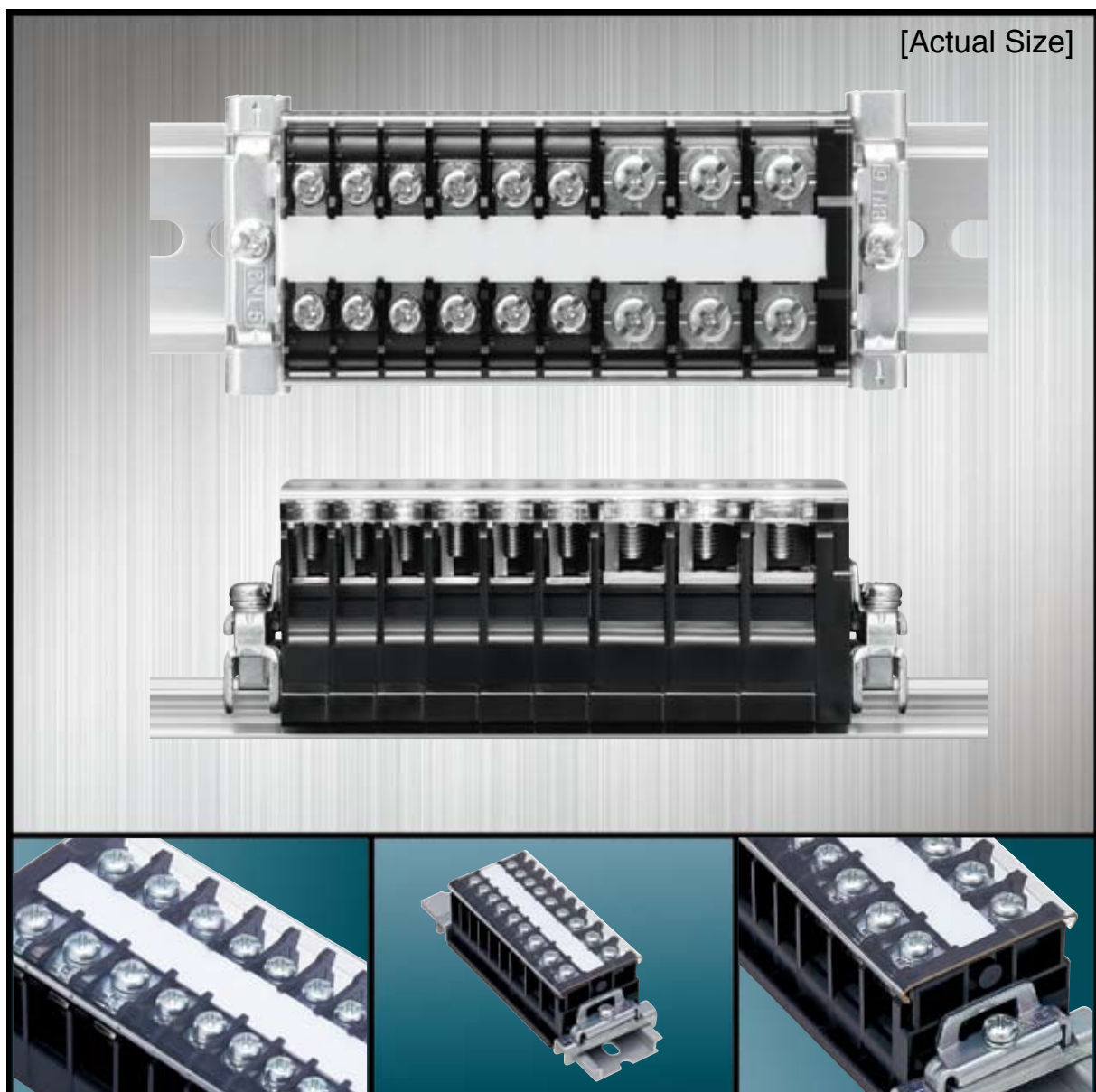


Think Automation and beyond...



# BN1U

## Spring-Up Screw Terminal Blocks



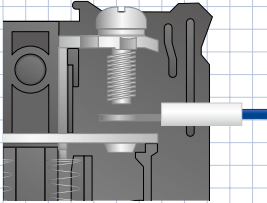
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# High Operability!

