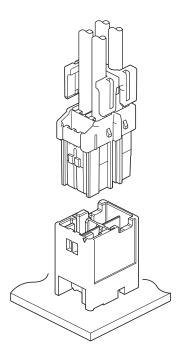


# BNI CONNECTOR

3.3 mm pitch/For Wire-to-Board connection/Crimp style and Mating style



This is a 3.3 mm pitch wire-to-board connector with a mechanism to prevent incomplete mating. Three different key patterns per number of circuits in the same model are provided to prevent incorrect mating when multiple pieces of connector are used in close proximity.

- Keying structure
- Secure lock mechanism
- Inertia lock mechanism
- Retainer mountable type
- Suitable for potting process

## Standards

Recognized E 60389

€:Certified LR 20812

# Specifications

- Current rating: 4 A AC/DC (AWG #20)
  - \* The following table shows the rated current when applying current for all circuits in each combination of the number of circuits and the wire to be used.

	Unit: /				
No. of	Wire size (AWG)				
circuits	#20	#22	#24		
2	4	3	3		
3	4	3	2		
4	4	3	2		
6	4	3	2		
8	4	3	2		
10	4	3	2		
12	4	3	2		

Notes on parallel branching current:

Do not branch to the multiple circuits in parallel current which is exceeds the rated current, as it may cause problems such as imbalance when applying current.

If it is unavoidable that branch in parallel is necessary, design the circuits while suppressing the unbalanced current and proving the sufficient margin to the rated current.

- Voltage rating: 300 V AC/DC
- Temperature range: -25°C to +85°C

(including temperature rise in applying electrical current)

· Contact resistance:

Initial value/  $10~\text{m}\Omega$  max.

After environmental tests/ 20 m $\Omega$  max.

- Insulation resistance: 1,000 M  $\Omega$  min.
- Withstanding voltage:

There shall be no breakdown or flashover while applying 1,500 VAC for one minute.

• Applicable wire:

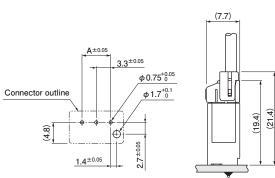
Conductor size/ AWG #24 to AWG #20 Insulation O.D./  $\phi$  1.3 mm to  $\phi$  2.5 mm

- Applicable PC board thickness: 1.6 mm
- \* In using the products, refer to "Handling Precautions for Terminals and Connectors" described on our website (Technical documents of Product information page).
- \* RoHS2 compliance
- \* Dimensional unit: mm
- \* Contact JST for details.

# PC board layout and Assembly layout

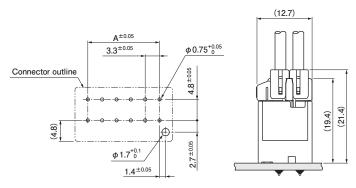
#### Single-row

<2, 3 circuits>



# Dual-row

<4, 6, 8, 10, 12 circuits>

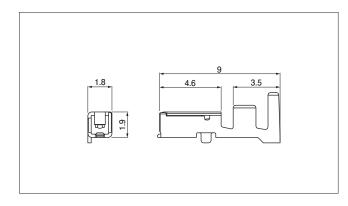


Note: 1. The figure of PC board layout is the figure viewed from the connector mounting side .

- 2. Dimension A: See section "Header" on page 4.
- 3. Tolerance for the PCB hole pitch shall be  $\pm$  0.05, and shall not accumulate more than  $\pm$  0.05.
- 4. Hole dimensions differ according to the type of PC board and piercing method.

Please contact JST for details as the dimensions shown in the above figure are reference values.

