



Balluff's new line of passive connectivity products offers a full compliment of options to establish standard sensor and actuator solutions in the automation environment. These components provide a high level of reliability and confidence, enabling accurate and repeatable connection IP ratings during maintenance. Many combinations of solutions are available and are presented below to facilitate future connectivity designs.



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Passive connectivity overview

Balluff's new line of sensor cordsets offers many benefits to the automation world. Balluff can globally offer cordsets that fit almost any standard sensor or actuator application. This offering includes features such as consistant and accurate IP ratings, a wide range of cable jackets, a full range of overmold configurations, and high quality rugged materials.









PVC, PUR, and TPE with LEDs

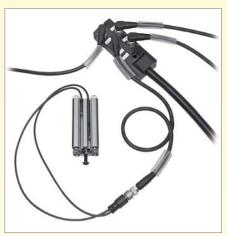


Connectivity Solutions Passive connectivity overview

Multiple Interface Blocks (MIB)

Balluff multiple interface blocks allow multiple sensors and actuator signals to be easily routed back to a control system. These fully potted blocks with metal threaded ports carry high shock and vibration ratings and are well-suited for many types of environments. The combination of Balluff's multiple interface blocks, cordsets and torque wrenches, provides a robust IP67 solution for a wet environment.

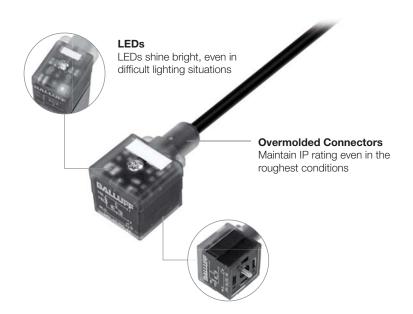




By incorporating passive technology, these blocks concentrate signals into one homerun cordset. The dual density connectors allow for two signals per port. A typical application would include a Balluff V-Twin™ magnetic field sensor used with pneumatic cylinders. The V-Twin provides two sensors with a single connector, which sends both signals through the single cordset back to the high density MIB. This solution reduces sensor and cabling costs without sacrificing reliability or quality.

Valve Connectors

From sensors to cordsets, Balluff offers an extensive line, which includes valve connectors. These valve connectors cover all standard DIN connections, while also offering drag chain rated cables, rugged housings, and an option of protective circuits. Balluff can essentially complete any valve connector solution.





While DIN & Industry style connectors are used in many industrial automation applications, the most popular uses are with simple motors and solenoid valves. As with most solenoid valve applications a DIN or Industry style connector is required to switch the valve's position. Whether the application is clamping a part or moving an object, the Balluff valve connector can be used to pass the control signal to the valve. Integrated LEDs allow for easy recognition of solenoid position.

Passive connectivity applications

Welding and Rugged Environments



When working in rugged environments, it's important to choose a cordset that will stand up to the harshest situations - TPE is the cable jacket of choice. The use of LED cordsets is also beneficial for troubleshooting.

I/O Verification for Troubleshooting

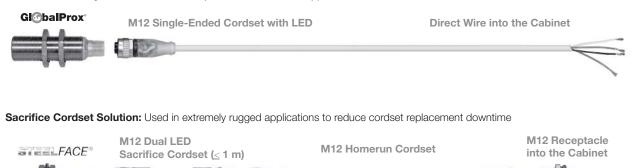


Selecting LEDs on the male ends of your cordsets allows for the sensor and output signals to be easily viewable and allows for simpler input or output indication for the operator.

Cordset Options and Solutions

Balluff's new line of passive connectivity products offers a full compliment of options to establish standard sensor and actuator solutions in the automation environment. These components provide a high level of reliability and confidence, enabling accurate and repeatable connection IP ratings during maintenance. Many combinations of solutions are available and are presented below to facilitate future connectivity designs.

Basic Connectivity Solution: Used in simple, low sensor count applications



Distributed I/O Solution: Used when many sensors and actuators are installed in various clumps around the machine



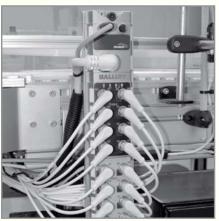
Connectivity Solutions Passive connectivity applications

