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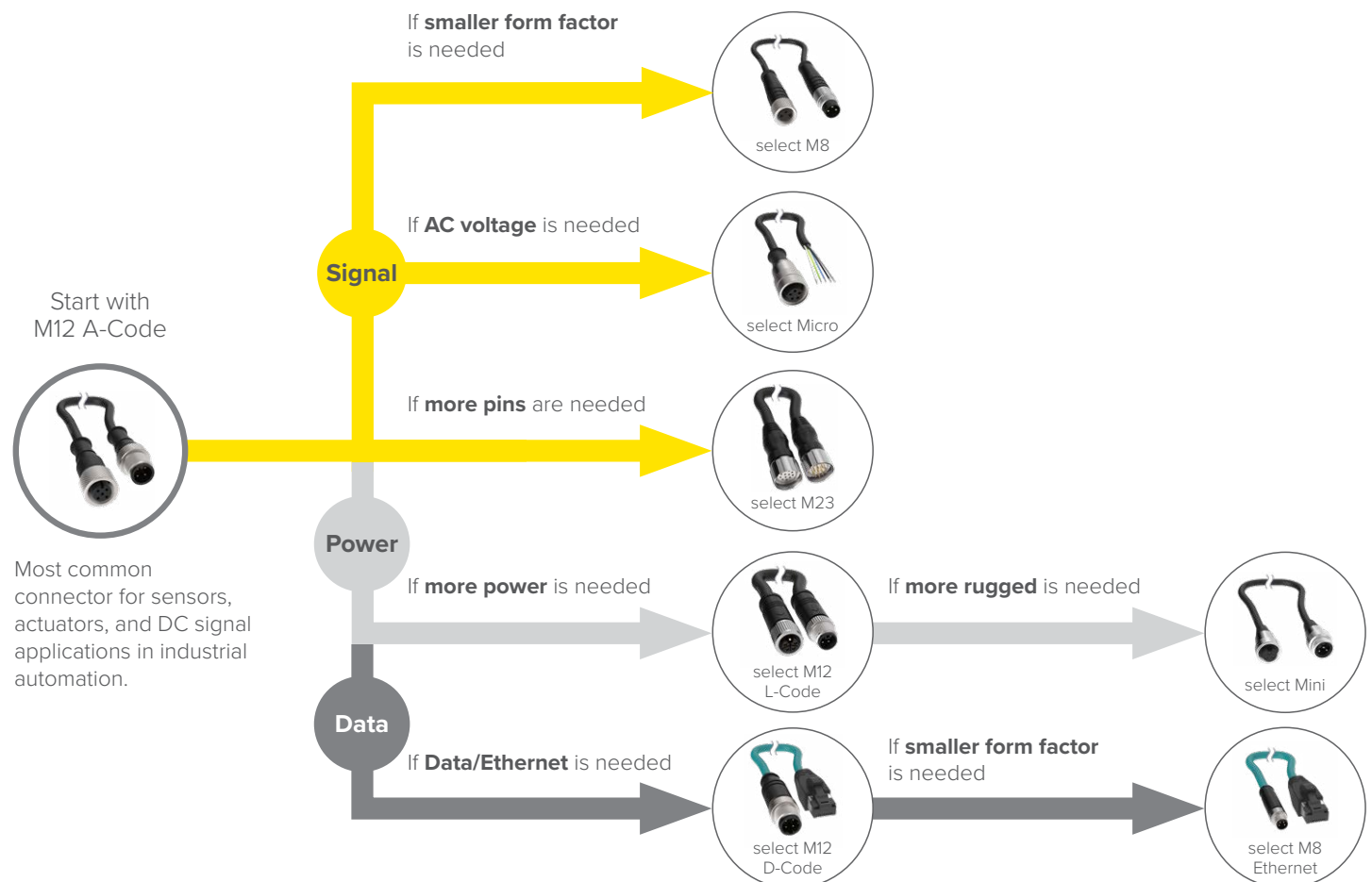
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# Choosing a Banner Cordset



# Get Connected with Banner

Banner's connectivity solutions provide reliable, high-performance connections that keep operations running smoothly and efficiently. Our comprehensive portfolio of cordsets, connectors, splitters, junction blocks, customized solutions, and more supports secure transmission of signal, power, and data in a wide range of applications. These, along with custom capabilities, give machine builders the connectivity options to meet any project needs. Engineered for durability and ease of use, Banner's connectivity products simplify installation, minimize downtime, and maintain consistent communication in demanding environments.

## Connectivity for Any Need

### Special FEATURES



Lighted



High Flex



Washdown



High Current



Low Temperature



Rugged



Coiled

### A Variety Of CONNECTIONS



M8



M12



M23



Micro



Mini



RJ45



Molex®/TE®



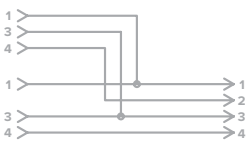
Deutsch®

Available In  
**ANY LENGTH**

to the nearest 0.1 meter



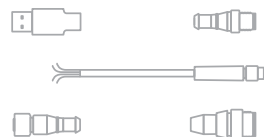
## Custom Capabilities



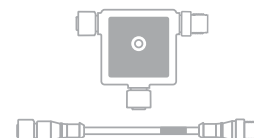
Wiring



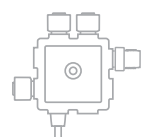
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Connectors and Specialty Cables



Labeling and Marking



Molded Junction Blocks

# Guide to Cordset Terms

These terms explain different connector code types and cable protection options, helping you choose the right cordset for your application.

**Signal Cordsets:** Carry control and device signals while supplying the limited power needed to operate the connected device

**Power Cordsets:** Distribute power for machine and field-device operation, using heavier-gauge conductors to handle more current than signal cordsets

**M12 A-Code:** Common for sensors and actuators; carries DC power or signals for DeviceNet®, IO-Link®, and other standard control networks

**M12 D-Code:** Supports 100 Mbps Ethernet communication; used with EtherNet/IP, PROFINET®, EtherCAT®, and Modbus® TCP for reliable data transfer

**M12 K-Code:** Designed for high-voltage AC power connections (630 V AC, 16A) in motors, drives, and machine power distribution systems

**M12 L-Code:** Provides up to 16 amps DC power for IO-Link masters, EtherCAT P, and distributed I/O and field power applications

**M12 X-Code:** Supports high-speed 10 gigabit Ethernet for EtherNet/IP, PROFINET, EtherCAT, and other industrial data networks

**PVC:** A cost-efficient polyvinyl chloride jacket material that is ideal for general-purpose industrial applications and provides good resistance to oils and abrasion

**TPU:** A jacket material that works best for harsh environments, durable polyurethane offers excellent abrasion resistance and chemical resistance

**TPE:** A thermoplastic elastomer jacket material for applications requiring flexibility, weather resistance, and resistance to weld spatter exposure

**HF20 (HighFlex20™):** A Banner-enhanced formulation of PVC jacket material that provides warranty-backed operation for 20 million flex cycles in high-motion applications

**CB60:** A Banner-enhanced formulation of TPU jacket material that provides greater resistance to abrasion and impact damage while remaining flexible without cracking in temperatures as low as -60 °C

**Shielding:** A conductive layer within the cable that protects signal integrity by reducing electrical noise and electromagnetic interference in data and power transmission that may use foil, braid, or both, often with a drain wire for termination; depending on the application, the shield can be bonded to the connector housing, connected to a ground pin, or left floating to match system grounding requirements

## Cable Jacket Types at a Glance

Use this table to compare cable jacket types and key characteristics. Choose PVC for general purpose use when environmental demands are minimal.

Condition	Cable Jacket Material				
	PVC	TPU	TPE	HF20	CB60
Temperature Range	-40° to +105 °C	-40° to +90 °C	-40° to +105 °C	-40° to +105 °C	-60° to +90 °C
Abrasion Rating		✓			✓
Flexing Cycles	5 Million +	5 Million +	5 Million +	20 Million +	5 Million +
Cost	\$	\$\$	\$\$	\$\$	\$\$\$
Weld Spatter Resistance			✓		

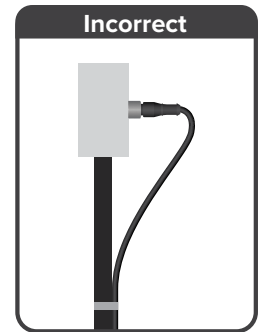
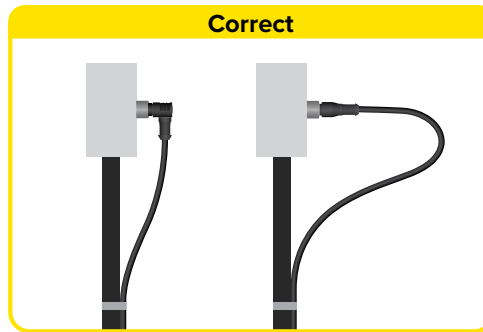
# Installation Considerations

## Proper Bend Radius in Fixed Applications

Maintaining the proper bend radius helps protect cables from damage and ensures reliable performance over time. In fixed installations, avoid sharp bends by allowing the cordset to form a smooth curve or using right-angle connectors where space is limited.

### Bend radius for fixed applications

Non-shielded cordset: 5x cable diameter  
Shielded cordset: 10x cable diameter

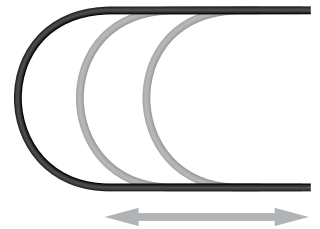


## Cabling for Motion Applications

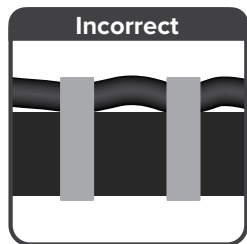
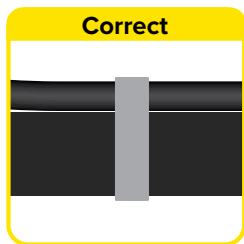
High-flex cordsets are designed for applications with continuous motion, such as robotic arms, c-tracks, and automated machinery. Banner's high-flex cordsets are backed by a 20-million flex cycle warranty for long-lasting performance and reliability.

### Minimum Bend Radius for Moving Applications

Non-shielded cordset: 10x cable diameter  
Shielded cordset: 15x cable diameter



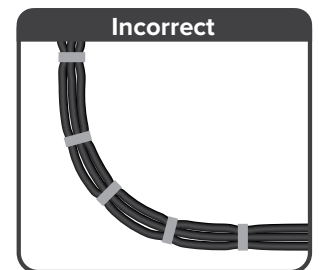
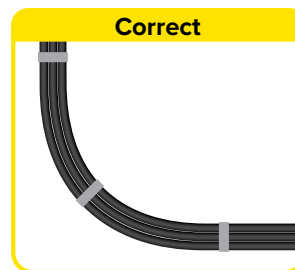
## Proper Use Of Cable Ties



When using cable ties, secure them just tightly enough to hold cables in place without compressing or damaging the jacket. Even, moderate tension prevents strain on the conductors and maintains flexibility over time.

## Cable Bundling

Proper cable bundling keeps cable runs organized, protected, and easy to service. Bundle cables by device or function so specific groups can be accessed without disturbing unrelated runs. In moving applications, group cables that travel together and secure them with evenly spaced ties that are snug, not tight, so the bundle can move naturally without binding.

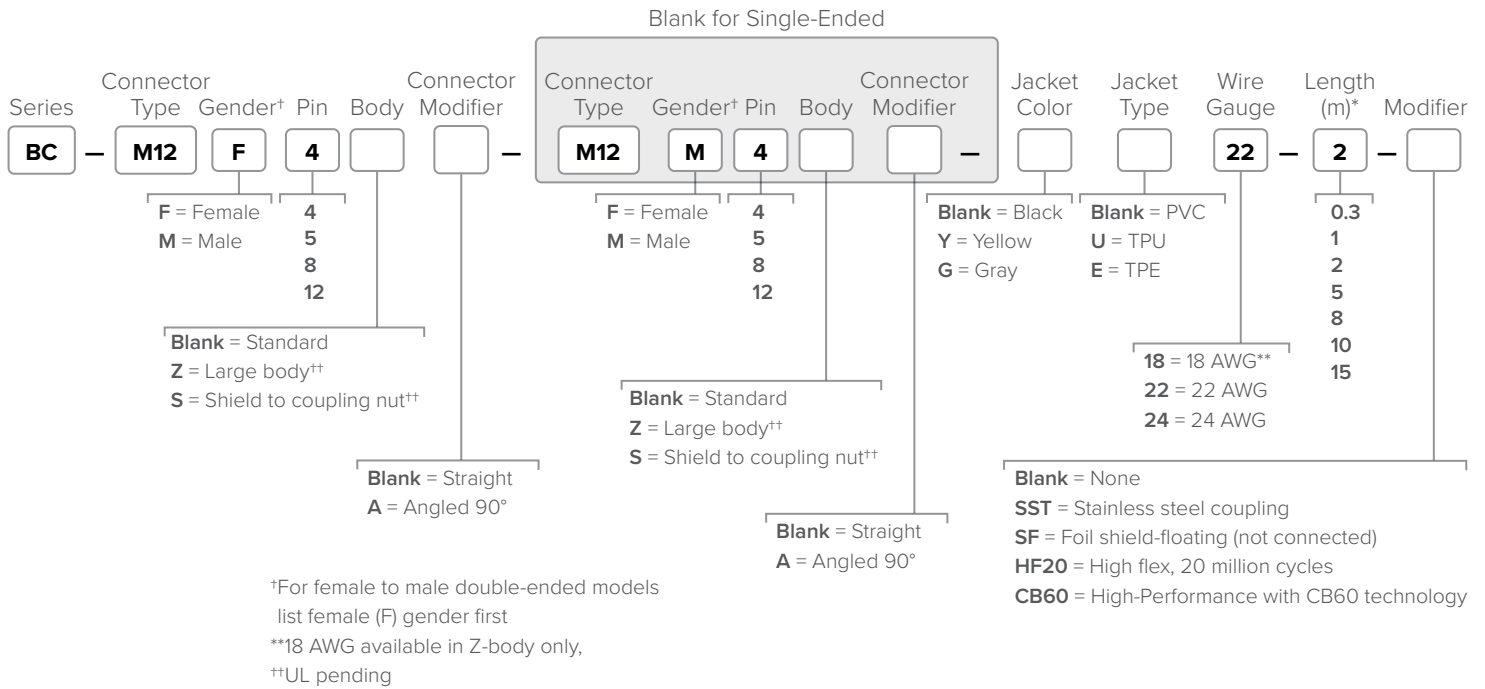


## Integrated Mounting Through-Hole



Splitters, tees, and junction blocks feature an integrated mounting through-hole for quick, secure installation. Mount on a flat surface and tighten fasteners just enough to secure components firmly.


