75 ohm BNC Jack Plug

BNC Jack Plug for extension cables.

BCJ-C4

Key Features and Benefits

- Beryllium copper (gold plated) is used on the center contact for its superior spring characteristics (Center contact: solder).

Note1: Be sure to use Canare Crimp Tool

Note2: Instruction manual

For inquiries about this products

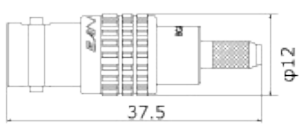
Tech Data | Downloads

75 ohm BNC Jack Plug 12G-SDI Crimp Type

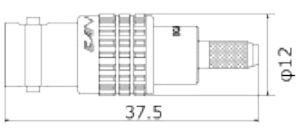
Type	Model	Suitable Cable	Center Pin	Sleeve	Boot	Die Set	Standard package
	BCJ-D25HD	L-2.5CHD	BN1204	BN7159	-	TCD-D253F	20pcs
No image	BCJ-D25HW	L-2.5CHWS	BN1204	BN7158	-	TCD-D253F	20pcs
No image	BCJ-D33UHD	L-3.3CUHD	BN1205	BN7003A	-	TCD-D253F	20pcs

Key Features and Benefits

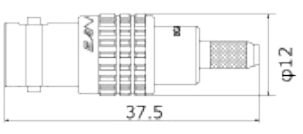
- Return loss for BCJ-D: 20 dB @ 3 GHz, 15 dB @ 6 GHz, 10 dB @ 12
- Gold plated beryllium copper center contact.



BCJ-D25HW



BCJ-D33UHD



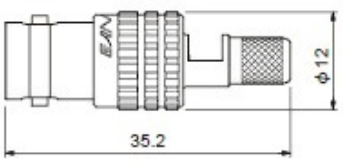
BCJ-D25HD

75 ohm BNC Jack Plug Crimp Type

Type	Model	Suitable Cable	Center Pin	Sleeve	Boot	Die Set	Standard package
	BCJ-C4	RG-59 B/U, LV-61S, Belden 8241, 8279, 88241	Solder	V75001	CB25	TCD-4CA TCD-451CA	20pcs

Key Features and Benefits

- Return loss for BCJ-C: 26.4 dB @ 1.5 GHz, 20.8 dB @ 2.4 GHz



Technical Note

Voltage Standing - wave Ratio (VSWR) and Return Loss

Terminating the receiving end of a limited length coaxial cable using a resistance value not equal to its characteristic impedance creates a reflected wave that returns back down the cable to the sending end. The result is interference developing between the travelling wave and the return wave which results in a standing wave that causes voltage levels to fluctuate. The degree to which terminating resistance matches the characteristic impedance is indicated using the VSWR or voltage standing-wave ratio standard shown in Fig. 1. Going hand in hand with the VSWR ratio is the return loss factor which measures the size of the reflected wave current in relation to the travelling wave current. (See Fig. 2)

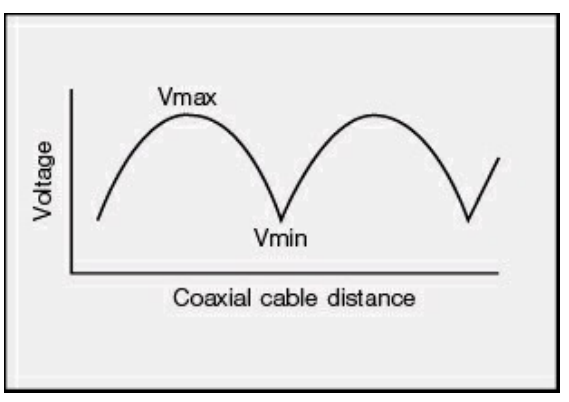


Fig. 1 Voltage Distribution Over Coaxial Cable

VSWR	Return Loss (dB)
2	9.54
1.5	13.98
1.2	20.83
1.1	26.44
1.05	32.26
1.02	40.09
1.01	46.06

Fig. 2 VSWR to Return Loss Conversion Table

PRODUCT SPECIFICATIONS

SAB556
(BCJ-D25HD) Ver. 1.0
CANARE ELECTRIC CO., LTD

1. Scope This product specification covers the performance of CANARE crimp type 75 Ω BNC cable jack.

2. General specifications

(1) Product name Crimp type 75 Ω BNC cable jack
(2) Model name BCJ-D25HD
(3) Applicable standard IEC*1 61169-8, JIS*2 C 5412
(4) Nominal impedance 75 Ω unbalanced
(5) Construction As shown in the drawing (BL556).
(6) Weight Approx 13.2g (including center contact and crimp sleeve)
(7) Designation Stamp model name (BCJ-D25HD) on washer and brand name (CANARE) on coupling sleeve.
(8) Packaging 20pcs/package (150 x 50 x 44mm),
(9) Applicable cable L-2.5CHD (CANARE)
(10) Crimp tool Frame: TC-1, Die: TCD-D253F

