Connectivity Solutions



ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

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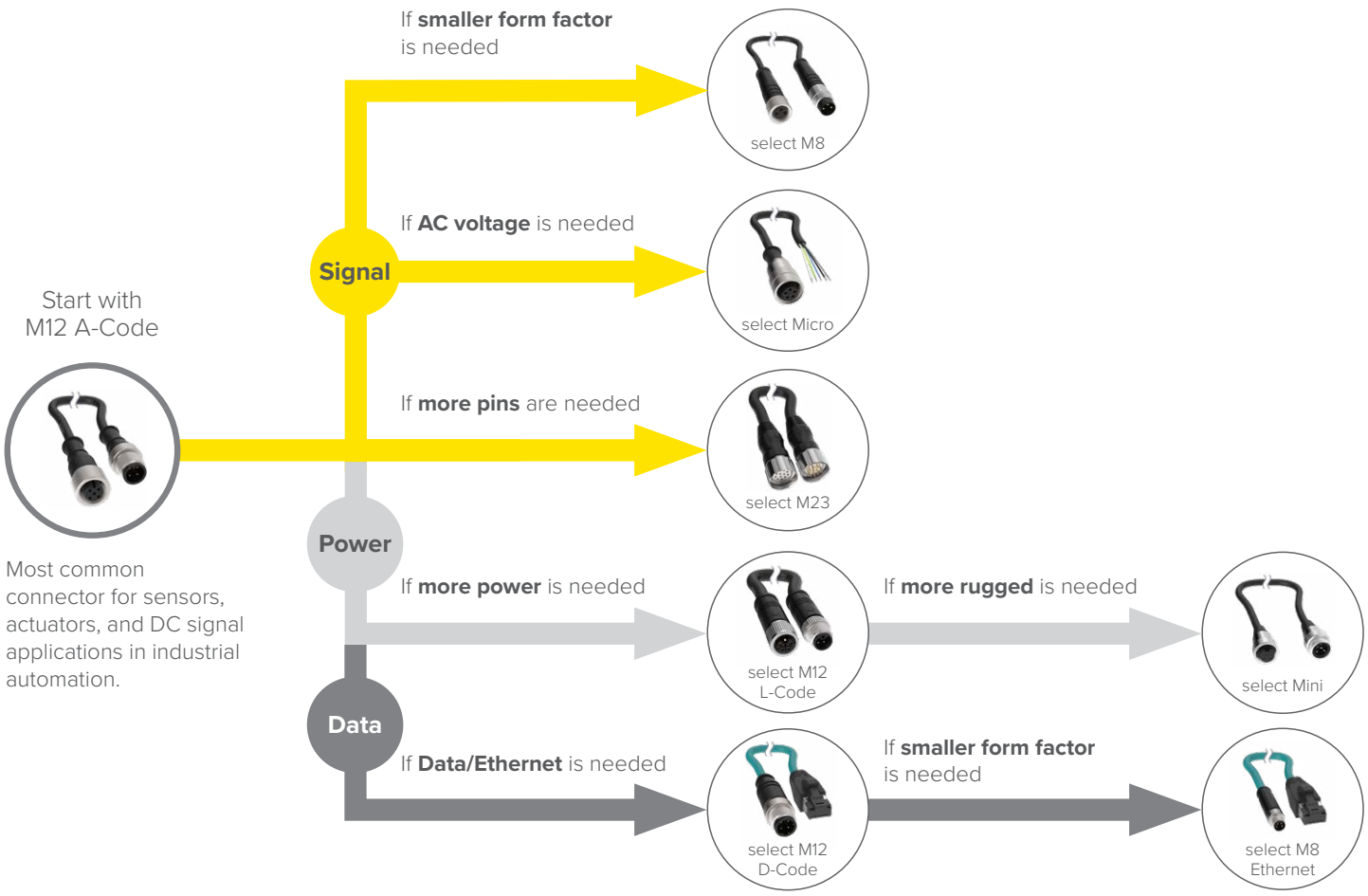
Choosing a Banner Cordset



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®

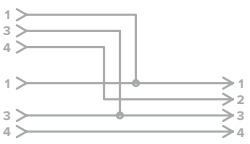

Deutsch®

Available In ANY LENGTH

to the nearest 0.1 meter

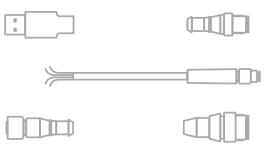


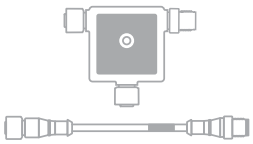
Custom Capabilities

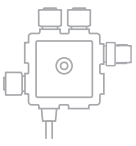


Wiring


Terminations


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.

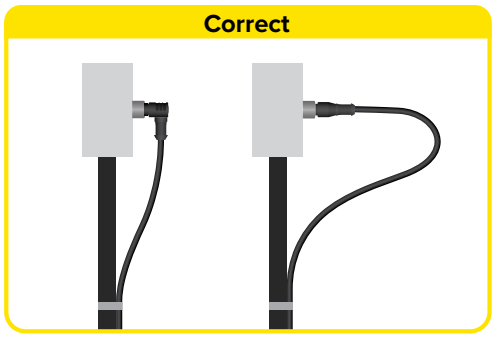
	Cable Jacket Material				
Condition	**PVC**	**TPU**	**TPE**	**HF20**	**CB60**
Temperature Range	-40° to +105 °C	-40° to +90 °C	-40° to +105 °C	-40° to +105 °C	-60° to +90 °C
Abrasion Rating		✓			✓
Flexing Cycles	5 Million +	5 Million +	5 Million +	20 Million +	5 Million +
Cost	$	$$	$$	$$	$$$
Weld Spatter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

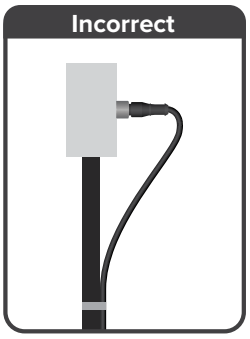
Installation Considerations

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

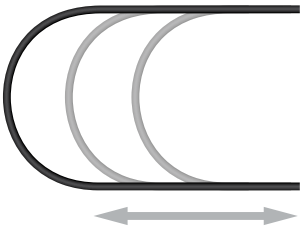




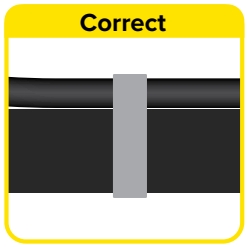
Cabling for Motion Applications

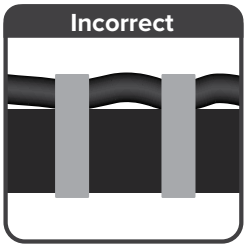
High-flex cordsets are designed for applications with continuous motion, such as robotic arms, c-tracks, and automated machinery. Banner's high-flex cordsets are backed by a 20-million flex cycle warranty for long-lasting performance and reliability.

Minimum Bend Radius for Moving Applications
Non-shielded cordset: 10x cable diameter
Shielded cordset: 15x cable diameter



Proper Use Of Cable Ties

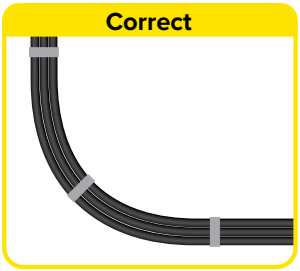


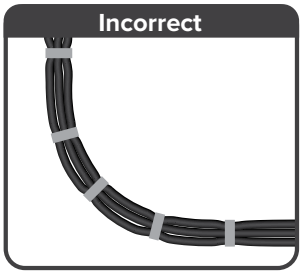


When using cable ties, secure them just tightly enough to hold cables in place without compressing or damaging the jacket. Even, moderate tension prevents strain on the conductors and maintains flexibility over time.

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**

Blank for Single-Ended

Series	Connector Type	Gender†	Pin	Body	Connector Modifier	–	Connector Type	Gender†	Pin	Body	Connector Modifier	–	Jacket Color	Jacket Type	Wire Gauge	–	Length (m)*	–	Modifier
BC	M12	F	4				M12	M	4						22		2		

Series: BC

Connector Type: M12

Gender†: F = Female; M = Male

Pin: 4, 5, 8, 12

Body: Blank = Standard; Z = Large body††; S = Shield to coupling nut††

Connector Modifier: Blank = Straight; A = Angled 90°

Blank for Single-Ended

Connector Type: M12

Gender†: F = Female; M = Male

Pin: 4, 5, 8, 12

Body: Blank = Standard; Z = Large body††; S = Shield to coupling nut††

Connector Modifier: Blank = Straight; A = Angled 90°

Jacket Color: Blank = Black; Y = Yellow; G = Gray

Jacket Type: Blank = PVC; U = TPU; E = TPE

Wire Gauge: 18 = 18 AWG**; 22 = 22 AWG; 24 = 24 AWG

Length (m)*: 0.3, 1, 2, 5, 8, 10, 15

Modifier: Blank = None; SST = Stainless steel coupling; SF = Foil shield-floating (not connected); HF20 = High flex, 20 million cycles; CB60 = High-Performance with CB60 technology

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

**18 AWG available in Z-body only,

††UL pending

Vibration Shock	Meets IEC 60068-2-6 requirements	**Environmental Rating**	IP66, IP67, IP68, NEMA 1, UL Type 1
Mechanical Shock	Meets IEC 60068-2-27 requirements	**Certifications**	CE, cULus LISTED
Temperature	-40° to +70 °C		

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



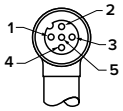




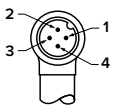
Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F4-22-2	BC-M12F4A-22-2
	5 m	BC-M12F4-22-5	BC-M12F4A-22-5
	10 m	BC-M12F4-22-10	BC-M12F4A-22-10
Male QD to Flying Leads	2 m	BC-M12M4-22-2	—
	5 m	BC-M12M4-22-5	—
	10 m	BC-M12M4-22-10	—
Description	**Length***	**Straight/Straight**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

Pinout

Female



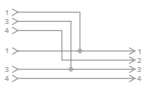
Male



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

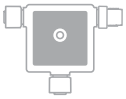
***Custom lengths available to the nearest 0.1 m.**

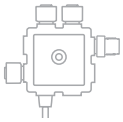












Contact Banner for more connectivity solutions and custom capabilities.