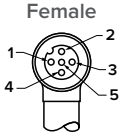

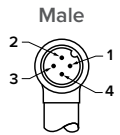

# M12 Cordsets: Signal



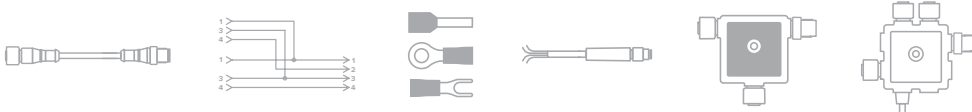
**Vibration Shock** Meets IEC 60068-2-6 requirements  
**Mechanical Shock** Meets IEC 60068-2-27 requirements  
**Temperature** -40° to +70 °C

**Environmental Rating** IP66, IP67, IP68, NEMA 1, UL Type 1  
**Certifications** 

## 4-Pin PVC A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 22, Cable ø: 5.2 mm)

Description	Length*	Straight	Right-Angle	Pinout
 Female QD to Flying Leads	2 m	BC-M12F4-22-2	BC-M12F4A-22-2	 Female 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused
	5 m	BC-M12F4-22-5	BC-M12F4A-22-5	
	10 m	BC-M12F4-22-10	BC-M12F4A-22-10	
 Male QD to Flying Leads	2 m	BC-M12M4-22-2	—	 Male 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused
	5 m	BC-M12M4-22-5	—	
	10 m	BC-M12M4-22-10	—	
 Double-Ended	2 m	BC-M12F4-M12M4-22-2	BC-M12F4-M12M4A-22-2	
	5 m	BC-M12F4-M12M4-22-5	BC-M12F4-M12M4A-22-5	
	10 m	BC-M12F4-M12M4-22-10	BC-M12F4-M12M4A-22-10	

\*Custom lengths available to the nearest 0.1 m.




Contact Banner for more connectivity solutions and custom capabilities.

# M12 Cordsets: Signal

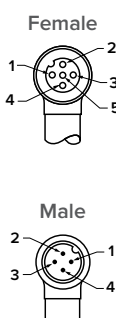
## 4-Pin PVC 18 AWG A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 18, Cable ø: 6.7 mm)



Description	Length*	Straight	Right-Angle	Pinout
Female QD to Flying Leads	2 m	BC-M12F4Z-18-2	BC-M12F4ZA-18-2	 <p>Female</p> <p>Male</p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused</p>
	5 m	BC-M12F4Z-18-5	BC-M12F4ZA-18-5	
	10 m	BC-M12F4Z-18-10	BC-M12F4ZA-18-10	
Male QD to Flying Leads	2 m	BC-M12M4Z-18-2	BC-M12M4ZA-18-2	
	5 m	BC-M12M4Z-18-5	BC-M12M4ZA-18-5	
	10 m	BC-M12M4Z-18-10	BC-M12M4ZA-18-10	
Description	Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)	
Double-Ended	2 m	BC-M12F4Z-M12M4Z-18-2	BC-M12F4Z-M12M4ZA-18-2	
	5 m	BC-M12F4Z-M12M4Z-18-5	BC-M12F4Z-M12M4ZA-18-5	
	10 m	BC-M12F4Z-M12M4Z-18-10	BC-M12F4Z-M12M4ZA-18-10	

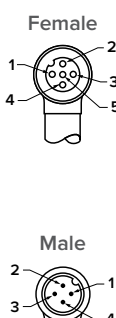
## 4-Pin TPE 18 AWG A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 18, Cable ø: 6.7 mm)



Description	Length*	Straight	Right-Angle	Pinout
Female QD to Flying Leads	2 m	BC-M12F4Z-YE18-2	BC-M12F4ZA-YE18-2	 <p>Female</p> <p>Male</p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused</p>
	5 m	BC-M12F4Z-YE18-5	BC-M12F4ZA-YE18-5	
	10 m	BC-M12F4Z-YE18-10	BC-M12F4ZA-YE18-10	
Male QD to Flying Leads	2 m	BC-M12M4Z-YE18-2	BC-M12M4ZA-YE18-2	
	5 m	BC-M12M4Z-YE18-5	BC-M12M4ZA-YE18-5	
	10 m	BC-M12M4Z-YE18-10	BC-M12M4ZA-YE18-10	
Description	Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)	
Double-Ended	2 m	BC-M12F4Z-M12M4Z-YE18-2	BC-M12F4Z-M12M4ZA-YE18-2	
	5 m	BC-M12F4Z-M12M4Z-YE18-5	BC-M12F4Z-M12M4ZA-YE18-5	
	10 m	BC-M12F4Z-M12M4Z-YE18-10	BC-M12F4Z-M12M4ZA-YE18-10	

## 4-Pin High-Performance TPU with CB60 Technology (Voltage: 30 V DC, Current: 4 A, AWG: 22, Cable ø: 5.2 mm)



Description	Length*	Straight	Right-Angle	Pinout
Female QD to Flying Leads	2 m	BC-M12F4-U22-2-CB60	BC-M12F4A-U22-2-CB60	 <p>Female</p> <p>Male</p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused</p>
	5 m	BC-M12F4-U22-5-CB60	BC-M12F4A-U22-5-CB60	
	10 m	BC-M12F4-U22-10-CB60	BC-M12F4A-U22-10-CB60	
Male QD to Flying Leads	2 m	BC-M12M4-U22-2-CB60	BC-M12M4A-U22-2-CB60	
	5 m	BC-M12M4-U22-5-CB60	BC-M12M4A-U22-5-CB60	
	10 m	BC-M12M4-U22-10-CB60	BC-M12M4A-U22-10-CB60	
Description	Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)	
Double-Ended	2 m	BC-M12F4-M12M4-U22-2-CB60	BC-M12F4-M12M4A-U22-2-CB60	
	5 m	BC-M12F4-M12M4-U22-5-CB60	BC-M12F4-M12M4A-U22-5-CB60	
	10 m	BC-M12F4-M12M4-U22-10-CB60	BC-M12F4-M12M4A-U22-10-CB60	

# M12 Cordsets: Signal

## 4-Pin PVC High Flex A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 22, Cable ø: 5.2 mm, 20 million cycles)



Description	Length*	Straight	Right-Angle	Pinout
Female QD to Flying Leads	2 m	BC-M12F4-G22-2-HF20	BC-M12F4A-G22-2-HF20	
	5 m	BC-M12F4-G22-5-HF20	BC-M12F4A-G22-5-HF20	
	10 m	BC-M12F4-G22-10-HF20	BC-M12F4A-G22-10-HF20	
Male QD to Flying Leads	2 m	BC-M12M4-G22-2-HF20	BC-M12M4A-G22-2-HF20	
	5 m	BC-M12M4-G22-5-HF20	BC-M12M4A-G22-5-HF20	
	10 m	BC-M12M4-G22-10-HF20	BC-M12M4A-G22-10-HF20	
Description	Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)	
Double-Ended	2 m	BC-M12F4-M12M4-G22-2-HF20	BC-M12F4A-M12M4A-G22-2-HF20	
	5 m	BC-M12F4-M12M4-G22-5-HF20	BC-M12F4A-M12M4A-G22-5-HF20	
	10 m	BC-M12F4-M12M4-G22-10-HF20	BC-M12F4A-M12M4A-G22-10-HF20	

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

## 4-Pin PVC With Foil Shield A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 22, Cable ø: 5.2 mm)



Description	Length*	Straight	Right-Angle	Pinout
Female QD to Flying Leads	2 m	BC-M12F4-22-2-SF	BC-M12F4A-22-2-SF	
	5 m	BC-M12F4-22-5-SF	—	
	10 m	BC-M12F4-22-10-SF	BC-M12F4A-22-10-SF	
Description	Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)	
Double-Ended	2 m	BC-M12F4-M12M4-22-2-SF	—	
	5 m	BC-M12F4-M12M4-22-5-SF	—	
	10 m	BC-M12F4-M12M4-22-10-SF	—	

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

## 5-Pin PVC A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 22, Cable ø: 5.6 mm)



Description	Length*	Straight	Right-Angle	Pinout
Female QD to Flying Leads	2 m	BC-M12F5-22-2	BC-M12F5A-22-2	
	5 m	BC-M12F5-22-5	BC-M12F5A-22-5	
	10 m	BC-M12F5-22-10	BC-M12F5A-22-10	
Male QD to Flying Leads	2 m	BC-M12M5-22-2	BC-M12M5A-22-2	
	5 m	BC-M12M5-22-5	BC-M12M5A-22-5	
	10 m	BC-M12M5-22-10	BC-M12M5A-22-10	
Description	Length*	Straight/Straight (Female/Male)	Straight/Right-Angle	
Double-Ended	2 m	BC-M12F5-M12M5-22-2	BC-M12F5-M12M5A-22-2	
	5 m	BC-M12F5-M12M5-22-5	BC-M12F5-M12M5A-22-5	
	10 m	BC-M12F5-M12M5-22-10	BC-M12F5-M12M5A-22-10	

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

\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.

# M12 Cordsets: Signal

## 5-Pin PVC Shield to Coupling Nut A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 22, Cable ø: 6.2 mm)



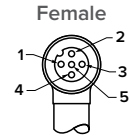
Description	Length	Straight
Female QD to Flying Leads	2 m	BC-M12F5S-22-2
	5 m	BC-M12F5S-22-5
	10 m	BC-M12F5S-22-10



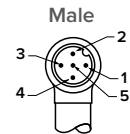
Male QD to Flying Leads	2 m	BC-M12M5S-22-2
	5 m	BC-M12M5S-22-5
	10 m	BC-M12M5S-22-10



Description	Length*	Straight/Straight (Female/Male)
Double-Ended	2 m	BC-M12F5S-M12M5S-22-2
	5 m	BC-M12F5S-M12M5S-22-5
	10 m	BC-M12F5S-M12M5S-22-10



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



## 5-Pin TPE High Flex A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 22, Cable ø: 5.2 mm, 20 million cycles)



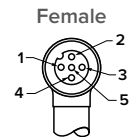
Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F5-GE22-2-HF20	BC-M12F5A-GE22-2-HF20
	5 m	BC-M12F5-GE22-5-HF20	BC-M12F5A-GE22-5-HF20
	10 m	BC-M12F5-GE22-10-HF20	BC-M12F5A-GE22-10-HF20



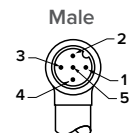
Male QD to Flying Leads	2 m	BC-M12M5-GE22-2-HF20	BC-M12M5A-GE22-2-HF20
	5 m	BC-M12M5-GE22-5-HF20	BC-M12M5A-GE22-5-HF20
	10 m	BC-M12M5-GE22-10-HF20	BC-M12M5A-GE22-10-HF20



Description	Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)
Double-Ended	2 m	BC-M12F5-M12M5-GE22-2-HF20	BC-M12F5-M12M5A-GE22-2-HF20
	5 m	BC-M12F5-M12M5-GE22-5-HF20	BC-M12F5-M12M5A-GE22-5-HF20
	10 m	BC-M12F5-M12M5-GE22-10-HF20	BC-M12F5-M12M5A-GE22-10-HF20



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



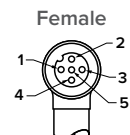
## 5-Pin PVC With Foil Shield A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 22, Cable ø: 5.7 mm)



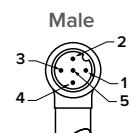
Description	Length	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F5-22-2-SF	BC-M12F5A-22-2-SF
	5 m	BC-M12F5-22-5-SF	BC-M12F5A-22-5-SF
	10 m	BC-M12F5-22-10-SF	BC-M12F5A-22-10-SF



Description	Length	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)
Double-Ended	2 m	BC-M12F5-M12M5-22-2-SF	—
	5 m	BC-M12F5-M12M5-22-5-SF	—
	10 m	BC-M12F5-M12M5-22-10-SF	—


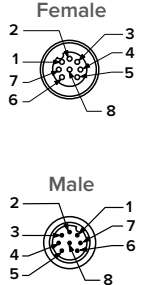




- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black
- 5 = Gray


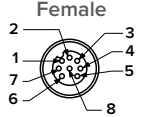


# M12 Cordsets: Signal


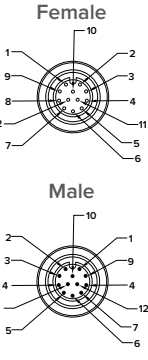

## 8-Pin PVC A-Code (Voltage: 30 V DC, Current: 2 A, AWG: 24, Cable ø: 6.0 mm)

Description	Length	Straight	Right-Angle	Pinout
 Female QD to Flying Leads	2 m	BC-M12F8-24-2	—	 Female 1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red
	5 m	BC-M12F8-24-5	—	
	10 m	BC-M12F8-24-10	—	
 Male QD to Flying Leads	2 m	BC-M12M8-24-2	—	
	5 m	BC-M12M8-24-5	—	
	10 m	BC-M12M8-24-10	—	
Description	Length	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)	
 Double-Ended	2 m	BC-M12F8-M12M8-24-2	—	
	5 m	BC-M12F8-M12M8-24-5	—	
	10 m	BC-M12F8-M12M8-24-10	—	

