

BNC 75 RF Connectors



Amphenol offers a complete range of high-performance BNC plugs for use in digital/HD video applications. Amphenol's True 75 Ohm BNC connectors perform well up to and beyond 3GHz and are designed to terminate to a variety of popular coaxial cable types. We can also offer custom connectors to suit non-standard cables on request. Plugs feature a precision machined brass body and coupling nut plated with cost effective nickel plating.

Applications

- Broadcast
- High bandwidth video equipment
- D1/D2 serial digital
- Graphic work stations
- Telephony / Workstations

Options

- Crimp Plugs
- Jack to Jack adapters
- Patch Panels
- 'D' Shell Jacks
- Plug to Plug U-Link connectors
- Crimp Tools

Ordering Codes

We have listed the more common ordering codes in each section. Amphenol offer an extensive range of RF connectors for most applications.

Please visit www.amphenolconnex.com for further information. Please contact us if you need any further assistance.

Simple steps to guide you in using this catalogue

- 1) Identify the product group listed in Contents on page 1 and go directly to that page number.
- 2) Each product group cover page then details information and options available.
- 3) Refer to the product detail pages and identify the product you require pictorially.
- 4) Read the product description column for the products standard features.
- 5) Use variations column to determine your choice.
- 6) Identify part number.
- 7) In the event the particular option you require is not listed please refer to the part number breakdown page at the end of each section.
- 8) Please contact us directly if you have any further problems.

Coax Connectors

BNC 75Ω RF Connectors



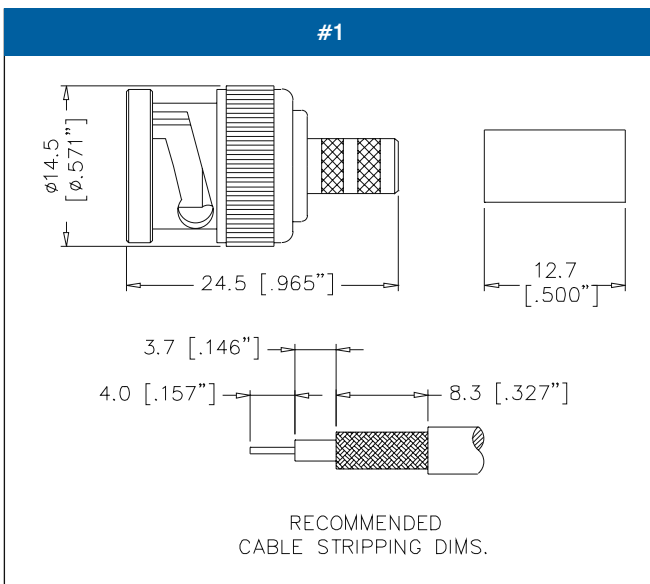
Amphenol manufactures a large range of connectors to suit cables other than those listed below, for example Belden YR23769 and 46899, please contact us to discuss your specific requirements.

The complete Amphenol Connex catalogue featuring a wide range of RF connector products is available on request. Item code CAT-CONNEX-01.