3. Ratings

(1) Operating temperature -40 ℃ ～ +85 ℃
(2) Operating humidity ～ 90%

*1International Electrotechnical Commission
*2Japanese Industrial Standard

4. Characteristics

4.1 Electrical characteristics As shown in **Table 1**

Table 1

Items	Specified values	Test methods
Insulation resistance	1000MΩ or more	Measurement shall be made between the contacts, after an electrification time of 1min with a d.c. voltage of 500V.
Voltage proof	Without any damage such as electric breakdown etc.	750V a.c. shall be applied for 1 min between the contacts. Trip current :0.5mA.
Contact resistance	Between center contacts: 6mΩ or less Between externalcontacts: 3mΩ or less	Measurement shall be made between the contacts, with engaging a plug and a receptacle. (1kHz:1mA a.c.)
Return loss	20dB or more (0 ～ 3GHz) 15dB or more (0 ～ 6GHz) 10dB or more (0 ～ 12GHz)	An applied cable shall be attached to the plug, then it shall be terminated with 75 Ω. The measurement frequency up to 12GHz.

4.2 Mechanical characteristics As shown in **Table 2**

Table 2

Items	Specified values	Test methods
Intermatability	To be engaged without any abnormality.	The plug and an applicable receptacle shall be engaged.
Female contact retention force	1.5 ～ 3.9N	Following JIS C 5412 pin gauge (**Fig.**) shall be inserted the female contact and measurement shall be made.
Fixing force of contact with lock mechanism	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the axial direction.
Strength of coupling mechanism	Body shall not be disconnected or no deformation shall be made.	The plug and a receptacle shall be engaged, after which tensile strength of 250N and rotation strength of 2.5N･m shall be applied.
Cable connecting force	150N or more	An applied cable shall be attached to the plug, after which tensile strength shall be applied.
Mechanical operation (repeated)	Contact resistance: 10mΩ or less	The endurance test consists of repeated engagement and separation of connector pairs. The measurement shall be made after 5000 cycles.

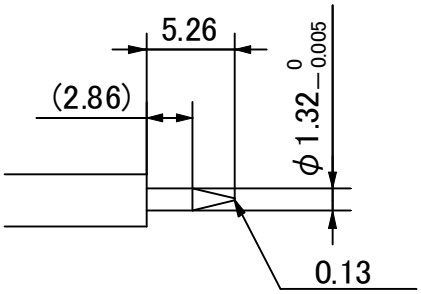
4.3 Environmental characteristics As shown in **Table 3**

