

Amphenol

# Micro Pierce 157 series

## ASCA



## Overview

**Features**

**P/N system**

**Technical specifications**

**Amphenol 157 Micro-Pierce® connectors combine the field proven features and reliability of 57 series micro-ribbon solder type connectors with the speed and convenience of IDC (Insulation Displacement Contact) solderless termination.**

**Solderless termination, as easily using either hand or automatic termination equipment, requires no special skill, yet results in reliable, virtually mistake proof termination because individual conductor preparation is not necessary.**

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Ø14-24-36-50 (64) way contact connectors.

ØGlass filled polyester dielectric permits operation to 700 VDC at sea level without shorting or flashover. It also resists cracking or chipping with high mechanical strength and low moisture absorption.

ØCopper alloys contacts with gold plated over nickel for excellent current carrying characteristics.

ØHooked contacts recessed in body to prevent mating damage.

ØFloat-bushing mounting permits 0.020" radial float for easy mating.

ØZinc plated steel outer shell with clear chromate finishing resists corrosion.

ØWide, flat mating surfaces are pressed tightly together by the flexing action of both contacts for protection against "opens".

ØPositive mating action wipes contacts clean, removes film or foreign material for low contact resistance.

ØTrapezoidal shell assures correct polarity.

ØMetal shells improve EMI/RFI shielding.

ØThe field proven features of the 57 series (solder) connectors and the IDC termination technique are combined.

ØTermination technique requires no specialist operators.

ØCoded contacts assist wiring identification.

ØIntermateable with all other 57 series connectors.

Ø90° plastic hoods are separated from the cable clamp device which is attached directly to the connector body. The hood snaps on and off easily.

ØThe mated connectors may be locked together with either spring clips (provided on the receptacle) or a captivated screw. With the spring clips locking device, there is no need for additional hardware. The spring clips engage the windows provided in the plug body.



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**Series Number**

157 IDC Type

**Connector Type**

- 1 - Fixed Panel Mount, plug type
- 2 - Float Panel Mount, receptacle type
- 3 - Cable Type, Top Cable Entry, plug
- 4 - Panel Mount with Spring Locks, receptacle
- 5 - Cable type, Side Cable Entry, plug
- 6 - Spring Lock Plug Shell with Top Cable Entry for Cable to Cable Use, receptacle
- 7 - Right Angle Hood, plug type
- 8 - Right Angle Hood, receptacle type

**Deviation**

Consult factory for available deviations

**Sequential Number**

**Keyed Shells**

0 - No Key

**Number of Contacts**

14, 24, 36, 50 & 64

**Wire Gauge size**

- 1 - For #22 AWG Gauge Solid Wire
- 2 - For #24 and 26 AWG Gauge Solid Wires
- For #26 and 28 AWG Gauge Stranded Wires
- 9 - All Plastic Type, Wire Gauges as -2

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### Physical Characteristics

Contact Spacing : 0.085" pitch

Insulation Material : PBT & glass fiber reinforced, UL94V-0

Contact Material : Copper alloy

Contact Plating : Selective gold plated over nickel under-plated

Shell Material: Zinc plated steel with clear chromate coating, with nickel & tin-lead plate optional

Spring Latch: Stainless Steel

Rivet: Steel

Eyelet: Deep draw brass

Wire Sizes: 24 and 26 AWG solid wire

26 and 28 AWG stranded wire

### Electrical Characteristics

Current Rating: 5 Amps

Voltage Rating: 700V D.C. at sea level

200V D.C. at 70,000 ft.

Insulation Resistance : >5000 M  $\Omega$

Dielectric Withstanding Voltage : 1200V AC(RMS) at sea level



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## Mechanical Characteristics

Connector Mating Force: refer to table 1

Contact Retention Force: 2 lbs. max.

Durability : 250 cycles min.