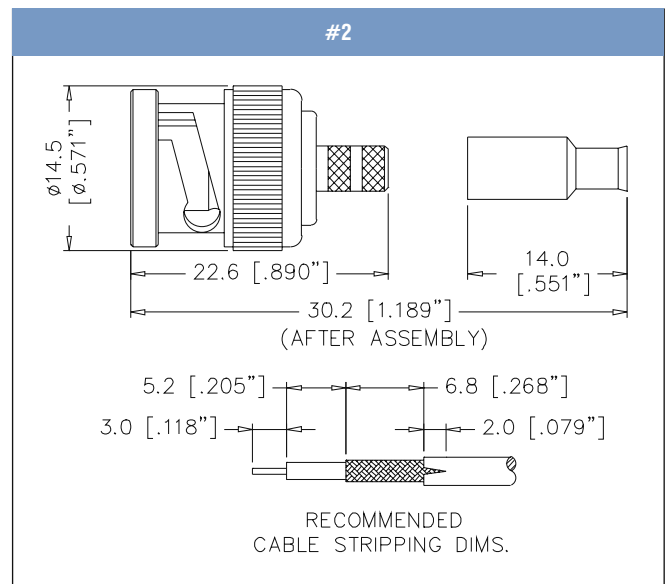
PART NO.	CABLE TYPE RG-/U	INSULATOR	TOOL	TOOL SET ¹	DIE-SET ONLY	DIE CAVITIES
112119	59 / 62 / 140 / 210	Delrin	A	47-10070	47-20000	.255 / .068
112507	59 / U-20AWG	Delrin	A	47-10070	47-20000	.255 / .068
112606	11 / U-14AWG / B8213 / B9292 / B7731 / B1859A	Teflon	D	47-10090	47-20003	.429 / .100 / .080
112508	6 / 143 / 212	Delrin	E	47-10110	47-20001	.324 / .068
112509	B8281 / B9231 / B9141	Delrin	E	47-10110	47-20001	.324 / .068
112519	6 PLENUM / B1695A	Delrin	E	47-10110	47-20001	.255 / .068
112565	B1694A / B9248	Delrin	E	47-10110	47-20001	.324 / .068
112951*	B1505A	Teflon	E	47-10110	47-20001	.324 / .255 / .068 / .042
112952*	59 / 62 / 140 / 210	Teflon	E	47-10110	47-20001	.255 / .042
112953*	B8281 / B9231 / B9141	Teflon	E	47-10110	47-20001	.324 / .042
112956*	59 / U-20AWG	Teflon	E	47-10110	47-20001	.255 / .042
112957*	B1694A / B9248	Teflon	E	47-10110	47-20001	.324 / .042
112950*	B735A1	Teflon	F	47-10120	47-20002	.178 / .042
B1121A1-ND3G-4CFB-75	CANARE 4CFB	Delrin	A	47-10070	47-20000	.255 / .213 / .068
112133	179 / 187 / B9221	Delrin	B	47-10150	47-20004	.178 / .068
112521	180 / 195 / 122 / B8218 / B1865A / B1855	Delrin	B	47-10150	47-20004	.178 / .068
112955*	180 / 195 / 122 / B8218 / B1865A / B1855	Teflon	F	47-10120	47-20002	.213 / .178 / .068 / .042

Note: *True 75 ohm.

¹Complete crimp tool with Die-set refer page 90 for additional details




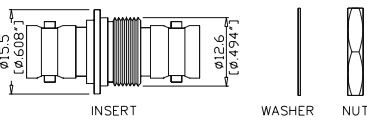

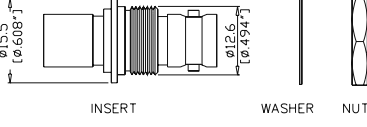

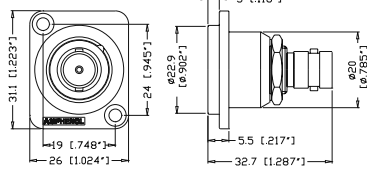

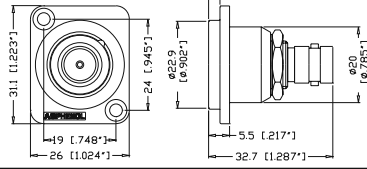

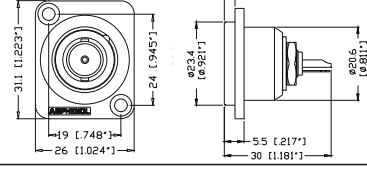

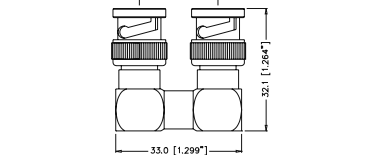

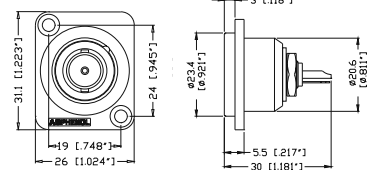

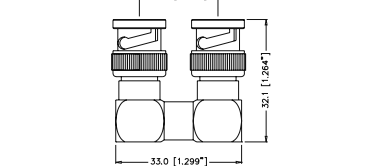

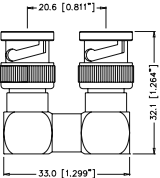
Straight Crimp Plug - Captive Contact- Standard Cable
Assembly Instruction A - page 90




