

Features

8-port Junction Block



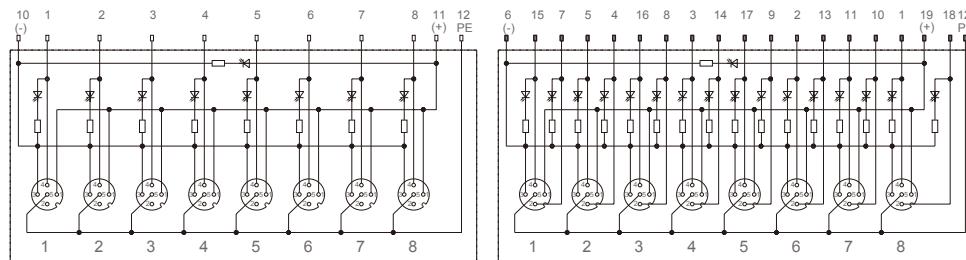
Banner's Junction Blocks are designed to reduce wiring and to simplify connecting multiple products.

- 5-pin M12 female termination with 19-pin or 12-pin M23 male connector
- NPN, PNP, and discrete models available
- 16 signals, 2 channels per port

Models

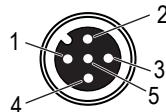
Model	Output	Indication	Home Run Connectors
JB-8M12-M23-P24	PNP	LED	19-pin M23 male quick-disconnect connector
JB-8M12-M23-N24	NPN		12-pin M23 male quick-disconnect connector
JB-8M12-M23-24	Discrete	Non-LED	

Wiring



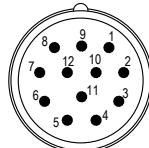
LED Indicating PNP
Other circuit diagram (NPN) can be customized

5-pin M12 Female Pinout



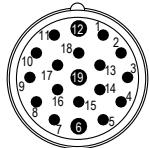
1 = Brown
2 = White
3 = Blue
4 = Black
5 = Gray

12-pin M23 Male Pinout



1 = White
2 = Brown
3 = Green
4 = Yellow
5 = Gray
6 = Pink
7 = Blue
8 = Red
9 = Orange
10 = Tyrian Purple
11 = Black
12 = Violet

19-pin M23 Male Pinout



1 = Purple
2 = Red
3 = Gray
4 = Red/Blue
5 = Green
6 = Blue (18 AWG)
7 = Gray/Pink
8 = White/Green
9 = White/Yellow
10 = White/Gray
11 = Black
12 = Green/Yellow (18 AWG)
13 = Yellow/Brown
14 = Brown/Green
15 = White
16 = Yellow
17 = Pink
18 = Gray/Brown
19 = Brown (18 AWG)

Specifications

Voltage

LED models: 30 V DC
Non-LED models: 60 V DC

Current

Overall Amperage is 6 A and max amp per port is 2 A

Contact Resistance

2 A per signal, 6 A total

Indicators (LED models only)

Power LED: Red (0, 8, or 16, depending on model)
Signal LED: Amber (0 or 1, depending on model)

Construction

Body: PBT
Coupling nut/screw: Nickel-plated brass

Vibration

Method: EN 60068-2-6:2008
Frequency Range: 10-55 Hz (Sine)
Amplitude: 0.5 mm
Sweep Cycle Duration: 5 minutes (2.5 min per sweep)
Dwell Duration at resonant frequency: 30 Minutes

Mechanical Shock

Method: EN 60068-2-27:2009
Pulse Shape: Half-Sine
Peak Acceleration: 30 G
Duration of the pulse: 11 mS

Environmental Ratings

IP67
-25 °C to +80 °C (-13 °F to +176 °F)

