



Phoenix Non-Magnetic Connectors

-Exceed industry requirements for RF coils in MRIs

Product Description



Designed to protect against image and magnetic field distortion in MRI equipment, Phoenix's Non-Magnetic Connectors provide the necessary immunity to ensure scans are not compromised.

Connectors are manufactured under strict controls; dedicated tooling and in special manufacturing/assembly environments. This strict adherence to quality control ensures all precautions are taken to avoid any contact with ferromagnetic materials during the manufacturing process. All products are 100% tested for magnetic permeability prior to shipping.

Can be used in any industrial application where high-purity, non-corrosive, lightweight metals with non-magnetic characteristics are paramount and vital.

Features

- Reduction of passive intermodulation (PIM).
- Magnetic measurements checked at $\leq 1.00010 \mu\text{r}$ relative permeability.
- Snap-on, push-on, or threaded couplings.
- Available in custom non-magnetic solutions including: contacts, connectors, and cable assemblies.
- Low frequency to high frequency bands available.

Applications

- Medical equipment.
- Military communications.
- Aerospace satellites.
- Commercial.

Connector Types

- MMCX.
- MCX.
- SMB/SMC.
- SMA.
- BNC, TNC, N, 7/16.
- D-Sub connectors with coax/power inserts.
- PkZ and PDM contacts.
- Additional series available on request.

The Phoenix Company of Chicago, Inc. • 555 Pond Drive, Wood Dale, IL 60191 USA

Tel: (630) 595-2300 • Fax: (630) 595-6579

www.phoenixofchicago.com



The Phoenix Company of Chicago and its affiliates have manufacturing facilities in the United States, Mexico, and China.

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Materials

Plug And Receptacle Bodies- Non-Magnetic Brass.

Outer Contacts- Beryllium Copper Per ASTM-B-196 For MCX And TNC/BNC Connector Types.

Insulators- Teflon (PTFE) Per ASTM-D-1710.

Male Contacts- Non-Magnetic Brass.

Male Contacts- Beryllium Copper Per ASTM-B-196 For SMA Connector Types.

Female Contacts- Beryllium Copper Per ASTM-B-196.

Retaining Rings- Beryllium Copper Per ASTM-B-196 For MMCX, SMB/SMC, SMA, And TNC Connector Types.

Ferrules and Caps- Non-Magnetic Brass.

Gaskets- Silicone Rubber Per ZZ-R-765 For SMA And TNC/BNC Connector Types.

Finishes (Add Letter "J" To End Of Part Number)

Gold Per Mil-G-45204.

Copper Per Mil-C-14550.

Bodies: .000020 Min. Gold Over Copper.

Contacts: .000030 Min. Gold Over Copper.

Contacts: .000050 Min. Gold Over Copper For SMA Connector Types.

Other Metal Parts: Gold Plated To Meet The Environmental Requirements.

Electrical

	MAXIMUM FREQUENCY	VOLTAGE RATING	CENTER CONTACT RESISTANCE	INSERTION LOSS	DURABILITY
MMCX	6 GHz	170 RMS	5.0 Milliohms	0.20 dB max @ 1.00 GHz	500 Cycles
MCX	6 GHz	250 RMS	5.0 Milliohms	0.10 dB max @ 1.00 GHz	500 Cycles
SMB/SMC	4 GHz	335 RMS	6.0 Milliohms	0.30 dB max @ 1.50 GHz	500 Cycles
SMA	18.5 GHz	500 RMS	2.0 Milliohms	0.03 $\sqrt{F(\text{GHz})}$	100 Cycles
BNC/TNC	11 GHz	500 RMS	1.5 Milliohms	0.18 dB max @ 3.00 GHz	500 Cycles

All d-sub catalog connectors are available in non-magnetic styles, contact sales department for availability.

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