC9L	Protective Cover with Lanyard	In Production

Contacts: Consult PDS-198 for appropriate part numbering

## Sealing Plug / Filler Plug

<u>AIO Part Number</u>	<u>Description</u>	<u>Additional Information</u>
10-405996-161	Size 16 Sealing Plug	

## Insertion / Removal Tool

<u>AIO Part Number</u>	<u>Description</u>	<u>Additional Information</u>
10-538988-016	Double Ended Size 16 Plastic Tool	Blue (Insertion) / White (Removal)

- For Crimp Information please contact factory

*The information contained on this data sheet is for reference only.*

For further information on your individual application requirements, contact:

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