## BN1U Spring-Up Screw Terminal Blocks

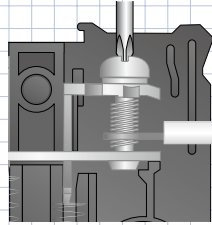
Spring-up screws save up to 30% wiring time (compared to IDEC standard terminal blocks)

① The terminal screw is always in the lifted position, ready for wiring. A ring terminal can be inserted easily.

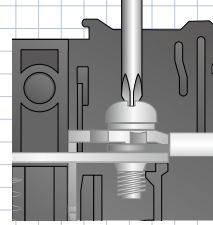


Immediate Tightening

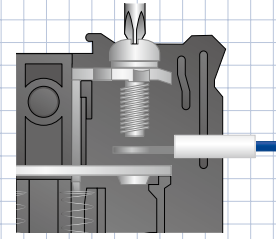
② Push the terminal screw straight down to the bus bar using a screwdriver.



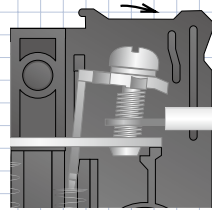
③ Tighten the terminal screw.



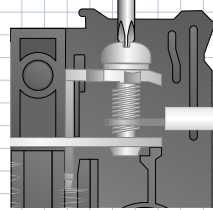
④ When loosening, the screw springs straight up.



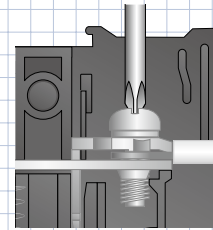
② After pressing the terminal screw to the bus bar, tilt the terminal screw in the direction as shown.



③ When tightening the screw, make sure that it is in the upright position.



④ Tighten the terminal screw.

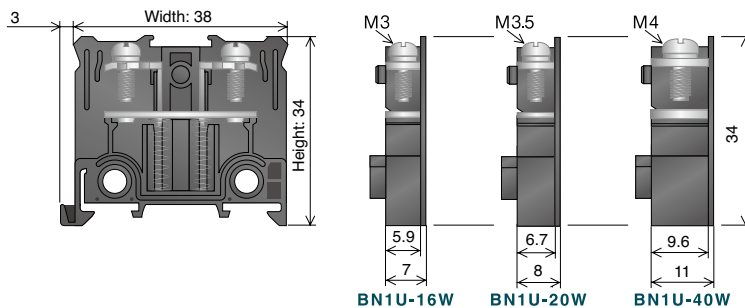


If the screw stops at the temporary position, the screw will return to the original position by pushing further down.

Temporary Hold

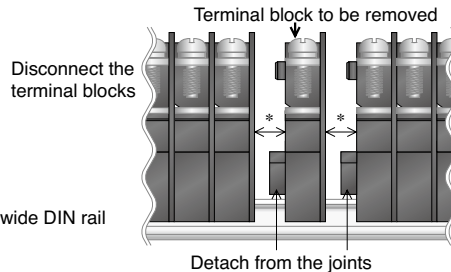
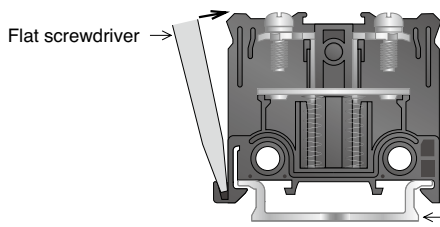
BN1U-16W, BN1U-20W, BN1U-40W all have the same height and width.

The same dust covers, marking strips (9.5-mm-wide), and end plates can be used.



Mount to a 35-mm-wide DIN rail or a 30-mm-wide C type rail.

Each block can be easily removed from a 35-mm-wide DIN rail using a flat screwdriver.



When removing each block, disconnect the blocks on either side. Then, insert the flat screwdriver into the groove of the terminal block as shown in the left diagram.

\* Leave a space of about 5 mm.

UL recognized for field wiring (FW2).

UL recognized, CSA certified, and EN compliant (TÜV approved).