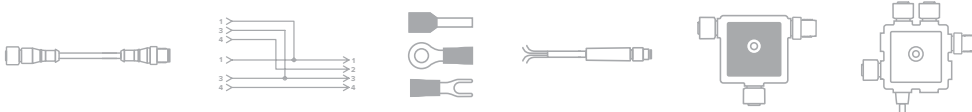
## 8-Pin PVC With Foil Shield A-Code (Voltage: 30 V DC, Current: 2 A, AWG: 24, Cable ø: 5.6 mm)

Description	Length	Straight	Right-Angle	Pinout
 Female QD to Flying Leads	2 m	BC-M12F8-24-2-SF	BC-M12F8A-24-2-SF	 Female 1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red
	5 m	BC-M12F8-24-5-SF	BC-M12F8A-24-5-SF	
	10 m	BC-M12F8-24-10-SF	BC-M12F8A-24-10-SF	

## 12-Pin PVC A-Code (Voltage: 30 V DC/AC, Current: 2 A, AWG: 24, Cable ø: 6.3 mm)

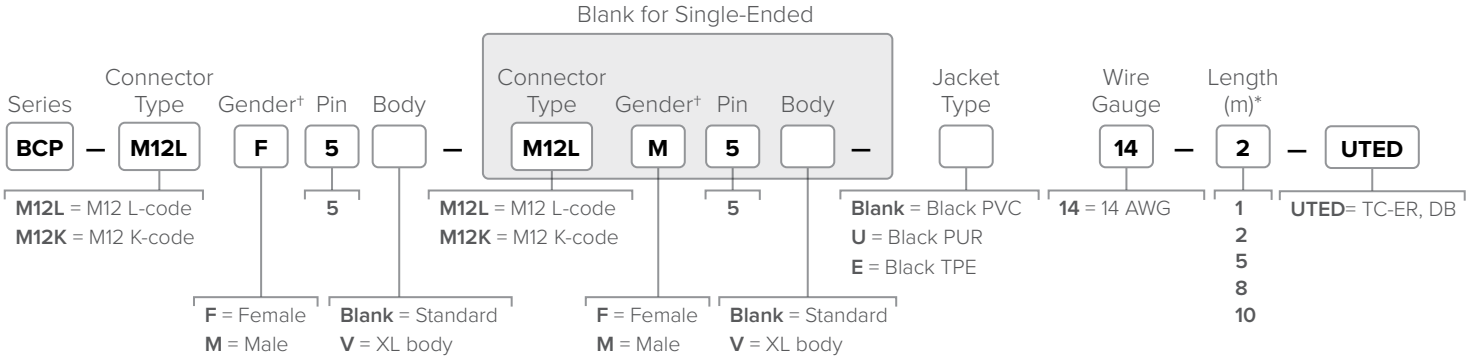
Description	Length	Straight	Right-Angle	Pinout	
 Female QD to Flying Leads	2 m	BC-M12F12-24-2	BC-M12F12A-24-2	 Female 1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red 9 = Orange 10 = Tan 11 = Black 12 = Violet	
	5 m	BC-M12F12-24-5	BC-M12F12A-24-5		
	10 m	BC-M12F12-24-10	BC-M12F12A-24-10		
Description	Length	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)		
 Double-Ended	2 m	BC-M12F12-M12M12-24-2	—		
	5 m	BC-M12F12-M12M12-24-5	—		
	10 m	BC-M12F12-M12M12-24-10	—		

\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.

# M12 Cordsets: Power



<sup>†</sup>For female to male double-ended models list female (F) gender first

<b>Cable Jacket</b>	PVC	<b>Temperature</b>	Fixed installation: -40 °C to +85 °C Flexible installation: -25 °C to +85 °C
<b>Vibration Shock</b>	Meets IEC 60068-2-6 requirements		
<b>Mechanical Shock</b>	Meets IEC 60068-2-27 requirements		
<b>Environmental Rating</b>	IP67, IP68		

## 5-Pin PVC L-Code (Voltage: 63 V DC/AC, Current: 16 A, AWG: 14, Cable ø: 9.6 mm)



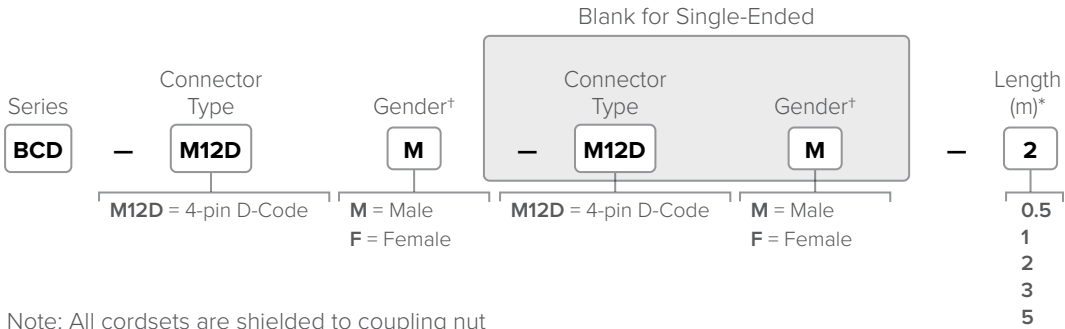
Description	Length	Straight	Right-Angle	Pinout
Female QD to Flying Leads	2 m	BCP-M12LF5-14-2	BCP-M12LF5A-14-2	<p><b>Female</b></p> <p>5 4 1 3 2</p> <p><b>Male</b></p> <p>5 1 4 2 3</p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Yellow/Green Shell = Braid</p>
	5 m	BCP-M12LF5-14-5	BCP-M12LF5A-14-5	
	10 m	BCP-M12LF5-14-10	BCP-M12LF5A-14-10	
Male QD to Flying Leads	2 m	BCP-M12LM5-14-2	BCP-M12LM5A-14-2	
	5 m	BCP-M12LM5-14-5	BCP-M12LM5A-14-5	
	10 m	BCP-M12LM5-14-10	BCP-M12LM5A-14-10	
Description	Length	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)	
Double-Ended	2 m	BCP-M12LF5-M12LM5-14-2	—	
	5 m	BCP-M12LF5-M12LM5-14-5	—	
	10 m	BCP-M12LF5-M12LM5-14-10	—	

## 5-Pin TPE K-Code (Voltage: 600 V DC/AC, Current: 16 A, AWG: 14, Cable ø: 10.5 mm)



Description	Length	Straight	Pinout
Female QD to Flying Leads	2 m	BCP-M12KF5V-E14-2-UTED	<p><b>Female</b></p> <p>PE 4 1 3 2</p> <p><b>Male</b></p> <p>PE 1 4 2 3</p> <p>1 = Black 2 = Red 3 = White 4 = Blue PE = Yellow/Green</p>
	5 m	BCP-M12KF5V-E14-5-UTED	
	10 m	BCP-M12KF5V-E14-10-UTED	
Male QD to Flying Leads	2 m	BCP-M12KM5V-E14-2-UTED	
	5 m	BCP-M12KM5V-E14-5-UTED	
	10 m	BCP-M12KM5V-E14-10-UTED	
Description	Length	Straight/Straight (Female/Male)	
Double-Ended	2 m	BCP-M12KF5V-M12KM5V-E14-2-UTED	
	5 m	BCP-M12KF5V-M12KM5V-E14-5-UTED	
	10 m	BCP-M12KF5V-M12KM5V-E14-10-UTED	

# M12 Cordsets: Data



Note: All cordsets are shielded to coupling nut

†For female to male double-ended models list male (M) gender first

Cable Jacket	PVC	Environmental Rating	IP67
Temperature	-20° to +70 °C	Certifications	

## 4-Pin D-Code (Voltage: 60 V DC, Current: 4 A, AWG: 22, Cable ø: 7 mm)

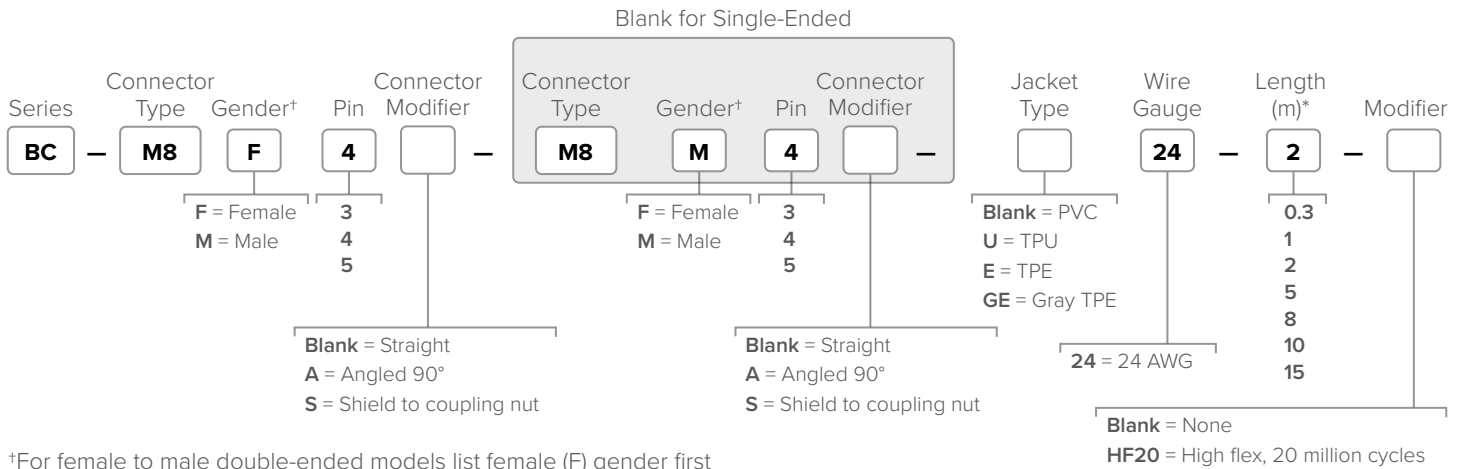
Description	Length*	Straight	Right-Angle	Pinout
 Female QD to Flying Leads	2 m	BCD-M12DF-2	—	 Female 1 = White/orange 2 = Orange 3 = White/blue 4 = Blue   Male
	5 m	BCD-M12DF-5	—	
	10 m	BCD-M12DF-10	—	
 Male QD to Flying Leads	2 m	BCD-M12DM-2	—	
	5 m	BCD-M12DM-5	—	
	10 m	BCD-M12DM-10	—	
Description	Length*	Straight/Straight (Female/Male)	Straight/Straight (Male/Male)	
 Double-Ended	2 m	BCD-M12DM-M12DF-2	BCD-M12DM-M12DM-2	
	5 m	BCD-M12DM-M12DF-5	BCD-M12DM-M12DM-5	
	10 m	BCD-M12DM-M12DF-10	BCD-M12DM-M12DM-10	

\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.

# M8 Cordsets: Signal



Temperature -40° to +105 °C  
Environmental Rating IP67

Certifications



## 3-Pin PVC A-Code (Voltage: 30 V DC, Current: 2 A, AWG: 24, Cable ø: 4.2 mm)


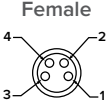

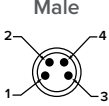

Description	Length*	Straight	Pinout
	2 m	BC-M8F3-24-2	 Female 1 = Brown 3 = Blue 4 = Black
	5 m	BC-M8F3-24-5	
	10 m	BC-M8F3-24-10	
	2 m	BC-M8M3-24-2	 Male 1 = Brown 3 = Blue 4 = Black
	5 m	BC-M8M3-24-5	
	10 m	BC-M8M3-24-10	
Description	Length*	Straight/Straight (Female/Male)	
	2 m	BC-M8F3-M8M3-24-2	
	5 m	BC-M8F3-M8M3-24-5	
	10 m	BC-M8F3-M8M3-24-10	

## 3-Pin TPE High Flex A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 24, Cable ø: 4.2 mm, 20 million cycles)


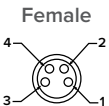

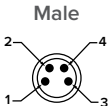

Description	Length*	Straight	Right-Angle	Pinout
	2 m	BC-M8F3-GE24-2-HF20	—	 Female 1 = Brown 3 = Blue 4 = Black
	5 m	BC-M8F3-GE24-5-HF20	—	
	10 m	BC-M8F3-GE24-10-HF20	—	
	2 m	BC-M8M3-GE24-2-HF20	—	 Male 1 = Brown 3 = Blue 4 = Black
	5 m	BC-M8M3-GE24-5-HF20	—	
	10 m	BC-M8M3-GE24-10-HF20	—	
Description	Length*	Straight/Straight (Female/Male)	Right-Angle/Straight (Female/Male)	
	2 m	BC-M8F3-M8M3-GE24-2-HF20	BC-M8F3A-M8M3-GE24-2-HF20	
	5 m	BC-M8F3-M8M3-GE24-5-HF20	BC-M8F3A-M8M3-GE24-5-HF20	
	10 m	BC-M8F3-M8M3-GE24-10-HF20	BC-M8F3A-M8M3-GE24-10-HF20	