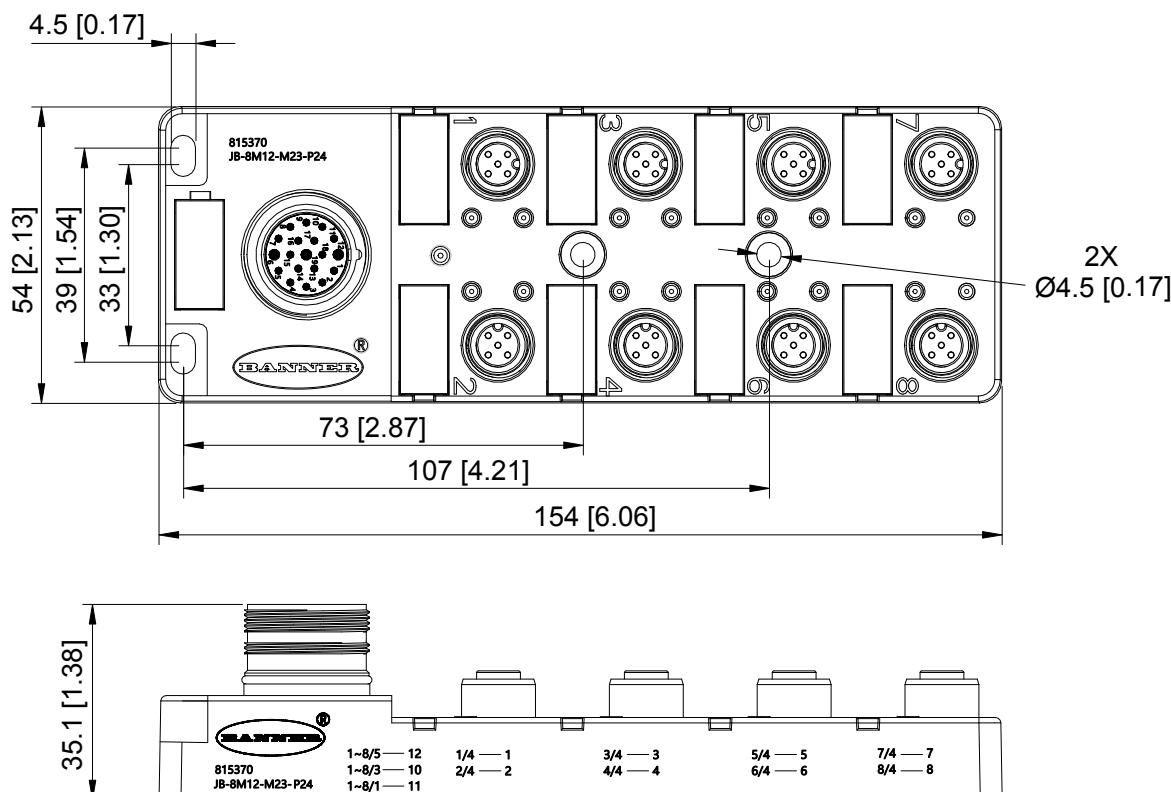
Certifications



Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.

The 19-pin PNP model is shown; all models have the same dimensions.



Accessories

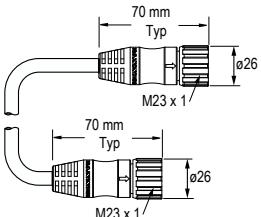
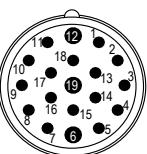
Cordsets

Home Run Cordsets

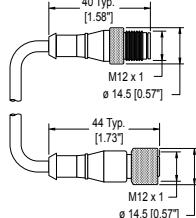
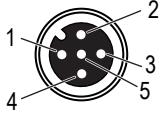
12-pin Single-Ended M23 Female Cordsets				
Model	Length	Dimensions (mm)	Pinout (Female)	
BC-M23F12-22-1	1 m (3.28 ft)			1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red 9 = Orange 10 = Tyrian Purple 11 = Black 12 = Violet
BC-M23F12-22-2	2 m (6.56 ft)			
BC-M23F12-22-5	5 m (16.4 ft)			
BC-M23F12-22-10	10 m (32.8 ft)			
BC-M23F12-22-15	15 m (49.2 ft)			
BC-M23F12-22-20	20 m (65.6 ft)			