Washdown and Wet Applications



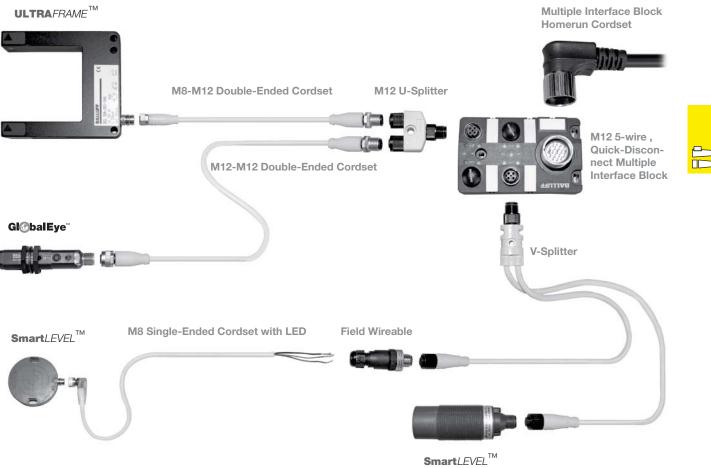
Fluids and sensor signals do not mix. By using a calibrated IP67 torque wrench on the hex nut of every cordset, you can ensure the IP67 rating of the multiple interface block with the cordset - and keep your signals dry.

Packaging and Assembly Automation



When quality is as important as speed in your application, select a PUR cordset, which provides flexibility as well as abrasion and fluid resistance. In a standard automation application, select a PVC cordset that is reliable and cost effective.

High Density Distributed I/O: Used when many sensor and actuator signals are needed for a production line or a highly automated machine



Connectivity Solutions Overview quick selector







Sensor & Actuator Cables

Size	M5	M8	M12	
Configurations	Single-Ended & Double-Ended	Single-Ended, Double-Ended	Single-Ended, Double-Ended	
Conductors	3-wire, 4-wire	3-wire, 4-wire	3, 4, 4+PE, 5, 8, 12-wire	
LED Versions	No	Yes	Yes	
Shielded Versions	No	Yes	Yes	
Page #	3.20	3.21	3.24	







Mini Size Cables

Size	7/8"	1"	1 1/8"	
Configurations	Single-Ended, Double-Ended, Tees, Bulkheads, Converters	Single-Ended, Double-Ended	Single-Ended, Double-Ended	
Conductors	US Color Code: 3 & 4-wire DC Color Code: 4 & 5-wire	6, 7, 8-wire	9, 10, 12, 19-wire	
Color Codes Available	US AC, DC			
Shielded Versions	No	No	No	
Page #	3.42	3.48	3.49	



Junction Blocks (MIBs)

Size	M8	M12	M12, M16, M23	
Configurations	Quick Disconnect, Cable Out	Quick Disconnect, Cable Out, Terminal Blocks	Homerun Cables	
Conductors	4-port & 8-port, 3-wire & 4-wire	4-port & 8-port, 3+PE & 4+PE	8-wire, 12-wire, 19-wire	
LED Versions	Yes	Yes	No	
Shielded Versions	No	No	No	
Page #	3.50	3.52	3.55	

Overview quick selector







M8 and M12 Specialty	Splitters	1/2" AC	DIN A, DIN B, IND B, DIN C, IND C
High Temp, Coil Cable, Stainless, IP69K, ECOLAB, Global cable	M8 & M12, V & U Styles	Single-Ended, Double-Ended	Single-Ended, Pigtail, V-Splitter
3-wire, 4-wire, 4+PE	3-wire, 3+PE	3, 4, 5, 6-wire	2+PE
Yes	Yes	No	Yes
No	No	Yes	Yes
3.34	3.38	3.40	3.72







Receptacles

neceptacies			
M8	M12	1/2" AC, 7/8", 1", 1 1/8"	M23
M8x0.5, M8x1, 1/4"-18NPT, 1/2"-14NPT	1/4"-18NPT, 1/2"-14NPT, M16x1.5, M20x1.5	1/4"-18NPT, 1/2"-14NPT, M16x1.5, M20x1.5	M20x1.5
3-wire, 4-wire	3, 4, 5-wire	3, 4, 5, 6-wire, 7, 8, 9, 10-wire 12, 19-wire"	19-wire
DC	DC	US AC, DC	
Metal	Metal	Metal	Metal
3.56	3.57	3.58-3.61	3.56



Field Attachables







M8	M12	1/2" AC, 7/8"	M23
Piercon, Screw Terminal, Soldercup	Insulation Displacement, Screw Terminal, Spring Clamp	Screw Terminal	Solder Cup
3-wire, 4-wire	3, 4, 5, 8, 12-wire	3, 4, 5-wire	12, 19-wire
No	No	No	No
No	Yes	No	No
3.62	3.64	3.68-3.69	3.70

M8 Nano, M12 Micro - Single & Double-Ended Cables

BCC M415 - M424 - 3A - 304 - VX44T2 - 020 - C008

Head 1

Head 2

Code

Wiring

Raw Cable

Length Custom

2 Red (CC-Link)

4 Yellow (standard)

6 Blue (EtherNet/IP)

8 Grey (standard/DeviceNet)

Head 1 & Head 2 Configuration

Connector Size & Type:

M3M8 Nano DC - Ni Plated BrassM4M12 Micro DC - Ni Plated BrassS3M8 Nano DC - Stainless 1.4404S4M12 Micro DC - Stainless 1.44040000(Head 2) Single-Ended Cable