# M8 Cordsets: Signal

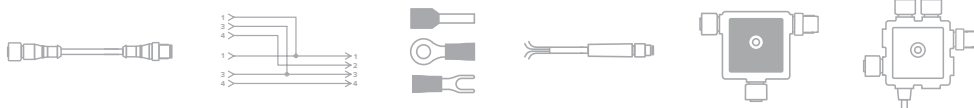
## 4-Pin PVC A-Code (Voltage: 30 V DC/AC, Current: 2 A, AWG: 24, Cable ø: 4.2 mm)

Description	Length*	Straight	Right-Angle	Pinout	
 Female QD to Flying Leads	2 m	BC-M8F4-24-2	—	 Female 1 = Brown 2 = White 3 = Blue 4 = Black	
	5 m	BC-M8F4-24-5	—		
	10 m	BC-M8F4-24-10	—		
 Male QD to Flying Leads	2 m	BC-M8M4-24-2	—		
	5 m	BC-M8M4-24-5	—		
	10 m	BC-M8M4-24-10	—		
Description		Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)	 Male 1 = Brown 2 = White 3 = Blue 4 = Black
 Double-Ended	2 m	BC-M8F4-M8M4-24-2	—		
	5 m	BC-M8F4-M8M4-24-5	—		
	10 m	BC-M8F4-M8M4-24-10	—		

## 4-Pin PVC High Flex A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 24, Cable ø: 4.7 mm, 20 million cycles)

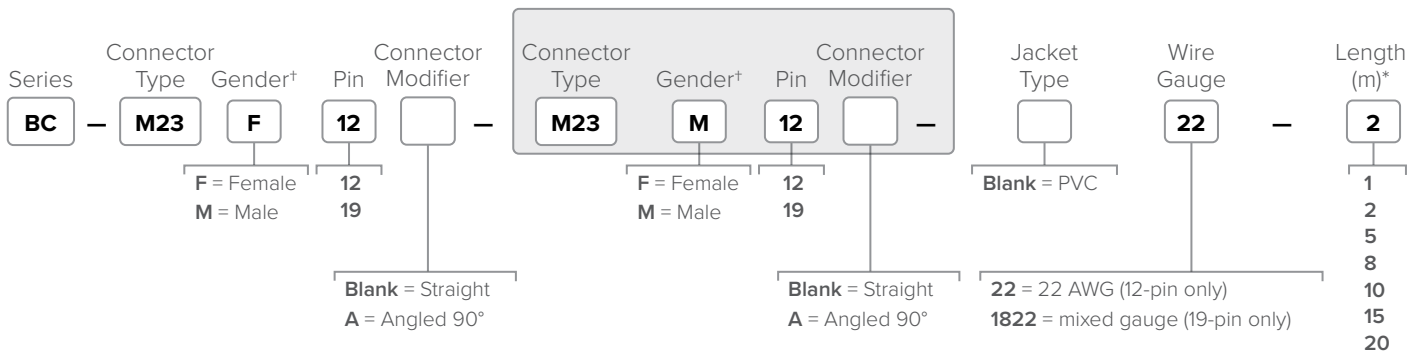
Description	Length*	Straight	Right-Angle	Pinout	
 Female QD to Flying Leads	2 m	BC-M8F4-G24-2-HF20	BC-M8F4A-G24-2-HF20	 Female 1 = Brown 2 = White 3 = Blue 4 = Black	
	5 m	BC-M8F4-G24-5-HF20	BC-M8F4A-G24-5-HF20		
	10 m	BC-M8F4-G24-10-HF20	BC-M8F4A-G24-10-HF20		
 Male QD to Flying Leads	2 m	BC-M8M4-G24-2-HF20	—		
	5 m	BC-M8M4-G24-5-HF20	—		
	10 m	BC-M8M4-G24-10-HF20	—		
Description		Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)	 Male 1 = Brown 2 = White 3 = Blue 4 = Black
 Double-Ended	2 m	BC-M8F4-M8M4-G24-2-HF20	—		
	5 m	BC-M8F4-M8M4-G24-5-HF20	—		
	10 m	BC-M8F4-M8M4-G24-10-HF20	—		

\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.


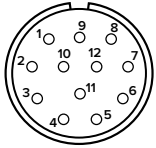


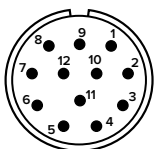
# M23 Cordsets: Signal




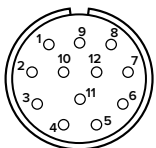
\*For female to male double-ended models list female (F) gender first

Cable Jacket	PVC	Environmental Rating	IP67 and IP68
Temperature	-25° to +85 °C	Certifications	CE

## 12-Pin (Voltage: 60 V DC, Current: 4 A, AWG: 22, Cable ø: 6 mm)


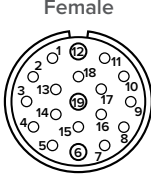

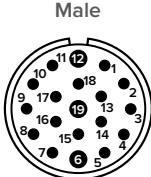

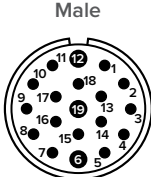
Description	Length*	Straight	Right-Angle	Pinout
 Female QD to Flying Leads	2 m	BC-M23F12-22-2	BC-M23F12A-22-2	 Female 1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red 9 = Orange 10 = Tyrian Purple 11 = Black 12 = Violet
	5 m	BC-M23F12-22-5	BC-M23F12A-22-5	
	10 m	BC-M23F12-22-10	BC-M23F12A-22-10	
 Male QD to Flying Leads	2 m	BC-M23M12-22-2	—	
	5 m	BC-M23M12-22-5	—	
	10 m	BC-M23M12-22-10	—	
 Double-Ended	2 m	BC-M23F12-M23M12-22-2	—	 Male 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
	5 m	BC-M23F12-M23M12-22-5	—	
	10 m	BC-M23F12-M23M12-22-10	—	

## 12-Pin With Foil Shield (Voltage: 60 V DC, Current: 4 A, AWG: 22, Cable ø: 6 mm)


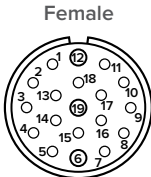
Description	Length*	Straight	Right-Angle	Pinout
 Female QD to Flying Leads	2 m	BC-M23F12-22-2-SFP	BC-M23F12A-22-2-SFP	 Female 1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red 9 = Orange 10 = Tyrian Purple 11 = Black Cut = Violet 12 = Drain + Braid
	5 m	BC-M23F12-22-5-SFP	BC-M23F12A-22-5-SFP	
	10 m	BC-M23F12-22-10-SFP	BC-M23F12A-22-10-SFP	

# M23 Cordsets: Signal

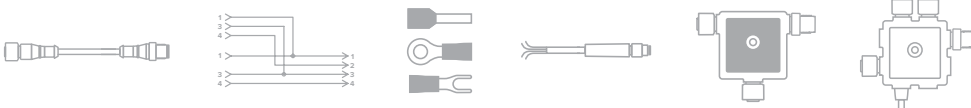
## 19-Pin (Voltage: 60 V DC, Current: 8 A, AWG: 18 and 22, Cable ø: 9.8 mm)

Description	Length*	Straight	Pinout
 Female QD to Flying Leads	2 m	BC-M23F19-1822-2	 Female  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)
	5 m	BC-M23F19-1822-5	
	10 m	BC-M23F19-1822-10	
 Male QD to Flying Leads	2 m	BC-M23M19-1822-2	 Male
	5 m	BC-M23M19-1822-5	
	10 m	BC-M23M19-1822-10	
 Double-Ended	2 m	BC-M23F19-M23M19-1822-2	 Male
	5 m	BC-M23F19-M23M19-1822-5	
	10 m	BC-M23F19-M23M19-1822-10	

## 19-Pin With Foil Shield (Voltage: 60 V DC, Current: 8 A, AWG: 18 and 22, Cable ø: 9.8 mm)

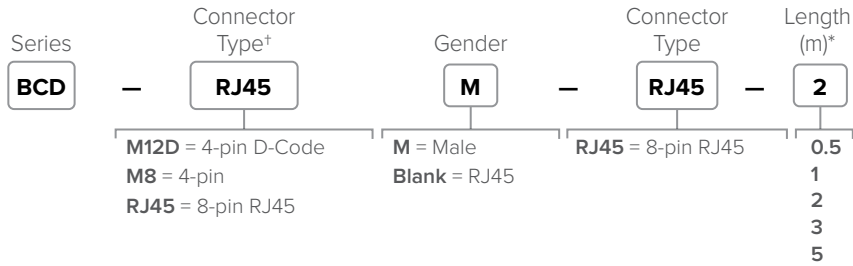
Description	Length*	Straight	Pinout
 Female QD to Flying Leads	2 m	BC-M23F19-1822-2-SFP	 Female  1 = Purple 2 = Red 3 = Gray 4 = Red/Blue 5 = Green 6 = Blue (18 AWG) 7 = Gray/Pink 8 = White/Green 9 = White/Yellow 10 = White/Gray 11 = Black 12 = Drain (18 AWG) 13 = Yellow/Brown 14 = Brown/Green 15 = White 16 = Yellow 17 = Pink 18 = Gray/Brown 19 = Brown (18 AWG)
	5 m	BC-M23F19-1822-5-SFP	
	10 m	BC-M23F19-1822-10-SFP	

\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.

# Specialty Cordsets: RJ45 Data



Note: All cordsets are shielded to coupling nut

\*For M12/M8 to RJ45 double-ended models list M12/M8 connector first


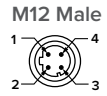
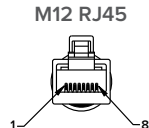

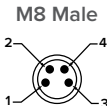
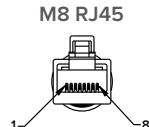

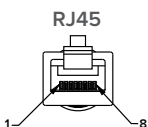
Cable Jacket PVC  
Temperature -20° to +70 °C

Environmental Rating IP20




Certifications




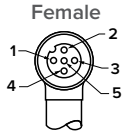

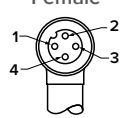
## 4-Pin D-Code (Voltage: 60 V DC/AC, Current: 1.5 A, AWG: 22, M12 Cable ø: 7 mm, M8 Cable ø: 5.8 mm)

Description	Length*	Straight	Pinout	
 <b>M12 Double-Ended Male QD to RJ45</b>	2 m	BCD-M12DM-RJ45-2	 <b>M12 Male</b>	 <b>M12 RJ45</b>
	5 m	BCD-M12DM-RJ45-5		
	10 m	BCD-M12DM-RJ45-10		
 <b>M8 Double-Ended Male QD to RJ45</b>	2 m	BCD-M8M-RJ45-2	 <b>M8 Male</b>	 <b>M8 RJ45</b>
	5 m	BCD-M8M-RJ45-5		
	10 m	BCD-M8M-RJ45-10		
 <b>Double-Ended RJ45</b>	2 m	BCD-RJ45-RJ45-2	 <b>RJ45</b>	1 = White/orange 2 = Orange 3 = White/green 4 = Green
	5 m	BCD-RJ45-RJ45-5		
	10 m	BCD-RJ45-RJ45-10		


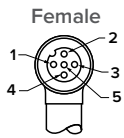

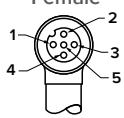
# Specialty Cordsets: M12 Lighted

<b>Cable Jacket</b>	PVC	<b>Temperature</b>	Max current of 1.0 A: -40 to +60 °C Max current of 2.0 A: -40 to +55 °C Max current of 4.0 A: -40 to +45 °C
<b>Vibration Shock</b>	Meets IEC 60068-2-6 requirements	<b>Environmental Rating</b>	IP66, IP67, IP68, NEMA 1, UL Type 1
<b>Mechanical Shock</b>	Meets IEC 60068-2-27 requirements	<b>Certifications</b>	  
<b>LED Operation</b>	Green LED indicates power ON; Yellow LED overrides green LED when pin 4 is active		

## 4-Pin A-Code (Voltage: 10 to 30 V DC at 15 mA max, AWG: 22, Cable ø: 5.2 mm)

	Length*	Straight	Right-Angle	Pinout
 PNP Female QD to Flying Leads	2 m	MQDC-406-GYP	MQDC-406-GYPRA	 1 = Brown 2 = White 3 = Blue 4 = Black (output LED) 5 = Unused
	5 m	MQDC-415-GYP	MQDC-415-GYPRA	
	9 m	MQDC-430-GYP	MQDC-430-GYPRA	
 NPN Female QD to Flying Leads	2 m	MQDC-406-GYN	MQDC-406-GYNRA	 1 = Brown 2 = White 3 = Blue 4 = Black (output LED) 5 = Unused
	5 m	MQDC-415-GYN	MQDC-415-GYNRA	
	9 m	MQDC-430-GYN	MQDC-430-GYNRA	

## 5-Pin A-Code (Voltage: 10 to 30 V DC at 15 mA max, AWG: 22, Cable ø: 5.6 mm)

	Length*	Straight	Right-Angle	Pinout
 PNP Female QD to Flying Leads	2 m	MQDC-506-GYP	MQDC-506-GYPRA	 1 = Brown 2 = White 3 = Blue 4 = Black (output LED) 5 = Gray
	5 m	MQDC-515-GYP	MQDC-515-GYPRA	
	9 m	MQDC-530-GYP	MQDC-530-GYPRA	
 NPN Female QD to Flying Leads	2 m	MQDC-506-GYN	MQDC-506-GYNRA	 1 = Brown 2 = White 3 = Blue 4 = Black (output LED) 5 = Gray
	5 m	MQDC-515-GYN	MQDC-515-GYNRA	
	9 m	MQDC-530-GYN	MQDC-530-GYNRA	

\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.

