

AMPHENOL 97 Series Circular Connectors Amphenol®

97 SERIES SOLDER TYPE (MIL-C-5015 STYLE)

The Amphenol 97 series connectors are a general duty standard cylindrical connector, MIL-C-5015 style. The 97 series is a widely used connector for the automotive, robotics, machine tool, and welding industries, as well as numerous other commercial applications. Shell components are fabricated from high grade aluminum alloy. A complete connector assembly consists of a shell with an installed insert. **All connectors shipped assembled and individually packaged**

Features:

- Medium to heavy weight cylindrical
- Durable, field-proven design
- Single key/keyway polarization
- Threaded coupling, hard dielectric inserts
- Operating temperatures from -55°C to +125°C
- Intermateable and intermountable with existing 97 series and MIL-C-5015 connectors

Materials:

- Shells: High grade aluminum alloy, with a conductive cadmium plate finish and an olive drab chromate after treatment.
- Inserts: Hard Blue Dialyl-phthalate
- Contacts: Silver plated with pre-tinned solder cups

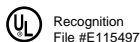
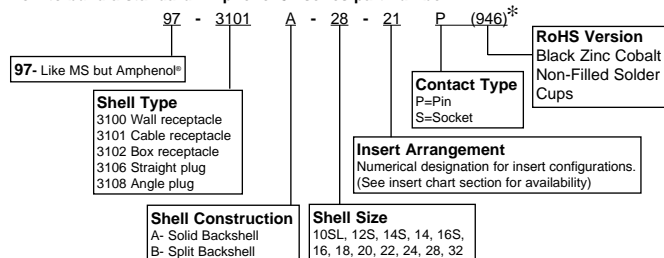
* RoHS Version Materials:

- Plating: Black Zinc Cobalt
- Insert: Hard Blue Dialyl Phthalate
- Contacts: Silver Plated with non-filled solder cups
- Add (946) to end of part number to designate black zinc cobalt RoHS finish
- Other RoHS finishes are available. Contact your Mouser sales representative for more information.

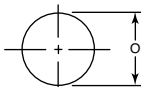
Quick selection guide for the standard Amphenol 97 series.

- How many wires are you going to connect and what gauge?**
Use the insert arrangement table on the following page for selecting insert configuration.
- What kind of receptacle shell do you need?**
Wall Mounting: 3100 Shell Series, Box Mounting: 3102 Shell Series, Cable Mounting: 3101 Shell Series
- What kind of plug shell do you need?**
Straight Cable: 3106 Shell Series, Right Angle Cable: 3108 Shell Series
- Do you need a plug with a solid or split back shell?**
The solid shell (A Type) has greater strength and saves space. The split shell (B Type) allows for quick inspection of solder terminals.
- Which connector shell gets the socket insert? The receptacle or the plug shell?**
Either pin or socket inserts can be used with plug or receptacle shells. The rule of thumb is use the socket insert for the connector on the "hot" side of the circuit.
- Which accessories are needed?**
Cable clamps and protection caps are available and are shown at the end of this product section.

How to build a standard Amphenol 97 series part number:



Panel Opening



Receptacle Mounting Holes:

- .173" (4.394) Diameter for shell sizes 32 and 36
- .147" (3.734) Diameter for shell sizes 24 and 28
- .120" (3.048) Diameter for all other shell sizes

DIMENSIONS: (in.)

<p>Wall Mount Receptacle</p> <p>97-3100A (MS3100A)</p>	<p>Cable Receptacle</p> <p>97-3101A (MS3101A)</p>	<p>Box Receptacle</p> <p>97-3102A (MS3102A)</p>
<p>Straight Plug</p> <p>97-3106A (MS3106A)</p>	<p>Straight Plug (Split Shell)</p> <p>97-3106B (MS3106B)</p>	<p>Angle Plug (Split Shell)</p> <p>97-3108B (MS3108B)</p>

Shell Size	L1 3100A 3101A	L2 3102A	L3 3106A	L4 3106B	L5 3108B	N1 3100A 3101A	N2 3102A	N3 3106A	O	S	R	Q	Y	U	K	A Coupling Thread	V Fitting Thread
10SL	1-9/32	61/64	1-3/8	-----	1-1/2	3/4	11/16	3/4	0.812	1	23/32	7/8	-----	1	5/64	5/8-24	5/8-24
12S	1-15/32	31/32	1-7/16	-----	1-9/16	25/32	11/16	25/32	0.812	1-3/32	13/16	1	-----	1	5/64	3/4-20	5/8-24
14S	1-15/32	61/64	1-15/32	1-11/16	1-23/32	7/8	11/16	7/8	0.938	1-3/16	29/32	1-1/8	1-5/32	1-1/16	5/64	7/8-20	3/4-20
16S	1-15/32	61/64	1-15/32	1-11/16	1-3/4	1	7/8	1	1.062	1-9/32	31/32	1-1/4	1-1/4	1-1/8	5/64	1-20	7/8-20
16	1-57/64	1-3/8	1-7/8	-----	2-1/8	1	7/8	1	1.062	1-9/32	31/32	1-1/4	-----	1-1/8	1/8	1-20	7/8-20
18	1-63/64	1-3/8	1-31/32	2-1/16	2-5/32	1-1/8	1	1-1/8	1.188	1-3/8	1-1/16	1-11/32	1-41/64	1-3/16	1/8	1-1/8-18	1-20
20	1-57/64	1-3/8	1-7/8	2-1/8	2-3/8	1-1/4	1-1/8	1-1/4	1.312	1-1/2	1-5/32	1-15/32	1-13/16	1-5/16	1/8	1-1/4-18	1-3/16-18
22	1-63/64	1-3/8	1-31/32	2-1/8	2-13/32	1-3/8	1-1/4	1-3/8	1.438	1-5/8	1-1/4	1-19/32	1-15/16	1-5/16	1/8	1-3/8-18	1-3/16-20
24	2-1/4	1-3/8	2-1/4	2-9/32	2-5/8	1-1/2	1-3/8	1-1/2	1.562	1-3/4	1-3/8	1-23/32	2-1/16	1-7/16	1/8	1-1/2-18	1-7/16-18
28	2-1/4	1-3/8	2-1/4	2-9/32	2-5/8	1-3/4	1-5/8	1-3/4	1.812	2	1-9/16	1-31/32	2-5/16	1-7/16	1/8	1-3/4-18	1-7/16-18
32	2-3/8	1-15/32	2-3/8	2-5/16	2-13/16	2-1/32	1-29/32	2-1/32	2.062	2-1/4	1-3/4	2-7/32	2-19/32	1-3/4	1/8	2-18	1-3/4-18