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

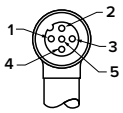




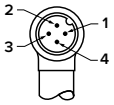
Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F4Z-18-2	BC-M12F4ZA-18-2
	5 m	BC-M12F4Z-18-5	BC-M12F4ZA-18-5
	10 m	BC-M12F4Z-18-10	BC-M12F4ZA-18-10
Male QD to Flying Leads	2 m	BC-M12M4Z-18-2	BC-M12M4ZA-18-2
	5 m	BC-M12M4Z-18-5	BC-M12M4ZA-18-5
	10 m	BC-M12M4Z-18-10	BC-M12M4ZA-18-10
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

Pinout

Female



Male



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

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

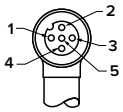




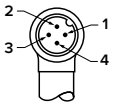
Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F4Z-YE18-2	BC-M12F4ZA-YE18-2
	5 m	BC-M12F4Z-YE18-5	BC-M12F4ZA-YE18-5
	10 m	BC-M12F4Z-YE18-10	BC-M12F4ZA-YE18-10
Male QD to Flying Leads	2 m	BC-M12M4Z-YE18-2	BC-M12M4ZA-YE18-2
	5 m	BC-M12M4Z-YE18-5	BC-M12M4ZA-YE18-5
	10 m	BC-M12M4Z-YE18-10	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

Pinout

Female



Male



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

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

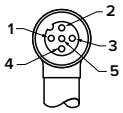




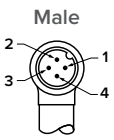
Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F4-U22-2-CB60	BC-M12F4A-U22-2-CB60
	5 m	BC-M12F4-U22-5-CB60	BC-M12F4A-U22-5-CB60
	10 m	BC-M12F4-U22-10-CB60	BC-M12F4A-U22-10-CB60
Male QD to Flying Leads	2 m	BC-M12M4-U22-2-CB60	BC-M12M4A-U22-2-CB60
	5 m	BC-M12M4-U22-5-CB60	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

Pinout

Female



Male



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

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)

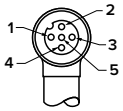




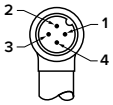
Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F4-G22-2-HF20	BC-M12F4A-G22-2-HF20
	5 m	BC-M12F4-G22-5-HF20	BC-M12F4A-G22-5-HF20
	10 m	BC-M12F4-G22-10-HF20	BC-M12F4A-G22-10-HF20
Male QD to Flying Leads	2 m	BC-M12M4-G22-2-HF20	BC-M12M4A-G22-2-HF20
	5 m	BC-M12M4-G22-5-HF20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

Pinout

Female



Male



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

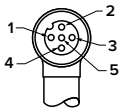
4-Pin PVC With Foil Shield A-Code (Voltage: 30 V DC, Current: 4 A, AWG: 22, Cable ø: 5.2 mm)



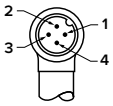

Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F4-22-2-SF	BC-M12F4A-22-2-SF
	5 m	BC-M12F4-22-5-SF	—
	10 m	BC-M12F4-22-10-SF	BC-M12F4A-22-10-SF
Description	**Length***	**Straight/Straight** (Female/Male)	**Straight/Right-Angle** (Female/Male)
Double-Ended	2 m	BC-M12F4-M12M4-22-2-SF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

Pinout

Female



Male



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)

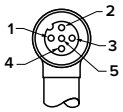




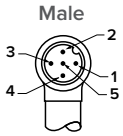
Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F5-22-2	BC-M12F5A-22-2
	5 m	BC-M12F5-22-5	BC-M12F5A-22-5
	10 m	BC-M12F5-22-10	BC-M12F5A-22-10
Male QD to Flying Leads	2 m	BC-M12M5-22-2	BC-M12M5A-22-2
	5 m	BC-M12M5-22-5	BC-M12M5A-22-5
	10 m	BC-M12M5-22-10	BC-M12M5A-22-10
Description	**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

Pinout

Female

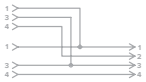


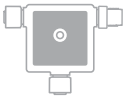
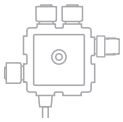
Male



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.

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



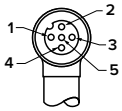




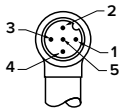
Description	Length	Straight
Female QD to Flying Leads	2 m	BC-M12F5S-22-2
	5 m	BC-M12F5S-22-5
	10 m	BC-M12F5S-22-10
Male QD to Flying Leads	2 m	BC-M12M5S-22-2
	5 m	BC-M12M5S-22-5
	10 m	BC-M12M5S-22-10
Description	**Length***	**Straight/Straight** (Female/Male)
Double-Ended	2 m	BC-M12F5S-M12M5S-22-2
	5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

Pinout

Female



Male



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)



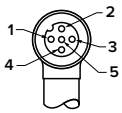




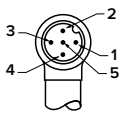
Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F5-GE22-2-HF20	BC-M12F5A-GE22-2-HF20
	5 m	BC-M12F5-GE22-5-HF20	BC-M12F5A-GE22-5-HF20
	10 m	BC-M12F5-GE22-10-HF20	BC-M12F5A-GE22-10-HF20
Male QD to Flying Leads	2 m	BC-M12M5-GE22-2-HF20	BC-M12M5A-GE22-2-HF20
	5 m	BC-M12M5-GE22-5-HF20	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

Pinout

Female



Male



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)

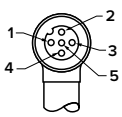




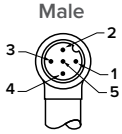
Description	Length	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F5-22-2-SF	BC-M12F5A-22-2-SF
	5 m	BC-M12F5-22-5-SF	BC-M12F5A-22-5-SF
	10 m	BC-M12F5-22-10-SF	BC-M12F5A-22-10-SF
Description	**Length**	**Straight/Straight** (Female/Male)	**Straight/Right-Angle** (Female/Male)
Double-Ended	2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

Pinout

Female



Male



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)



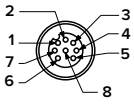




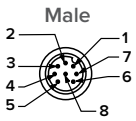
Description	Length	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F8-24-2	—
	5 m	BC-M12F8-24-5	—
	10 m	BC-M12F8-24-10	—
Male QD to Flying Leads	2 m	BC-M12M8-24-2	—
	5 m	BC-M12M8-24-5	—
	10 m	BC-M12M8-24-10	—
Description	**Length**	**Straight/Straight** (Female/Male)	**Straight/Right-Angle** (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	—

Pinout

Female



Male



1 = White
2 = Brown
3 = Green
4 = Yellow
5 = Gray
6 = Pink
7 = Blue
8 = Red

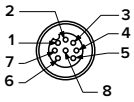
8-Pin PVC With Foil Shield A-Code (Voltage: 30 V DC, Current: 2 A, AWG: 24, Cable ø: 5.6 mm)



Description	Length	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F8-24-2-SF	BC-M12F8A-24-2-SF
	5 m	BC-M12F8-24-5-SF	BC-M12F8A-24-5-SF
	10 m	BC-M12F8-24-10-SF	BC-M12F8A-24-10-SF

Pinout

Female



1 = White
2 = Brown
3 = Green
4 = Yellow
5 = Gray
6 = Pink
7 = Blue
8 = Red

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

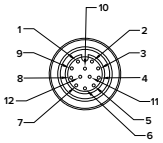




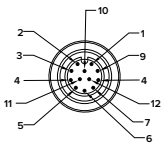
Description	Length	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M12F12-24-2	BC-M12F12A-24-2
	5 m	BC-M12F12-24-5	BC-M12F12A-24-5
	10 m	BC-M12F12-24-10	BC-M12F12A-24-10
Description	**Length**	**Straight/Straight** (Female/Male)	**Straight/Right-Angle** (Female/Male)
Double-Ended	2 m	BC-M12F12-M12M12-24-2	—
	5 m	BC-M12F12-M12M12-24-5	—
	10 m	BC-M12F12-M12M12-24-10	—

Pinout

Female



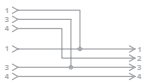
Male



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

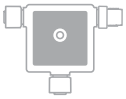
***Custom lengths available to the nearest 0.1 m.**

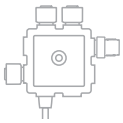












Contact Banner for more connectivity solutions and custom capabilities.

M12 Cordsets: **Power**

Blank for Single-Ended

Series	Connector Type	Gender†	Pin	Body		Connector Type	Gender†	Pin	Body		Jacket Type	Wire Gauge		Length (m)*		
BCP	**M12L**	**F**	**5**		—	**M12L**	**M**	**5**		—		**14**	—	**2**	—	**UTED**
M12L = M12 L-code **M12K** = M12 K-code			**5**			**M12L** = M12 L-code **M12K** = M12 K-code		**5**			**Blank** = Black PVC **U** = Black PUR **E** = Black TPE	**14** = 14 AWG		**1** **2** **5** **8** **10**		**UTED**= TC-ER, DB
		F = Female **M** = Male		**Blank** = Standard **V** = XL body			**F** = Female **M** = Male		**Blank** = Standard **V** = XL body							

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

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

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

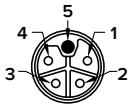




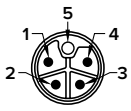
Description	Length	Straight	Right-Angle
Female QD to Flying Leads	2 m	BCP-M12LF5-14-2	BCP-M12LF5A-14-2
	5 m	BCP-M12LF5-14-5	BCP-M12LF5A-14-5
	10 m	BCP-M12LF5-14-10	BCP-M12LF5A-14-10
Male QD to Flying Leads	2 m	BCP-M12LM5-14-2	BCP-M12LM5A-14-2
	5 m	BCP-M12LM5-14-5	BCP-M12LM5A-14-5
	10 m	BCP-M12LM5-14-10	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	—

Pinout

Female



Male



1 = Brown
2 = White
3 = Blue
4 = Black
5 = Yellow/Green
Shell = Braid

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

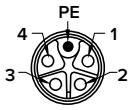




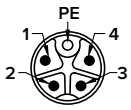
Description	Length	Straight
Female QD to Flying Leads	2 m	BCP-M12KF5V-E14-2-UTED
	5 m	BCP-M12KF5V-E14-5-UTED
	10 m	BCP-M12KF5V-E14-10-UTED
Male QD to Flying Leads	2 m	BCP-M12KM5V-E14-2-UTED
	5 m	BCP-M12KM5V-E14-5-UTED
	10 m	BCP-M12KM5V-E14-10-UTED
Description	**Length**	**Straight/Straight** (Female/Male)
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

Pinout

Female



Male



1 = Black
2 = Red
3 = White
4 = Blue
PE = Yellow/Green

M12 Cordsets: **Data**

Blank for Single-Ended

Series		Connector Type	Gender†		Connector Type	Gender†		Length (m)*
BCD	—	**M12D**	**M**	—	**M12D**	**M**	—	**2**
		M12D = 4-pin D-Code	**M** = Male **F** = Female		**M12D** = 4-pin D-Code	**M** = Male **F** = Female		**0.5** **1** **2** **3** **5**

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**	

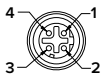
4-Pin D-Code (Voltage: 60 V DC, Current: 4 A, AWG: 22, Cable ø: 7 mm)

Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BCD-M12DF-2	—
	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	—

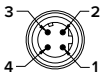
Description	Length*	Straight/Straight (Female/Male)	Straight/Straight (Male/Male)
Double-Ended	2 m	BCD-M12DM-M12DF-2	BCD-M12DM-M12DM-2
	5 m	BCD-M12DM-M12DF-5	BCD-M12DM-M12DM-5
	10 m	BCD-M12DM-M12DF-10	BCD-M12DM-M12DM-10

Pinout

Female

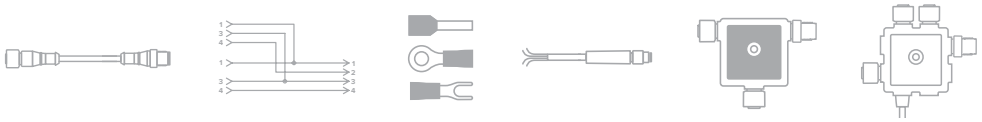


Male



1 = White/orange
2 = Orange
3 = White/blue
4 = Blue

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



Contact Banner for more connectivity solutions and custom capabilities.