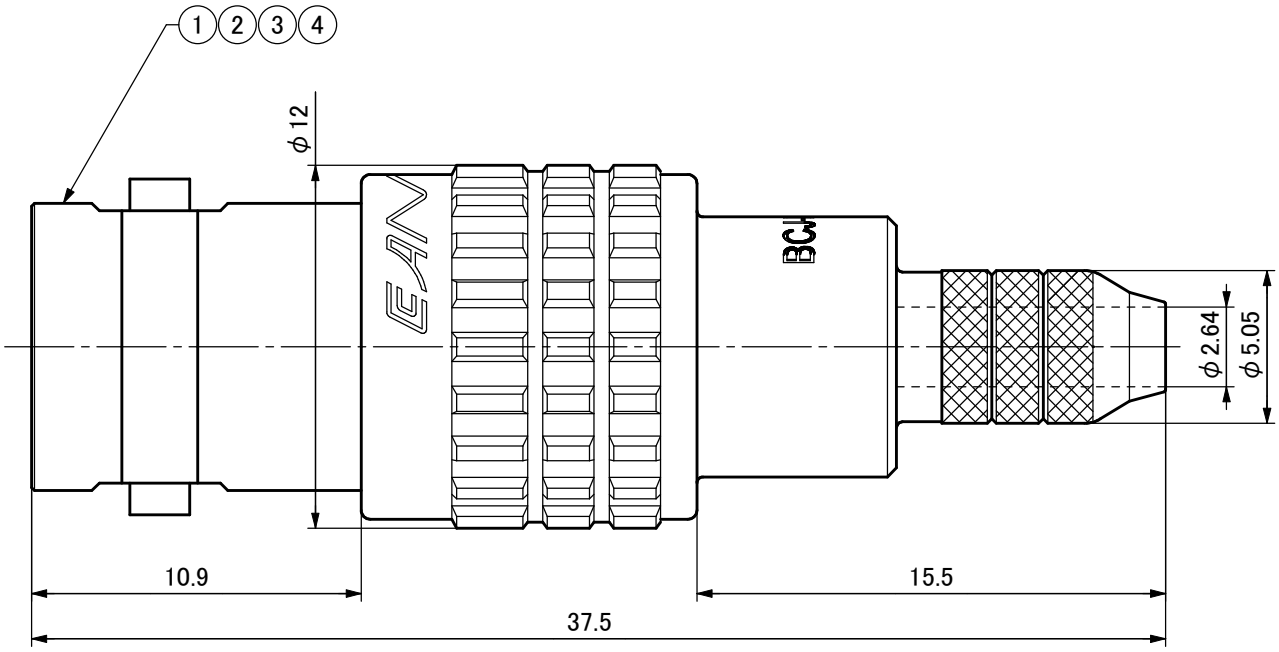
Table 3

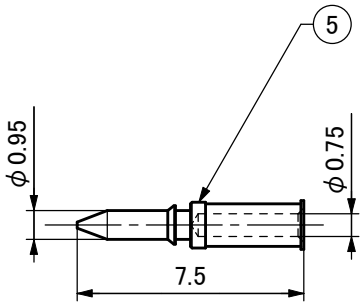
Items	Specified values	Test methods
Corrosion resistance (Salt mist)	Appearance: By visual inspection, without noticeable rust. Contact resistance: 50mΩ or less	The connector shall be subjected continuously to a fine mist of salt solution at a temperature of 35±2 ℃ for 48h (Salt solution concentration: 5±1% by weight). Then it shall be subjected to standard atmospheric conditions. After removing the salt deposits by water, the appearance of the connector shall be checked.

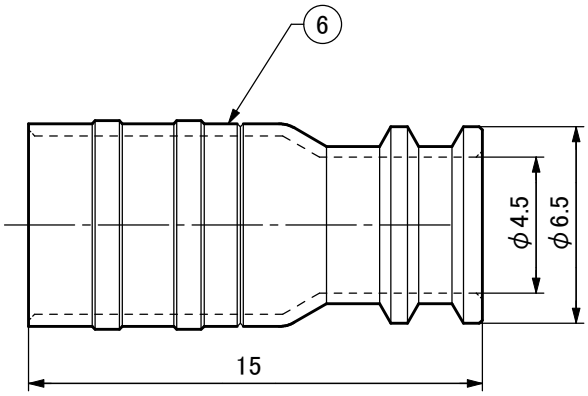
5. Measurement conditions Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 ℃ to 35 ℃), Relative humidity (25% to 75%), Air pressure (86kPa to 106kPa). If there is any doubt about the results, measurements shall be made within the following limits: Ambient temperature (20±1 ℃), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

Fig. Unit: mm









No.	Name of Parts	Pc(s).	Material	Finish
6	Crimping Sleeve	1	Brass	Tin Plating
5	Center Contact	1	Brass	Gold Plating
4	Body2	1	Brass	Nickel Plating
3	Body1	1	Brass	Nickel Plating
2	Insulator	1	PTFE	—
1	Female Center Contact	1	Beryllium Copper	Gold Plating

Title	PJTN	Unit	Sc.	Tol.	Date	Model	No.
75Ω BNC CABLE JACK		mm	4:1	±0.1	Ver. 1.0 2019-07-29	BCJ-D25HD	BL556

CANARE

PRODUCT SPECIFICATIONS

SAB554
(BCJ-D25HW)
Ver. 1.0
CANARE ELECTRIC CO., LTD

1. Scope This product specification covers the performance of CANARE crimp type 75 Ω BNC cable jack.

2. General specifications

(1) Product name Crimp type 75 Ω BNC cable jack
(2) Model name BCJ-D25HW
(3) Applicable standard IEC*1 61169-8, JIS*2 C 5412
(4) Nominal impedance 75 Ω unbalanced
(5) Construction As shown in the drawing (BL554).
(6) Weight Approx 13.2g (including center contact and crimp sleeve)
(7) Designation Stamp model name (BCJ-D25HW) on washer and brand name (CANARE) on coupling sleeve.
(8) Packaging 20pcs/package (150 x 50 x 44mm),
(9) Applicable cable L-2.5CHWS (CANARE)
(10) Crimp tool Frame: TC-1, Die: TCD-D253F

3. Ratings

(1) Operating temperature -40 ℃ ～ +85 ℃
(2) Operating humidity ～ 90%

*1 International Electrotechnical Commission
*2 Japanese Industrial Standard

4. Characteristics

4.1 Electrical characteristics As shown in **Table 1**

Table 1

Items	Specified values	Test methods
Insulation resistance	1000MΩ or more	Measurement shall be made between the contacts, after an electrification time of 1min with a d.c. voltage of 500V.
Voltage proof	Without any damage such as electric breakdown etc.	750V a.c. shall be applied for 1 min between the contacts. Trip current :0.5mA.
Contact resistance	Between center contacts: 6mΩ or less Between externalcontacts: 3mΩ or less	Measurement shall be made between the contacts, with engaging a plug and a receptacle. (1kHz:1mA a.c.)
Return loss	20dB or more (0 ～ 3GHz) 15dB or more (0 ～ 6GHz) 10dB or more (0 ～ 12GHz)	An applied cable shall be attached to the plug, then it shall be terminated with 75 Ω. The measurement frequency up to 12GHz.