Straight Crimp Plug-Captive Contact-Miniature Cable
(Remark: With Teflon sleeve / Hex crimp size .178")
Assembly Instruction B - page 90

Coax Connectors

BNC 75Ω RF Connectors

PRODUCT - FIGURE	DRAWING Dimensions in mm (inches)	DESCRIPTION & CABLE TYPE RG-/U	INSULATION	CRIMP TOOL	PART NUMBER
		Bulkhead Adapter -Isolated Jack to Jack - Straight Bayonet Lock to Bayonet Lock	Teflon	N/A	AC-BNC-JJA-75T*
		Bulkhead Adapter -Isolated Jack to Jack - Straight Push on to Bayonet Lock	Teflon	N/A	AC-BNC-PJA-75T*
		Bulkhead Adapter -Isolated, 'D' Shell Housing Jack to Jack, Bayonet Lock to Bayonet Lock, Nickel Finish	Teflon	N/A	AC-BNC-JJ-75*
		Bulkhead Adapter -Isolated, 'D' Shell Housing Jack to Jack, Bayonet Lock to Bayonet Lock, Black Finish	Teflon	N/A	AC-BNC-JJ-75B*
		Bulkhead Adapter -Isolated, 'D' Shell Housing Jack to Jack, Push on to Bayonet Lock, Nickel Finish	Teflon	N/A	AC-BNC-PJ-75*
		Bulkhead Adapter -Isolated, 'D' Shell Housing Jack to Jack, Push on to Bayonet Lock, Black Finish	Teflon	N/A	AC-BNC-PJ-75B*
		Bulkhead Receptacle -Isolated, 'D' Shell Housing Jack to Solder Bucket with Ground Tag, Nickel Finish	Nylon	N/A	AC-BNC-JS-75
		Bulkhead Receptacle -Isolated, 'D' Shell Housing Jack to Solder Bucket with Ground Tag, Black Finish	Nylon	N/A	AC-BNC-JS-75B
		U - Link Centre to Centre - 20.6 mm Note: Custom Sizes available please contact factory.	Teflon	N/A	BNC-U-LINK 75*1

BNC 75 RF ACCESSORIES AND TOOLING

PRODUCT - FIGURE	DESCRIPTION	DIE CAVITIES	CABLE TYPE RG-/U	CONNECTOR GUIDE	PART NUMBER
	Crimp tool with Die Set	.255 / .213 / .068	59 / 62	A	47-10070
		.178 / .128 / .068	179 / 187 / 180 / 195	B	47-10150
		.429 / .100 / .080	11	D	47-10090
		.324 / .255 / .068 / .042	6 / 59 / B8281	E	47-10110
		.213 / .178 / .068 / .042	AT&T 735A, B1855A, B8218	F	47-10120

Note: *True 75 ohm.