## Specialty Cordsets: M12 Coiled

<b>Cable Jacket</b>	PVC	<b>Temperature</b>	-40° to +105 °C
<b>Vibration Shock</b>	Meets IEC 60068-2-6 requirements	<b>Environmental Rating</b>	IP67, IP69, NEMA 1, 3, 4, 6P, 13
<b>Mechanical Shock</b>	Meets IEC 60068-2-27 requirements		

### 4-Pin A-Code (Voltage: 60 V DC, Current: 4 A, AWG: 22, Cable ø: 5.2 mm)



Description	Length* (retracted to extended)	Straight	Pinout
Female QD to Flying Leads	0.8 to 1.7 m	MQDC-401.7M-PUR-C	<p>Female</p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused</p>
	1.0 to 2.6 m	MQDC-402.6M-PUR-C	
	1.2 to 3.3 m	MQDC-403.3M-PUR-C	



Description	Length* (retracted to extended)	Straight/Straight (Female/Male)	Pinout
Double-Ended	0.8 to 1.7 m	MQDEC-401.7M-PUR-C	<p>Female</p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused</p> <p>Male</p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused</p>
	1.0 to 2.6 m	MQDEC-403.3M-PUR-C	

## Specialty Cordsets: M12 NAMUR

<b>Cable Jacket</b>	PVC	<b>Temperature</b>	-40 °C to +70 °C
<b>Vibration Shock</b>	Meets IEC 60068-2-6 requirements	<b>Environmental Rating</b>	IP67, NEMA 1, 3, 4, 6P, 13
<b>Mechanical Shock</b>	Meets IEC 60068-2-27 requirements	<b>Certifications</b>	CE

### 4-Pin A-Code (Voltage: 60 V DC/AC, Current: 4 A, AWG: 20, Cable ø: 5.2 mm)



Description	Length*	Straight	Right-Angle	Pinout
Female QD to Flying Leads	2 m	MQD9-406	MQD9-406RA	<p>Female</p> <p>1 = Brown 2 = Blue 3 = Unused 4 = Unused 5 = Unused</p>
	5 m	MQD9-415	MQD9-415RA	
	9 m	MQD9-430	MQD9-430RA	

# Specialty Cordsets: M12 High Pressure and Temperature Washdown

<b>Cable Jacket</b>	PVC	<b>Temperature</b>	-40° to +70 °C
<b>Vibration Shock</b>	Meets IEC 60068-2-6 requirements	<b>Environmental Rating</b>	IP66, IP67, IP68, IP69, NEMA 1, UL Type 1
<b>Mechanical Shock</b>	Meets IEC 60068-2-27 requirements	<b>Certifications</b>	<b>ECOLAB</b> test F and E Nr. 40-1

## 4-Pin A-Code (Voltage: 60 V DC, Current: 4 A, AWG: 22, Cable ø: 4.8 mm)



Description	Length*	Straight	Pinout
Female QD to Flying Leads	2 m	MQDC-WDSS-0406	<p><b>Female</b></p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused</p>
	5 m	MQDC-WDSS-0415	
	9 m	MQDC-WDSS-0430	



Description	Length*	Straight/Straight (Female/Male)	Pinout
Double-Ended	0.31 m	MQDEC-WDSS-401SS	<p><b>Female</b></p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused</p>
	0.91 m	MQDEC-WDSS-403SS	
	1.83 m	MQDEC-WDSS-406SS	<p><b>Male</b></p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused</p>
	3.7 m	MQDEC-WDSS-412SS	

## 5-Pin A-Code (Voltage: 60 V DC, Current: 4 A, AWG: 22, Cable ø: 5.16 mm)

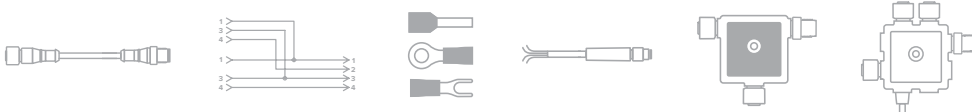


Description	Length*	Straight	Pinout
Female QD to Flying Leads	2 m	MQDC-WDSS-0506	<p><b>Female</b></p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
	5 m	MQDC-WDSS-0515	
	9 m	MQDC-WDSS-0530	



Description	Length*	Straight/Straight (Female/Male)	Pinout
Double-Ended	1.5 m	MQDEC-WDSS-505SS	<p><b>Female</b></p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
	3 m	MQDEC-WDSS-510SS	
	4.57 m	MQDEC-WDSS-515SS	<p><b>Male</b></p> <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>

**\*Custom lengths available to the nearest 0.1 m.**

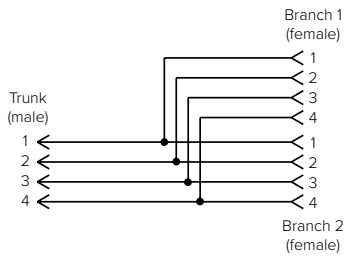


Contact Banner for more connectivity solutions and custom capabilities.

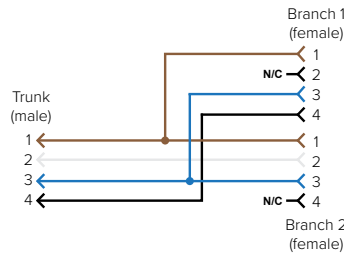
# M12: Splitters, Tees, and Junction Blocks

## Round QD Splitters

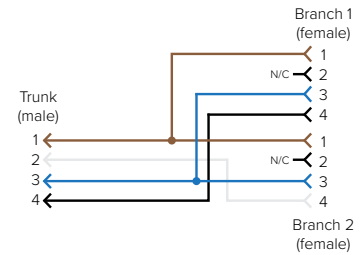
Example of Parallel 4-Pin Wiring



S15YA24-M124-M124-0.2M  
Non-parallel 4-Pin Wiring



S15YA4-M124-M124-0.2M  
Non-parallel 4-Pin Wiring



### 4-Pin A-Code

(Voltage: 30 V DC/AC, Current: 2 A, AWG: 4 x 22, Cable ø: 5.5 mm, Temperature: -40 °C to +105 °C, Environmental Rating: IP68)

Trunk (Male)	Cable Lengths*		Straight	Right-Angle	Wiring	Pinout
	Trunk (Male)	Branches (Female)				
No Trunk/ Integral M12 QD		0.3 m	CSRB-M1240M1241	—	Parallel	
		0.6 m	CSRB-M1240M1242	—	Parallel	
		0.9 m	CSRB-M1240M1243	—	Parallel	
		1.2 m	CSRB-M1240M1244	—	Parallel	

### 4-Pin A-Code

(Voltage: 30 V DC/AC, Current: 4 A, AWG: 4 x 22, Cable ø: 5.2 mm, Temperature: -40 °C to +70 °C, Environmental Rating: IP67)

No Trunk/ Integral M12 QD	0.2 m	S15YA24-M124-M124-0.2M	—	See above	
	0.3 m	S15YA24-M124-M124-0.3	S15YA24-M124A-M124A-0.3	See above	
	1 m	S15YA24-M124-M124-1	S15YA24-M124A-M124A-1	See above	
	0.2 m	S15YA4-M124-M124-0.2M	—	Discrete	
	0.3 m	S15YA4-M124-M124-0.3	S15YA4-M124A-M124A-0.3	Discrete	
	1 m	S15YA4-M124-M124-1	S15YA4-M124A-M124A-1	Discrete	
	0.2 m	S15YB-M124-M124-0.2M	—	Parallel	
	0.3 m	S15YB-M124-M124-0.3	S15YB-M124A-M124A-0.3	Parallel	
	1 m	S15YB-M124-M124-1	S15YB-M124A-M124A-1	Parallel	

### 4-Pin A-Code

(Voltage: 30 V DC/AC, Current: 2 A, AWG: 4 x 24, Cable ø: 4.2 mm, Temperature: -40 °C to +70 °C, Environmental Rating: IP67)

No Trunk/ Integral M12 QD	0.3 m (3-pin M8)	S15YA4-M83-M83-0.3	—	Discrete	
	1 m (3-pin M8)	S15YA4-M83-M83-1	—	Discrete	
	0.3 m (3-pin M8)	S15YB-M83-M83-0.3	—	Parallel	
	1 m (3-pin M8)	S15YB-M83-M83-1	—	Parallel	
	0.3 m (4-pin M8)	S15YA24-M84-M84-0.3	—	See above	
	1 m (4-pin M8)	S15YA24-M84-M84-1	—	See above	
	0.3 m (4-pin M8)	S15YA4-M84-M84-0.3	—	Discrete	
	1 m (4-pin M8)	S15YA4-M84-M84-1	—	Discrete	
	0.3 m (4-pin M8)	S15YB-M84-M84-0.3	—	Parallel	
	1 m (4-pin M8)	S15YB-M84-M84-1	—	Parallel	

### 5-Pin A-Code

(Voltage: 30 V DC/AC, Current: 2 A, AWG: 5 x 22, Cable ø: 5.6 mm, Temperature: -40 °C to +105 °C, Environmental Rating: IP67)

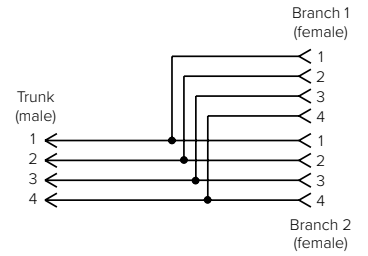
Trunk (Male)	Cable Lengths*		Models	Pinout
	Trunk (Male)	Branches (Female)		
No Trunk/ Integral QD	Branch 1 0.14 m Branch 2 0.22 m		CSRB-M1250M125.47M125.73	 

# M12: Splitters, Tees, and Junction Blocks


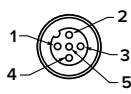
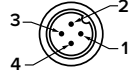
## Compact QD Splitters and Tees

Overmold	Black PUR	Environmental Rating	IP67
Temperature	-40 °C to +105 °C		


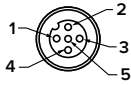

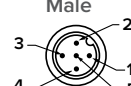

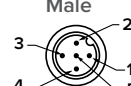
Example of Parallel 4-Pin Wiring




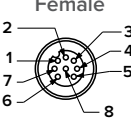
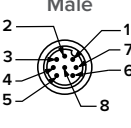
### 4-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22)

Ports	Models	Pinout
 1 x Male 2 x Female	CSB-M1240M1240	Female  Male 

### 5-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22)

Ports	Models	Pinout
 1 x Male 1 x Female 1 x Female	CSB-M1250M1250-T	Female 
 1 x Male 2 x Female	CSB-M1250M1250A	Male 
 1 x Female 1 x Male 1 x Female	CSB-M1250M1250	Male 

### 8-Pin A-Code (Voltage: 30 V DC/AC, Current: 1 A, AWG: 22)

Ports	Models	Pinout
 1 x Male 2 x Female	CSB-M1280M1280	Female  Male 

\*Custom lengths available to the nearest 0.1 m.



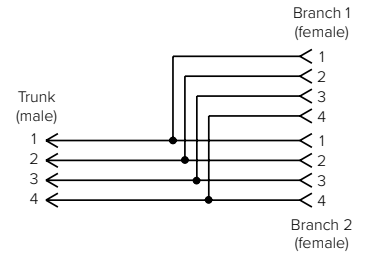
Contact Banner for more connectivity solutions and custom capabilities.

# M12: Splitters, Tees, and Junction Blocks

## Flat QD Splitters

<b>Cable Jacket</b>	PVC	<b>Temperature</b>	-40 °C to +105 °C
<b>Overmold</b>	Black PUR	<b>Environmental Rating</b>	IP67

Example of Parallel 4-Pin Wiring



### 4-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22, Trunk Cable ø: 4.4 mm, Branch Cable ø: 5.5 mm)



Cable Lengths*		Models	Pinout
Trunk (Male)	Branches (Female)		
No Trunk/Integral QD	2 x 0.3 m	<b>CSB-M1240M1241</b>	
0.3 m	2 x 0.3 m	<b>CSB-M1241M1241</b>	
1 m	2 x 1 m	<b>CSB-M1243M1243</b>	
2.4 m	2 x 0.3 m	<b>CSB-M1248M1241</b>	
4.6 m	2 x 0.3 m	<b>CSB-M12415M1241</b>	
7.6 m Unterminated	2 x 0.3 m	<b>CSB-UNT425M1241</b>	

### 5-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22, Cable ø: 5.9 mm)



Cable Lengths*		Models	Pinout
Trunk	Branches		
0.3 m (Male)	2 x 0.3 m (Female)	<b>CSB-M1251M1251B</b>	
0.3 m (Female)	2 x 0.3 m (Male)	<b>CSB-M1251FM1251M</b>	

### 8-Pin A-Code (Voltage: 30 V DC/AC, Current: 2 A, AWG: 22, Cable ø: 6 mm)



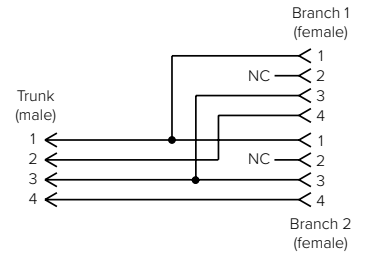
Cable Lengths*		Models	Pinout
Trunk (Male)	Branches (Female)		
0.3 m	2 x 0.3 m	<b>CSB-M1281M1281B</b>	

# M12: Splitters, Tees, and Junction Blocks

## Wiring Splitters

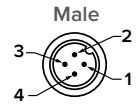
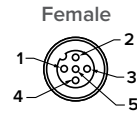
<b>Cable Jacket</b>	PVC	<b>Temperature</b>	-40 °C to +70 °C
<b>Overmold</b>	Black PUR	<b>Environmental Rating</b>	IP67

Example of 4-Pin Wiring

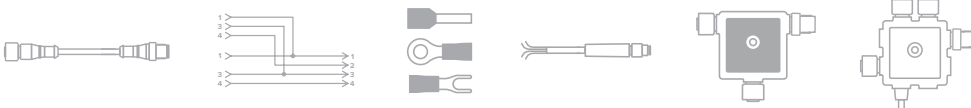


### 4-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22, Cable ø: 5.9 mm)

Trunk (Male)	Cable Lengths*		Models	Pinout
	Trunk (Male)	Branches (Female)		
No Trunk/Integral QD	2 x 0.3 m		CSA-M1240M1241	
No Trunk/Integral QD	2 x 1 m		CSA-M1240M1243	
No Trunk/Integral QD	2 x 2 m		CSA-M1240M1246	
0.3 m	2 x 0.3 m		CSA-M1241M1241	
1 m	2 x 1 m		CSA-M1243M1243	
2 m	2 x 2 m		CSA-M1246M1246	



\*Custom lengths available to the nearest 0.1 m.



