

# WATERPROOF RF CONNECTORS

Environmentally sealed and weather-resistant, Phoenix's Waterproof RF Connectors are designed to withstand severe atmospheric conditions and are rated to exceed IP67\* and MIL-STD-202. Connectors feature rear-mount and front-mount designs, 4 standard cable groups, and superior mechanical and electrical performance.

Part Number	Series	Body Material/Finish	Body Style	Mounting Direction	Cable Group	Cable Termination Method
22-1965-0298N	SMA	Brass/Nickel	Bulkhead	Rear-Mount	1.13mm	Solder Crimp
22-1965-0398N	SMA	Brass/Nickel	Bulkhead	Rear-Mount	1.32mm	Solder Crimp
22-1965-0498N	SMA	Brass/Nickel	Bulkhead	Rear-Mount	1.37mm and RG-178	Solder Crimp
22-1917-0298N	SMA	Brass/Nickel	Bulkhead	Front-Mount	1.13mm	Solder Crimp
22-1917-0398N	SMA	Brass/Nickel	Bulkhead	Front-Mount	1.32mm	Solder Crimp
22-1917-0498N	SMA	Brass/Nickel	Bulkhead	Front-Mount	1.37mm and RG-178	Solder Crimp
41-1915-0290N	TNC	Brass/Nickel	Bulkhead	Rear-Mount	1.13mm	Solder Crimp
41-1915-0390N	TNC	Brass/Nickel	Bulkhead	Rear-Mount	1.32mm	Solder Crimp
41-1915-0490N	TNC	Brass/Nickel	Bulkhead	Rear-Mount	1.37mm and RG-178	Solder Crimp
41-1969-0290N	TNC	Brass/Nickel	Bulkhead	Front-Mount	1.13mm	Solder Crimp
41-1969-0390N	TNC	Brass/Nickel	Bulkhead	Front-Mount	1.32mm	Solder Crimp
41-1969-0490N	TNC	Brass/Nickel	Bulkhead	Front-Mount	1.37mm and RG-178	Solder Crimp



Stainless steel bodies (passivated plating) available upon request. Please consult factory for your requirements.

## Waterproof SMA (22 Series) Electrical and Environmental Specifications:

Impedance: 50 Ohms

Frequency Range: DC To 6 GHz (Cable Dependent)

Insulation Resistance: 5,000 Megohms

Temperature Rating: -65°C To +165°C

Vibration: MIL-STD-202, Method 204, Test Condition D

Shock: MIL-STD-202, Method 213, Condition I

Thermal Shock: MIL-STD-202, Method 107, Test Condition B

Corrosion: MIL-STD-202, Method 101, Test Condition B, 5% Salt Solution

Moisture Resistance: MIL-STD-202, Method 106 (High Humidity And Heat)

Immersion: Exceeds IP67 (Unmated/Mated Conditions)

\*Consult factory for IP68 requirements.



## Waterproof TNC (41 Series) Electrical and Environmental Specifications:

Impedance: 50 Ohms

Frequency Range: DC To 6 GHz (Cable Dependent)

Insulation Resistance: 5,000 Megohms

Temperature Rating: -65°C To +165°C

Vibration: MIL-STD-202, Method 204, Test Condition B

Shock: MIL-STD-202, Method 213, Test Condition B

Thermal Shock: MIL-STD-202, Method 107, Test Condition B

Corrosion: MIL-STD-202, Method 101, Test Condition B

Moisture Resistance: MIL-STD-202, Method 106 (High Humidity And Heat)

Immersion: Exceeds IP67 (Unmated/Mated Conditions)

\*Consult factory for IP68 requirements.



# WATERPROOF ADAPTERS

Phoenix's between series of Waterproof Adapters are designed for rugged environments. Our weatherproof adapters are used to securely connect UHF and GPS antennas, ensuring a constant waterproof seal between the outer antenna and the radio. Adapters exceed IP67\* and can accommodate SMA, TNC, and MMCX interface types.

Part Number	Adapter Connector Type	Sealed Condition	Body Material/Finish	Mounting Style	External Interface
2233-1165-00N	SMA Jack to MMCX Jack	Unmated/Mated	Brass/Nickel	Bulkhead Rear-Mount	SMA Jack
2233-1180-00N	SMA Jack to MMCX Jack	Unmated/Mated	Brass/Nickel	Bulkhead Front-Mount	SMA Jack
3341-1115-00N	TNC Jack to MMCX Jack	Unmated/Mated	Brass/Nickel	Bulkhead Rear-Mount	TNC Jack
3341-1169-00N	TNC Jack to MMCX Jack	Unmated/Mated	Brass/Nickel	Bulkhead Front-Mount	TNC Jack



Stainless steel bodies (passivated plating) available upon request. Please consult factory for your requirements.

\*Consult factory for IP68 requirements.



# WATERPROOF CABLE ASSEMBLIES

The Phoenix Company of Chicago offers a variety of cable assemblies incorporating waterproof SMA or TNC connectors (front and rear-mount available) for reliable performance in extreme environments. These connectors can be terminated to a wide variety of cables such as RG-178, 1.13, 1.32, and 1.37mm diameters for tight-space applications requiring micro-miniature connectors.

IP67 Connector	Cable Type	Length	Internal Connector
SMA	1.13, 1.32, 1.37mm	4-12 in.	U.FL
SMA	RG-178	4-12 in.	MMCX
TNC	1.13, 1.32, 1.37mm	4-12 in.	U.FL
TNC	RG-178	4-12 in.	MMCX



Please consult Phoenix's online "Waterproof Cable Assembly Part Numbering System Guide" to efficiently specify your requirements for a waterproof cable assembly in 4 simple steps.

Visit [www.phoenixofchicago.com](http://www.phoenixofchicago.com) for more details.