4.2 Mechanical characteristics As shown in **Table 2**

Table 2

Items	Specified values	Test methods
Intermatability	To be engaged without any abnormality.	The plug and an applicable receptacle shall be engaged.
Female contact retention force	1.5 ～ 3.9N	Following JIS C 5412 pin gauge (**Fig.**) shall be inserted the female contact and measurement shall be made.
Fixing force of contact with lock mechanism	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the axial direction.
Strength of coupling mechanism	Body shall not be disconnected or no deformation shall be made.	The plug and a receptacle shall be engaged, after which tensile strength of 250N and rotation strength of 2.5N･m shall be applied.
Cable connecting force	150N or more	An applied cable shall be attached to the plug, after which tensile strength shall be applied.
Mechanical operation (repeated)	Contact resistance: 10mΩ or less	The endurance test consists of repeated engagement and separation of connector pairs. The measurement shall be made after 5000 cycles.

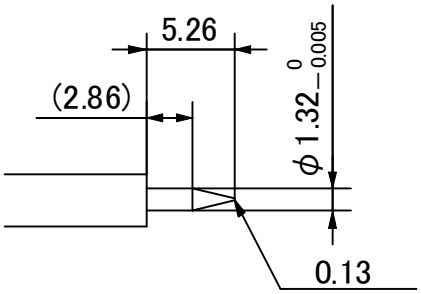
4.3 Environmental characteristics As shown in **Table 3**

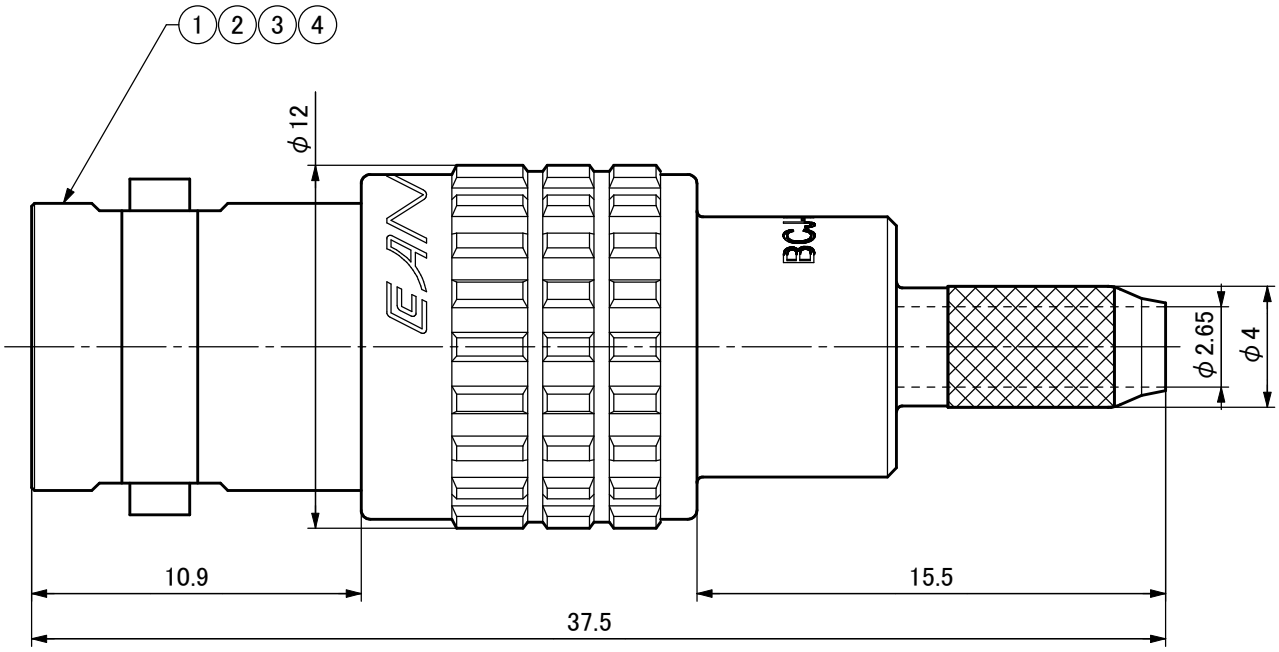
Table 3

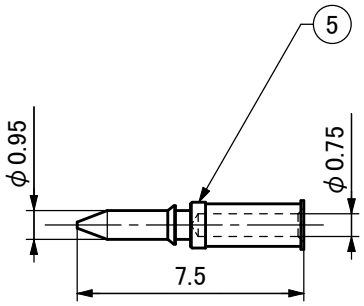
Items	Specified values	Test methods
Corrosion resistance (Salt mist)	Appearance: By visual inspection, without noticeable rust. Contact resistance: 50mΩ or less	The connector shall be subjected continuously to a fine mist of salt solution at a temperature of 35±2 ℃ for 48h (Salt solution concentration: 5±1% by weight). Then it shall be subjected to standard atmospheric conditions. After removing the salt deposits by water, the appearance of the connector shall be checked.

