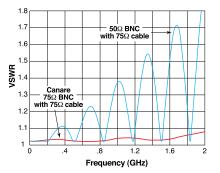
Canare offers a full line of high performance MIL-C-39012 true 75 Ohm BNC connectors with impedance matched performance characteristics & specifications that properly address the latest generations of high bandwidth digital video equipment.

Importantly, Canare 75 Ohm BNC connectors offer excellent mechanical pull strength & very low digital signal reflections;  $RL \ge 26 dB$  (VSWR  $\le 1.1$ ) DC to 2GHz.



#### Influence of impedance matching/mismatching

#### Note:

Much of the 75 Ohm video coax cable in use today may still be terminated with 50 Ohm BNC connectors. Although this pairing is adequate for lower frequency bandwidths (such as standard NTSC broadcast transmissions), this mismatch will result in signal degradation & reduced picture quality at today's ultra high analog and digital video transmission rates.

# 75Ω BNC Connectors: C-Series

#### **Applications**

- SMPTE 259M & 292M compliant
- Serial Digital Video (SDI)
- HDTV upgrades
- NTSC analog
- Satellite headends
- Telcom

#### **Features**

- 1. True 75 Ohm construction; Crimp Pin & Sleeve
- 2. DC to 2 GHz;  $\geq$  26 dB Return Loss ( $\leq$  1.1 VSWR)
- 3. Mechanically mates with common 50 Ohm BNC
- 4. Elongated body
- 5. Longer crimp sleeve
- 6. Gold Plated Contact Pin 'Snap Locks' into place 7. Beryllium Copper Outer Contact

#### **Benefits**

- 1. Better transmission quality
- 2. Extremely low bit-rate error
- 3. "Universal" applications
- 4. Better finger grip
- 5. Superior cable pull strength
- 6. More reliable connection
- 7. Extremely resilient to constant flexing

Special Nickel

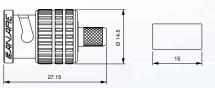
Plated Bell Brass

remains brilliant

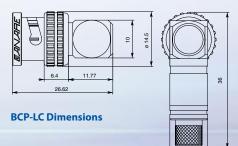
even after many

years of

field service.



**BCP-C Dimensions** 



Canare

Common

50 Ohm BNC

Insulation

75 Ohm BNC

ø 10

| Body<br>Material<br>Plating | Center<br>Contact<br>Material<br>Plating | Dielectric | Crimp<br>Sleeve<br>Material<br>Plating | Cable<br>Retention<br>Ibs<br>(kg) | Insulation<br>Resistance<br>(500V DC) | Voltage<br>Rating<br>(1 min) | Center<br>Contact<br>Resistance | Outer<br>Contact<br>Resistance |
|-----------------------------|--|------------|--|-----------------------------------|---------------------------------------|------------------------------|---------------------------------|--------------------------------|
| Brass<br>Nickel             | Brass<br>Nickel                          | PTFE       | Copper<br>Tin                          | >55<br>>24.9                      | >1000<br>MegaOhms                     | 1500V AC<br>(rms)            | <6 miliOhms                     | <3 miliOhms                    |



See cross-reference charts on page 54 for tooling and cable matches.

PTFE dielectric is designed with an exclusive air gap compensation circuit that maintains a constant 75 Ohm matched impedance, even if variances in contact pin crimping occur.

> **Beryllium Copper** outer contact is more resilient to constant flexing than spring brass or phosphor bronze.

> > Captive Contact Pin Canare BNC crimp pins snap and lock into place to prevent pin migration, the leading cause of most BNC connector failure

Gold plated center crimp pin inhibits corrosion and offers low contact resistance with superior mating properties.

**Our longer Sleeves** offer a wider crimping surface area for improved cable pull strength.

EASY, POSITIV

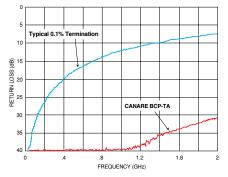
POOR ENGAGEMENT

canare.com

# **Connectors :** 75Ω BNC Connectors

# **75 Ohm Termination**

All 75 Ohm signals, once entered into a termination, must be fully converted into energy. If the impedance matching is not perfect, part of this energy will be reflected and poor Return Loss (VSWR) will result, especially at higher operating frequencies (i.e. computer graphics, digital video, etc.).