Coax Connectors

BNC Patch Panels




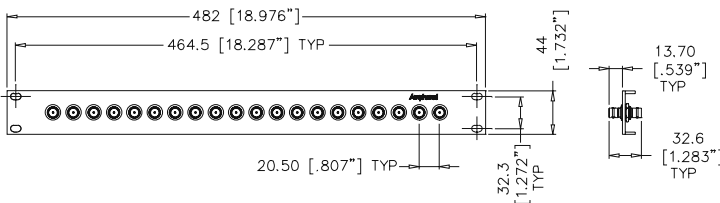

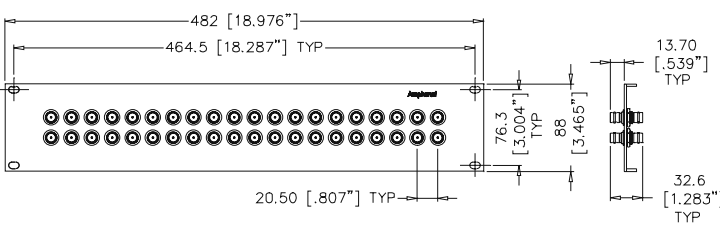

BNC Patch Panels

Features:

- Amphenol True 75 Ohm Connectors
- Bayonet lock or Push-on types
- Supplied with adhesive strip ID labels

Options:

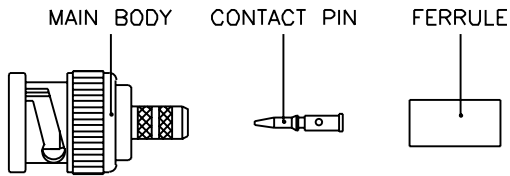
- 1RU, 20 BNC connectors or 2RU, 40 BNC connectors
- Aluminium in Clear or Black anodised
- Steel in Black powder coat
- Customised versions available on request

PRODUCT - FIGURE DRAWING	Dimensions in mm (inches)	DESCRIPTION	MATERIAL / FINISH	LOADED WITH <small>(refer to page 84 for specifications)</small>	PART NUMBER
 		1RU 1X20 Patch Panel, Supplied with 1 ID label	Steel / Black	Empty Panel	AC-BNC20M
			Steel / Black	AC-BNC-JJA-75	AC-BNC20MJ75
			Steel / Black	AC-BNC-PJA-75	AC-BNC20MP75
			Aluminium / Clear	Empty Panel	AC-BNC20A
			Aluminium / Clear	AC-BNC-JJA-75	AC-BNC20AJ75
			Aluminium / Clear	AC-BNC-PJA-75	AC-BNC20AP75
			Aluminium / Black	Empty Panel	AC-BNC20B
			Aluminium / Black	AC-BNC-JJA-75	AC-BNC20BJ75
			Aluminium / Black	AC-BNC-PJA-75	AC-BNC20BP75
 		2RU 2X20 Patch Panel, Supplied with 2 ID labels	Steel / Black	Empty Panel	AC-BNC40M
			Steel / Black	AC-BNC-JJA-75	AC-BNC40MJ75
			Steel / Black	AC-BNC-PJA-75	AC-BNC40MP75
			Aluminium / Clear	Empty Panel	AC-BNC40A
			Aluminium / Clear	AC-BNC-JJA-75	AC-BNC40AJ75
			Aluminium / Clear	AC-BNC-PJA-75	AC-BNC40AP75
			Aluminium / Black	Empty Panel	AC-BNC40B
			Aluminium / Black	AC-BNC-JJA-75	AC-BNC40BJ75
			Aluminium / Black	AC-BNC-PJA-75	AC-BNC40BP75
		Panel ID label	Plastic	Not Applicable	AC-BNC-LABEL

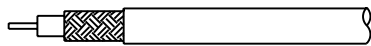
BNC 75 RF ASSEMBLY INSTRUCTIONS

ASSEMBLY A

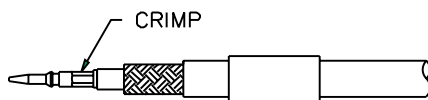
STEP 1



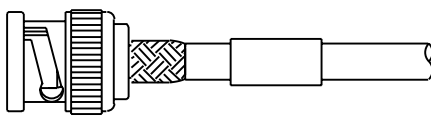
STEP 2



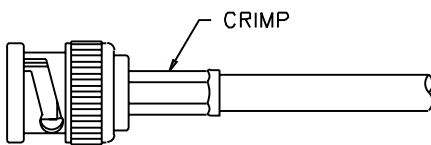
STEP 3



STEP 4



STEP 5



STEP 1. All parts of the connector are shown. A crimp tool is necessary to complete the connection.