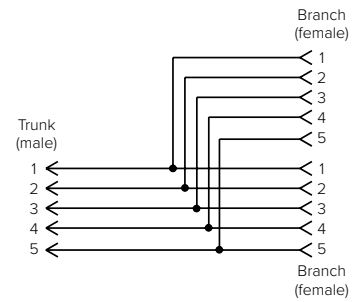
Contact Banner for more connectivity solutions and custom capabilities.

# M12: Splitters, Tees, and Junction Blocks

## Multi-port Splitters

<b>Cable Jacket</b>	PVC	<b>Temperature</b>	-40 °C to +105 °C
<b>Overmold</b>	Black PUR	<b>Environmental Rating</b>	IP67

Example of Parallel 5-Pin Wiring (diagram applies to all branches)



### 5-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 4 x 22, Cable ø: 5.6 mm)

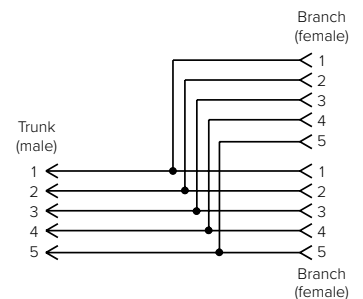
Branches (Female)	Cable Lengths*		Models	Pinout
	Trunk (Male)			
4 x No Branch/Integral QD	0.3 m		CSB4-M1251M1250	





## Molded Junction Blocks

<b>Overmold</b>	Black PUR	<b>Environmental Rating</b>	IP65, IP67, and IP68
<b>Temperature</b>	-40 °C to +70 °C		

Example of Parallel 5-Pin Wiring (diagram applies to all branches)



### 5-Pin (Voltage: 60 V DC/AC, Current: 4 A)

Connections	Models	Pinout
 4 x Female M12 1 x Male M12	R50-4M125-M125Q-P	
 8 x Female M12 1 x Male M12	R95-8M125-M125Q-P	

# M12: Splitters, Tees, and Junction Blocks

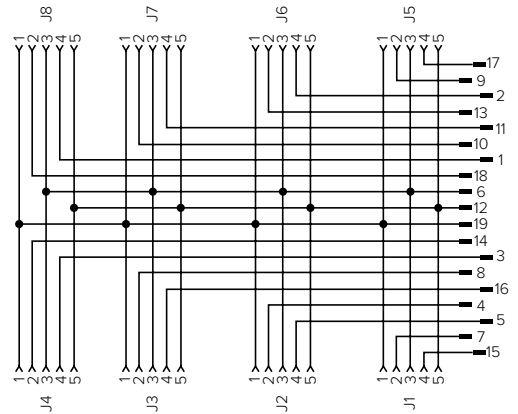
## Molded I/O Junction Blocks

Temperature -40 °C to +70 °C

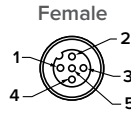
Environmental Rating IP67

Certifications  

Wiring Diagram

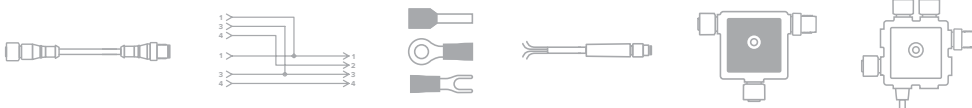


### 5-Pin (Voltage: 30 V DC/AC, Current: 8 A total per connector, AWG: 18 and 22, Cable ø: 9.2 mm)

Cable Lengths*		LED	Models	Pinout
Branches (Female)	Trunk			
8 x No Branch/ Integral QD	1 m with Flying Leads	PNP LED	R95-8M125-C1-D24P	 <p>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)</p>
	2 m with Flying Leads		R95-8M125-C2-D24P	
	5 m with Flying Leads		R95-8M125-C5-D24P	
	10 m with Flying Leads		R95-8M125-C10-D24P	
	0.3 m 19-pin M23 Male QD		R95-8M125-0.3M23-D24P	
	1 m with Flying Leads	No LED	R95-8M125-C1-D24	
	2 m with Flying Leads		R95-8M125-C2-D24	
	5 m with Flying Leads		R95-8M125-C5-D24	
	10 m with Flying Leads		R95-8M125-C10-D24	
	0.3 m 19-pin M23 Male QD		R95-8M125-0.3M23-D24	



\*Custom lengths available to the nearest 0.1 m.

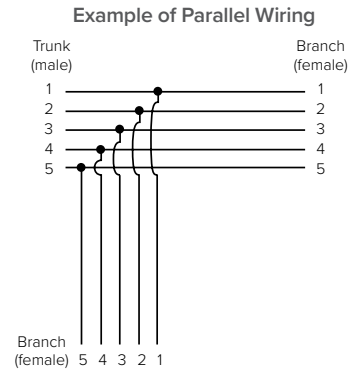


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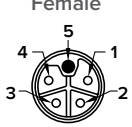

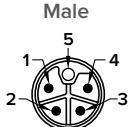
# M12: Splitters, Tees, and Junction Blocks



## Power Junction Blocks

Temperature -40 °C to +70 °C Environmental Rating IP65, IP67, IP68

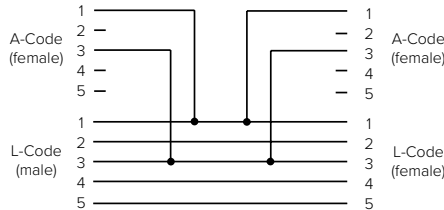


### 5-Pin L-Code (Voltage: 60 V DC, Current: 16 A)

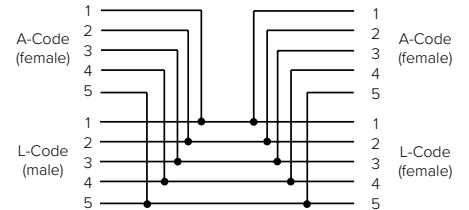
Ports	Models	Pinout
 1 x L-code male M12 2 x L-code female M12	R50-2M125L-M125-P	<b>Female</b>  1 = Brown 2 = White 3 = Blue 4 = Black 5 = Yellow/Green
 1 x L-code male M12 2 x L-code female M12	R50T-2M125L-M125-P	<b>Male</b> 

Temperature -40 °C to +70 °C  
 Environmental Rating IP65, IP67, IP68  
 Certifications  


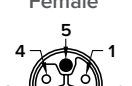
#### V+, V- Power Distribution Wiring



#### Parallel Wiring



### 5-Pin L-Code to A-Code (Voltage: 63 V DC, Current: 4 A A-Code, 16 A L-Code)

Power Connections	Power Drops	Model	Wiring	Pinout
 1 x L-code male M12 1 x L-code female M12	2 x A-code female M12	R50-M12LM5-M12LF5-2M12F5-P13	V+, V- Power Distribution	<b>Female</b>  <b>Male</b> 
 4 x A-code female M12	2 x A-code female M12	R50-M12LM5-M12LF5-2M12F5-P	Parallel	<b>Female</b> 
		R95-M12LM5-M12LF5-4M12F5-P13	V+, V- Power Distribution	<b>Female</b> 

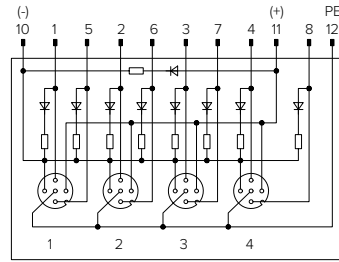
# M12: Splitters, Tees, and Junction Blocks

## I/O Junction Blocks


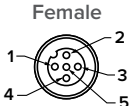
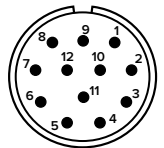
Temperature -25 °C to +80 °C

Environmental Rating IP67

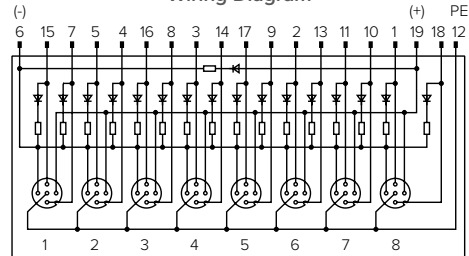
Wiring Diagram




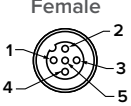
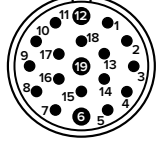
### 4 Port 5-Pin (LED Voltage: 30 V DC/AC, Non-LED Voltage: 60 V DC/AC, Current: 2 A per port (6 A total))

Description	Output	Indication	Models	Pinout
 5-Pin to 12-Pin	PNP	LED	JB-4M12-M23-P24	 Female
	NPN	LED	JB-4M12-M23-N24	 Male
	Discrete	Non-LED	JB-4M12-M23-24	

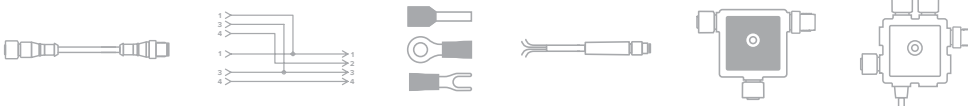
Wiring Diagram



### 8 Port 5-Pin (LED Voltage: 30 V DC/AC, Non-LED Voltage: 60 V DC/AC, Current: 2 A per port (6 A total))

Description	Output	Indication	Models	Pinout
 5-Pin to 19-Pin	PNP	LED	JB-8M12-M23-P24	 Female
	NPN	LED	JB-8M12-M23-N24	 Male
	Discrete	Non-LED	JB-8M12-M23-24	

\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.

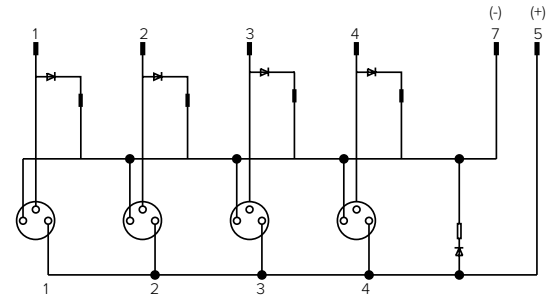
# M12: Splitters, Tees, and Junction Blocks

## I/O Junction Blocks

Temperature -25 °C to +80 °C

Environmental Rating IP67

Wiring Diagram

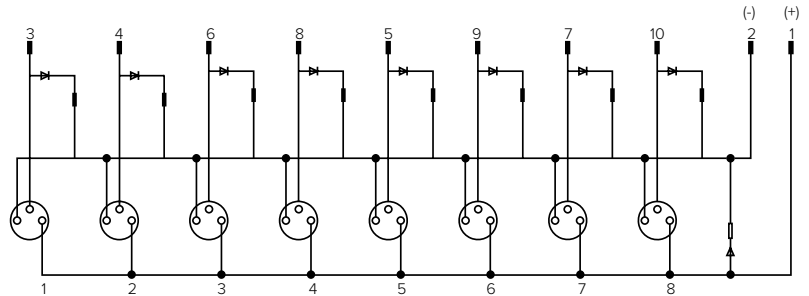


### 4 Port 3-Pin (LED Voltage: 30 V DC/AC, Non-LED Voltage: 60 V DC/AC, Current: 2 A per port (6 A total))



Description	Output	Indication	Models	Pinout
3-Pin to 8-Pin	PNP	LED	JB-4M8-M12-P4	
	NPN	LED	JB-4M8-M12-N4	
	Discrete	Non-LED	JB-4M8-M12-4	

Wiring Diagram



### 8 Port 3-Pin (LED Voltage: 30 V DC/AC, Non-LED Voltage: 60 V DC/AC, Current: 1 A per port (3 A total))



Description	Output	Indication	Models	Pinout
3-Pin to 12-Pin	PNP	LED	JB-8M8-M12-P4	
	NPN	LED	JB-8M8-M12-N4	
	Discrete	Non-LED	JB-8M8-M12-4	

# M12 Connectors: Field Wireable

Terminal	Screw	Temperature	-40° to +85 °C
		Environmental Rating	IP68

## 4-Pin (Voltage: 60 V DC/AC, Current: 4 A, Max AWG: 22, Cable ø: 4-6 mm)



Description	Straight	Right-Angle	Pinout
Female Screw Terminal	BFW-M12F4-6X	BFW-M12F4A-6X	<p>Female</p>

Male Screw Terminal	BFW-M12M4-6X	BFW-M12M4A-6X	<p>Male</p>
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## 5-Pin (Voltage: 60 V DC/AC, Current: 4 A, Max AWG: 22, Cable ø: 4-6 mm)



Description	Straight	Right-Angle	Pinout
Female Screw Terminal	BFW-M12F5-6X	BFW-M12F5A-6X	<p>Female</p>

Male Screw Terminal	BFW-M12M5-6X	BFW-M12M5A-6X	<p>Male</p>
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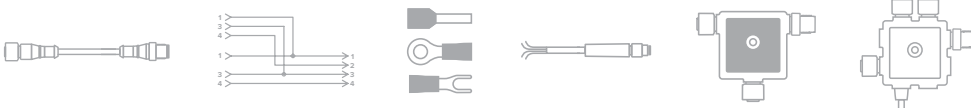
## 8-Pin (Voltage: 30 V DC/AC, Current: 2 A, Max AWG: 22, Cable ø: 4-6 mm)



Description	Straight	Right-Angle	Pinout
Female Screw Terminal	BFW-M12F8-8X	BFW-M12F8A-8X	<p>Female</p>

Male Screw Terminal	BFW-M12M8-8X	BFW-M12M8A-8X	<p>Male</p>
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\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.


