

Amphenol Industrial 97 Series



97 Series Industrial Cylindrical Connectors

Amphenol's 97 Series is the lowest cost, cylindrical interconnect solution utilizing the proven 5015 family connector style. 97 Series offers: six shell options, solid and split, 128 different contact arrangements, 1 to 52 circuits, one of the largest selections of insert patterns on the connector market, crimp, solder, thermocouple and PCB (100 suffix) contacts, all which makes 97 Series one of the most versatile of Amphenol's connector with utilization in many markets.

Applications

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| <ul style="list-style-type: none">▪ Machine Tool/Factory Automation<ul style="list-style-type: none">○ Power and Cutting Tools○ Instrumentation Distribution○ Control Panels○ CNC Milling Machines▪ Welding Equipment<ul style="list-style-type: none">○ Station, Robotic and Portable○ Factory Construction○ Garage Welders○ Auxiliary Equipment<ul style="list-style-type: none">▪ Spool Guns▪ Wire Feeders▪ Motors<ul style="list-style-type: none">○ Servo Motors○ Motion Control○ Power Motors○ Stepper Motors○ Encoders▪ Mining Equipment<ul style="list-style-type: none">○ Mining Shovels○ Seismic Sensing Equipment○ Seismic Geophones▪ Robotics<ul style="list-style-type: none">○ Power and Multi Axis Control Equipment○ Factory Automation | <ul style="list-style-type: none">▪ Semiconductor Equipment<ul style="list-style-type: none">○ Automated Assembly and Test Equipment○ Equipment Specifically for CEM Assembly○ Semiconductor Test Equipment Mfg'ers▪ Off Road Vehicles<ul style="list-style-type: none">○ Concrete Road Building○ Precision Farm Monitoring Equipment○ GPS in Heavy Duty Trucks▪ Test & Measurement<ul style="list-style-type: none">○ Temperature Chambers○ Vibration Controllers and Shakers○ RF Amplifiers○ Power Supplies▪ Medical Equipment<ul style="list-style-type: none">○ Medical X-Ray/Ultrasound Equipment○ Blood Analyses○ Medical Coaches/Vehicles○ ECG Monitoring Cables▪ Motion Sensors<ul style="list-style-type: none">○ Bar Code Scanners○ Flame Sensors○ Temperature Controls |
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Key Benefits

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| <ul style="list-style-type: none">▪ Keyway Polarization<ul style="list-style-type: none">○ Prevents incorrect mating▪ Inserts easily removed from shell<ul style="list-style-type: none">○ Minimizes repair time thus saving money▪ Non-Rotating Contacts<ul style="list-style-type: none">○ Increases productivity by ease of soldering▪ Solder, Crimp, Thermocouple and PCB contacts<ul style="list-style-type: none">○ Provides wide range of connector solutions▪ Multiple Wire Gauges: 0 to 30 AWG<ul style="list-style-type: none">○ Flexibility in Design▪ Pre-filled Solder Cup<ul style="list-style-type: none">○ Increase productivity by reducing preparation work. | <ul style="list-style-type: none">▪ Multiple finishes including RoHS compliant<ul style="list-style-type: none">○ O.D. Cadmium, Black Zinc Cobalt, Clear Cadmium, Electroless Nickel and more offer large variety of environmental finishes for any application.▪ Alternative Insert Rotations<ul style="list-style-type: none">○ Increase design options within shell size.▪ Hard Plastic (Diallyl-Phthalate) Inserts<ul style="list-style-type: none">○ Resists breakage and extends connector life.▪ Many Connector Accessories<ul style="list-style-type: none">○ Cable clamps○ Gaskets and Protection Caps○ Cap and Chain Assemblies |
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Electrical Features

