

Amphenol 905 & 906 SMA Connectors



Amphenol Fiber Optics was a pioneer in developing the first industry standard fiber optic interconnect system by introducing the SMA connector. The 905 and 906 series were the first fiber optic interconnect system to gain industry wide acceptance for military, industrial, data communications and medical applications, before fiber was ever used for telephony.

Today, Amphenol Fiber Optics continues to support these markets with a wide variety of products that meet the continuing need for the family of SMAs. The SMA connector family utilizes a threaded coupling nut system for mating and de-mating. Available with zirconia or stainless steel ferrules with custom hole sizes, the SMA is an excellent choice for a robust, low-cost and reliable system.

Unlike any other connector on the market and as shown on page B-4 of this section, the SMA has a wide range of accessories such as adapters, receptacles, boots, etc. that make it the perfect choice for any sort of experimental or R&D type application. FOC stocks many of these items and can assist your design.

FOC has the world's largest and most varied inventory of SMA connectors. If we do not have the hole size you are looking for, we can typically have it drilled out in 2 weeks or less and have production quantities in 6 weeks or less.

905 SMA Connector

The standard SMA connector with a Stainless Steel ferrule, nickel plated brass knurled coupling nut, black 3mm boot, and a black T-Style dust cap. The following list represents typical stock hole sizes. However, please contact us if you do not see the hole size you are looking for. We may have it or we can have it made for you.

Part Number	Hole Size	Part Number	Hole Size
905-150-5001	128um (+5/-0 μm)	905-150-5002	144um (+5/-0 μm)
905-150-5079	150um (+10/-0 μm)	905-150-5058	172um (+10/-0 μm)
905-150-5061	175um (+10/-0 μm)	905-150-5074	200um (+10/-0 μm)
905-150-5041	206um (+10/-0 μm)	905-150-5008	225um (+10/-0 μm)
905-150-5003	231um (+10/-0 μm)	905-150-5086	240um (+10/-0 μm)
905-150-5009	245um (+10/-0 μm)	905-150-5056	250um (+15/-0 μm)
905-150-5093	260um (+15/-0 μm)	905-150-5040	284um (+15/-0 μm)
905-150-5049	310um (+15/-0 μm)	905-150-5015	330um (+15/-0 μm)
905-150-5082	375um (+15/-0 μm)	905-150-5195-P	420um (+15/-0 μm)
905-150-5192-P	430um (+15/-0 μm)	905-150-5004	436um (+15/-0 μm)
905-150-5098	455um (+15/-0 μm)	905-150-5095	470um (+15/-0 μm)
905-150-5052	480um (+15/-0 μm)	905-150-5064	485um (+15/-0 μm)
905-150-5016	490um (+15/-0 μm)	905-150-5073	521um (+15/-0 μm)
905-150-5153	584um (+15/-0 μm)	905-150-5152	610um (+15/-0 μm)
905-150-5151	625um (+15/-0 μm)	905-150-5172	630um (+15/-0 μm)
905-150-5005	641um (+15/-0 μm)	905-150-5090	672um (+15/-0 μm)
905-150-5158	690um (+15/-0 μm)	905-150-5059	700um (+15/-0 μm)
905-150-5091	710um (+15/-0 μm)	905-150-5084	735um (+15/-0 μm)
905-150-5083	750um (+15/-0 μm)	905-150-5179	820um (+15/-0 μm)
905-150-5170	850um (+15/-0 μm)	905-150-5033	960um (+15/-0 μm)
905-150-5027	1020um (+15/-0 μm)	905-150-5057	1055um (+15/-0 μm)
905-150-5080	1100um (+15/-0 μm)	905-150-5034	1210um (+15/-0 μm)
905-150-5078	1300um (+15/-0 μm)	905-150-5162	1650um (+25/-0 μm)

*For a hex nut add 'H' to the end of the part number

Amphenol 905 & 906 SMA Connectors

905 Ceramic Ferruled SMARt Connector

The ceramic ferrule enables the connector to be manufactured with a tighter tolerance than the standard stainless steel ferruled SMA connectors and can be manufacture with any hole size up to 500 μ m.

Part Number	Hole Size	Part Number	Hole Size
905-405-5002	126 μ m (+2/-0 μ m)	905-405-5007	128 μ m (+2/-0 μ m)
905-400-5002	142 μ m (+2/-0 μ m)	905-400-5007	144 μ m (+2/-0 μ m)

905 Polymer Bodied SMA Connector

Connector body is made of plastic while the rest is made of standard components. The '-P' version is all plastic.

Part Number	Hole Size	Part Number	Hole Size
905-149-5001	1050 μ m (+25/-0 μ m)	905-149-5001-P	1050 μ m (+25/-0 μ m)

906 SMA Connector

The same as the 905-150-5xxx series connector except it has a stepped ferrule and a stainless steel hex nut.

Part Number	Hole Size	Part Number	Hole Size
905-122-5004	128 μ m (+5/-0 μ m)	905-122-5000	144 μ m (+5/-0 μ m)
905-122-5014	231 μ m (+10/-0 μ m)	906-122-5044	430 μ m (+15/-0 μ m)
906-122-5039	641 μ m (+15/-0 μ m)	906-122-5031	1000 μ m (+15/-0 μ m)

Amphenol High Power SMA Connectors



High-Power Delivery can cause many problems not found in standard fiber applications. A large amount of heat can be generated if any defects, debris or adhesive happens to get in the path of the light and this heat can cause severe damage to the connector, fiber and equipment it is plugged into. To address these problems, Amphenol has developed the following options for their line of High Power 905 SMA Connectors.

Damage Resistant - The inner tip of the ferrule is recessed creating a "well" so that nothing makes direct contact with the tip of the fiber.