#### Contact



Madal Na	Applicable wire	Q'ty/	
Model No.	Conductor size AWG (mm²)	Insulation O.D. (mm)	reel
SBNI-01T-P0.5	#24 to #20 (0.2 to 0.5)	1.3 to 2.5	5,000

#### Material and Finish

Copper alloy, tin-plated

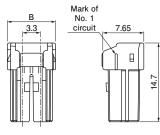
#### Crimping machine

Contact	Crimping machine	Applicator	Crimp applicator with dies
SBNI-01T-P0.5	AP-K2N	MKS-L	APLMK SBNI01-05

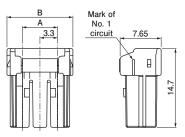
Note: Contact JST for fully automatic crimping applicator.

# Housing

# Single-row <2 circuits>

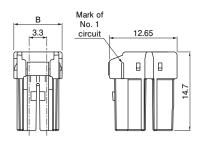


#### <3 circuits>

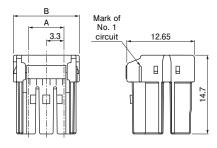


#### **Dual-row**

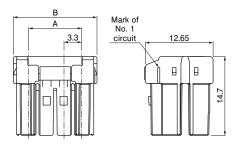
<4 circuits>



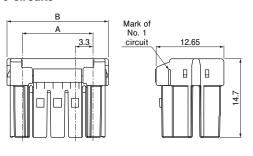
<6 circuits>



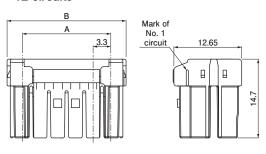
#### <8 circuits>



<10 circuits>



#### <12 circuits>

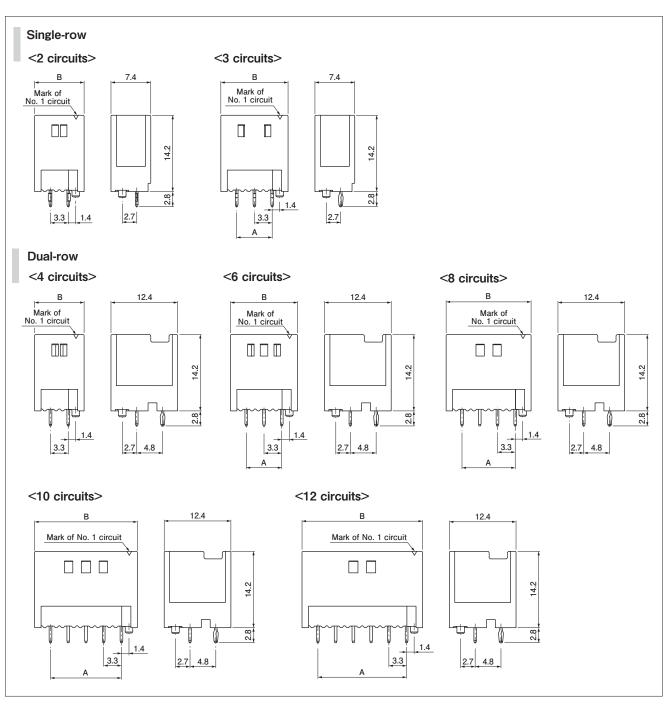


T	No. of	Model No.	Dimensions (mm)		Q'ty/
Type	circuits	woder No.	Α	В	bag
Single-row	Single row 2 BNIRP-02V-A-S		_	9.0	1,000
Siligie-low	3	BNIRP-03V-A-S	6.6	12.3	1,000
	4	BNIRP-04V-W-A-S	_	9.0	1,000
	6	BNIRP-06V-W-A-S	6.6	12.3	1,000
Dual-row	8	BNIRP-08V-W-A-S	9.9	15.6	1,000
	10	BNIRP-10V-W-A-S	13.2	18.9	500
	12	BNIRP-12V-W-A-S	16.5	22.2	500