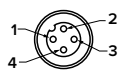


# M12 Connectors: Field Wireable Slide Lock

Terminal	Slide Lock	Temperature	-40° to +85 °C
		Environmental Rating	IP68


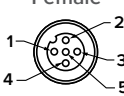

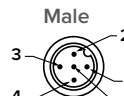


Slide Lock Terminal

## 4-Pin (Voltage: 60 V DC/AC, Current: 4 A, AWG: 20-24, Cable ø: 4-6 mm)

Description	Straight	Right-Angle	Pinout
 Female Slide Lock Terminal	BFW-M12F4-6SL	BFW-M12F4A-6SL	<p>Female</p> 
 Male Slide Lock Terminal	BFW-M12M4-6SL	BFW-M12M4A-6SL	<p>Male</p> 


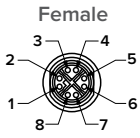

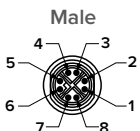
## 5-Pin (Voltage: 60 V DC/AC, Current: 4 A, AWG: 20-24, Cable ø: 4-6 mm)

Description	Straight	Right-Angle	Pinout
 Female Slide Lock Terminal	BFW-M12F5-6SL	BFW-M12F5A-6SL	<p>Female</p> 
 Male Slide Lock Terminal	BFW-M12M5-6SL	BFW-M12M5A-6SL	<p>Male</p> 

# M12 Connectors: Ethernet Shielded Field Wireable

Terminal	Slide Lock	Temperature	-40° to +85 °C
		Environmental Rating	IP67

## 8-Pin (Voltage: 60 V DC/50 V AC, Current: 0.5 A, AWG: 22-27, Cable ø: 5.5-9 mm)

Description	Straight	Pinout
 Female Slide Lock Terminal	BFW-M12XF8-9X	<p>Female</p> 
 Male Slide Lock Terminal	BFW-M12XM8-9X	<p>Male</p> 

1 = White/orange      5 = White/brown  
 2 = Orange            6 = Brown  
 3 = White/green      7 = White/blue  
 4 = Green              8 = Blue

# M8 Connectors: Field Wireables

Temperature -25° to +90 °C

Environmental Rating IP67

## 3-Pin Insulation Displacement

(Voltage: 60 V DC/AC, Current: 4 A, Maximum AWG: 24, Temperature: -25° to +70 °C, Cable ø: 4-5 mm)



Description	Straight	Right-Angle	Pinout	
Female Insulation Displacement	FIC-M8F3	FIC-M8F3A		
Male Insulation Displacement	FIC-M8M3	FIC-M8M3A		

## 3-Pin Screw Terminal

(Voltage: 60 V DC/AC, Current: 3 A, Maximum AWG: 24, Temperature: -25° to +90 °C, Cable ø: 3.5-5 mm)



Description	Straight	Right-Angle	Pinout	
Female Screw Terminal	BFW-M8F3-4X	BFW-M8F3A-4X		
Male Screw Terminal	BFW-M8M3-4X	BFW-M8M3A-4X		

## 4-Pin Insulation Displacement

(Voltage: 60 V DC/AC, Current: 4 A, Maximum AWG: 24, Temperature: -25° to +70 °C, Cable ø: 4-5 mm)



Description	Straight	Right-Angle	Pinout	
Female Insulation Displacement	FIC-M8F4	FIC-M8F4A		
Male Insulation Displacement	FIC-M8M4	FIC-M8M4A		

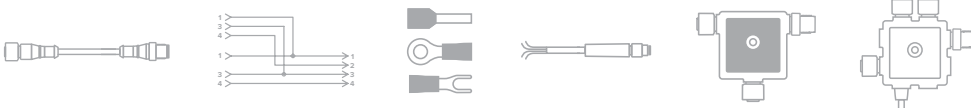
## 4-Pin Screw Terminal

(Voltage: 30 V DC/AC, Current: 3 A, Maximum AWG: 24, Temperature: -25° to +90 °C, Cable ø: 3.5-5 mm)



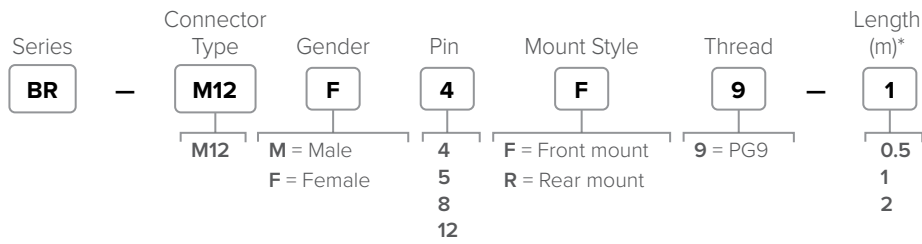
Description	Straight	Right-Angle	Pinout	
Female Screw Terminal	BFW-M8F4-4X	BFW-M8F4A-4X		
Male Screw Terminal	BFW-M8M4-4X	BFW-M8M4A-4X		

\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.

# M12 Connectors: Signal Receptacles


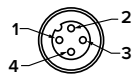






Temperature


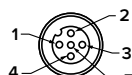




-20° to +70 °C

Environmental Rating IP67

## 4-Pin (Voltage: 250 V DC/AC, Current: 4 A, AWG: 22)

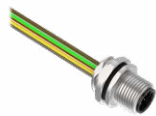
Description	Length*	Model	Pinout
 Front Mount Female QD to Flying Leads	0.5 m	BR-M12F4F9-0.5	 Female 1 = Brown 2 = White 3 = Blue 4 = Black
	1 m	BR-M12F4F9-1	
	2 m	BR-M12F4F9-2	
 Rear Mount Female QD to Flying Leads	0.5 m	BR-M12F4R9-0.5	
	1 m	BR-M12F4R9-1	
	2 m	BR-M12F4R9-2	
 Front Mount Male QD to Flying Leads	0.5 m	BR-M12M4F9-0.5	 Male 1 = Brown 2 = White 3 = Blue 4 = Black
	1 m	BR-M12M4F9-1	
	2 m	BR-M12M4F9-2	
 Rear Mount Male QD to Flying Leads	0.5 m	BR-M12M4R9-0.5	
	1 m	BR-M12M4R9-1	
	2 m	BR-M12M4R9-2	

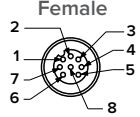
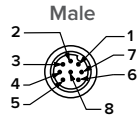
## 5-Pin (Voltage: 60 V DC, Current: 4 A, AWG: 22)

Description	Length*	Model	Pinout
 Front Mount Female QD to Flying Leads	0.5 m	BR-M12F5F9-0.5	 Female 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray
	1 m	BR-M12F5F9-1	
	2 m	BR-M12F5F9-2	
 Rear Mount Female QD to Flying Leads	0.5 m	BR-M12F5R9-0.5	
	1 m	BR-M12F5R9-1	
	2 m	BR-M12F5R9-2	
 Front Mount Male QD to Flying Leads	0.5 m	BR-M12M5F9-0.5	 Male 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray
	1 m	BR-M12M5F9-1	
	2 m	BR-M12M5F9-2	
 Rear Mount Male QD to Flying Leads	0.5 m	BR-M12M5R9-0.5	
	1 m	BR-M12M5R9-1	
	2 m	BR-M12M5R9-2	

# M12 Connectors: Signal Receptacles

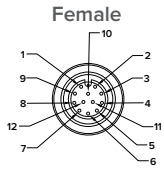
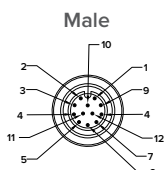
## 8-Pin (Voltage: 30 V DC, Current: 2 A, AWG: 24)



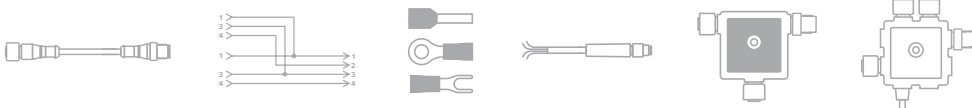
Description	Length*	Model	Pinout
Front Mount Female QD to Flying Leads	0.5 m	BR-M12F8F9-0.5	 <p>Female</p> <p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red</p>
	1 m	BR-M12F8F9-1	
	2 m	BR-M12F8F9-2	
Rear Mount Female QD to Flying Leads	0.5 m	BR-M12F8R9-0.5	
	1 m	BR-M12F8R9-1	
	2 m	BR-M12F8R9-2	
Front Mount Male QD to Flying Leads	0.5 m	BR-M12M8F9-0.5	 <p>Male</p> <p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red</p>
	1 m	BR-M12M8F9-1	
	2 m	BR-M12M8F9-2	
Rear Mount Male QD to Flying Leads	0.5 m	BR-M12M8R9-0.5	
	1 m	BR-M12M8R9-1	
	2 m	BR-M12M8R9-2	

## 12-Pin (Voltage: 30 V DC, Current: 1.5 A, AWG: 26)



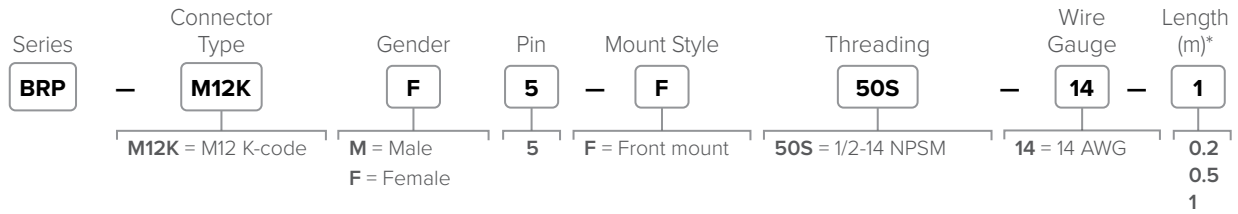
Description	Length*	Model	Pinout
Front Mount Female QD to Flying Leads	0.5 m	BR-M12F12F9-0.5	 <p>Female</p> <p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red 9 = Orange 10 = Plum 11 = Black 12 = Violet</p>
	1 m	BR-M12F12F9-1	
	2 m	BR-M12F12F9-2	
Rear Mount Female QD to Flying Leads	0.5 m	BR-M12F12R9-0.5	
	1 m	BR-M12F12R9-1	
	2 m	BR-M12F12R9-2	
Front Mount Male QD to Flying Leads	0.5 m	BR-M12M12F9-0.5	 <p>Male</p> <p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red 9 = Orange 10 = Plum 11 = Black 12 = Violet</p>
	1 m	BR-M12M12F9-1	
	2 m	BR-M12M12F9-2	
Rear Mount Male QD to Flying Leads	0.5 m	BR-M12M12R9-0.5	
	1 m	BR-M12M12R9-1	
	2 m	BR-M12M12R9-2	

\*Custom lengths available to the nearest 0.1 m.



Contact Banner for more connectivity solutions and custom capabilities.

# M12 Connectors: Power Receptacles


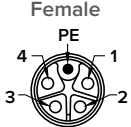

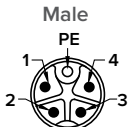


Temperature

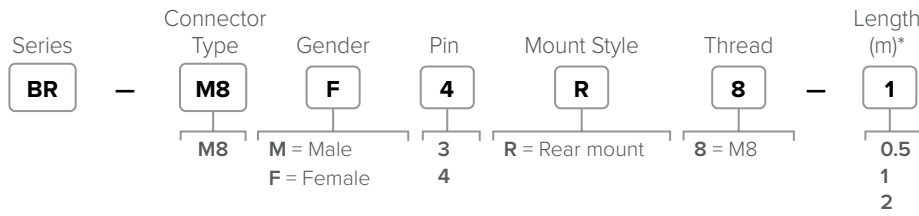
-15° to +80 °C

Environmental Rating IP67

## 5-Pin K-Code (Voltage: 600 V DC, Current: 16 A, AWG: 14)

Description	Length*	Model	Pinout
 Front Mount Female QD to Flying Leads	0.2 m	BRP-M12KF5-F50S-14-0.2	 Female PE 4 1 3 2 1 = Black 2 = Red 3 = White 4 = Blue PE = Yellow/Green
	0.5 m	BRP-M12KF5-F50S-14-0.5	
	1 m	BRP-M12KF5-F50S-14-1	
 Front Mount Male QD to Flying Leads	0.2 m	BRP-M12KM5-F50S-14-0.2	 Male PE 1 4 2 3 1 = Black 2 = Red 3 = White 4 = Blue PE = Yellow/Green
	0.5 m	BRP-M12KM5-F50S-14-0.5	
	1 m	BRP-M12KM5-F50S-14-1	

# M8 Connectors: **Signal Receptacles**



Temperature

-20° to +70 °C

Environmental Rating IP67

## 3-Pin Rear Mount (Voltage: 60 V DC/50 V AC, Current: 3 A, AWG: 24)



Description	Length*	Model	Pinout
Female QD to Flying Leads	1 m	BR-M8F3R8-1	<p>Female</p> <p>1 = Brown            2 = White            3 = Blue            4 = Black</p>