12-pin Single-Ended M23 Female Right-Angle Cordsets				
Model	Length	Dimensions (mm)	Pinout (Female)	
BC-M23F12A-22-2	2 m (6.56 ft)			1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red 9 = Orange 10 = Tyrian Purple 11 = Black 12 = Violet
BC-M23F12A-22-5	5 m (16.4 ft)			
BC-M23F12A-22-10	10 m (32.8 ft)			

19-pin Single-Ended M23 Female Cordsets (datasheet p/n 242993)				
Model	Length	Dimensions (mm)	Pinout (Female)	
BC-M23F19-1822-1	1 m (3.28 ft)			1 = Purple 2 = Red 3 = Gray 4 = Red/Blue 5 = Green 6 = Blue (18 AWG) 7 = Gray/Pink 8 = White/Green 9 = White/Yellow 10 = White/Gray 11 = Black 12 = Green/Yellow (18 AWG) 13 = Yellow/Brown 14 = Brown/Green 15 = White 16 = Yellow 17 = Pink 18 = Gray/Brown 19 = Brown (18 AWG)
BC-M23F19-1822-2	2 m (6.56 ft)			
BC-M23F19-1822-5	5 m (16.4 ft)			
BC-M23F19-1822-10	10 m (32.8 ft)			
BC-M23F19-1822-15	15 m (49.2 ft)			
BC-M23F19-1822-20	20 m (65.6 ft)			
BC-M23F19A-1822-2	2 m (6.56 ft)			
BC-M23F19A-1822-5	5 m (16.4 ft)			
BC-M23F19A-1822-10	10 m (32.8 ft)			

19-pin Double-Ended M23 Female to M23 Male Cordsets (datasheet p/n 242034)				
Model	Length	Dimensions (mm)	Pinout (Female)	Pinout (Male)
BC-M23F19-M23M19-1822-1	1 m (3.28 ft)			
BC-M23F19-M23M19-1822-2	2 m (6.56 ft)			
BC-M23F19-M23M19-1822-5	5 m (16.4 ft)			
BC-M23F19-M23M19-1822-10	10 m (32.8 ft)			
BC-M23F19-M23M19-1822-15	15 m (49.2 ft)			
BC-M23F19-M23M19-1822-20	20 m (65.6 ft)			

Signal Port Cordsets

5-pin Double-Ended M12 Female to M12 Male Cordsets				
Model	Length	Dimensions (mm)	Pinouts	
BC-M12F5-M12M5-22-1	1 m (3.28 ft)			
BC-M12F5-M12M5-22-2	2 m (6.56 ft)			
BC-M12F5-M12M5-22-5	5 m (16.4 ft)			
BC-M12F5-M12M5-22-8	8 m (26.25 ft)			
BC-M12F5-M12M5-22-10	10 m (30.81 ft)			
BC-M12F5-M12M5-22-15	15 m (49.2 ft)			

Product Support and Maintenance

Repairs

Contact Banner Engineering for troubleshooting of this device. **Do not attempt any repairs to this Banner device; it contains no field-replaceable parts or components.** If the device, device part, or device component is determined to be defective by a Banner Applications Engineer, they will advise you of Banner's RMA (Return Merchandise Authorization) procedure.

IMPORTANT: If instructed to return the device, pack it with care. Damage that occurs in return shipping is not covered by warranty.

Contact Us

Banner Engineering Corp. | 9714 Tenth Avenue North | Plymouth, MN 55441, USA | Phone: +1 888 373 6767

For worldwide locations and local representatives, visit www.bannerengineering.com.

Banner Engineering Corp Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. **IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.**

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp. Any misuse, abuse, or improper application or installation of this product or use of the product for personal protection applications when the product is identified as not intended for such purposes will void the product warranty. Any modifications to this product without prior express approval by Banner Engineering Corp. will void the product warranties. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time.

Specifications and product information in English supersede that which is provided in any other language. For the most recent version of any documentation, refer to: www.bannerengineering.com.

For patent information, see www.bannerengineering.com/patents.