

# Amphenol®



## Amphenol AT® Circular Connector featuring AT Contact Technology

Amphenol Industrial Operations introduces a series of plastic receptacles featuring Amphenol's AT contact technology. This series is 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 reverse bayonet 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 9 pin black receptacles are in accordance to the interface of the diagnostic connector of J1939/13.

The 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 - 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 Grommet Seal	Thermoplastic 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

## 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 50 g'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

### Connectors

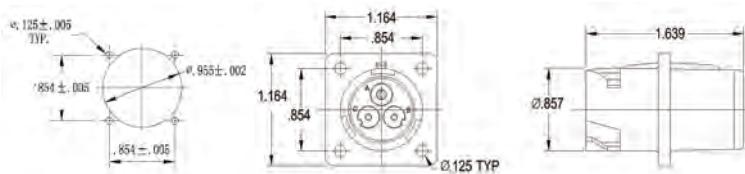
ATC	10	-	9-1939	P	N
	1	2	3	4	

1 designates AT Circular Connector  
2 Shell Style  
10 = Square Flange Receptacle  
17 = Jam Nut Receptacle  
11 = Round Net Receptacle  
3 Shell Sizes and Insert Arrangements  
3, 5, 9-1939  
4 Contact  
P for Pin (only available for Receptacles)

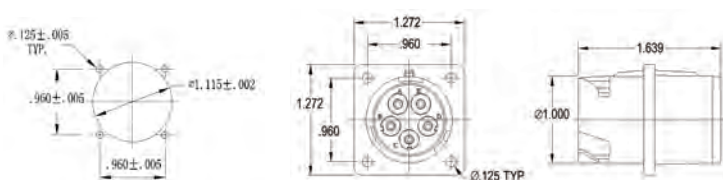
## Accessories

Part Numbers	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-9	Hex Nut for Size 9 Jam nut receptacle

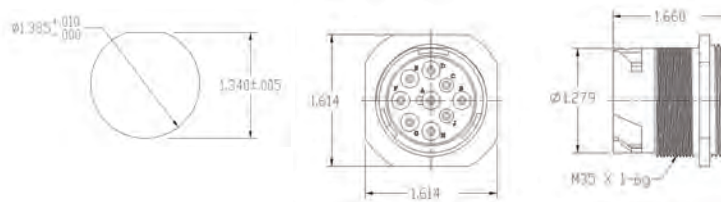
### Part Dimensions for ATC-10-3PN



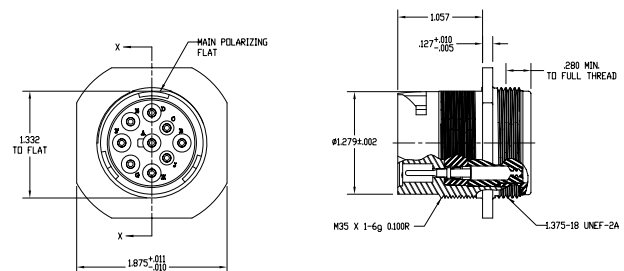
### Part Dimensions for ATC-10-5PN



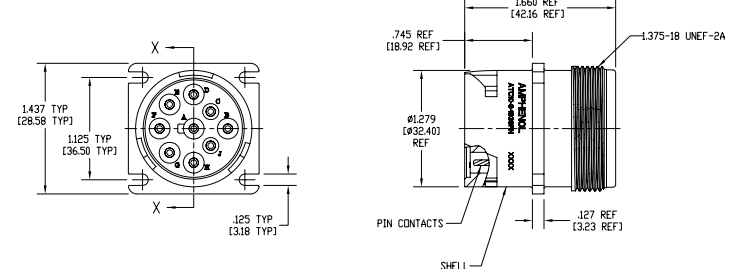
### Part Dimensions for ATC-11-9-1939PN



### Part Dimensions for ATC-17-9-1939PN



### Part Dimensions for ATC-10-9-1939PN



• For Crimp Information please contact factory

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

Notice: Specifications are subject to change without notice. Contact your nearest Amphenol Corporation Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements of suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should assume that all safety measures are indicated or that other measures may not be required. Specifications are typical and may not apply to all connectors.

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

### North America:

Amphenol Industrial Operations  
180 N. Freepport Drive, Plant 4  
Nogales, AZ 85621  
Tel: (520) 285-5130  
Fax: (520) 285-5134

Email: rpdrzzini@amphenol-ai.com

### Europe:

Amphenol Industrial Operations Europe  
Via Barbaiana 5  
1-20020 Lainate (MI) Italy  
Tel: +39 02 93254.204  
Fax: +39 02 93254.444

Email: info@amphenol-ai.com

### Middle East:

Amphenol Middle East Enterprises FZE  
Office C-37 PO Box 21107  
Ajman Free Zone, UAE  
Tel: +9716-7422494  
Fax: +9716-7422941

Email: ameezfe@eim.ae

### Asia:

Amphenol Technology Shenzhen Ltd  
Block 5 Fuan 2nd Industrial Park  
Dayang Rd, Fuyong Baoan  
Baoan, Shenzhen, China 518103  
Tel: +86 755 2881 8389  
Fax: +86 755 2991 8310

Email: yb.zhu@amphenol-industrial.com