M8 Cordsets: **Signal**

Blank for Single-Ended

Series	Connector Type	Gender†	Pin	Connector Modifier	—	Connector Type	Gender†	Pin	Connector Modifier	—	Jacket Type	Wire Gauge	Length (m)*	Modifier
BC	**M8**	**F**	**4**		—	**M8**	**M**	**4**		—		**24**	**2**	

- Gender†: **F** = Female, **M** = Male
- Pin: **3**, **4**, **5**
- Connector Modifier: **Blank** = Straight, **A** = Angled 90°, **S** = Shield to coupling nut
- Jacket Type: **Blank** = PVC, **U** = TPU, **E** = TPE, **GE** = Gray TPE
- Wire Gauge: **24** = 24 AWG
- Length (m)*: **0.3**, **1**, **2**, **5**, **8**, **10**, **15**
- Modifier: **Blank** = None, **HF20** = High flex, 20 million cycles

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

Temperature	-40° to +105 °C	**Certifications**	CE, cULus LISTED, UKCA
Environmental Rating	IP67		

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



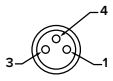




Description	Length*	Straight
Female QD to Flying Leads	2 m	BC-M8F3-24-2
	5 m	BC-M8F3-24-5
	10 m	BC-M8F3-24-10
Male QD to Flying Leads	2 m	BC-M8M3-24-2
	5 m	BC-M8M3-24-5
	10 m	BC-M8M3-24-10
Description	**Length***	**Straight/Straight (Female/Male)**
Double-Ended	2 m	BC-M8F3-M8M3-24-2
	5 m	BC-M8F3-M8M3-24-5
	10 m	BC-M8F3-M8M3-24-10

Pinout

Female



Male



1 = Brown
3 = Blue
4 = Black

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



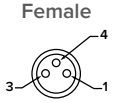




Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M8F3-GE24-2-HF20	—
	5 m	BC-M8F3-GE24-5-HF20	—
	10 m	BC-M8F3-GE24-10-HF20	—
Male QD to Flying Leads	2 m	BC-M8M3-GE24-2-HF20	—
	5 m	BC-M8M3-GE24-5-HF20	—
	10 m	BC-M8M3-GE24-10-HF20	—
Description	**Length***	**Straight/Straight (Female/Male)**	**Right-Angle/Straight (Female/Male)**
Double-Ended	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

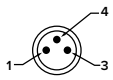
Pinout

Female



1 = Brown
3 = Blue
4 = Black

Male



M8 Cordsets: **Signal**

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





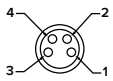


Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M8F4-24-2	—
	5 m	BC-M8F4-24-5	—
	10 m	BC-M8F4-24-10	—
Male QD to Flying Leads	2 m	BC-M8M4-24-2	—
	5 m	BC-M8M4-24-5	—
	10 m	BC-M8M4-24-10	—

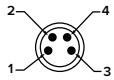
Description	Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)
Double-Ended	2 m	BC-M8F4-M8M4-24-2	—
	5 m	BC-M8F4-M8M4-24-5	—
	10 m	BC-M8F4-M8M4-24-10	—

Pinout

Female



Male



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

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





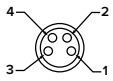


Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M8F4-G24-2-HF20	BC-M8F4A-G24-2-HF20
	5 m	BC-M8F4-G24-5-HF20	BC-M8F4A-G24-5-HF20
	10 m	BC-M8F4-G24-10-HF20	BC-M8F4A-G24-10-HF20
Male QD to Flying Leads	2 m	BC-M8M4-G24-2-HF20	—
	5 m	BC-M8M4-G24-5-HF20	—
	10 m	BC-M8M4-G24-10-HF20	—

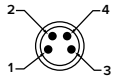
Description	Length*	Straight/Straight (Female/Male)	Straight/Right-Angle (Female/Male)
Double-Ended	2 m	BC-M8F4-M8M4-G24-2-HF20	—
	5 m	BC-M8F4-M8M4-G24-5-HF20	—
	10 m	BC-M8F4-M8M4-G24-10-HF20	—

Pinout

Female

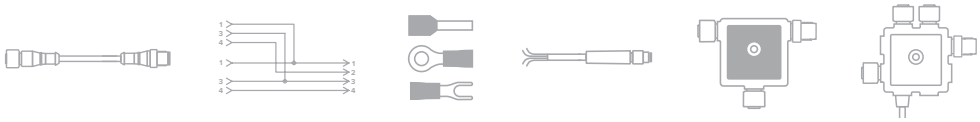


Male



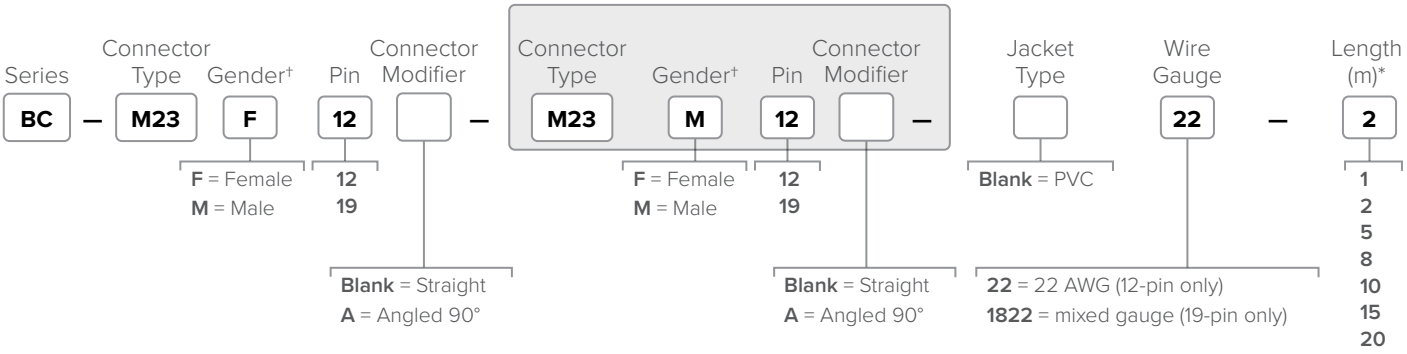
1 = Brown
2 = White
3 = Blue
4 = Black

***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)



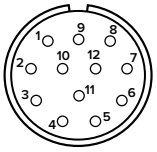




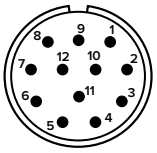
Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M23F12-22-2	BC-M23F12A-22-2
	5 m	BC-M23F12-22-5	BC-M23F12A-22-5
	10 m	BC-M23F12-22-10	BC-M23F12A-22-10
Male QD to Flying Leads	2 m	BC-M23M12-22-2	—
	5 m	BC-M23M12-22-5	—
	10 m	BC-M23M12-22-10	—
Description	**Length***	**Straight/Straight** (Female/Male)	**Straight/Right-Angle** (Female/Male)
Double-Ended	2 m	BC-M23F12-M23M12-22-2	—
	5 m	BC-M23F12-M23M12-22-5	—
	10 m	BC-M23F12-M23M12-22-10	—

Pinout

Female



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

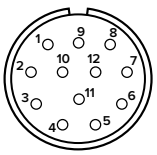
12-Pin With Foil Shield (Voltage: 60 V DC, Current: 4 A, AWG: 22, Cable ø: 6 mm)



Description	Length*	Straight	Right-Angle
Female QD to Flying Leads	2 m	BC-M23F12-22-2-SFP	BC-M23F12A-22-2-SFP
	5 m	BC-M23F12-22-5-SFP	BC-M23F12A-22-5-SFP
	10 m	BC-M23F12-22-10-SFP	BC-M23F12A-22-10-SFP

Pinout

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

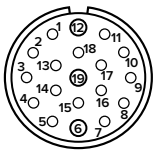
M23 Cordsets: **Signal**

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

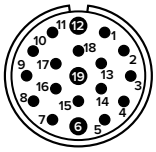
Description	Length*	Straight
Female QD to Flying Leads	2 m	BC-M23F19-1822-2
	5 m	BC-M23F19-1822-5
	10 m	BC-M23F19-1822-10
Male QD to Flying Leads	2 m	BC-M23M19-1822-2
	5 m	BC-M23M19-1822-5
	10 m	BC-M23M19-1822-10

Description	Length*	Straight/Straight (Female/Male)
Double-Ended	2 m	BC-M23F19-M23M19-1822-2
	5 m	BC-M23F19-M23M19-1822-5
	10 m	BC-M23F19-M23M19-1822-10

Female



Male



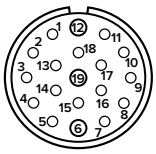
Pinout

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)

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

Description	Length*	Straight
Female QD to Flying Leads	2 m	BC-M23F19-1822-2-SFP
	5 m	BC-M23F19-1822-5-SFP
	10 m	BC-M23F19-1822-10-SFP

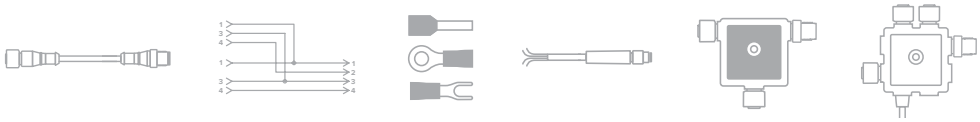
Female



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 = Drain (18 AWG)
13 = Yellow/Brown
14 = Brown/Green
15 = White
16 = Yellow
17 = Pink
18 = Gray/Brown
19 = Brown (18 AWG)

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



Contact Banner for more connectivity solutions and custom capabilities.