Connector Direction:

- 1 Straight Plastic Overmolded
- 2 Right Angle Plastic Overmolded

Number of Visible Connections:

5	M12 Female
no. poles Any other	configuration

Code Configuration

Gender Type:

- 1 Female Internal Threads
- 2 Male External Threads
- **3** Female Int Male Ext
- **5** Female Int Female Int
- 6 Male Ext Male Ext

Connector Coding

- A M12 Sensor Cables (typical) (A-coded)
- 0 M8 Sensor Cables (typical) (No coding)
- B M12 Profibus Cables (B-coded)
- D M12 Ethernet Cables (D-coded)
- (Profinet, EtherNet/IP)
- E M8-M12 Double-Ended Cables
- F M12-M8 Double-Ended Cables

Wiring Configurations

See next page for configurations

Custom Configurations

Custom Values:

C002	
C008	

Grey Overmold WeldRepel[™] Applied

Raw Cable Configuration

Jacket Material:

- V PVC
- P PUR
- E TPE

Special Designator:

- X Nothing
- C Coiled Cable
- H High Temperature
- S Shielded
- Weld Resistant / High Shore
- Economy (non-UL/CSA)

Jacket Color:

5

- 0 Black
- 3 Orange
 - Green (Profinet)
- 7 Violet (Profibus)

Number of Poles

- # 3-pole thru 9-poles
- A 10-pole
- C 12-pole

Conductor Profile

T2	22 AWG	W8	18 AWG
25	0.25mm ²	34	0.34mm ²
50	0.50mm ²	N1	Profibus
N2	Profinet	N7	CC-Link
N8	ethernet	N9	EtherNet/IP

Length Configuration

Cable Length:

003	0.3 meters
020	2.0 meters
100	10.0 meters

Special Lengths:

05/14	0.5m coiled, 1.4m stretch
2D5	2.5 decimeters (25cm)
10X	100 meters

Connectivity Solutions M8 Nano, M12 Micro

Single & Double-Ended Cables

Standard Cordsets

Wiring	Poles	Shield	Head 1	Head 2
001	3-wire		N/O	
002	3-wire		N/C	
003	4-wire		Comp.	
004	3-wire		N/O PNP LED	
005	3-wire		N/C PNP LED	
006	3-wire		N/O NPN LED	
007	3-wire		N/C NPN LED	
008	4-wire		N/O PNP LED	
009	4-wire		N/O NPN LED	
010	4-wire		Comp. PNP LED	
300	3-wire		N/O	N/O
302	3-wire		N/O PNP LED	N/O PNP LED
303	3-wire		N/O NPN LED	N/O NPN LED
304	4-wire		Comp.	Comp.
306	4-wire		N/O PNP LED	N/O PNP LED
307	4-wire		N/O NPN LED	N/O NPN LED
602	3-wire		N/O PNP LED	N/O
603	3-wire		N/O NPN LED	N/O
606	4-wire		N/O PNP LED	Comp.
607	4-wire		N/O NPN LED	Comp.
650	4-wire		Comp. PNP LED	Comp.
651	4-wire		Comp. PNP LED	N/O PNP LED
	sets and High Condu			
014	4-wire	Nut	BN,WH,BU,BK	
016	5-wire	Nut	BN,WH,BU,BK,GY	
017	5-wire		BN,WH,BU,BK,GY	
034	4-wire+PE		BN,WH,BU,BK,GNYE	
036	3-wire	Nut	BN,BU,BK (N/O)	
037	3-wire	Nut	BN,BU,BK (N/C)	
039	5-wire		Comp. PNP LED	
040	4-wire+PE		Comp. PNP LED	
043	4-wire+PE	Nut	BN,WH,BU,BK,GNYE	
044	8-wire		WH,GN,YE,GY,BN,PK,BU,RD	
046	8-wire	Nut	WH,BN,GN,YE,GY,PK,BU,RD	
049	12-wire		BN,BU,WH,GN,PK,YE,BK,GY,RD,VI,GYPK,RDBU	
325	12-wire		BN,BU,WH,GN,PK,YE,BK,GY,RD,VI,GYPK,RDBU	
Network Cords		•••		
031	2-pole	Nut	Profibus	
068	4-pole	Pin	CC-Link	
329	2-pole	Nut	Profibus	Profibus
331	4-pole	Nut	Profinet	Profinet
337	4-pole	Pin	CC-Link	CC-Link
338	2x2pair	Nut	ethernet	ethernet

M8 Nano, M12 Micro - Splitter Cables

BCC M414 - M425 - M425 - U2010 - 003

Head 1 (Splitter) Head 2 (Head A) Head 3 (Head B) Splitter Code

Length

Head 1 Configuration

Connector Size & Type:

M4 M12 Micro DC - Ni Plated Brass

Connector Direction:

Straight Plastic Overmolded 1

Number of Visible Connections:

3-pole thru 8-poles #

Head 2 & Head 3 Configuration

Connector Size & Type:

M3	M8 Nano DC - Ni Plated Brass
M4	M12 Micro DC - Ni Plated Brass
0000	(Head 2, Head 3) Open Splitter

Connector Direction:

1 Straight Plastic Overmolded

2 Right Angle Plastic Overmolded

Number of Visible Connections:

M12 Female 5 no. poles Any other configuration

Splitter Code

Code	Туре	Wiring	Head 1	Head 2	Head 3	Cable	Body
U0003	U Splitter	A00	M12 Male	M12 Female	M12 Female		BK PVC
U0014	U Splitter	A00	M12 Male	M8 3-pole Female	M8 3-pole Female		BK PVC
U2002	V Splitter	A00	M12 Male	M12 Female	M12 Female	YE TPE	YE TPU
U2009	V Splitter	A13	M12 Male	Leads	Leads	YE PVC	YE TPU
U2010	V Splitter	A00	M12 Male	M12 Female	M12 Female	YE PVC	YE TPU
U2011	V Splitter	A07	M12 Male	M12 Female	M12 Female	YE TPE	YE TPU
U2012	V Splitter	A00	M12 Male	M8 Female	M8 Female	YE PVC	YE TPU

Wiring Configuration

Wiring	Head 1	Head 2	Head 3	Logic	LED
A00	4-wire	3-wire N/O (H1=pin 4)	3-wire N/O (H1=pin 2)	Splitter	
A07	4-wire	3-wire N/O (H1=pin 4)	3-wire N/O (H1=pin 2)	Splitter	(H2&H3) PNP
A13	4-wire	BN,BU,BK (H1=pin 4)	BN,BU,BK (H1=pin 2)	Splitter	

Length Configuration

Cable Length:

003 0.3 meters 020 2.0 meters 100 10.0 meters

*Head 2 & Head 3 lengths are equal

MINI Sizes: 7/8", 1", 1 1/8" Single & Double-Ended Cables

BCC A315 - A325 - 30 - 335 - VX45W6 - 020

Head 1

Head 2

Code Wiring

Raw Cable

Length

Head 1 & Head 2 Configuration

Connector Size & Type:

- A3
 7/8" MINI Size I

 A4
 1" MINI Size II
- A51 1/8" MINI Size III0000(Head 2) Single-Ended Cable

Connector Direction:

- 1 Straight Plastic Overmolded
- 2 Right Angle Plastic Overmolded

Number of Visible Connections:

- # 3-pole thru 9-poles
- A 10-pole
- C 12-pole
- L 19-pole

Code Configuration

Gender Type:

- 1 Female Internal Threads
- 2 Male External Threads
- 3 Female Int Male Ext
- 7 Female Int Male Int
- C Male Internal Threads

Connector Coding:

0 All configurations (typical)

Wiring Configurations

Single-Ended	Double-Ended	Poles
003	304	4-wire DC
063	335	5-wire DC
071	345	3-wire AC
072	346	4-wire AC
085	357	6-wire
086	358	7-wire
087	359	8-wire
088	360	9-wire
089	355	10-wire
090	362	12-wire
091	363	19-wire
030	330	DeviceNet

Raw Cable Configuration

Jacket Material:

- V PVC
- P PUR
- E TPE

Special Designator:

- X nothing
- S Shielded

Jacket Color:

- 0 Black
- 4 Yellow (standard)

Number of Poles:

- # 1-pole thru 9-poles
- A 10-pole
- C 12-pole
- L 19-pole

Conductor Profile:

W6	16 AWG
W8	18 AWG
A5	1.50mm2
N4	DeviceNet Thick*
N5	DeviceNet Mid*
N6	DeviceNet Thin*

*For DeviceNet a jacket material of PUR is flex rated

Length Configuration

Cable Length:

003	0.3 meters		
020	2.0 meters		
100	10.0 meters		

Field Attachable Connectors

BCC M434 - 0000 - 2A - 000 - 55X450 - 000

Connector

(Place Holder)

Code (Place Ho

```
(Place Holder) Configuration
```

(Place Holder)

Field Attachable Connector

Connector Size & Type:

- M3 M8 Nano DC
- M4 M12 Micro DC
- **S3** M8 Nano DC Stainless
- S4 M12 Micro DC Stainless
- A3 7/8" MINI Size I

Connector Direction:

- **3** Straight Plastic Field Attachable
- 4 Right Angle Plastic Field Attachable
- 7 Straight Metal Field Attachable
- 8 Right Angle Metal Field Attachable

Number of Visible Connections:

5	M12 Female
no. poles Any other	r configuration

Code Configuration

Gender Type:

- 1 Female Internal Threads
- 2 Male External Threads

Connector Coding

- A M12 Sensor Connectors (typical)
- 0 M8 & 7/8" (typical)
- B M12 Profibus Connectors
- D M12 Ethernet Connectors
 - (Profinet, EtherNet/IP)

Configuration Breakdown

Cable Gland Minimum Diameter

1	min Ø 2.5mm	2	min Ø 3.0mm
3	min Ø 3.5mm	4	min Ø 4.0mm
5	min Ø 6.0mm	6	min Ø 8.0mm
7	min Ø 10mm	8	min Ø 12mm
9	min Ø 14mm	0	min Ø 5.0mm
Α	min Ø 2.1mm or 4.0mm		

Connection Technology

- 1 Screw Terminals
- 2 Piercon Terminals
- **3** Insulation Displacement Terminals
- 4 Solder Cup Terminals
- 5 Spring Type Terminals

Cable Type

X no cable

Number of Poles

# 1-pole thru 9-pole	es
----------------------	----

- A 10-pole
- C 12-pole

Maximum Conductor Profile

25	0.25mm2	34	0.34mm2
50	0.50mm2	75	0.75mm2
A5	1.50mm2		



BCC 0000 - 0000 - 00 - 001 - EX43T2 - 10X

(Place Holder) (Place Holder) (Place Holder) Wiring

er) Wiring

Raw Cable Length

Wiring Configuration

Wiring	Poles	Shield	Color Code
001	3-wire DC		BN,BU,BK
003	4-wire DC		BN,WH,BU,BK
030	5-wire	Yes	DeviceNet
063	5-wire DC		BN,WH,BU,BK,GNYE
071	3-wire AC		WH,BK,GN
072	4-wire AC		BK,WH,RD,GN
000			Contact Technical Support

2 Red (CC-Link)5 Green (Profinet)

8 Grey (standard/DeviceNet)

Length Configuration

Cable Length: 500 10X 25X

50 meters 100 meters (standard) 250 meters

Raw Cable Configuration

Jacket Material:

- V PVC
- P PUR
- E TPE

Special Designator:

- X nothing
- S Shielded

Jacket Color:

- 0 Black
- 4 Yellow (standard)
- 7 Violet (Profibus)

Number of Poles

2-pole thru 5-poles

Conductor Profile

T2	22 AWG	W6	16 AWG
34	0.34mm ²	A5	1.50mm2
N1	Profibus	N2	Profinet
N4	DeviceNet Thick	N5	DeviceNet Mid
N6	DeviceNet Thin	N7	CC-Link

Valve Connectors - DIN & IND Styles

BCC VA04 - M413 - 3E - 665 - VX8350 - 006

Head 1

Head 2

Code

Wiring

Raw Cable

Length

Head 1 Configuration

Connector Size & Type:

 VA0
 Type A - DIN (18mm) - 0°

 VB0
 Type B - DIN (10mm) - 0°

 VB2
 Type B - DIN (10mm) - 180°

 VB4
 Type B - IND (11mm) - 0°

 VB6
 Type B - IND (11mm) - 180°

 VC0
 Type C - DIN (8mm) - 0°

 VC4
 Type C - IND (9.4mm) - 0°

Number of Visible Connections:

- 4 A & C Types
- 3 B Type

Head 2 Configuration

Connector Size & Type:

M4 M12 Micro DC - Ni Plated Brass0000 (Head 2) Single-Ended Cable

Connector Direction:

- 1 Straight Plastic Overmolded
- 2 Right Angle Plastic Overmolded

Number of Visible Connections:

3-pole thru 5-poles

Code Configuration

Gender Type:

- 1 Female
- **3** Female Male

Connector Coding

- **0** Single-Ended Cables (typical)
- E Double-Ended Cables (with M12)

Wiring Configuration

Wiring	Poles	Bridged	H1/H2 LED
053	3	Yes	Diode & PNP LED/
054	3	Yes	No/
055	3		Diode & PNP LED/
056	3		No/
664	3	Yes	Diode & PNP LED/No
665	3	Yes	No/No
666	3		Diode & PNP LED/No
667	3		No/No

Raw Cable Configuration

Jacket Material:

V PVC

P PUR

Special Designator:

X nothing

Jacket Color:

0 Black 8 Grey

Number of Poles

3-pole thru 5-poles

Conductor Profile

50 0.50mm2

Length Configuration

Cable Length:

 003
 0.3 meters

 020
 2.0 meters

 100
 10.0 meters

+++++++++ + + ++ + + + + + + ++++ + ++++++ + + + + + ++ + + ++++ +++ + + + + + + + + + +++ ++++++++++++ + +++++ ++ ++ ++ +++ ++ +++ + +++ ++++++++ + +++++ + + + + ++++++++++ ++ + ++ +++++ ++ + + + + + ++ + + + +++ +++ + ++ + + + + + ++++++++ + + ++ ++ + + +++ + + ++++ +++ + ++ +++ + + ++++ +++++++ + ++ ++++ +++++ + ++ + + ++ + + + ++++ + + + + + + ++ + + + + + + + ++ + + + ++++++ + ++ ++++++++++ +++++++ + + ++++++++ ++ + + + + + + ++ ++++ + +++++ ++++ + + ++ + + + ++ + + + ++ + + + ++ +++ +++++++++ + ++ ++++++++++++ +++ + + + + + + ++++ ++++ + + + + +++ ++ ++ ++ + ++++++++ + +++ + ++ + + ++++ ++++ ++ + + + +++ + + + + + + + + + + + ++ ++ + ++ + + + + + ++ + + + + +++ + ++ ++ + ++ +++ ++++ + + + + + ++ + + ++ + ++ + + + + + + + + +++ + + + + + + + ++ + + + + +++++ ++++ + + +++++ ++++ ++ +++++ + + ++ ++ + + ++ + + ++ + + + ++ + + + + + +++ +++++++++++++++++ ++++++ ++ + + ++++++++++++++++++ ++++++ ++ + +++

Sensor cable part builder

Balluff's new line of sensor cordsets offers many benefits to the automation world. Balluff can globally offer cordsets that fit almost any standard sensor or actuator application. This offering includes features such as consistant and accurate IP ratings, a wide range of cable jackets, a full range of overmold configurations, and high quality rugged materials.

Select your cordset in 4 easy steps:

- 1. Pick your connector types (single/double, right angle/straight)
- 2. Pick your electrical information and LEDs
- 3. Pick your jacket material and color
- 4. Pick your cordset length

Complete Part Number Example:

BCC M415-0000-1A-008-VX44T2-050

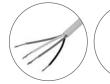
- M12 single ended, straight female (M415-0000-1A)
- 4-wire, 2x PNP LED (008)
- Yellow PVC, 4-wire (VX44T2)
- 5 m cable (050)

Step 1 BCC_____

Cordset Connector Selection

Single-ended and double-ended cordsets can be made using the chart below. Available in industry standard M8 and M12 sizes, these cordsets come in a variety of head combinations; single-ended, straight to straight, right angle to straight, and right angle to right angle. To select your cordset, start by selecting the female connector that will match your sensor. Next, follow the row across until you find the required end that will go back to your controller, homerun cordset, MIB, etc.

		Male (controller, homerun cable, MIB end)				
(Connector Types	Single Ended Female	3-wire M8 Straight Male	3-wire M8 Right Angle Male	4-wire M8 Straight Male	
r en	Single-Ended Male		M313-0000-20	M323-0000-20	M314-0000-20	
(sensor end)	M8 Straight Female 3-wire	M313-0000-10	M313-M313-30	M313-M323-30		
	M8 Right Angle Female 3-wire	M323-0000-10	M323-M313-30	M323-M323-30		
Female	M8 Straight Female 4-wire	M314-0000-10			M314-M314-30	
Fe	M8 Right Angle Female 4-wire	M324-0000-10			M324-M314-30	
	M12 Straight Female	M415-0000-1A	M415-M313-3F	M415M323-3F	M415-M314-3F	
	M12 Right Angle Female	M425-0000-1A	M425-M313-3F	M425-M323-3F	M425-M314-3F	











Single Ended

M8 FemaleM8 Female3-wire3-wire

M8 Female 4-wire

M8 Female 4-wire

M8 Male 3-wire

M8 Male 3-wire

M8 Male 4-wire





Cordset Wiring and LEDs

Both 3- and 4-wire cordsets are available in single- and double-ended cordsets, as well as two and three LEDs. To select your cordset, start with Step 1 on previous page. Then decide if you need 3- or 4-wire and whether or not you want an LED in the overmolded head.

Single Ended Cordsets					
Head 1 and 2	3-wire N/O	3-wire N/C	4-wire		
No LED	001	002	003		
2x PNP LED	004	005	008		
3x PNP LED**			010		
2x NPN LED	006	007	009		

Double Ended Cordsets				
Head 1	Head 2	3-wire N/O	4-wire	
No LED	No LED	300	304	
2x PNP LED	No LED	602	606	
3x PNP LED**	No LED		650	
2x NPN LED	No LED	603	607	
2x PNP LED	2x PNP LED*	302	306	
2x NPN LED	2x NPN LED*	303	307	
3x PNP LED**	2x PNP LED*		651	