Material and Finish

PA 66 (Glass-filled), UL94V-0, natural

## Header



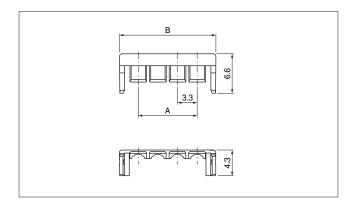
Tuno	No. of Model No.		Dimensions (mm)		Q'ty/
Type	circuits	ircuits Model No.		В	bag
Single-row	Single rout 2 B02B-BNISK-A-1		_	9.2	310
Siligie-low	3	B03B-BNISK-A-1	6.6	12.5	260
	4	B04B-BNISK-A-1W	_	9.2	210
	6	B06B-BNISK-A-1W	6.6	12.5	170
Dual-row	8	B08B-BNISK-A-1W	9.9	15.8	140
	10	B10B-BNISK-A-1W	13.2	19.1	110
	12	B12B-BNISK-A-1W	16.5	22.4	80

Material and Finish

Post: Copper alloy, copper-undercoated, tin-plated Wafer: PA 66 (Glass-filled), UL94V-0, natural

# **BNI CONNECTOR**

## Retainer

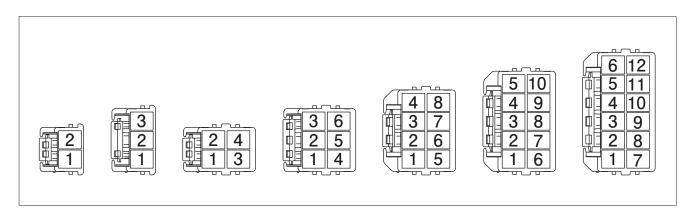


No. of	Model No.	Dimensions (mm)	Q'ty/	
circuits	ircuits Model No.		В	bag
2	BNIS-02V	ı	9.6	2,000
3	BNIS-03V	6.6	12.9	2,000
4	BNIS-04V	9.9	16.2	2,000
5	BNIS-05V	13.2	19.5	1,000
6	BNIS-06V	16.5	22.8	1,000

Material and Finish

PA 66 (Glass-filled), UL94V-0, natural

## **Contact position location numbers**



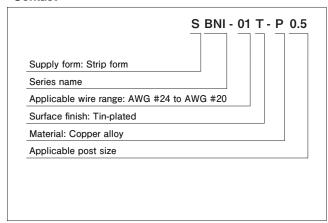
## **Product combination list**

Key	pattern	Α	В	С	
C	Color	Natural	Green	Blue	
	Single-row	Keyway Keyway	Keyway Keyway	Keyway Keyway	
Header	Dual-row	Keyway Keyway	Keyway Keyway	Keyway Keyway	
Housing	Model No.	BNIRP-( )V-( )-A-S	BNIRP-()V-()-B-M	BNIRP-( )V-( )-C-E	
Header	Model No.	B()B-BNISK-A-1()	B()B-BNIMK-B-1()	B()B-BNIEK-C-1()	

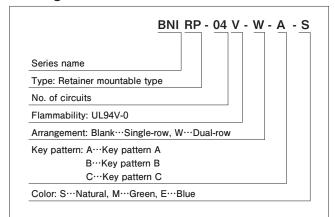
 $<sup>\</sup>ensuremath{\ast}\xspace$  The figures above show the top view of the header.

## Model number allocation

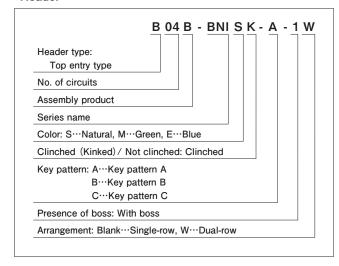
#### Contact



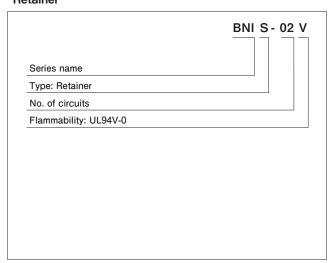
#### Housing



#### Header



#### Retainer



# 单击下面可查看定价,库存,交付和生命周期等信息

# >>JST(杰世腾)