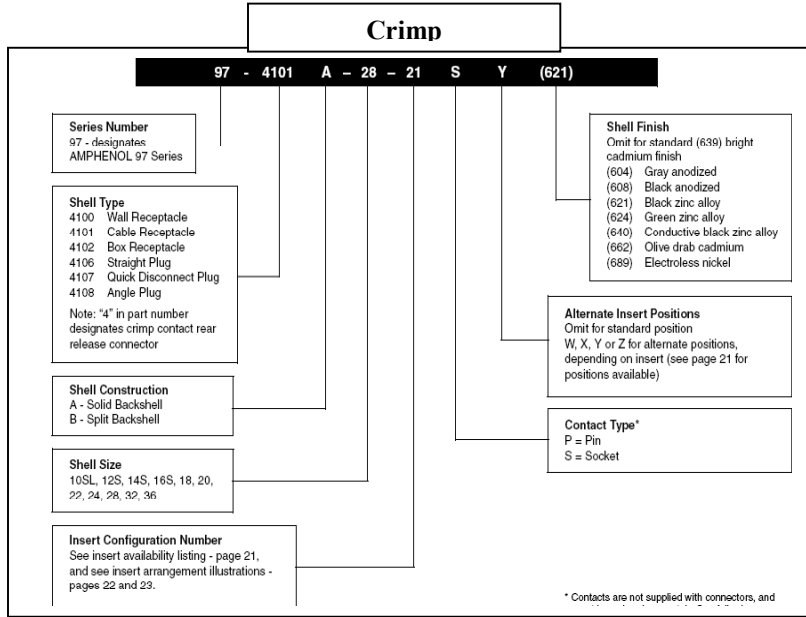
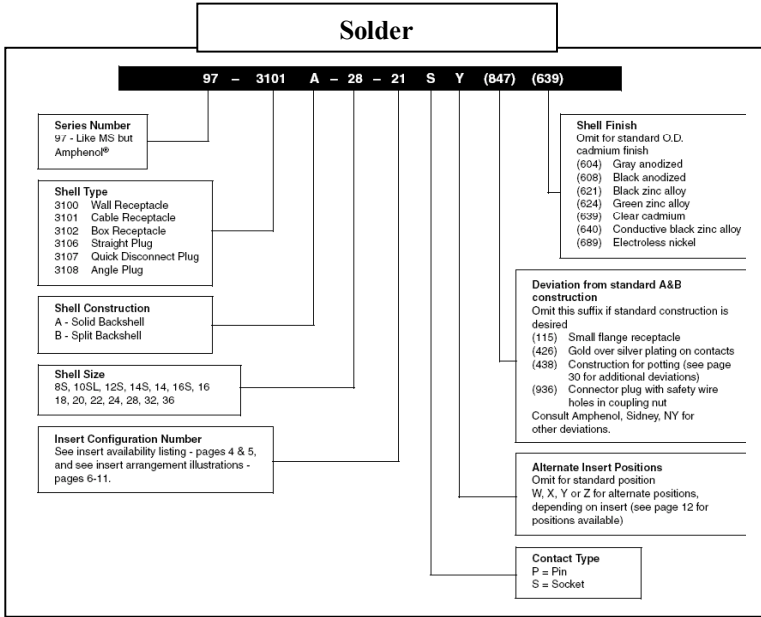
Current Rating	13 to 150 Amperage	Contact Size	30 AWG to 0 AWG
Operating Temperature	-55°C to +125°C	UL and CSA Approval	E115497 & LR69183
Voltage Rating	200 VAC to 3000 VAC 250 DAC to 4200 VDC	Durability	500 mating cycles 10,000 cycles with Radsok® contacts

97 Series RoHS Compliant

Amphenol Industrial is **RoHS** compliant - 1 year before the European Union directive! Existing products that do not meet these requirements can easily be changed to meet these environmental guidelines through simple modifications.