Specialty Cordsets: **RJ45 Data**

Series		Connector Type†		Gender		Connector Type		Length (m)*
BCD	—	**RJ45**		**M**	—	**RJ45**	—	**2**
		M12D = 4-pin D-Code **M8** = 4-pin **RJ45** = 8-pin RJ45		**M** = Male **Blank** = RJ45		**RJ45** = 8-pin RJ45		**0.5** **1** **2** **3** **5**

Note: All cordsets are shielded to coupling nut

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

Cable Jacket	PVC	**Environmental Rating**	IP20
Temperature	-20° to +70 °C	**Certifications**	CE cULus LISTED

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
M12 Double-Ended Male QD to RJ45	2 m	BCD-M12DM-RJ45-2
	5 m	BCD-M12DM-RJ45-5
	10 m	BCD-M12DM-RJ45-10



Description	Length*	Straight
M8 Double-Ended Male QD to RJ45	2 m	BCD-M8M-RJ45-2
	5 m	BCD-M8M-RJ45-5
	10 m	BCD-M8M-RJ45-10



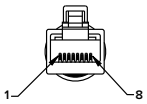
Description	Length*	Straight/Straight (Female/Male)
Double-Ended RJ45	2 m	BCD-RJ45-RJ45-2
	5 m	BCD-RJ45-RJ45-5
	10 m	BCD-RJ45-RJ45-10

Pinout

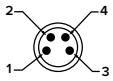
M12 Male



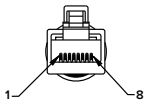
M12 RJ45



M8 Male

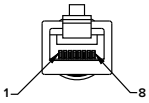


M8 RJ45



1 = White/orange
2 = Orange
3 = White/green
4 = Green

RJ45



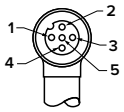
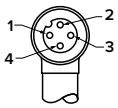
Specialty Cordsets: **M12 Lighted**

Cable Jacket	PVC	**Temperature**	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
Vibration Shock	Meets IEC 60068-2-6 requirements		
Mechanical Shock	Meets IEC 60068-2-27 requirements	**Environmental Rating**	IP66, IP67, IP68, NEMA 1, UL Type 1
LED Operation	Green LED indicates power ON; Yellow LED overrides green LED when pin 4 is active	**Certifications**	CE, cULus LISTED, UKCA

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



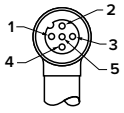
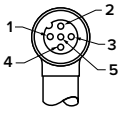


	Length*	Straight	Right-Angle	Pinout
PNP Female QD to Flying Leads	2 m	MQDC-406-GYP	MQDC-406-GYPRA	Female  **1** = Brown **2** = White **3** = Blue **4** = Black (output LED) **5** = Unused
	5 m	MQDC-415-GYP	MQDC-415-GYPRA	
	9 m	MQDC-430-GYP	MQDC-430-GYPRA	
NPN Female QD to Flying Leads	2 m	MQDC-406-GYN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

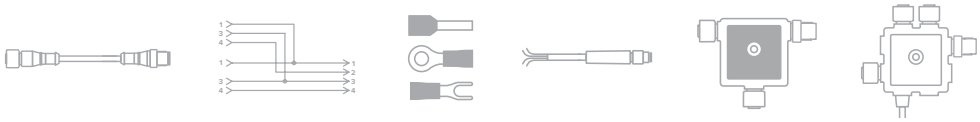
5-Pin A-Code (Voltage: 10 to 30 V DC at 15 mA max, AWG: 22, Cable ø: 5.6 mm)





	Length*	Straight	Right-Angle	Pinout
PNP Female QD to Flying Leads	2 m	MQDC-506-GYP	MQDC-506-GYPRA	Female  **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	Female 
	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.**



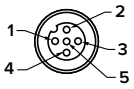
Contact Banner for more connectivity solutions and custom capabilities.

Specialty Cordsets: **M12 Coiled**

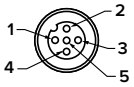
Cable Jacket	PVC	**Temperature**	-40° to +105 °C
Vibration Shock	Meets IEC 60068-2-6 requirements	**Environmental Rating**	IP67, IP69, NEMA 1, 3, 4, 6P, 13
Mechanical Shock	Meets IEC 60068-2-27 requirements		

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**	Female  **1** = Brown, **2** = White, **3** = Blue, **4** = Black, **5** = Unused
	1.0 to 2.6 m	**MQDC-402.6M-PUR-C**	
	1.2 to 3.3 m	**MQDC-403.3M-PUR-C**	



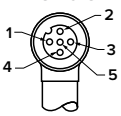
Description	Length* (retracted to extended)	Straight/Straight (Female/Male)	Pinout
Double-Ended	0.8 to 1.7 m	**MQDEC-401.7M-PUR-C**	Female  Male  **1** = Brown, **2** = White, **3** = Blue, **4** = Black, **5** = Unused
	1.0 to 2.6 m	**MQDEC-403.3M-PUR-C**	

Specialty Cordsets: **M12 NAMUR**

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

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



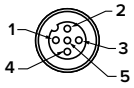
Description	Length*	Straight	Right-Angle	Pinout
Female QD to Flying Leads	2 m	**MQD9-406**	**MQD9-406RA**	Female  **1** = Brown, **2** = Blue, **3** = Unused, **4** = Unused, **5** = Unused
	5 m	**MQD9-415**	**MQD9-415RA**	
	9 m	**MQD9-430**	**MQD9-430RA**	

Specialty Cordsets: **M12 High Pressure and Temperature Washdown**

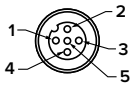
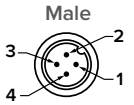
Cable Jacket	PVC	**Temperature**	-40° to +70 °C
Vibration Shock	Meets IEC 60068-2-6 requirements	**Environmental Rating**	IP66, IP67, IP68, IP69, NEMA 1, UL Type 1
Mechanical Shock	Meets IEC 60068-2-27 requirements	**Certifications**	ECOLAB test F and E Nr. 40-1

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



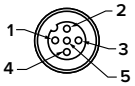
Description	Length*	Straight	Pinout
Female QD to Flying Leads	2 m	MQDC-WDSS-0406	Female  **1** = Brown **2** = White **3** = Blue **4** = Black **5** = Unused
	5 m	MQDC-WDSS-0415	
	9 m	MQDC-WDSS-0430	



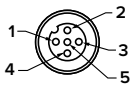
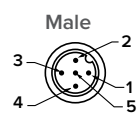
Description	Length*	Straight/Straight (Female/Male)	Pinout
Double-Ended	0.31 m	MQDEC-WDSS-401SS	Female  Male  **1** = Brown **2** = White **3** = Blue **4** = Black **5** = Unused
	0.91 m	MQDEC-WDSS-403SS	
	1.83 m	MQDEC-WDSS-406SS	
	3.7 m	MQDEC-WDSS-412SS	

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

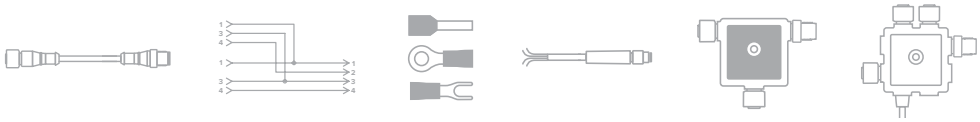


Description	Length*	Straight	Pinout
Female QD to Flying Leads	2 m	MQDC-WDSS-0506	Female  **1** = Brown **2** = White **3** = Blue **4** = Black **5** = Gray
	5 m	MQDC-WDSS-0515	
	9 m	MQDC-WDSS-0530	



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

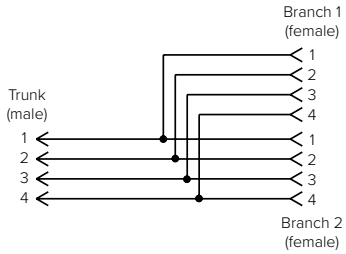
***Custom lengths available to the nearest 0.1 m.**



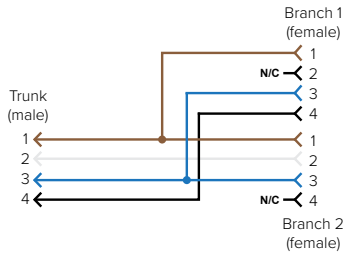
Contact Banner for more connectivity solutions and custom capabilities.

Round QD Splitters

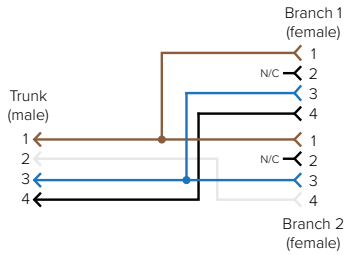
Example of Parallel 4-Pin Wiring



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



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

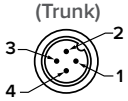


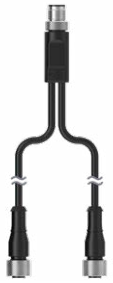


4-Pin A-Code

(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)

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

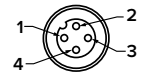




4-Pin A-Code

(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)

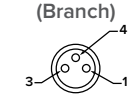
No Trunk/ Integral M12 QD	0.2 m	**S15YA24-M124-M124-0.2M**	—	See above	M12 Female (Branch)
	0.3 m	**S15YA24-M124-M124-0.3**	**S15YA24-M124A-M124A-0.3**	See above	
	1 m	**S15YA24-M124-M124-1**	**S15YA24-M124A-M124A-1**	See above	
	0.2 m	**S15YA4-M124-M124-0.2M**	—	Discrete	
	0.3 m	**S15YA4-M124-M124-0.3**	**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	

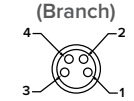


4-Pin A-Code

(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	M8 3-Pin Female (Branch)
	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	M8 4-Pin Female (Branch)
	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	



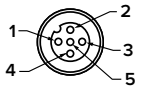


5-Pin A-Code

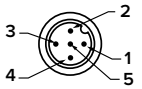
(Voltage: 30 V DC/AC, Current: 2 A, AWG: 5 x 22, Cable ø: 5.6 mm, Temperature: –40 °C to +105 °C, Environmental Rating: IP67)



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**	Female



Male

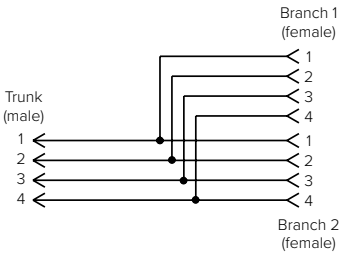


M12: **Splitters, Tees, and Junction Blocks**

Compact QD Splitters and Tees

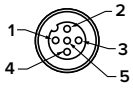
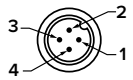
Overmold	Black PUR	**Environmental Rating**	IP67
Temperature	–40 °C to +105 °C		