No LED



Male (controller, homerun cable, MIB end)					
4-wire M8 Right Angle Male	3-wire M12 Straight Male	3-wire M12 Right Angle Male	4-wire M12 Straight Male	4-wire M12 Right Angle Male	
M324-0000-20	M413-0000-2A	M423-0000-2A	M414-0000-2A	M424-0000-2A	
	M313-M413-3E	M313-M423-3E			
	M323-M413-3E	M323-M423-3E			
M314-M324-30			M314-M414-3E	M314-M424-3E	
M324-M324-30			M324-M414-3E	M324-M424-3E	
M415-M324-3F	M415-M413-3A	M415-M423-3A	M415-M414-3A	M415-M424-3A	
M425-M324-3F	M425-M413-3A	M425-M423-3A	M425-M414-3A	M425-M424-3A	

*M12 right angle male only

**M12 right angle female only











M8 Male 4-wire

M12 Female

M12 Female M12 Male 3-wire M12 Male 3-wire M12 Male 4-wire M12 Male 4-wire

2x = 1 power LED and 1 signal LED

3x = 1 power LED and 2 signal LEDs



Sensor cable part builder

Step 3

Raw Cable Type

To select your raw cable, first decide on the correct jacket for the application and then on a jacket color.

- PVC: For standard automation applications
- PUR: For abrasion and extreme fluid resistance
- TPE: For High-flex and for use in heavy duty environments

Jacket Color	Jacket Color and Material					
Material	Co	lor	Conductor	3-wire	4-wire	
PVC		Yellow	22 AWG	VX43T2	VX44T2	
PVC		Gray	0.34 mm ²	VX8334	VX8434	
PUR		Yellow	22 AWG	PX43T2	PX44T2	
PUR		Black	0.34 mm ²	PX0334	PX0434	
TPE		Yellow	22 AWG	EX43T2	EX44T2	



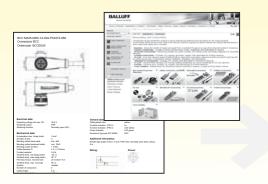
Step 4



Cordset Length

Select from our standard cordset lengths below. Contact the factory for custom cordset length selections.

Double Len	igth Options	Single Len	gth Options
Length	Ordering Information	Length	Ordering Information
0.3 m	003	2 m	020
0.6 m	006	5 m	050
1 m	010	10 m	100
1.5 m	015		
2 m	020		
3 m	030		
5 m	050		



Need help finding a cross? Need help selecting a part?

Visit us online: www.balluff.com/connectivity Call or email our technical support group at: 1-800-543-8390 technical.support@balluff.com

M8 connectors, female straight and right-angle

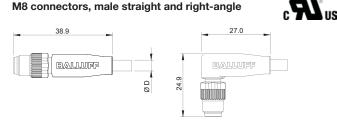
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Technical specifications Bulk sensor cable

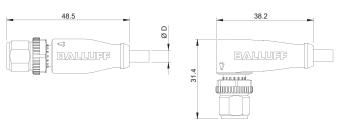
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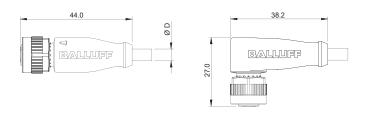
M8 connectors, male straight and right-angle



M12 connectors, male straight and right-angle



M12 connectors, female straight and right-angle

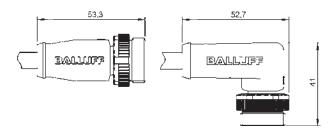


18.2

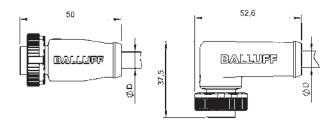
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BALLUFF

7/8" connectors, male straight and right-angle



7/8" connectors, female straight and right-angle



Note: For face views and wiring diagrams see the technical reference section (t).





Bulk Cable Specifications

Buik Gable Opecifications							
Jacket Material	PVC		PUR		TPE		
Application	General Automatio	on	Cut & Fluid Resis	tant, Halogen Free	High Flex, Weld Slag Resistant		
Jacket Color	Yellow		Yellow		Yellow		
Conductor Gauge	22AWG	22AWG		22AWG		22AWG	
Ambient temp (moving)	-5105°C		-2580°C		-40105°C		
Ambient temp. (fixed)	-40105°C		-5080°C		-50105°C		
Bending Cycles	> 2 Million		> 2 Million		> 10 Million		
Bulk Cable (100 m)	BCC0AE7	BCC0AE8	BCC0AE9	BCC0AEA	BCC0AEC	BCC0AEE	
Number of Conductors	3	4	3	4	3	4	
Cable Diameter (mm)	4.7 ± 0.15	5.0 ± 0.15	4.3 ± 0.20	4.7 ± 0.20	5.3 ± 0.13	5.3 ± 0.13	