Fiber Grip - A fiber retention system that eliminates the need for epoxies at the fiber/connector end face. This option also allows the connector to be installed and removed any number of times for re-works and repairs.

Beryllium Copper (BrCu) - The standard ferrule is produced from high grade type 303 stainless steel but the damage resistant ferrule is also available in BrCu. BrCu conducts heat very well and acts as a heat sink to aid in the dissipation of heat generated at the fiber end face.

Features & Benefits

- No epoxy needed (Fiber Grip)
- Large choice of fiber sizes
- Choice of hex or knurled coupling nut
- Stainless steel or nickel plated brass
- Removable ferrule for reworks (Fiber Grip)
- Autoclavable
- Anti-reflective coating upon request
- Materials designed to meet FDA Class VI requirements



303 Stainless Steel Ferrule

905-151-5XXX Series Damage Resistant High Power 905 SMA Connector

High Power 905 SMA Damage Resistant Connector with Stainless Steel Ferrule and 3mm Strain Relief Boot. Replace the XXXX with the Fiber's Cladding Diameter.

905-4XXXX-YYYY Series Fiber Grip High Power 905 SMA Connector

High Power 905 SMA Fiber Grip Connector with Stainless Steel Ferrule and 3mm Strain Relief Boot. Replace the XXXX with the Fiber's Cladding Diameter and replace the YYYY with the Buffer Diameter.

905-2XXXX-YYYY Series Damage-Resistant & Fiber Grip High Power 905 SMA Connector

High Power 905 SMA Fiber Grip & Damage Resistant Connector with Stainless Steel Ferrule and 3mm Strain Relief Boot. Replace the XXXX with the Fiber's Cladding Diameter and replace the YYYY with the Buffer Diameter.

Beryllium Copper Ferrule

905-188-5XXX Series Damage Resistant High Power 905 SMA Connector

High Power 905 SMA Damage Resistant Connector with BrCu Ferrule and 3mm Strain Relief Boot. Replace the XXXX with the Fiber's Cladding Diameter.

905-2XXXX-YYYYL Series Damage-Resistant & Fiber Grip High Power 905 SMA Connector

High Power 905 SMA Fiber Grip & Damage Resistant Connector with BrCu Ferrule and 3mm Strain Relief Boot. Replace the XXXX with the Fiber's Cladding Diameter and replace the YYYY with the Buffer Diameter.



927-1969

Fiber Grip Assembly Tool

Tool required to install the Fiber Grip series, epoxyless high power SMA connector.

Amphenol 905 & 906 SMA Connector Accessories



Ordering Information

Part Number	Description		
Adapters			
905-120-5000	905/906 SMA Adapter, Metal Body, Bulkhead Feedthrough, D- Hole Mount, Jack-Jack, Nut and Washer		
905-120-5003	905/906 SMA Adapter, Metal Body, In-Line , Jack-Jack, 2 Nuts and 2 Washers		
905-120-5004	905/906 SMA Adapter, Metal Body, Half Length , Jack-Jack, Nut and Washer		
905-120-5008	905/906 SMA Environmentally Sealed Adapter, Metal Body, Bulkhead Feedthrough, D- Hole Mount, Jack-Jack, Nut and Washer		
905-120-5016	905/906 SMARt Adapter, Metal Body, Bulkhead Feedthrough, D- Hole Mount, Jack-Jack, Nut and Washer		
Device Receptacles			
905-117-5000	905/906 SMA Device Receptacle, Flange Mount, TO-5 Can or Insert		
905-118-5000	905/906 SMA Device Receptacle, Screw Mount, TO-5 Can or Insert		
905-138-5002	905/906 SMA Device Receptacle, Screw or Bulkhead Mount, TO-18, TO-46 or SE 4352 Can, Key-Way, Can Alignment Sleeve, Nut and Washer		
905-145-5000	905/906 SMA Device Receptacle, Bulkhead Mount, TO-18, TO-46 or SE 4352 Can, Key-Way, Can Alignment Sleeve, Nut and Washer		
Connector Boots			
905-5100	SMA 3mm Black Strain Relief Boot		
905-5215-P	SMA 900um to 3mm Adjustable Black Strain Relief Boot with Membrane		
905-5217-P	SMA 3mm Black Strain Relief Boot. Med Class VI		
Connector Dust Caps			
905-5058-6	SMA Connector Black Straight Dust Cap		
905-5173-01	SMA Connector Black T-Style Dust Cap		
905-5173-02	SMA Connector Black T-Style Dust Cap With Outgassing Slit		
905-5173-12	SMA Connector Black T-Style Dust Cap with Tie and Outgassing Slit		
905-5196-00	Class VI Medical SMA Connector White T-Style Dust Cap with Tie and Outgassing Slit		
Adapter / Receptacle Dust Caps			
905-163	SMA Adapter / Receptacle Metal Dust Cap & Chain		
905-5093	SMA Adapter / Receptacle Red Polymer Dust Cap		
Connector Replacement Parts			
905-5191	Nickle Plated Brass Knurled Nut	905-9190	Stainless Steel Knurled Nut
905-5169	Plastic Knurled Nut	905-5080-C	Stainless Steel Hex Nut
905-5085-1	Straight Crimp	905-5152	Stepped (Milk-Bottle) Crimp
905-5083	SMA Connector C-Clip		
Adapter / Receptacle Replacement Parts			
906-101-3002	905 to 906 1/2 Length Sleeve	906-101-3003	906 to 906 Full Length Sleeve
905-5092	SMA Adapter Lockwasher	905-5008-2	TO-5 to 0.196" ID Receptacle Insert

Specifications may change without notice