Male QD to Flying Leads	1 m	BR-M8M3R8-1	<p>Male</p> <p>1 = Brown            2 = White            3 = Blue            4 = Black</p>
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## 4-Pin Rear Mount (Voltage: 60 V DC/50 V AC, Current: 3 A, AWG: 24)



Description	Length*	Model	Pinout
Female QD to Flying Leads	1 m	BR-M8F4R8-1	<p>Female</p> <p>1 = Brown            2 = White            3 = Blue            4 = Black</p>

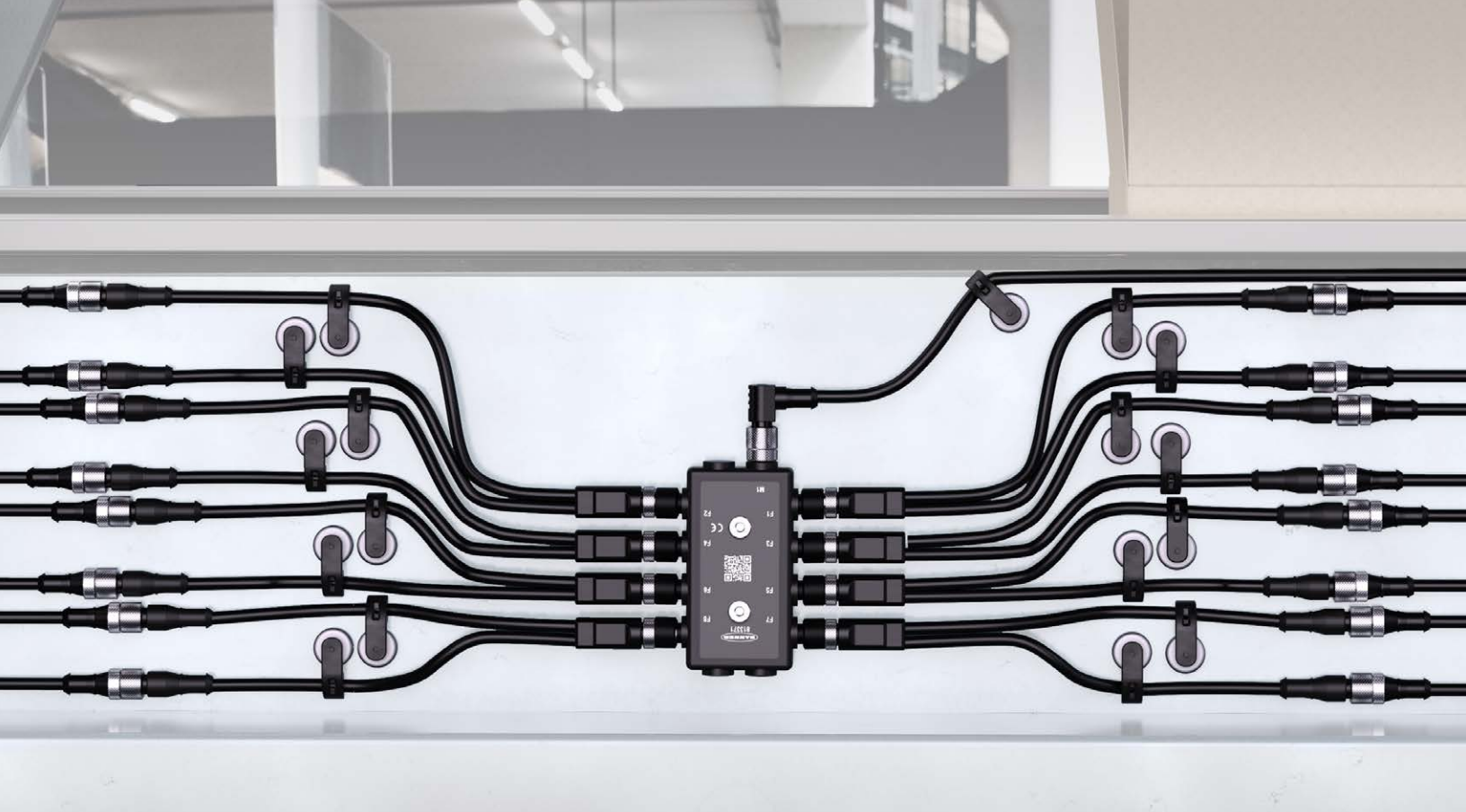


Male QD to Flying Leads	1 m	BR-M8M4R8-1	<p>Male</p> <p>1 = Brown            2 = White            3 = Blue            4 = Black</p>
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**\*Custom lengths available to the nearest 0.1 m.**

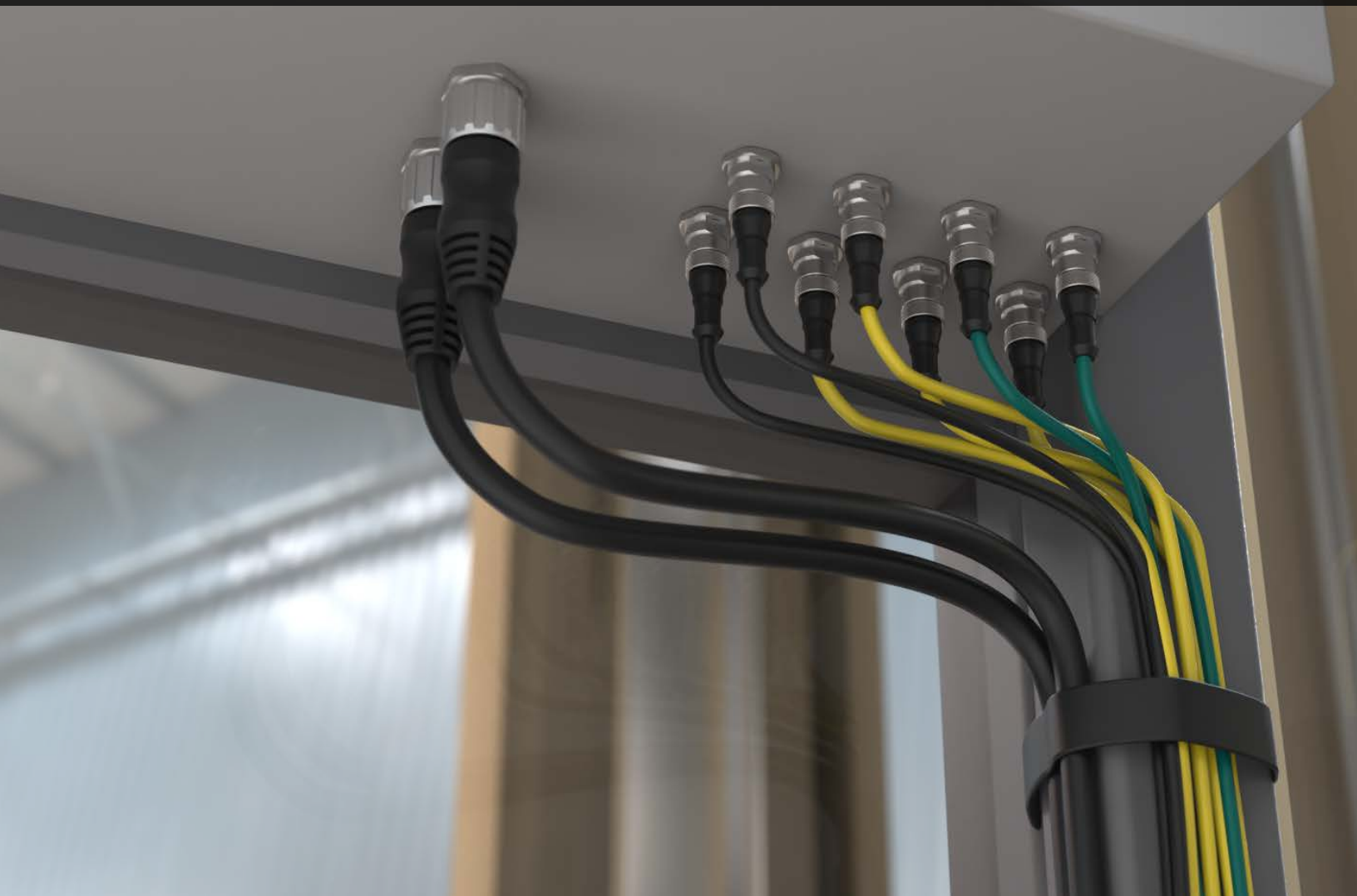


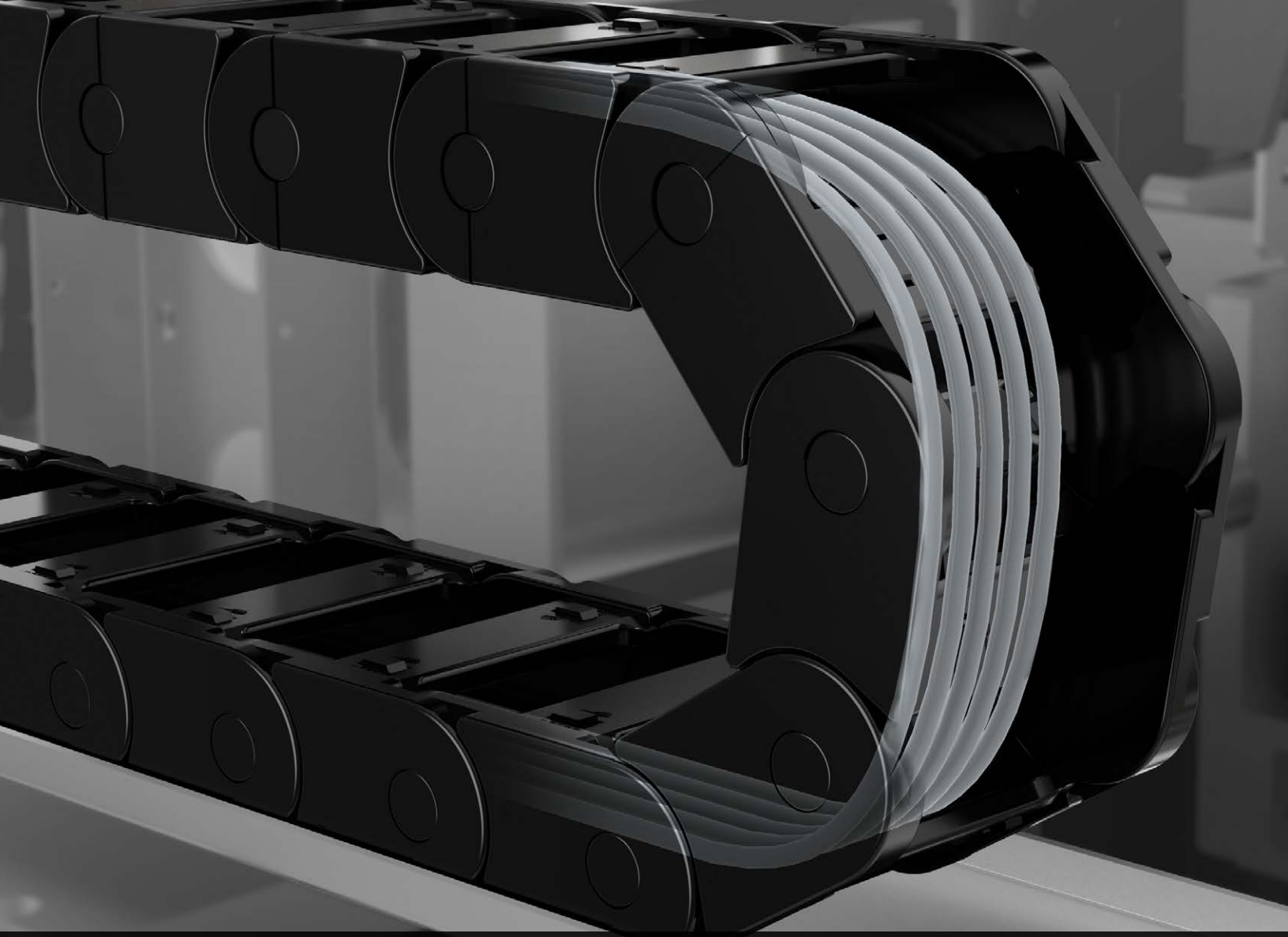
Contact Banner for more connectivity solutions and custom capabilities.



M12 Signal Cordsets, M12 Splitters, and Molded Junction Blocks (see page 6, 21, and 25)

M12 Signal Cordsets and M23 Signal Cordsets (see page 6 and 15)





M12 High Flex Cordsets (see page 6)

M12 Signal Cordsets and Splitters (see page 6 and 21)



M12 Field Wireables with





M12 Signal and Data Cordsets (see page 6 and 12)



M12 Power and Data Cordsets (see page 11 and 12)

Slide Lock (see page 31)



M12 and M8 Signal Receptacles (see page 33 and 36)



# Smarter Automation. Better Solutions.™

Banner Engineering designs and manufactures industrial automation products including sensors and measurement devices; lighting, indicators, and displays; connectivity; condition monitoring solutions; machine safety products; industrial wireless systems; remote I/O; plus barcode scanners and machine vision. By listening to customers and engineering solutions that remove production constraints so they can achieve operational goals, Banner is an integral part of making many of the things we use every day, from food and medicine to cars and electronics. In fact, a high-quality, reliable Banner product is installed somewhere around the world every two seconds. Headquartered in Minneapolis since 1966, Banner is an industry leader with more than 10,000 products, operations on five continents, and a worldwide team of more than 5,500 employees and partners. Our dedication to innovation and personable service makes Banner a trusted source of smart automation technologies to customers around the globe.