STEP 2. Strip the cable inner conductor, dielectric, braid, and jacket as per "RECOMMENDED CABLE STRIPPING DIM'S" in catalogue.

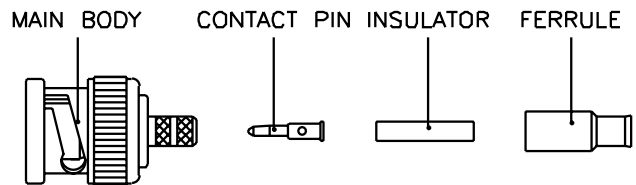
STEP 3. Insert inner conductor into the CONTACT PIN, crimp it with the crimp tool as shown. Then slide the FERRULE onto cable.

STEP 4. Insert the MAIN BODY into braid and dielectric.

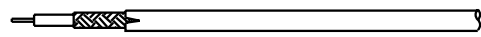
STEP 5. Slide the FERRULE over braid, crimp it with the crimp tool as shown.

ASSEMBLY B

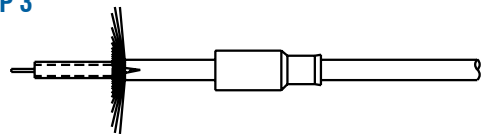
STEP 1



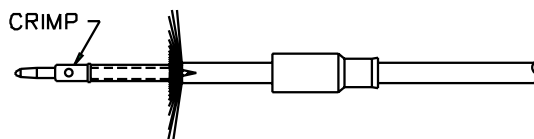
STEP 2



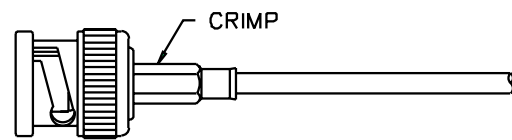
STEP 3



STEP 4



STEP 5



STEP 1. All parts of the connector are shown. A crimp tool is necessary to complete the connection.

STEP 2. Strip the inner conductor, dielectric, and jacket as per "RECOMMENDED CABLE STRIPPING DIM'S" in catalogue.

STEP 3. Slide the FERRULE on to cable, then fold back braid wire and slide the INSULATOR on to dielectric as shown.

STEP 4. Insert inner conductor into the CONTACT PIN, crimp it with crimp tool as shown.

STEP 5. Push cable and parts into the MAIN BODY until it stops. Then slide the FERRULE over braid wire and against the MAIN BODY, crimp it with the crimp tool as shown.

STANDARD DATA BNC 75 RF CONNECTORS

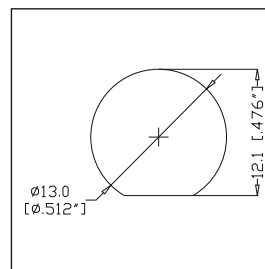
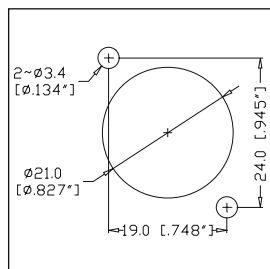
		VALUE	
GENERAL CHARACTERISTICS	Mating	Bayonet Lock	
	Cable Attachment	Crimp - Crimp	
	Environmental	Complies with EU RoHS 2 Directive 2011/65/EU	
ELECTRICAL CHARACTERISTICS	Impedance	75Ω	
	Frequency Range - Standard	0 - 1 GHz	
	- True 75 Ohm	0 - 4 GHz	
	Voltage Rating	500V RMS	
	Dielectric withstanding voltage	1500 Volts RMS	
	VSWR - Standard	1.05+0.1f(GHz) DC to 1 GHz	
	- True 75 Ohm	1.5+0.1f(GHz) DC to 4 GHz	
	Contact Resistance		
Centre Contact	1.5 milliohm		
Outer Contact	1.0 milliohm		
Insulation Resisance	5000 MΩ (min.)		
MATERIALS	Part	Material	Finish
	Body, Coupling sleeves	Brass	Nickel
	Crimp Ferrule	Annealed Copper	Nickel
	Male Contact	Brass	Gold
	Female Contact	Beryllium Copper or Phosphor Bronze	Gold
	XLR Housing	Diecast Zinc Alloy	Satin Nickel or Black Polyester
	Insulators	Teflon or Delrin	Natural

Rev 4 - 03/2013

NOTE: These characteristics are typical and may not apply to all connectors.