ROHS Compliant Mod Code	
(431) Solder Contacts less pre filled solder cup	
(621) Black Zinc Cobalt connector plating	
(689) Electroless Nickel connector plating	
Part Number Identification	
Non-ROHS Solder P/N	97-3106A14S-6P
ROHS Solder P/N	97-3106A14S-6P (431)(621)
Non-ROHS Crimp P/N	97-4106A14S-6P
ROHS Crimp P/N	97-4106A14S-6P (621)

How to build a part number

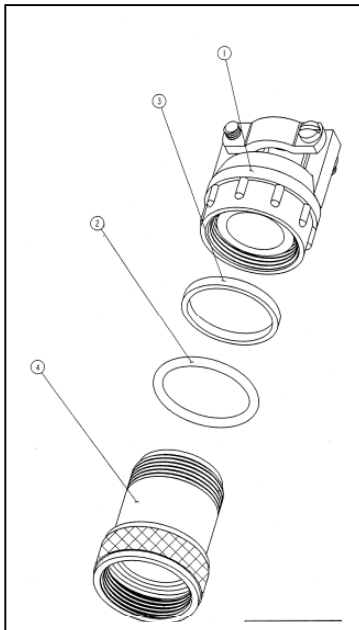


Breaking 97 Series part numbers down to component level

Example:

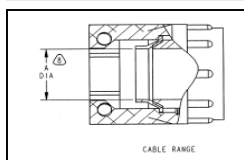
	Top Level Part	Shell	Insert
Solder P/N	97-3106A-18-1S becomes 97-3101A-28-21SY(639)	97-3106A-18(850) 97-3101A-28(639)	97-18-1S 97-28-21S
Crimp Part	97-4106A-20-27P(639) 97-4101A-28-21SY(621)	97-3106A-20(639)(850) 97-3101A-28(621)(850)	97-420-27P 97-428-21S

97 Series Environmental Adapter Kit 97-283-XX



POS	QTY	PART NUMBER	DESCRIPTION	NOTE
4	1	SEE NOTE 1	ADAPTER, LONG	
3	1		WASHER, SEALING, PLUG SHELL	(7)
2	1		GASKET, ADAPTER, SEALING	(5)
1	1		BACKSHELL	

- DIAMETER INDICATED IS THE MINIMUM FREE INSIDE DIAMETER OF EITHER THE CABLE CLAMP OR GLAND AND DETERMINES THE MAXIMUM ACCEPTABLE CABLE DIAMETER.
- INDICATED ITEM USED WITH 97-3106E, 97-3107E, 97-4106E, AND 97-4107E ASSEMBLIES ONLY.
- ADD APPLICABLE DEVIATION FOR DESIRED PLATING:
DEVIATION PLATING:
--- OLIVE DRAB CADMIUM
(604) GREY ANODIZE
(608) BLACK ANODIZE
(621) BLACK ZINC ALLOY
(624) GREEN ZINC ALLOY
(639) CLEAR CADMIUM
(676) BRIGHT NICKEL
(689) ELECTROLESS NICKEL
- INDICATED ITEM TO BE INSTALLED INTO ADAPTER (10-61705-XXX) OF 97-3106A-XX (850).
- IDENTIFY PACKAGE WITH APPLICABLE 97- PART NUMBER.
- PACKAGE PER PRODUCTION PROCESS SHEET.
- SEE WORK ORDER FOR PERMISSIBLE ADDITIONAL OR ALTERNATE STAMPING.
- SEE SEPARATE PARTS LIST FOR COMPONENT PART NUMBERS AND QUANTITIES.



Amphenol Part Number	Size	A DIA	
		Free	Closed
97-283-10SL (XXX)	10SL	.302	.094
97-283- 12 (XXX)	12S & 12	.302	.094
97-283- 14 (XXX)	14S & 14	.428	.230
97-283- 16 (XXX)	16S & 16	.515	.316
97-283- 18 (XXX)	18	.614	.378
97-283- 28 (XXX)	20	.738	.445
97-283- 22 (XXX)	22	.738	.445
97-283- 28 (XXX)	24	.926	.611
97-283- 32 (XXX)	32	1.20	.922
97-283- 36 (XXX)	36	1.363	.922

Assembly Instruction Sheet for Environmental 97E Connectors is L-2089