

# Amphenol



## Amphenol AT Circular Connector Series

Amphenol Industrial Operations introduces a 3 and 5-pole plug to enhance its AT Circular connector series. AT Circular plugs feature Amphenol's AT contact technology and are designed to perform in the demanding applications found on construction and farm equipment, plus truck environments. The AT Circular series is a molded thermoplastic connector with a positive bayonet retention system and sealed by redundant grommet wire sealing. The square flange design ensures a drop in replacement to existing panel designs and the jam nut version makes for easy installation. The 9 pin black receptacles are in accordance with the interface of the J1939 diagnostic connector.

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

### Features:

- Jam Nut and Square Flange Mounting Solutions
- Quick Mating and Unmating - Reverse Bayonet Coupling
- Environmentally Sealed - Sealed against moisture and contaminants
- Contact retention system which decreases installation costs and increases reliability
- RoHS Compliant Product

## Material Specification

Receptacle Square Flange	Thermoplastic
Grommet seal	Neoprene Rubber: 3 and 5 pin Silicone Rubber: 9 pin
Contact (AT Series)	Copper Alloy (Nickel and Gold plating available)

## Electrical Specification based on AT Machined Contacts

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

## Mechanical Specifications

Operating Temperature Range	-55°C to +125°C
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
Thermal Shock	-40°/+125°C, 100 cycles, 1 hour per cycle
Crimp Tensile Strength	25 lbs
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 discontinuities longer than 1 microsecond
Physical Shock	No unlocking, unmating or other unsatisfactory result during or after 50g's in each of three mutually perpendicular planes. No electrical discontinuities longer than 1 microsecond. MIL STD 202, Method 213, Condition "C"

## How to Order Contact and Accesories

Part Number	Description
ATC10- RC3C	Cap with lanyard for size 3 square flange receptacle
ATC10- RC3	Cap less lanyard for size 3 receptacle
ATC10- RC5C	Cap with lanyard for size 5 square flange receptacle
ATC10- RC5	Cap less lanyard for size 5 receptacle
ATC10- RC9C	Cap with lanyard for size 9 square flange receptacle
ATC10- RC9	Cap less lanyard for size 9 receptacle
ATC10- RC9L	Cap with lanyard for size 9 jam nut receptacle
ALHN-19	Hex nut for ATC-17-9-1939PN
ASR9-1939	Strain relief for small flange J1939 receptacle
AWS9-1939	Wave spring for small flange J1939 receptacle

PN	Description
AT0-202-16141	Machined size 16 Pin Contact, nickel plating
AT2-201-16141	Machined size 16 Socket Contact, nickel plating
AT0-202-1631	Machined size 16 Socket Contact, gold plating
AT2-201-1631	Machined size 16 Socket Contact, gold plating

## How to Order Contact and Accesories

1	2	3	4	5	
ATC	10	9-1939	P	N	
Product Line	Shell Style		Arrangements	Contracts	Wire Size
	09	Small Flange Jam Nut Receptacle (includes jam nut)	3-16, 5-16, 9-1939	P for Pin Only for Receptacle	N for ø0.0 51 inch
	10	Square Flange Receptacle		S for Socket Only for Plug	E for ø 0.0 35 inch
	11	Round Nut Receptacle			
	16	(for Arrangements 3-16 & 5-16 only)			
	17	Jam Nut Receptacle (exclude jam nut)			

### Required Tools:

Crimp Tool: DMC AF8 M22520/1-01

Contact Insertion/Removal Tool: Amphenol C10-731509-161

For further information on your individual application requirements, contact: Amphenol Corporation

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