PANEL CUTOUTS - FRONT VIEW

AC-BNC-PJ-75
AC-BNC-JJ-75



AC-BNC-PJA-75
AC-BNC-JJA-75

PRODUCT SAFETY INFORMATION

This should be read in conjunction with Data Sheet information contained in individual product brochures. Failure to observe the advice in this information sheet and the operating conditions specified in the Data Sheets could result in hazardous situations.

1. Material Content and Physical Form

Electrical connectors do not usually contain hazardous materials. They contain conducting and non-conducting materials. Shells are manufactured in metal and plastic. Insulators can be formed in either natural rubber, synthetic rubber, plastic or glass insulating materials. Contact materials vary with the type of connector and its application. They are usually manufactured from either copper alloys, nickel, alumel, chromel or steel. In special applications, other alloys may be specified.

2. Fire Characteristics and Electric Shock Hazard

There is no fire hazard when the connector is correctly wired and used within the specified parameters. Incorrect wiring or assembly of the connector or careless use of metal tools or conductive fluids, or transit damage to any of the component parts may cause electric shock or burns. Live circuits must not be broken by separating mated connectors as this may cause arcing, ionisation and burning. Heat dissipation is greater at maximum resistance in a circuit. Hot spots may occur when resistance is raised locally by damage, e.g. cracked or deformed contacts, or broken strands of wire. Local overheating may also result from the use of the incorrect application tools or from poor quality soldering.

Overheating may occur if the ratings in the Data Sheets are exceeded and can cause breakdown of insulation and hence electric shock.

If heating is allowed to continue it intensifies by further increasing the local resistance through loss of temper or spring contact, formation of oxide film on contacts and wires, and leakage currents through carbonisation of insulation and tracking points. Fire can then result in the presence of combustible materials and this may release noxious fumes. Overheating may not be visually apparent. Burns may result from touching overheated components.

3. Handling

Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers. Electrical connectors may be damaged in transit to customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

4. Disposal

Incineration of certain materials may release noxious or even toxic fumes.

5. Application

Connectors with exposed contacts should not be selected for use on the current supply side of an electrical circuit, because an electric shock could result from touching exposed contacts of an unmated connector. Voltages in excess of 30 V.A.C. or 42.5

V.D.C. are potentially hazardous and care should be taken to ensure that such voltages cannot be transmitted in any way to exposed metal parts of the connector body. The connector and wiring should be checked, before making live, to have no damage to metal parts or insulators, no solder blobs, loose strands, conducting lubricants, swarf, or any other undesired conducting particles. Circuit resistance and continuity check should be made to make certain that there are no low resistance joints or spurious conducting paths. Always use the correct application tools as specified in the Data Sheets. Do not permit untrained personnel to wire, assemble or tamper with connectors. For operation voltage please see appropriate national regulations.

Important General Information

A) Air and creepage paths / Operating voltage.

The admissible operating voltages depend on the individual applications and the valid national and other applicable safety regulations. For this reason the air and creepage path data are only reference values. Observe reduction of air and creepage paths due to PC board and/or harnessing.

B) Other important information

Amphenol Australia Pty Ltd continuously endeavours to improve its products. Therefore, products may deviate from the description, technical data and shape as shown in product brochures.

C) Assembly instructions

If applicable, special assembly instructions have been included in or on the connector packaging. See also separate instructions in product brochures.

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01/02/2018

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