Vibration : No interruptions < 1 μsec

## Environmental Characteristics

Operating temperature Range: -55 °C to +105 °C

**Table 1**

CONNECTOR SIZES	AVERAGE MATING FORCE (POUNDS)
14	5
24	8
36	12
50	15
64	19

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## Rack and Panel Connectors

Contacts	Plug	Receptacle: Float Mounted*
14	157-12140	157-22140
24	157-12240	157-22240
36	157-12360	157-22360
50	157-12500	157-22500
50	157-12500-3*	157-22500-3**
64	157-12640	157-22640

\*0.103" mounting hole

\*\* 0.185" mounting hole

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## Rack & Panel : Dimensions

Contacts	A	B	C	Bottom Mounting		Top Mounting	
	mm.	mm.	mm.	H mm.	J mm.	K mm.	L mm.
14	35.99	44.45	23.11	27.92	29.29	23.90	25.27
24	46.79	55.25	33.91	38.71	40.08	34.70	36.07
36	59.74	68.20	46.86	51.66	53.04	47.65	49.02
50	74.85	83.31	61.98	66.78	68.15	62.76	64.14
64	89.97	98.43	77.09	81.89	83.26	77.88	79.25

NOTE: All rack and panel receptacle connectors have a float-bushing mount that permits 0.02" (0.51mm) radial float for ease of mounting and connection. Connectors may be mounted above or below panels using #3 mounting screws.



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### Cable to Cable Connectors

Contacts	Plug Top Cable Entry	Receptacle with Spring Latch
14	157-32140	157-62140
24	157-32240	157-62240
36	157-32360	157-62360
50	157-32500	157-62500

### Cable to Cable : Dimensions

Contacts	B Max mm.	D Max mm.	E Max mm.	F Max mm.	G Max mm.	H Max mm.
14	44.96	21.59	31.88	8.84	8.84	29.29
24	55.75	21.08	31.37	12.01	12.01	40.08
36	68.70	23.11	33.40	16.46	12.70	53.06
50	83.82	25.40	35.69	19.61	12.70	68.15

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## Cable to Panel Connectors, Top Entry

Contacts	Plug Top Cable Entry	Receptacle with Spring Latch
14	157-32140	157-42140
24	157-32240	157-42240
36	157-32360	157-42360
50	157-32500	157-42500

## Cable to Panel Connectors : Dimensions

Contacts	A mm.	B mm.	C mm.	D mm.	E mm.	F mm.	G mm.	H mm.	L mm.
14	35.9 9	44.9 6	23.1 1	21.5 9	42.2 9	8.84	8.84	29.2 9	25.2 7
24	46.7 9	55.7 5	33.9 1	21.0 8	41.7 8	12.0 1	12.0 1	40.0 8	36.0 7
36	59.7 4	68.7 0	46.8 6	23.1 1	43.8 2	16.4 6	12.7 0	53.0 6	46.0 2
50	74.8 5	83.8 2	61.9 8	25.4 0	46.1 0	19.6 1	12.7 0	68.1 5	64.1 4

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## Cable to Cable (All Metal Type Running)

<b>Contacts</b>	<b>Plug Low Profile Steel Hood</b>	<b>Plug Ultra Low Profile Steel Hood</b>	<b>Receptacle Low Profile Steel Hood</b>	<b>Receptacle Ultra Low Profile Steel Hood</b>
50	157-72500-3	157-72500-18	157-82500-3	157-82500-18

## Cable to Cable (Plastic Hood/Metal Shells Type Running)

<b>Contacts</b>	<b>Plug Plastic Hood with Metal Shells</b>	<b>Receptacle Plastic Hood with Metal Shells</b>
50	157-72500-14(431)	157-82500-14(431)

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## 157 All Plastic Micro-Pierce® Connector (50 Contacts Only) Plug

Mounting Arrangement	Amphenol Part Number
4-40 tapped 2 pls.	157-19500-01
0.125" thru. holes	157-19500-02

## 157 All Plastic Micro-Pierce® Connector (50 Contacts Only) Receptacle

Mounting Arrangement	Amphenol Part Number
4-40 tapped 2 pls.	157-29500-01
0.125" thru. holes	157-29500-02
4-40 tapped 2 pls. with spring clips	157-29500-03
0.125" thru. holes with spring clips	157-29500-04

## 157 All Plastic Running Cable Connector (50 Contacts Only) Plug

Mounting Arrangement	Amphenol Part Number
4-40 captivated screw, tapped hole and cable clamp	157-79500-01
4-40 tapped 2 pls. with cable clamp, accept spring clips	157-79500-02

## 157 All Plastic Running Cable Connector (50 Contacts Only) Receptacle

Mounting Arrangement	Amphenol Part Number
4-40 captivated screw, tapped hole and cable clamp	157-89500-01
4-40 tapped 2 pls., with cable clamp and spring clips	157-89500-02