Example of Parallel 4-Pin Wiring



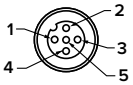
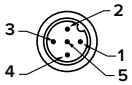
4-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22)



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

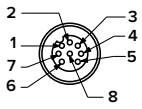
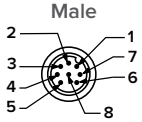
5-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22)



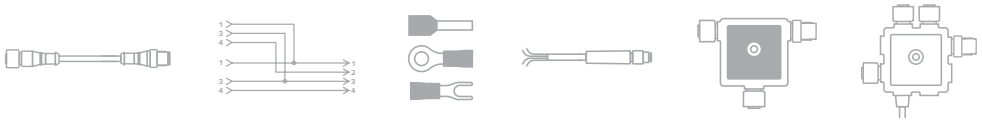
Ports	Models	Pinout
1 x Male 1 x Female 1 x Female	**CSB-M1250M1250-T**	Female  Male 
1 x Male 2 x Female	**CSB-M1250M1250A**	
1 x Female 1 x Male 1 x Female	**CSB-M1250M1250**	

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.**

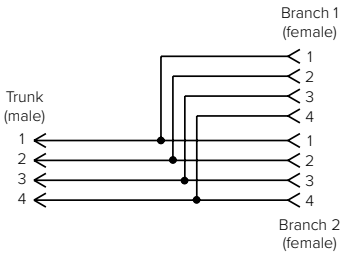


Contact Banner for more connectivity solutions and custom capabilities.

Flat QD Splitters

Cable Jacket	PVC	**Temperature**	–40 °C to +105 °C
Overmold	Black PUR	**Environmental Rating**	IP67

Example of Parallel 4-Pin Wiring

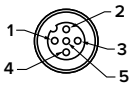




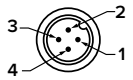
4-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22, Trunk Cable ø: 4.4 mm, Branch Cable ø: 5.5 mm)

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

Female



Male

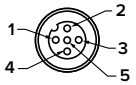




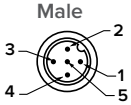
5-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22, Cable ø: 5.9 mm)

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

Female



Male

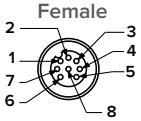




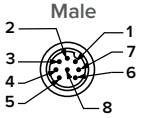
8-Pin A-Code (Voltage: 30 V DC/AC, Current: 2 A, AWG: 22, Cable ø: 6 mm)

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

Female



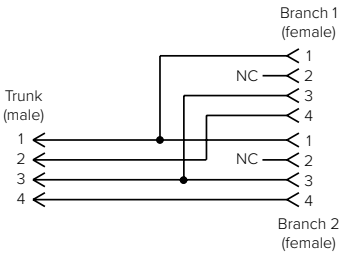
Male



Wiring Splitters

Cable Jacket	PVC	**Temperature**	–40 °C to +70 °C
Overmold	Black PUR	**Environmental Rating**	IP67

Example of 4-Pin Wiring

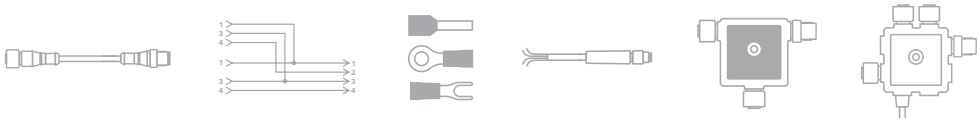


4-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 22, Cable ø: 5.9 mm)



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**	Female
No Trunk/Integral QD	2 x 2 m	**CSA-M1240M1246**	
0.3 m	2 x 0.3 m	**CSA-M1241M1241**	Male
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.**

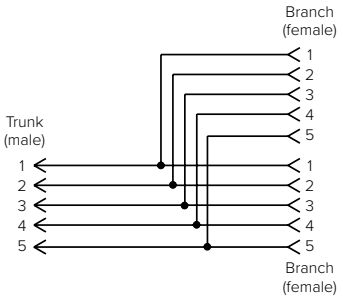


Contact Banner for more connectivity solutions and custom capabilities.

Multi-port Splitters

Cable Jacket	PVC	**Temperature**	–40 °C to +105 °C
Overmold	Black PUR	**Environmental Rating**	IP67

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

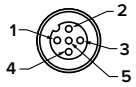


5-Pin A-Code (Voltage: 30 V DC/AC, Current: 4 A, AWG: 4 x 22, Cable ø: 5.6 mm)

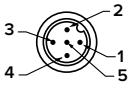


Cable Lengths*		Models	Pinout
Branches (Female)	**Trunk** (Male)		
4 x No Branch/Integral QD	0.3 m	**CSB4-M1251M1250**	Female / Male

Female



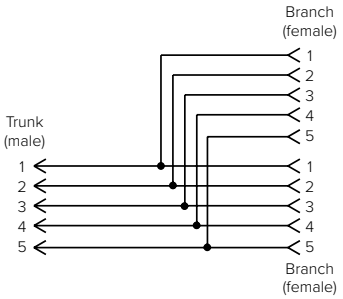
Male



Molded Junction Blocks

Overmold	Black PUR	**Environmental Rating**	IP65, IP67, and IP68
Temperature	–40 °C to +70 °C		

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



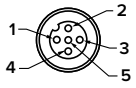
5-Pin (Voltage: 60 V DC/AC, Current: 4 A)



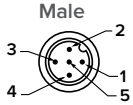


Connections	Models	Pinout
4 x Female M12 1 x Male M12	R50-4M125-M125Q-P	Female
8 x Female M12 1 x Male M12	R95-8M125-M125Q-P	Male

Female



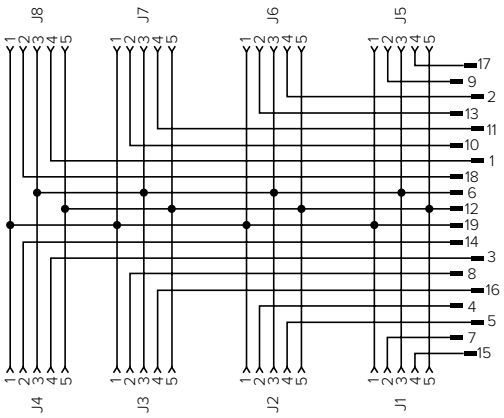
Male



Molded I/O Junction Blocks

Temperature	–40 °C to +70 °C	**Environmental Rating**	IP67
		Certifications	CE, cULus LISTED

Wiring Diagram



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

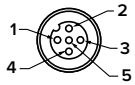




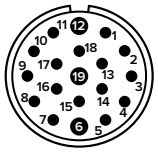
Cable Lengths*		LED	Models
Branches (Female)	**Trunk**		
8 x No Branch/ Integral QD	1 m with Flying Leads	PNP LED	R95-8M125-C1-D24P
	2 m with Flying Leads		R95-8M125-C2-D24P
	5 m with Flying Leads		R95-8M125-C5-D24P
	10 m with Flying Leads		R95-8M125-C10-D24P
	0.3 m 19-pin M23 Male QD		R95-8M125-0.3M23-D24P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

Pinout

Female

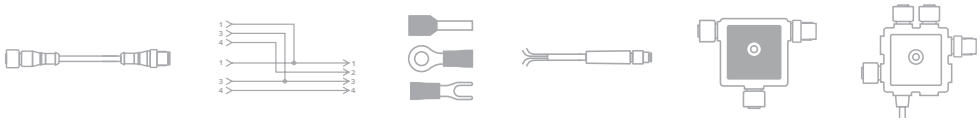


Male



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)

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

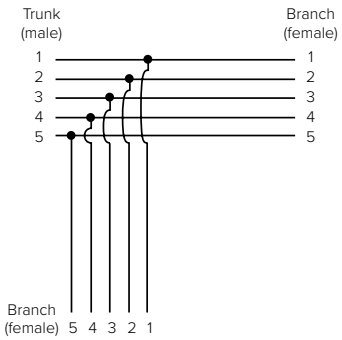


Contact Banner for more connectivity solutions and custom capabilities.

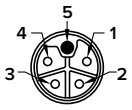
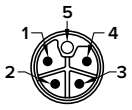
Power Junction Blocks

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

Example of Parallel Wiring



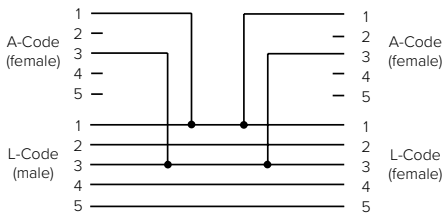
5-Pin L-Code (Voltage: 60 V DC, Current: 16 A)

	Ports	Models	Pinout
	1 x L-code male M12 2 x L-code female M12	R50-2M125L-M125-P	Female 
	1 x L-code male M12 2 x L-code female M12	R50T-2M125L-M125-P	Male 

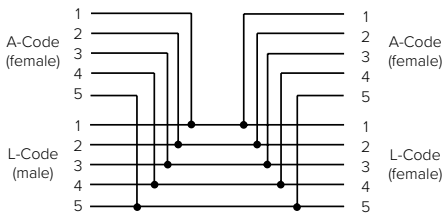
1 = Brown
2 = White
3 = Blue
4 = Black
5 = Yellow/Green

Temperature	–40 °C to +70 °C
Environmental Rating	IP65, IP67, IP68
Certifications	CE, cULus LISTED

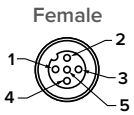
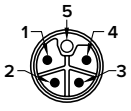
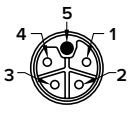
V+, V- Power Distribution Wiring



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	Female 
	2 x A-code female M12	R50-M12LM5-M12LF5-2M12F5-P	Parallel	Male 
	4 x A-code female M12	R95-M12LM5-M12LF5-4M12F5-P13	V+, V- Power Distribution	Female 