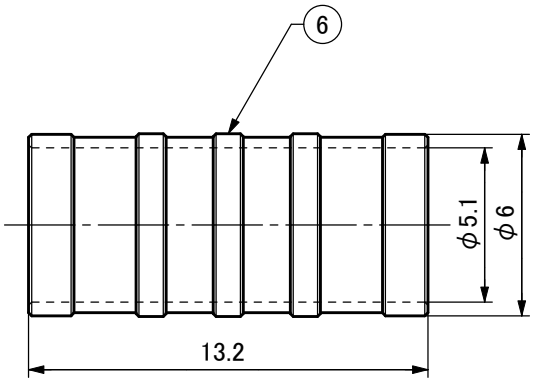
5. Measurement conditions Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 ℃ to 35 ℃), Relative humidity (25% to 75%), Air pressure (86kPa to 106kPa). If there is any doubt about the results, measurements shall be made within the following limits: Ambient temperature (20±1 ℃), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

Fig. Unit: mm









No.	Name of Parts	Pc(s).	Material	Finish
6	Crimping Sleeve	1	Brass	Tin Plating
5	Center Contact	1	Brass	Gold Plating
4	Body2	1	Brass	Nickel Plating
3	Body1	1	Brass	Nickel Plating
2	Insulator	1	PTFE	—
1	Female Center Contact	1	Beryllium Copper	Gold Plating

Title	PJTN	Unit	Sc.	Tol.	Date	Model	No.
75Ω BNC CABLE JACK		mm	4:1	±0.1	Ver. 1.0 2019-07-29	BCJ-D25HW	BL554

CANARE

PRODUCT SPECIFICATIONS

SAB555
(BCJ-D33UHD)
Ver. 1.0
CANARE ELECTRIC CO., LTD

1. Scope This product specification covers the performance of CANARE crimp type 75 Ω BNC cable jack.

2. General specifications

(1) Product name Crimp type 75 Ω BNC cable jack
(2) Model name BCJ-D33UHD
(3) Applicable standard IEC*1 61169-8, JIS*2 C 5412
(4) Nominal impedance 75 Ω unbalanced
(5) Construction As shown in the drawing (BL555).
(6) Weight Approx 13.2g (including center contact and crimp sleeve)
(7) Designation Stamp model name (BCJ-D33UHD) on washer and brand name (CANARE) on coupling sleeve.
(8) Packaging 20pcs/package (150 x 50 x 44mm),
(9) Applicable cable L-3.3CUHD (CANARE)
(10) Crimp tool Frame: TC-1, Die: TCD-D253F

3. Ratings

(1) Operating temperature -40 ℃ ～ +85 ℃
(2) Operating humidity ～ 90%

*1 International Electrotechnical Commission
*2 Japanese Industrial Standard

4. Characteristics

4.1 Electrical characteristics As shown in **Table 1**

Table 1

Items	Specified values	Test methods
Insulation resistance	1000MΩ or more	Measurement shall be made between the contacts, after an electrification time of 1min with a d.c. voltage of 500V.
Voltage proof	Without any damage such as electric breakdown etc.	750V a.c. shall be applied for 1 min between the contacts. Trip current :0.5mA.
Contact resistance	Between center contacts: 6mΩ or less Between externalcontacts: 3mΩ or less	Measurement shall be made between the contacts, with engaging a plug and a receptacle. (1kHz:1mA a.c.)
Return loss	20dB or more (0 ～ 3GHz) 15dB or more (0 ～ 6GHz) 10dB or more (0 ～ 12GHz)	An applied cable shall be attached to the plug, then it shall be terminated with 75 Ω. The measurement frequency up to 12GHz.

4.2 Mechanical characteristics As shown in **Table 2**

Table 2

Items	Specified values	Test methods
Intermatability	To be engaged without any abnormality.	The plug and an applicable receptacle shall be engaged.
Female contact retention force	1.5 ～ 3.9N	Following JIS C 5412 pin gauge (**Fig.**) shall be inserted the female contact and measurement shall be made.
Fixing force of contact with lock mechanism	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the axial direction.
Strength of coupling mechanism	Body shall not be disconnected or no deformation shall be made.	The plug and a receptacle shall be engaged, after which tensile strength of 250N and rotation strength of 2.5N･m shall be applied.
Cable connecting force	200N or more	An applied cable shall be attached to the plug, after which tensile strength shall be applied.
Mechanical operation (repeated)	Contact resistance: 10mΩ or less	The endurance test consists of repeated engagement and separation of connector pairs. The measurement shall be made after 5000 cycles.

