

ATC|Series™



ATC Series™

Cylindrical, Thermoplastic, Non Threaded Coupling, Harsh Environment, Power Connector

Overview

Amphenol Industrial Products Group introduces a series of thermoplastic receptacles featuring Amphenol's AT contact technology. This series is designed to perform in the demanding applications found on construction and farm equipment, plus truck environments. The AT Circular series is a molded thermoplastic receptacle with a positive reverse 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 styles solution
- Quick mating and unmating reverse bayonet coupling
- Environmentally sealed against moisture and contaminants
- Contact retention system decreases installation costs and increases reliability
- RoHs compliant product
- Heavy duty industrial connector, economical connector selection

Material Specifications:

Receptacle Square Flange	Thermoplastic
Grommet Seal	Neoprene Rubber for 3 and 5 pin Silicone Rubber for 9 pin
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

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Mechanical Specifications:

Operating Temperature Range	Current leakage less than 2 milliamps at 1500 VAC
Durability (Mating Cycle)	13 A
Corrosion Resistance	60 (AWG 16 Wire, 13 A)
Moisture Resistance	1000 megaohms min. at 25°C
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 50 g's in each of three mutually perpendicular planes. No electrical discontinuities longer than 1 microsecond. MIL STD 202, Method 213, Condition "C"

PART NUMBERING SEQUENCE

<u>ATC</u>	<u>10</u>	<u>- 9-1939</u>	<u>P</u>	<u>N</u>
1	2	3	4	
<p>1 designates AT Circular Connector</p> <p>2 Shell Style</p> <p> 09 = Small Flange Jam Nut Receptacle (includes jam nut)</p> <p> 10 = Square Flange Receptacle</p> <p> 17 = Jam Nut Receptacle (jam nut sold separately)</p> <p> 11 = Round Nut Receptacle</p> <p>3 Shell Sizes and Insert Arrangements</p> <p> 3, 5, 9-1939</p> <p>4 Contact</p> <p> P for Pin (only available for Receptacles)</p>				

ACCESSORIES

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

