

# PRODUCT SPECIFICATIONS

(BCJ-XP-TRC)

SAB423

Ver. 1.0

CANARE ELECTRIC CO., LTD

**1. Scope** This product specification covers the performance of CANARE 110Ω-75Ω impedance transformer.

## 2. General Specifications

- (1) **Product name** 110Ω-75Ω impedance transformer  
 (2) **Model name** BCJ-XP-TRC  
 (3) **Connector** XLA (1st pin: to body, 2nd pin: hot, 3rd pin: cold)  
 BNC (CANARE) center contact: hot  
 (4) **Nominal impedance** XLA: 110Ω balance, BNC: 75Ω unbalanced  
 (5) **Construction** As shown in the drawing (BL423).  
 (6) **Weight** Approx 42g  
 (7) **Designation** Model name (BCJ-XP-TRC) and brand name (CANARE) on the label.  
 (8) **Packaging** 1pc/package (150 x 50 x 30mm)

## 3. Rating

- (1) **Operating frequency range** 0.1MHz ~ 6MHz  
 (2) **Maximum voltage** 5Vp-p  
 (3) **Operating temperature** -25 °C ~ +85 °C

## 4. Characteristics

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

**Table 1**

Items	Specified values	Test methods
<b>Contact resistance</b>	BNC: Between center contacts: 6mΩ or less Between external contacts: 3mΩ or less XLA: 10mΩ or less	Measurement shall be made between the contacts, with engaging a plug and a receptacle. (1kHz:1mA a.c.)
<b>Insertion loss</b>	0.3dB or less	Measuring attenuation value between XLA and BNC.
<b>Voltage standing wave ratio(V.S.W.R)</b>	1.1 or less	Terminated with 75Ω and 110Ω. The measurement frequency: 0.1MHz ~ 6MHz

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

**Table 2**

Items	Specified values	Test methods
<b>Intermatability</b>	To be engaged without any abnormality.	The receptacle and applicable plug shall be engaged.
<b>Female contact retention force</b>	BNC: 1.5 ~ 4.0N	Following JIS C 5412 pin gauge ( <b>Fig.1</b> ) shall be inserted the female contact and measurement shall be made.
<b>Strength of coupling mechanism</b>	Body shall not be disconnected or no deformation shall be made.	BNC: The plug and a receptacle shall be engaged, after which tensile strength of 245N and rotation strength of 2.45N·m shall be applied for 1min. ----- XLA: The plug and a receptacle shall be engaged, after which tensile strength of 98N shall be applied for 1min.
<b>Mechanical endurance</b>	Contact resistance: 10m Ω or less	The endurance test consists of repeated engagement and separation of connector pairs. BNC: The number of operations shall be 5000 cycles. ----- XLA: The number of operations shall be 500 cycles.

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

Items	Specified values	Test methods
Change of temperature	Without any abnormality	Performs 5 cycles of changing temperature. (cycle process : -25 °C for 30min → ambient temperature for 15min → +85 °C for 30min → ambient temperature for 15min )

**5. Measurement conditions**

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 °C to 35 °C), 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 °C), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

**Fig.1**

Unit: mm