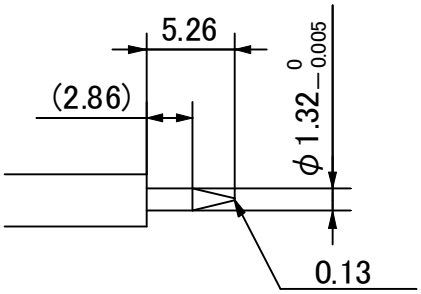
4.3 Environmental characteristics As shown in **Table 3**

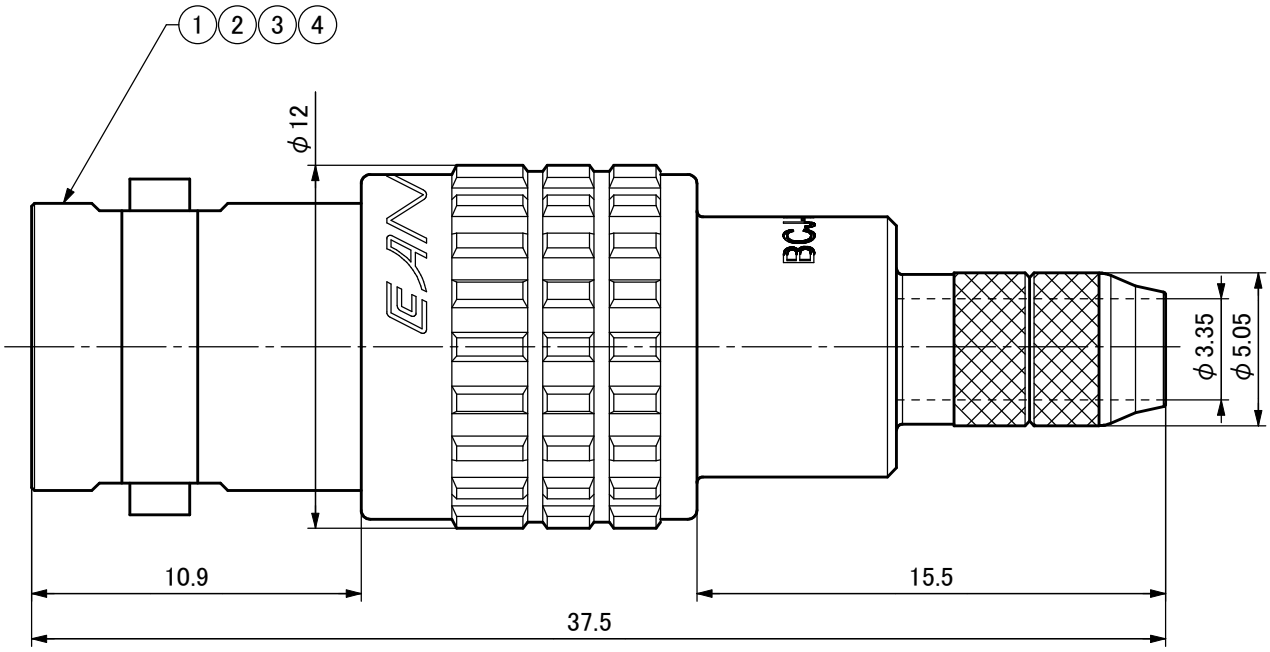
Table 3

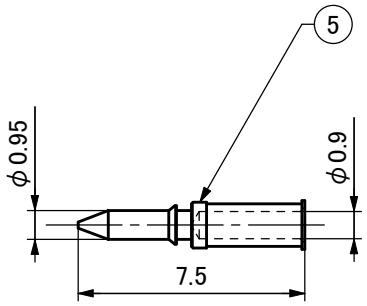
Items	Specified values	Test methods
Corrosion resistance (Salt mist)	Appearance: By visual inspection, without noticeable rust. Contact resistance: 50mΩ or less	The connector shall be subjected continuously to a fine mist of salt solution at a temperature of 35±2 ℃ for 48h (Salt solution concentration: 5±1% by weight). Then it shall be subjected to standard atmospheric conditions. After removing the salt deposits by water, the appearance of the connector shall be checked.

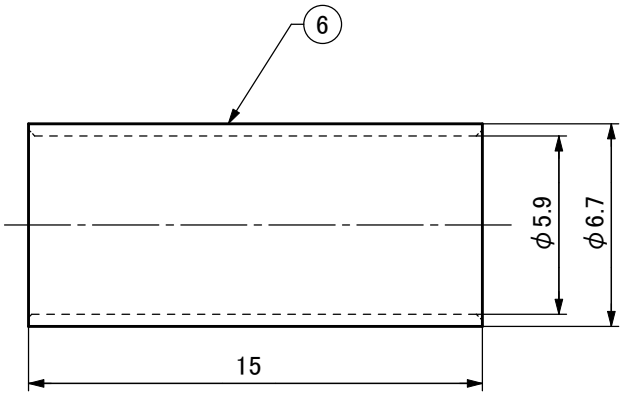
5. Measurement conditions Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 ℃ to 35 ℃), Relative humidity (25% to 75%), Air pressure (86kPa to 106kPa). If there is any doubt about the results, measurements shall be made within the following limits: Ambient temperature (20±1 ℃), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