UL		UL1059 File No. E78117
CSA		CSA C22.2 No.158 File No. LR64803
TÜV		EN60947-7-1 License No. R 9551701

RoHS directive compliant

# BN1U Spring-Up Screw Terminal Blocks

## Types

Type No.	BN1U-16W 16A M3	BN1U-20W 21A M3.5	BN1U-40W 40A M4
Dimensions			
	Ordering Type No.	BN1U-16WPN50	BN1U-20WPN50
Package Quantity	50	50	50
Weight (Approx.)	7g	8g	14g

## Specifications and Ratings

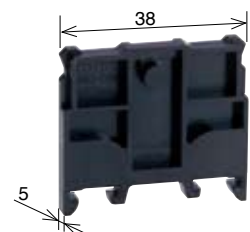
Standards	UL	CSA	EN	JIS	UL	CSA	EN	JIS	UL	CSA	EN	JIS
	UL1059	CSA22.2 No.158	EN 60947-7-1	JIS C 2811	UL1059	CSA22.2 No.158	EN 60947-7-1	JIS C 2811	UL1059	CSA22.2 No.158	EN 60947-7-1	JIS C 2811
Insulation Voltage	600V		660V	600V	600V		660V	600V	600V		660V	600V
Wire Size	22-14 AWG		2 mm <sup>2</sup> 22-14 AWG	1.25 mm <sup>2</sup> (2 mm <sup>2</sup> )	22-14 AWG		2 mm <sup>2</sup> 22-14 AWG	2 mm <sup>2</sup>	18-10 AWG		5.5 mm <sup>2</sup> 18-10 AWG	5.5 mm <sup>2</sup>
Rated Current	15A		22A	16A	15A		22A	21A	35A		38A	40A
Terminal Screw	M3				M3.5				M4			
Max. No. of Crimp Terminals	2				2				2			
Tightening Torque	0.6 to 1.0 N·m				1.0 to 1.3 N·m				1.4 to 2.0 N·m			
Terminal Centers	7 mm				8 mm				11 mm			
Crimp Terminal Dimensions (mm)												
Operating Temperature	-25 to +55°C (no freezing)											
Operating Humidity	45 to 85% RH (no condensation)											
Mounting Method	Rail mounting											
Insulation Resistance	100 MΩ minimum (500V DC megger)											
Dielectric Strength	2500V AC, 1 minute											
Vibration Resistance	Frequency: 5 to 55 Hz, Amplitude: 0.5 mm											
Shock Resistance	1000 m/s <sup>2</sup> (100G)											
Accessories	End Plate	BN9Z-E16W										
	Dust Cover	BTB-CV30L2 (1000 mm), BTB-CV30L1 (500 mm)										
	Marking Strip	BNM7: PVC 1m, BNM9: Fiber glass: 1m, BNM725: PVC 25m										
	Marking Strip Fastener	BNM3										
	DIN Rail / End Clip	BAA1000: Aluminium, BAP1000: Steel / BNL6										
	C Rail / End Clip	BNCA1000: Aluminium, BNCP1000: Steel / BNL7										
	35 mm DIN + C Rail / End Clip	BNJA1000: Aluminium / BNL6 (35-mm-DIN rail side), BNL7 (C rail side)										
	Jumpers	BNJ16, BNJ16B BNJ16F, BNJ16FB			BNJ26W, BNJ26WB BNJ26FW, BNJ26FWB			BPJ-56, BPJ-56B BPJ-56F, BPJ-56FB				

## Material

Housing	Modified PPE (UL94V-0)
End Plate	Modified PPE (UL94V-0)
Bus Bar	Brass (nickel-plated)
Terminal Screw	Steel (zinc trivalent chrome-plated)
Spring	Stainless steel

## End Plate

Type No.	BN9Z-E16W
Ordering Type No.	BN9Z-E16WPN10
Applicable Terminal Block	BN1U-16W, BN1U-20W, BN1U-40W
Package Quantity	10
Weight (Approx.)	3g



# BN1U Spring-Up Screw Terminal Blocks

## Accessories

### • Rail

Length	Item	Type No.	Ordering Type No.	Material	Weight (Approx.)	Package Quantity
1000 mm	35-mm-wide DIN Rail	BAA1000	BAA1000PN10	Aluminum (anodized)	200g	10
		BAP1000	BAP1000PN10	Steel (trivalent chrome-plated)	320g	10
	30-mm-wide C Rail	BNCA1000	BNCA1000PN10	Aluminum (anodized)	260g	10
		BNCP1000	BNCP1000PN10	Steel (trivalent chrome-plated)	700g	10
	35-mm-wide DIN+C Rail	BNJA1000	BNJA1000PN10	Aluminum (anodized)	340g	10

