

# SMP Specifications

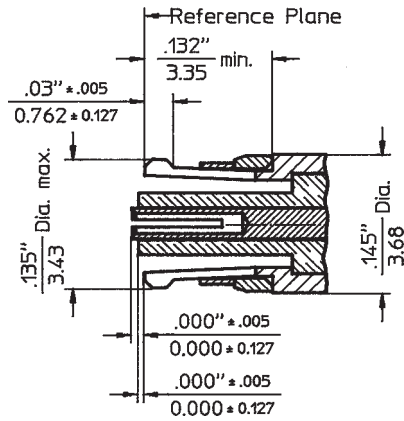


The specifications below are general specifications for all SMP connectors. Specific Data for VSWR, Insertion loss, R.F. leakage etc., are available from the factory upon request. Specifications in the following table are recommended for any procurement documents or drawings. In the event of any conflict between these specifications and General Specifications DESC 94007 and DESC 94008, these specifications shall govern. These specifications are subject to change according to the latest revision.

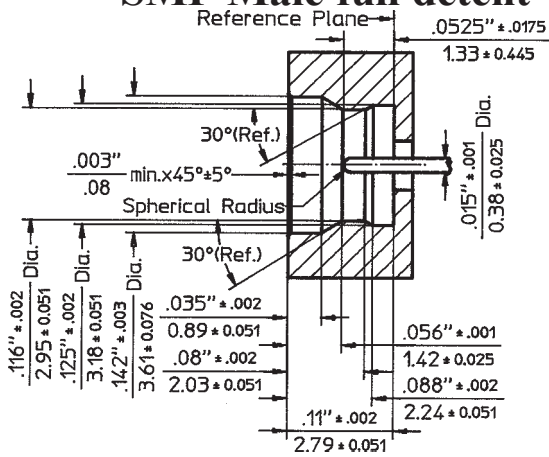
REQUIREMENT	GENERAL SPECIFICATIONS
<b>GENERAL</b>	
Standard Materials	STEEL corrosion resistant 1.4305 per DIN 17440 (QQ-S-764, class 303 or ASTM-A-582-80). ALUMINUM AlMg4.5Mn per DIN 1725, AlMgSi0.5 per DIN 1725, AlMgSi1 per DIN 1725 (6061-T6 per QQ-A-225/8). BRASS CuZn39Pb3 per DIN 17660 (QQ-B-626, halfhard). COPPER BERYLLIUM 33-25 CuBe2Pb H per DIN 17666 (QQ-C-530). TFE Fluorocarbon per DIN 52900 (MIL-P-19468 and L-P403). SILICONE RUBBER per DIN 3771 (MIL-R-5847 and ZZ-R-765, Class II B,) Grade 50 - 75. BORRUIUM NITRITE Dielectric for high power applications per inhouse specification.
Finish for	Center Contacts shall be gold plated to a minimum thickness of .00005 inch (1.27 µm) in accordance with MIL-G-45204, Type II, Grade C.
COPPER BERYLLIUM	shall be passivated per QQ-P-35.
STAINLESS STEEL	Conductive Parts shall have an iridited finish per MIL-C-5541.
ALUMINUM	Other parts, such as Coupling Nuts and Back-Bodies shall be anodized per MIL-A-8625.
BRASS	.00003 inch (0.8 µm) min. gold plating per MIL-G-45204, or nicle plating per QQ-N-290, as specified.
VARIOUS	Imoloy .0001 inch (2.5 µm) min. plating, consisting of 55% Copper / 20% Zinc / 25% Tin (on special request).
Design	The design shall be such that the outline dimensions in this catalog are met. In addition, the assembled connector shall meet the interface dimensions.
<b>ELECTRICAL</b>	
Frequency Range	DC - 40.0 GHz min.
Insulation Resistance	The insulation resistance shall not be less than 5.000 megaohms.
Voltage Standing Wave Ratio (VSWR)	1.5 : 1 max. to 40.0 GHz.
Contact Resistance	The center contact resistance drop is 6.0 milliohms max.
Dielectric Withstanding Voltage	The magnitude of the test voltage shall be 500 volts rms at sea level.
RF High Potential Withstanding Voltage	The RF high potential withstanding voltage is 325 volts rms at 5 MHz. Leakage is not applicable.
RF Leakage	RF Leakage is not applicable.
Insertion Loss	(.10 SQT(f(GHz))) dB
<b>MECHANICAL</b>	
Connector Durability	The connector is to be tested and its mating connector shall be subjected to 100 insertions min.. Withdrawal cycles /minute are not applicable. The connector shall show no evidence of mechanical failure and the connector shall meet the mating characteristic requirements.
Cable Retention Force	20 pounds (88.9 N) min.
Coupling Nut Retention Force	Not applicable.
Force to Engage and Disengage Longitudinal Force max.	The torque required to engage shall not exceed 15 lbs. (66.7 N). The disengage torque shall not exceed 2 lbs. (8.9 N) min. (full detent).
Mating Characteristics	Not applicable.
Recommended Mating Torque	Recommended Mating Torque is not applicable.
<b>ENVIRONMENTAL</b>	
Corrosion (Salt Spray)	Specification MIL-STD-202, Method 101, Test Condition B. The salt solution shall be 5%.
Vibration	Specification MIL-STD-202, Method 204, Test Condition D.
Shock	Specification MIL-STD-202, Method 213, Test Condition I.
Thermal Shock	Specification MIL-STD-202, Method 107, Test Condition B, rating -65 °C to +165 °C.
Moisture Resistance	Specification MIL-STD-202, Method 106. Step 7b (vibration) shall be omitted. Insulation resistance shall be 200 megohms min. within 5 minutes of removal from humidity.
Corona Level	The connector shall not exhibit breakdown (corona) when the applied voltage is 190 volts rms and the altitude is 70,000 feet.