Fig. Unit: mm









No.	Name of Parts	Pc(s).	Material	Finish
6	Crimping Sleeve	1	Brass	Tin Plating
5	Center Contact	1	Brass	Gold Plating
4	Body2	1	Brass	Nickel Plating
3	Body1	1	Brass	Nickel Plating
2	Insulator	1	PTFE	—
1	Female Center Contact	1	Beryllium Copper	Gold Plating

Title	PJTN	Unit	Sc.	Tol.	Date	Model	No.
75Ω BNC CABLE JACK		mm	4:1	±0.1	Ver. 1.0 2019-07-29	BCJ-D33UHD	BL555

CANARE

PRODUCT SPECIFICATIONS

SAB282
(BCJ-C4) Ver. 1.0
CANARE ELECTRIC CO., LTD

1. Scope This product specification covers the performance of CANARE 75 Ω BNC cable jack.

2. General Specifications

(1) Product name 75 Ω BNC cable jack
(2) Model name BCJ-C4
(3) Applicable standard JIS*[1] C 5412
(4) Nominal impedance 75 Ω unbalanced
(5) Construction As shown in the drawing (BL282).
(6) Weight Approx 11.3g
(7) Designation Stamp model name (BCJ-C4) and brand name (CANARE) on the body.
(8) Packaging 20pcs/package (150 x 50 x 44mm)
(9) Applicable cable RG-59B/U (MIL*[2]-C-17), LV-61S (CANARE)
(10) Crimp tool Frame: TC-1, Die: TCD-4CA, TCD-451CA

*[1]Japanese Industrial Standard
*[2]Military Standard

3. Rating

(1) Operating temperature -40 ℃ ～ +100 ℃
(2) Operating humidity ～ 90%

4. Characteristics

4.1 Electrical characteristics As shown in **Table 1**

Table 1

Items	Specified values	Test methods
Insulation resistance	1000MΩ or more	Measurement shall be made between the contacts, after an electrification time of 1min with a d.c. voltage of 500V.
Voltage proof	Without any damage such as electric breakdown etc.	1500V a.c. shall be applied for 1 min between the contacts. Trip current :0.5mA.
Contact resistance	Between center contacts: 6mΩ or less Between external contacts: 3mΩ or less	Measurement shall be made between the contacts, with engaging a plug and a jack. (1kHz:1mA a.c.)
Voltage standing wave ratio(V.S.W.R)	1.1 or less (0 ～ 1.5GHz) 1.2 or less (0 ～ 2.4GHz)	An applied cable shall be attached to the jack, then it shall be terminated with 75 Ω. The measurement frequency up to 2.4GHz.

4.2 Mechanical characteristics As shown in **Table 2**

Table 2

Items	Specified values	Test methods
Intermatability	To be engaged without any abnormality	The jack and applicable plug shall be engaged.
Female contact retention force	1.5 ～ 3.9N	Following JIS C 5412 pin gauge (**Fig.**) shall be inserted the female contact and measurement shall be made.
Fixing force of contact with lock mechanism	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the axial direction.
Strength of coupling mechanism	Body shall not be disconnected or no deformation shall be made.	The plug and a receptacle shall be engaged, after which tensile strength of 250N and rotation strength of 2.5N･m shall be applied.
Cable connecting force	245N or more for RG-59B/U 196N or more for LV-61S	An applied cable shall be attached to the jack, after which tensile strength shall be applied.
Mechanical operation (repeated)	Contact resistance: 10m Ω or less	The endurance test consists of repeated engagement and separation of connector pairs. The number of operations shall be 5000 cycles.

4.3 Environmental characteristics As shown in **Table 3**

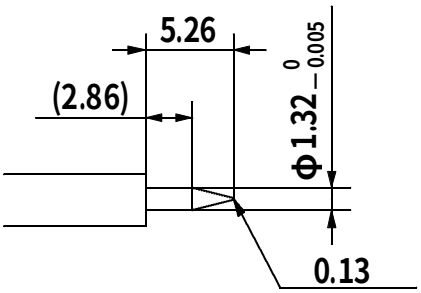
Table 3

Items	Specified values	Test methods
Corrosion resistance (Salt mist)	Contact resistance: 50m Ω or less Appearance: By visual inspection, without noticeable rust.	The connector shall be subjected continuously to a fine mist of salt solution at a temperature of 35±2 ℃ for 48h (Salt solution concentration: 5±1% by weight). Then it shall be subjected to standard atmospheric conditions. After removing the salt deposits by water, the appearance of the connector shall be checked.