### • End Clip

Type No.	Ordering Type No.	Material (Surface Treatment)	Weight (Approx.)	Applicable Rail	Package Quantity
BNL6	BNL6PN10	Steel (trivalent chrome-plated)	15.2g	35-mm-wide DIN Rail (BAA, BAP, BNJA)	10
BNL7	BNL7PN10	Steel (trivalent chrome-plated)	16g	30-mm-wide C Rail (BNCA, BNCP, BNJA)	10

### • Dust Cover

Length	Type No.	Ordering Type No.	Material	Weight (Approx.)	Applicable Terminal Blocks	Package Quantity
1000 mm	BTB-CV30L2	BTB-CV30L2PN10	Polycarbonate (UL94V-0)	53g	BN1U-16W, BN1U-20W, BN1U-40W	10
500 mm	BTB-CV30L1	BTB-CV30L1		27g	BN1U-16W, BN1U-20W, BN1U-40W	1

• BNC230 dust cover (1000 mm) can also be mounted to the BN1U-16W and BN1U-20W terminal blocks.

### • Marking Strip, Marking Strip Fastener

Item	Type No.	Ordering Type No.	Weight	Package Quantity	Description
9.5-mm-wide Marking Strip	BNM7	BNM7PN10	7.2g	10	PVC (glossy surface), length 1000 mm x width 9.5 mm x thickness 0.5 mm
	BNM9	BNM9PN10	6.4g	10	Fiber glass (matte surface), length 1000 mm x width 9.5 mm x thickness 0.5 mm
	BNM625	BNM625	-	1 (25m)	Polypropylene (glossy surface), length 25m x width 9.5 mm x thickness 0.5 mm
	BNM725	BNM725	-	1 (25m)	PVC (matte surface), length 25m x width 9.5 mm x thickness 0.5 mm
Marking Strip Fastener	BNM3	BNM3PN50	0.1g	10	Material: polycarbonate

### • Jumper

Terminal Centers	Terminal Style	Insulation	Type No.	Ordering Type No.	Maximum Rated Current *	Applicable Terminal	Package Quantity
7 mm (6 poles)	Ring	Without	BNJ16	BNJ16PN10	10A	BN1U-16W	10
		With	BNJ16B	BNJ16BPN10			
	Fork	Without	BNJ16F	BNJ16FPN10			
		With	BNJ16FB	BNJ16FBPN10			
8 mm (6 poles)	Ring	Without	BNJ26W	BNJ26WPN10	20A	BN1U-20W	10
		With	BNJ26WB	BNJ26WBPN10			
	Fork	Without	BNJ26FW	BNJ26FWPN10			
		With	BNJ26FWB	BNJ26FWBPN10			
11 mm (6 poles)	Ring	Without	BPJ-56	BPJ-56PN10	20A	BN1U-40W	10
		With	BPJ-56B	BPJ-56BPN10			
	Fork	Without	BPJ-56F	BPJ-56FPN10			
		With	BPJ-56FB	BPJ-56FBPN10			

\* The maximum rated current is the value of each pole.

## Notes on Wiring

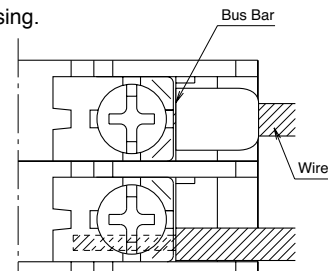
- Tighten all terminal screws including unused terminal screws.
- Be careful not to drop a terminal block (without an end plate) as the spring may fall out from the housing.
- Tighten the terminal screw to the recommended tightening torque.

### • Crimp Terminals

- When using crimp terminals, be sure to use insulated terminals to prevent electrical shocks.

### • Without Crimp Terminals

- Insert wire until the insulation comes into contact with the bus bar.
- Strip the insulation so that the wire is longer than the washer width. (BN1U-16W: approx. 9 mm, BN1U-20W: approx. 9 mm, BN1U-40W: approx. 11 mm)
- When connecting two wires, use wires of the same size.



Specifications and other descriptions in this catalog are subject to change without notice.



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