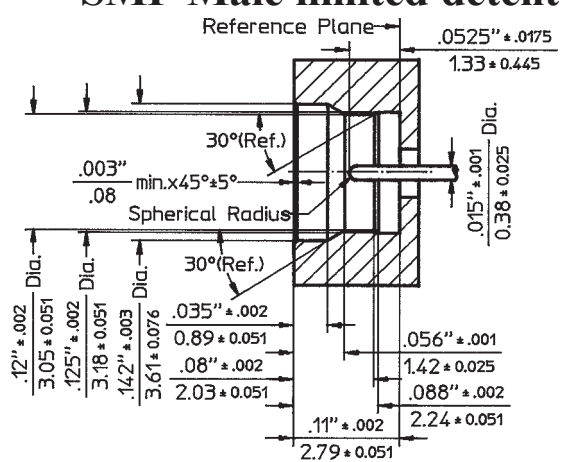
### SMP Female



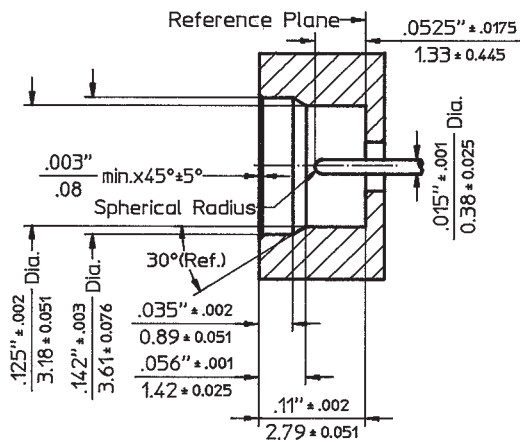
### SMP Male full detent



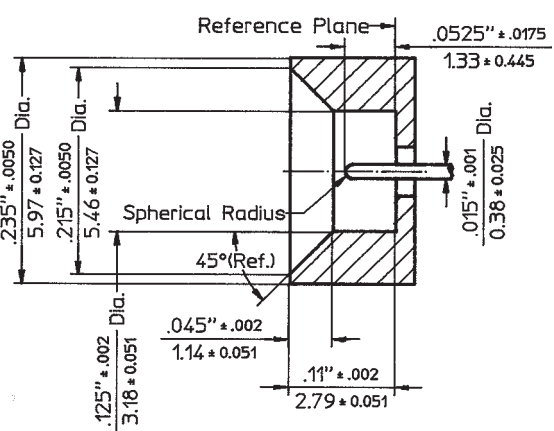
### SMP Male limited detent



### SMP Male smooth bore



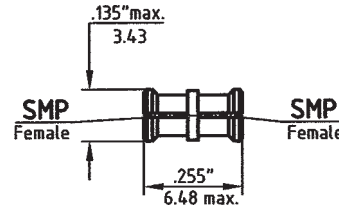
### SMP Male



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# In-Series Adapters to Type SMP

<b>Part - No.</b>	<b>8001-MPMP-04</b>
<b>Connectors</b>	<b>SMP-F to SMP-F</b>
<b>Frequency</b>	DC - 40.0 GHz
<b>VSWR max.</b>	1.5 : 1 to 40 GHz



<b>SMP - Between Series Adapters</b>	
<b>7 mm</b>	Please refer to 7 mm Between-Series Adapters Page 44
<b>K*</b>	Please refer to K* Between-Series Adapters Pages 80 - 81

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, where applicable. For details please refer to the beginning of this section.

\* 'K' Connector is a trademark of Wiltron Company.