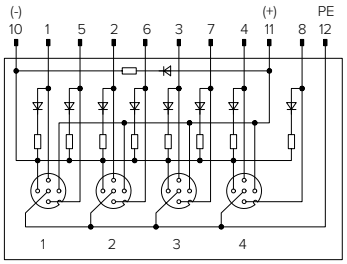




I/O Junction Blocks

Temperature	–25 °C to +80 °C
Environmental Rating	IP67

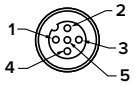
Wiring Diagram

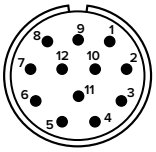


4 Port 5-Pin (LED Voltage: 30 V DC/AC, Non-LED Voltage: 60 V DC/AC, Current: 2 A per port (6 A total))

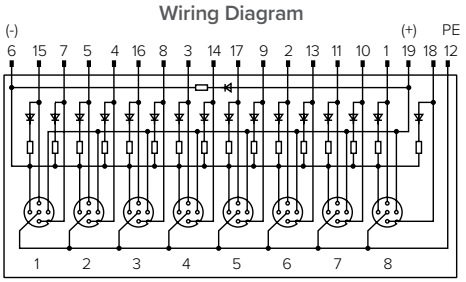


Description	Output	Indication	Models	Pinout
5-Pin to 12-Pin	PNP	LED	JB-4M12-M23-P24	Female
	NPN	LED	JB-4M12-M23-N24	Male
	Discrete	Non-LED	JB-4M12-M23-24	





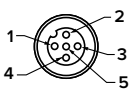
Wiring Diagram

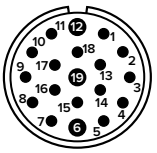


8 Port 5-Pin (LED Voltage: 30 V DC/AC, Non-LED Voltage: 60 V DC/AC, Current: 2 A per port (6 A total))



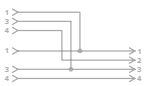
Description	Output	Indication	Models	Pinout
5-Pin to 19-Pin	PNP	LED	JB-8M12-M23-P24	Female
	NPN	LED	JB-8M12-M23-N24	Male
	Discrete	Non-LED	JB-8M12-M23-24	



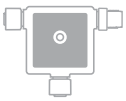


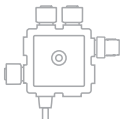
***Custom lengths available to the nearest 0.1 m.**









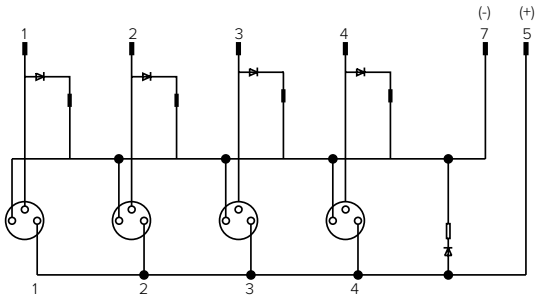


Contact Banner for more connectivity solutions and custom capabilities.

I/O Junction Blocks

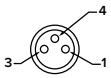
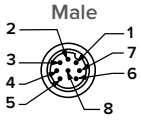
Temperature	–25 °C to +80 °C	**Environmental Rating**	IP67

Wiring Diagram

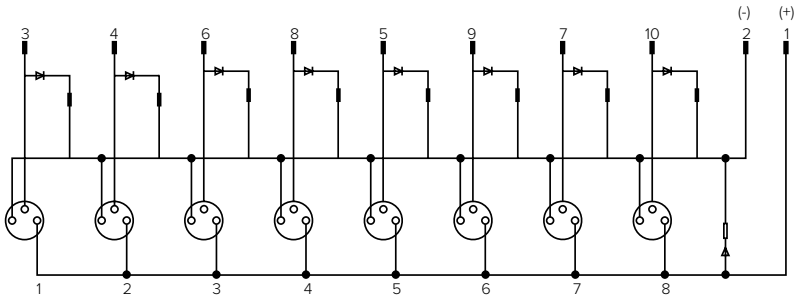


4 Port 3-Pin (LED Voltage: 30 V DC/AC, Non-LED Voltage: 60 V DC/AC, Current: 2 A per port (6 A total))



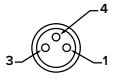
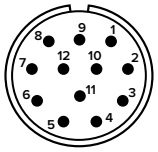
Description	Output	Indication	Models	Pinout
3-Pin to 8-Pin	PNP	LED	JB-4M8-M12-P4	Female  Male 
	NPN	LED	JB-4M8-M12-N4	
	Discrete	Non-LED	JB-4M8-M12-4	

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))

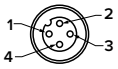
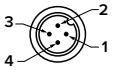


Description	Output	Indication	Models	Pinout
3-Pin to 12-Pin	PNP	LED	JB-8M8-M12-P4	Female  Male 
	NPN	LED	JB-8M8-M12-N4	
	Discrete	Non-LED	JB-8M8-M12-4	

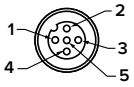
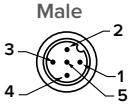
M12 Connectors: **Field Wireable**

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

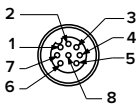
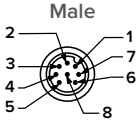
4-Pin (Voltage: 60 V DC/AC, Current: 4 A, Max AWG: 22, Cable ø: 4-6 mm)

	Description	Straight	Right-Angle	Pinout
	Female Screw Terminal	BFW-M12F4-6X	BFW-M12F4A-6X	Female 
	Male Screw Terminal	BFW-M12M4-6X	BFW-M12M4A-6X	Male 

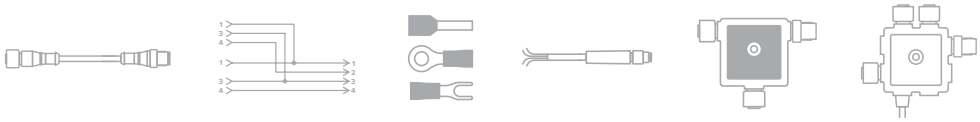
5-Pin (Voltage: 60 V DC/AC, Current: 4 A, Max AWG: 22, Cable ø: 4-6 mm)

	Description	Straight	Right-Angle	Pinout
	Female Screw Terminal	BFW-M12F5-6X	BFW-M12F5A-6X	Female 
	Male Screw Terminal	BFW-M12M5-6X	BFW-M12M5A-6X	Male 

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	Female 
	Male Screw Terminal	BFW-M12M8-8X	BFW-M12M8A-8X	Male 

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



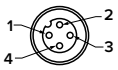
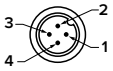
Contact Banner for more connectivity solutions and custom capabilities.

M12 Connectors: **Field Wireable Slide Lock**

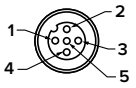
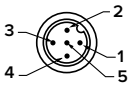
Terminal	Slide Lock	**Temperature**	-40° to +85 °C
		Environmental Rating	IP68


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	Female 
	Male Slide Lock Terminal	BFW-M12M4-6SL	BFWM12M4A-6SL	Male 

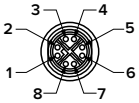
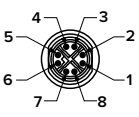
5-Pin (Voltage: 60 V DC/AC, Current: 4 A, AWG: 20-24, Cable ø: 4-6 mm)

	Description	Straight	Right-Angle	Pinout
	Female Slide Lock Terminal	BFW-M12F5-6SL	BFW-M12F5A-6SL	Female 
	Male Slide Lock Terminal	BFW-M12M5-6SL	BFWM12M5A-6SL	Male 

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	Female 
	Male Slide Lock Terminal	BFW-M12XM8-9X	Male 

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

M8 Connectors: **Field Wireables**

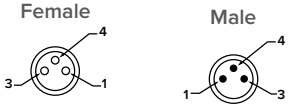
Temperature	-25° to +90 °C	**Environmental Rating**	IP67

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	Female / Male
Male Insulation Displacement	FIC-M8M3	FIC-M8M3A	

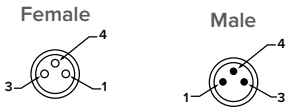


3-Pin Screw Terminal

(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	Female / Male
Male Screw Terminal	BFW-M8M3-4X	BFW-M8M3A-4X	

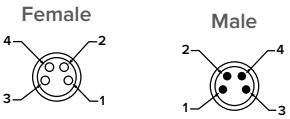


4-Pin Insulation Displacement

(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	Female / Male
Male Insulation Displacement	FIC-M8M4	FIC-M8M4A	

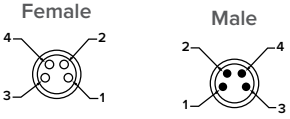


4-Pin Screw Terminal

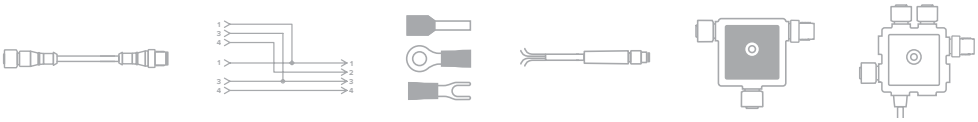
(Voltage: 30 V DC/AC, Current: 3 A, Maximum AWG: 24, Temperature: -25° to +90 °C, Cable ø: 3.5-5 mm)



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



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



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M12 Connectors: **Signal Receptacles**

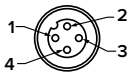
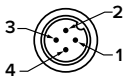
Series		Connector Type	Gender	Pin	Mount Style	Thread		Length (m)*
BR	—	**M12**	**F**	**4**	**F**	**9**	—	**1**
		M12	**M** = Male **F** = Female	**4** **5** **8** **12**	**F** = Front mount **R** = Rear mount	**9** = PG9		**0.5** **1** **2**

Temperature	-20° to +70 °C	**Environmental Rating**	IP67

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



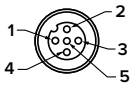
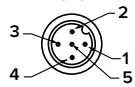


Description	Length*	Model	Pinout
Front Mount Female QD to Flying Leads	0.5 m	BR-M12F4F9-0.5	Female  **1** = Brown **2** = White **3** = Blue **4** = Black
	1 m	BR-M12F4F9-1	
	2 m	BR-M12F4F9-2	
Rear Mount Female QD to Flying Leads	0.5 m	BR-M12F4R9-0.5	
	1 m	BR-M12F4R9-1	
	2 m	BR-M12F4R9-2	
Front Mount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

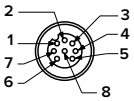




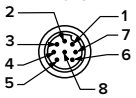
Description	Length*	Model
Front Mount Female QD to Flying Leads	0.5 m	BR-M12F8F9-0.5
	1 m	BR-M12F8F9-1
	2 m	BR-M12F8F9-2
Rear Mount Female QD to Flying Leads	0.5 m	BR-M12F8R9-0.5
	1 m	BR-M12F8R9-1
	2 m	BR-M12F8R9-2
Front Mount Male QD to Flying Leads	0.5 m	BR-M12M8F9-0.5
	1 m	BR-M12M8F9-1
	2 m	BR-M12M8F9-2
Rear Mount Male QD to Flying Leads	0.5 m	BR-M12M8R9-0.5
	1 m	BR-M12M8R9-1
	2 m	BR-M12M8R9-2

Pinout

Female



Male



1 = White
2 = Brown
3 = Green
4 = Yellow
5 = Gray
6 = Pink
7 = Blue
8 = Red

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

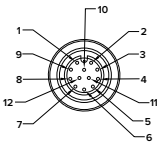




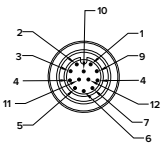
Description	Length*	Model
Front Mount Female QD to Flying Leads	0.5 m	BR-M12F12F9-0.5
	1 m	BR-M12F12F9-1
	2 m	BR-M12F12F9-2
Rear Mount Female QD to Flying Leads	0.5 m	BR-M12F12R9-0.5
	1 m	BR-M12F12R9-1
	2 m	BR-M12F12R9-2
Front Mount Male QD to Flying Leads	0.5 m	BR-M12M12F9-0.5
	1 m	BR-M12M12F9-1
	2 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

Pinout

Female

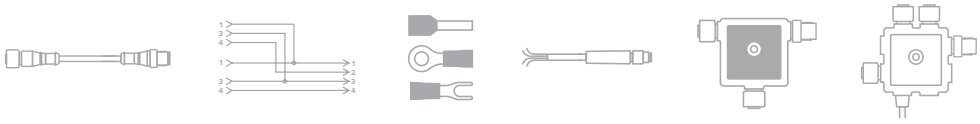


Male



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

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



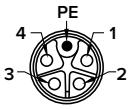
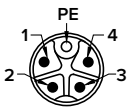
Contact Banner for more connectivity solutions and custom capabilities.