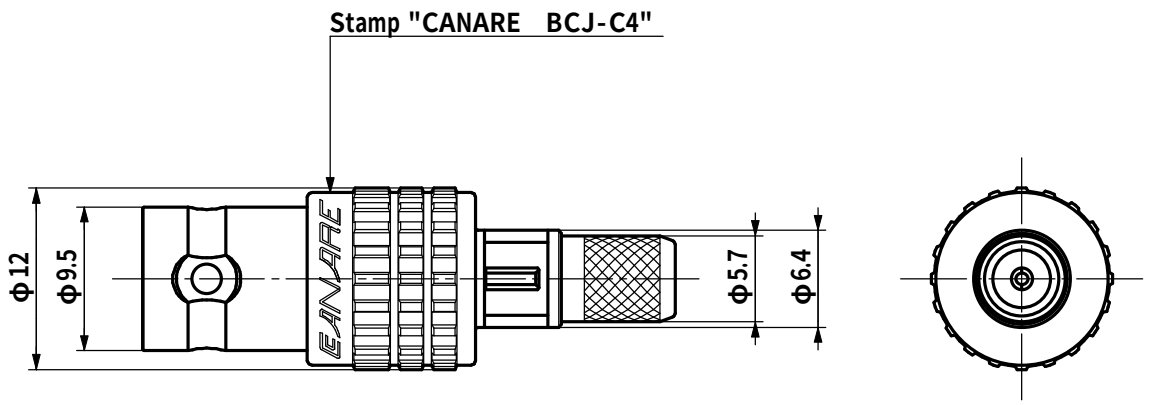
5. Measurement conditions

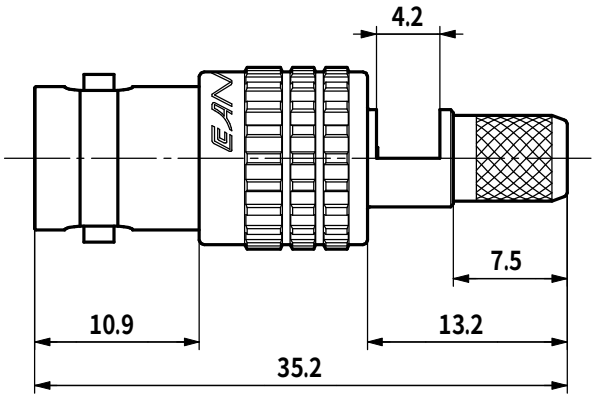
Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 ℃ to 35 ℃), Relative humidity (25% to 75%), Air pressure (86kPa to 106kPa). If there is any doubt about the results, measurements shall be made within the following limits: Ambient temperature (20±1 ℃), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

Fig. Unit: mm

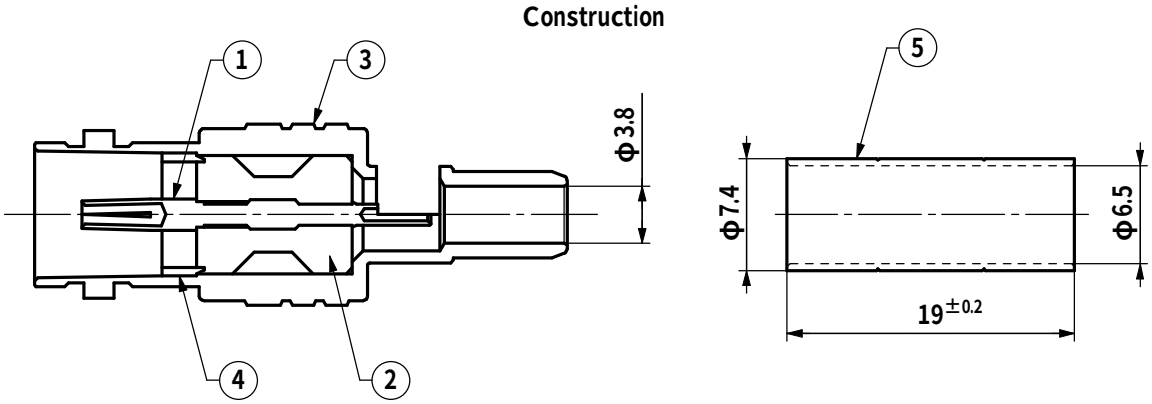


External Appearance





Construction



No.	Name of Parts	Pc(s).	Material	Finish
5	Crimping Sleeve	1	Brass	Tin Plating
4	Body2	1	Brass	Nickel Plating
3	Body1	1	Brass	Nickel Plating
2	Insulator	1	PTFE	—
1	Female Center Contact	1	Beryllium Copper	Gold Plating

Title	PJTN	Unit	Sc.	Tol.	Date Ver. 1.0	Model	No.
75Ω BNC CABLE JACK		mm	2:1	±0.1	2002-10-02	BCJ-C4	BL282

CANARE