Common BNC terminators use a 50 Ohm type body with a generic 75 Ohm DC resistor tacked onto the back of the center contact pin.

Canare's precision 75 Ohm BCPTA, far exceeds (by 20 to 30 dB) other commercial terminations, even those rated at .1% tolerance.

Careful attention to impedance design detail makes this the first true 75 Ohm termination with the same VSWR performance found in test lab precision terminators which cost hundreds of dollars.

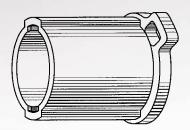


# 75Ω BNC Plug Female Connector

#### BCJ-C4

75 Ohm impedance 1.1 or less VSWR up to 1.5 GHz Gold-plated beryllium copper soldered center pin Crimp sleeve

| Model # | Matching<br>Cable | Boot   | Die       |
|---------|-------------------|--------|-----------|
| BCJ-C4  | RG-59 B/U         | CB25   | TCD-4C    |
|         | LV-61S            | Nickel | TCD-451CA |



# **BNC Dust Cap**

**BCJ-DC** Protects all unused BNC Bulkhead Receptacles from dirt and dust

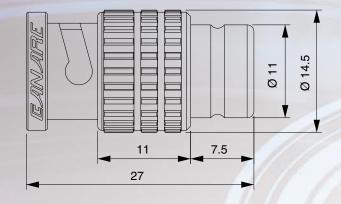
# $75\Omega$ BNC Termination Plug

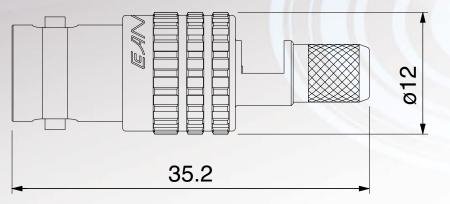
#### Applications

Digital Video 75 Ohm termination

#### ВСР-ТА

DC to 2 GHz; ≥26 dB Return Loss (≤1.1 VSWR) 75 Ohm Metal Film Resistor (± 1%,1/4 Watt @°100ppm) Gold Plated Center Pin; Beryllium Copper Outer Contact Elongated Body Design





# canare.com

**Connectors :** 75Ω BNC Connectors

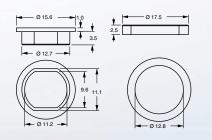
### **Double-D** Isolation **Bushingings**

#### **Applications**

- 2 Piece Expandable Isolation Bushing
- Colors: Blk, Blu, Grn, Red, Wht, Yel
- High compression, ABS plastic
- Accommodates 1.2mm ~ 3mm thick panels

#### IU-7/16

Please indicate color if other than WHT





# **75Ω Slim BNC Connectors**

#### **Applications**

- High-density video patch panelsFit standard BNC jacks
- Serial Digital Video
- HDTV upgrades
- NTSC Analog

#### Features

- 1.75 Ohm impedance
- 2. ≥20 dB Return Loss; DC to 2.4GHz
- 3.12 mm outside diameter
- 4. Gold Plated Beryllium Copper center contact

#### **Benefits**

- 1. Professional standard
- 2. Extremely low bit-rate error
- 3. Easier to connect/disconnect on dense panels
- 4. Excellent transmission quality

| r         |         |         |
|-----------|---------|---------|
| Model     | Pin     | Sleeve  |
| MBCP-C25F | B11014E | BN7029C |
| MBCP-C3F  | B11015E | BN7003A |
| MBCP-C4   | B11015E | BN7015A |
| MBCP-C4F  | B11016E | BN7015A |
| MBCP-C53  | B11020D | BN7046  |
| MBCP-C5F  | B11020D | B75004A |

See cross-reference charts on page 54 for tooling and cable matches.

# **75Ω BNC In-Line** Adaptor

**Applications** BNC Line Cord Extender

**BCJ-J** 75 Ohm impedance BNC jack to BNC jack

Body

# **Crimp sleeve**