M12 Connectors: **Power Receptacles**

Series		Connector Type	Gender	Pin		Mount Style	Threading		Wire Gauge		Length (m)*
BRP	—	**M12K**	**F**	**5**	—	**F**	**50S**	—	**14**	—	**1**
		M12K = M12 K-code	**M** = Male **F** = Female	**5**		**F** = Front mount	**50S** = 1/2-14 NPSM		**14** = 14 AWG		**0.2** **0.5** **1**

Temperature	-15° to +80 °C	**Environmental Rating**	IP67

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

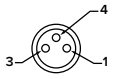
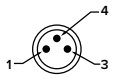
Description	Length*	Model	Pinout
 Front Mount Female QD to Flying Leads	0.2 m	**BRP-M12KF5-F50S-14-0.2**	Female  **1** = Black **2** = Red **3** = White **4** = Blue **PE** = Yellow/Green
	0.5 m	**BRP-M12KF5-F50S-14-0.5**	
	1 m	**BRP-M12KF5-F50S-14-1**	
 Front Mount Male QD to Flying Leads	0.2 m	**BRP-M12KM5-F50S-14-0.2**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

M8 Connectors: **Signal Receptacles**

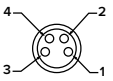
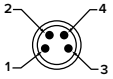
Series		Connector Type	Gender	Pin	Mount Style	Thread		Length (m)*
BR	–	**M8**	**F**	**4**	**R**	**8**	–	**1**
		M8	**M** = Male **F** = Female	**3** **4**	**R** = Rear mount	**8** = M8		**0.5** **1** **2**

Temperature	-20° to +70 °C	**Environmental Rating**	IP67

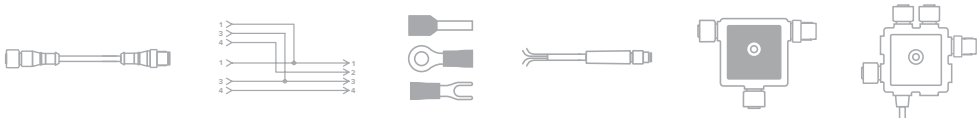
3-Pin Rear Mount (Voltage: 60 V DC/50 V AC, Current: 3 A, AWG: 24)

	Description	Length*	Model	Pinout
	Female QD to Flying Leads	1 m	**BR-M8F3R8-1**	Female  **1** = Brown **2** = White **3** = Blue **4** = Black
	Male QD to Flying Leads	1 m	**BR-M8M3R8-1**	Male 

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**	Female  **1** = Brown **2** = White **3** = Blue **4** = Black
	Male QD to Flying Leads	1 m	**BR-M8M4R8-1**	Male 

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



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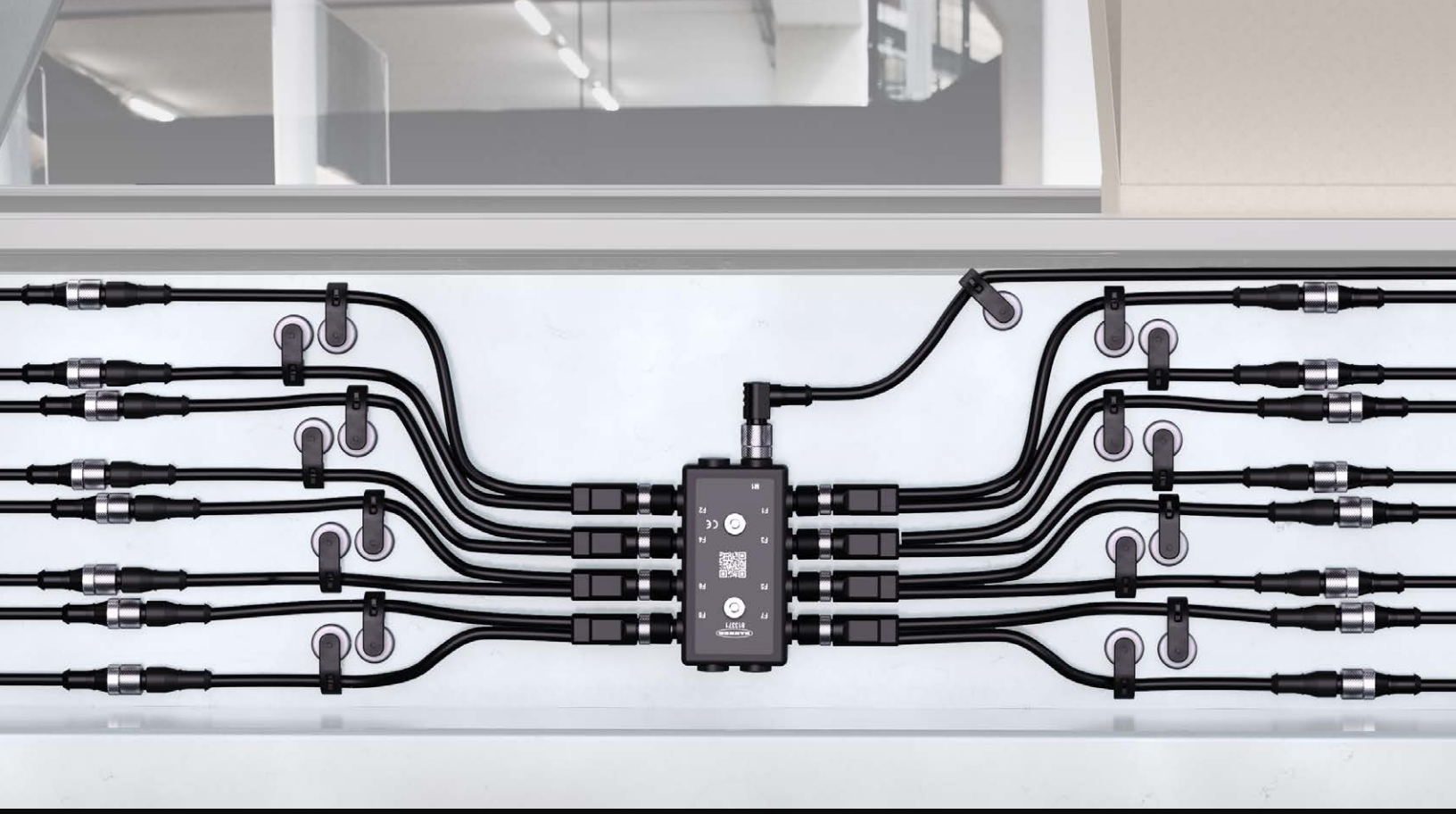
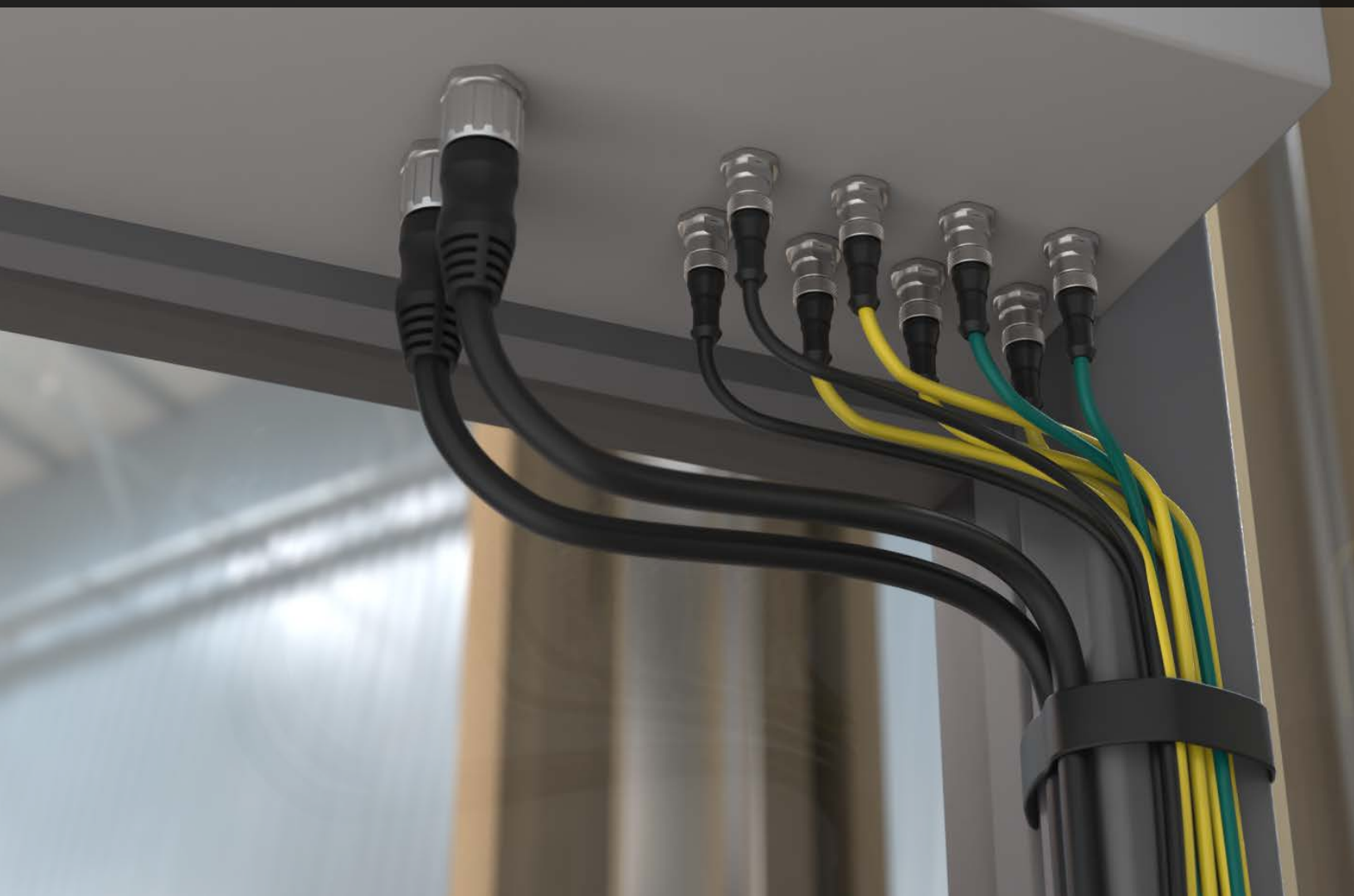
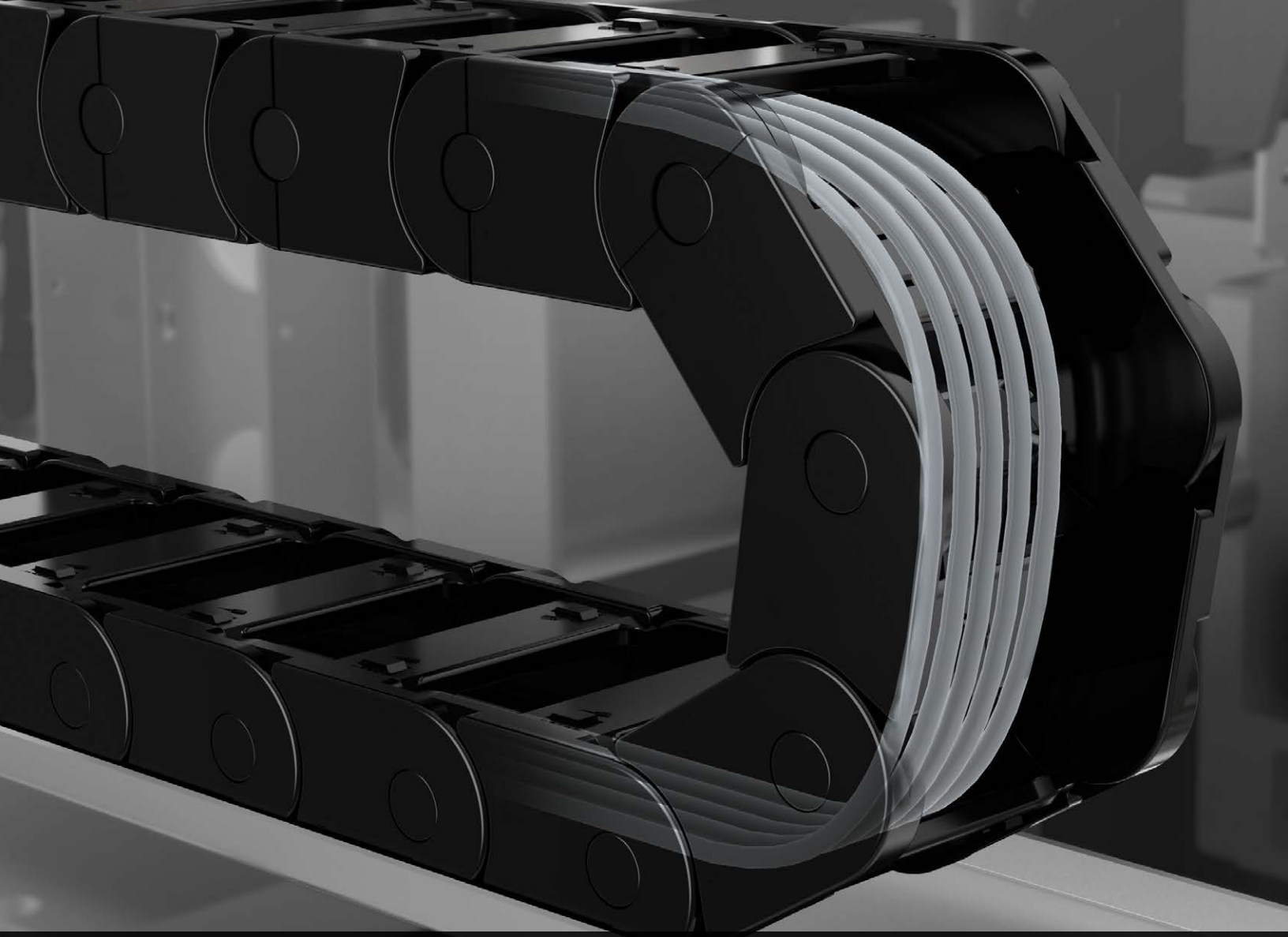


M12 Signal Cordsets, M12 Splitters, and Molded Junction Blocks (see page 6, 21, and 25)

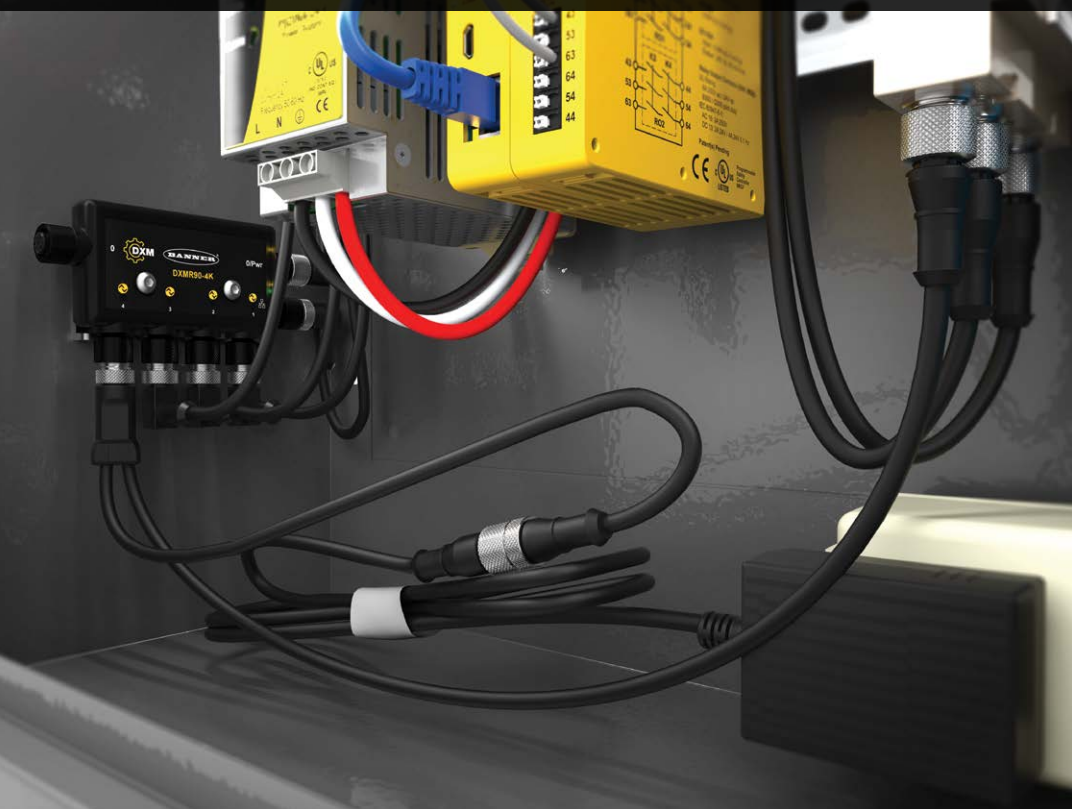
M12 Signal Cordsets and M23 Signal Cordsets (see page 6 and 15)





M12 High Flex Cordsets (see page 6)

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

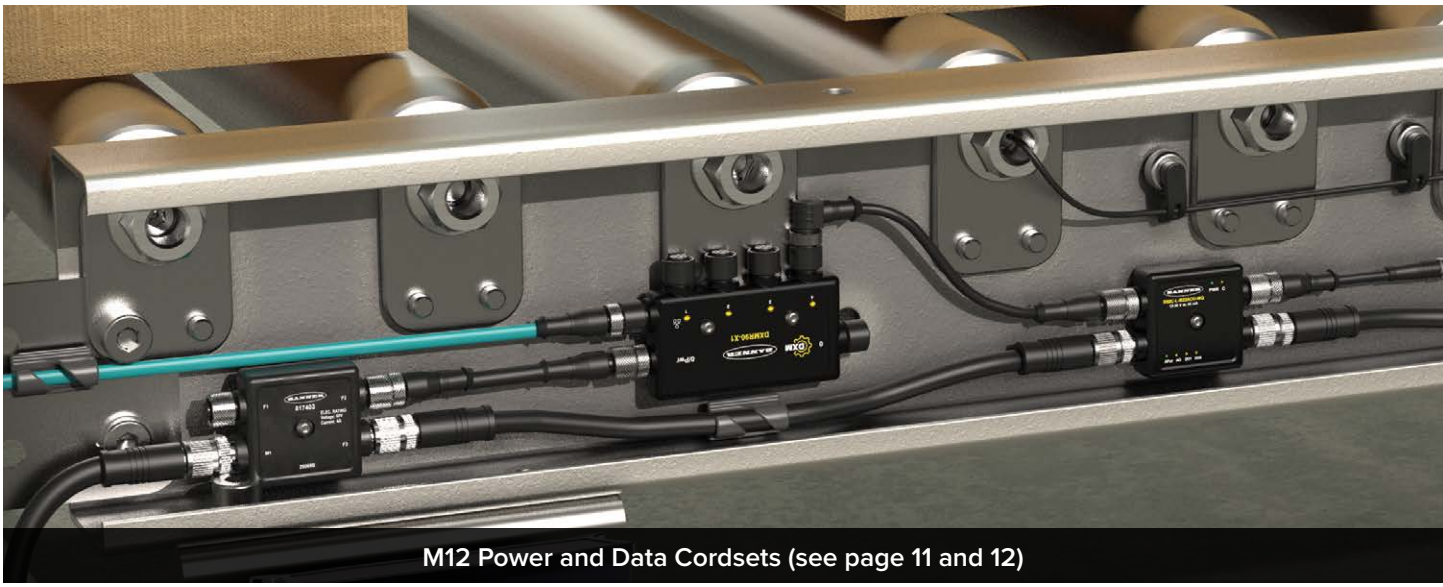


M12 Field Wireables with





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.



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