Connectivity Solutions M5 single-ended cordsets M5-M8 double-ended cordsets



M5 Single-Ended

Туре	M5 Female	M5 Female
Configuration	Straight	Right Angle
Voltage Rating	30 VAC/VDC	30 VAC/VDC
Amperage	1 A	1 A
3-wire, non-LED	BKS-B 25-1-PU-03	BKS-B 26-1-PU-03
4-wire, non-LED	BKS-B 25-3-PU-03	BKS-B 26-3-PU-03



Туре	M5 Female - M8 Male	M5 Female - M8 Male
Configuration	Straight - Straight	Right Angle - Straight
Voltage Rating	30 VAC/VDC	30 VAC/VDC
Amperage	1 A	1 A
3-wire, non-LED	BKS B 25-1/GS49-PU-01	BKS B 26-1/GS49-PU-01

M5-M8 Double-Ended

Connectivity Solutions M8 single-ended cordsets





M8 Single-Ended Female		
Туре	M8 Female	M8 Female
Configuration	Straight	Right Angle
Voltage Rating	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)
Amperage	4 A	4 A
3-wire, non-LED	BCC M313-0000-10-001X43T2	BCC M323-0000-10-001X43T2
3-wire, non-LED, shielded	BCC M313-0000-10-036S_334	BCC M323-0000-10-036 S_334
3-wire, PNP-LED, N/O signal		BCC M323-0000-10-004X43T2
3-wire, NPN-LED, N/O signal		BCC M323-0000-10-006X43T2
4-wire, non-LED	BCC M314-0000-10-003X44T2	BCC M324-0000-10-003X44T2
4-wire, non-LED, shielded	BCC M314-0000-10-014S_434	BCC M324-0000-10-014S_434
Ctandard Cable Jackston Ctandard La		

Standard Cable Jackets: V = PVC P = PURE = TPE Standard Lengths Available: 020 = 2 m 050 = 5 m100 = 10 m





M8 Single-Ended Male

4-wire, non-LED	BCC M314-0000-20-003X44T2	BCC M324-0000-20-003X44T2
3-wire, non-LED	BCC M313-0000-20-001X43T2	BCC M323-0000-20-001X43T2
Amperage	4 A	4 A
Voltage Rating	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)
Configuration	Straight	Right Angle
Туре	M8 Male	M8 Male

Standard Cable Jackets:	Standard Lengths Available:
V = PVC	020 = 2 m
P = PUR	050 = 5 m
E = TPE	100 = 10 m

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Connectivity Solutions M8-M8 double-ended cordsets M8-M12 double-ended cordsets





M8-M8 Double-Ended	2 ~ 1.		
Туре	M8 Female - M8 Male	M8 Female - M8 Male	
Configuration	Straight - Straight	Right Angle - Straight	
Voltage Rating	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)	
Amperage	4 A	4 A	
3-wire, non-LED	BCC M313-M313-30-300- X43T2-	BCC M323-M313-30-300- X43T2-	
,			
3-wire, PNP-LED, N/O, Head 1		BCC M323-M313-30-602X43T2	
3-wire, NPN-LED, N/O, Head 1		BCC M323-M313-30-603X43T2	
4-wire, non-LED	BCC M314-M314-30-304X44T2	BCC M324-M314-30-304X44T2	
3-wire, non-LED 3-wire, PNP-LED, N/O, Head 1 3-wire, NPN-LED, N/O, Head 1	BCC M313-M313-30-300X43T2	4 A BCC M323-M313-30-300X43T2 BCC M323-M313-30-602X43T2 BCC M323-M313-30-603X43T2	





M8-M12 Double-Ended			
Туре	M8 Female - M12 Male	M8 Female - M12 Male	
Configuration	Straight - Straight	Right Angle - Straight	
Voltage Rating	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)	
Amperage	4 A	4 A	
3-wire, non-LED	BCC M313-M413-3E-300X43T2	BCC M323-M413-3E-300X43T2	
3-wire, PNP-LED, N/O, Head 1		BCC M323-M413-3E-602X43T2	
3-wire, NPN-LED, N/O, Head 1		BCC M323-M413-3E-603X43T2	
4-wire, non-LED	BCC M314-M414-3E-304X44T2	BCC M324-M414-3E-304X44T2	

M8-M8 double-ended cordsets M8-M12 double-ended cordsets





M8 Female - M8 Male	M8 Female - M8 Male
Straight - Right Angle	Right Angle - Right Angle
60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)
4 A	4 A
BCC M313-M323-30-300X43T2	BCC M323-M323-30-300X43T2
BCC M313-M323-30-300X43T2	BCC M323-M323-30-300X43T2 BCC M323-M323-30-602X43T2
BCC M313-M323-30-300X43T2	
BCC M313-M323-30-300X43T2	BCC M323-M323-30-602X43T2

Standard Cable Jackets: V = PVC P = PUR E = TPE

Standard Lengths Available: 003 = 0.3 m 006 = 0.6 m 010 = 1.0 m 015 = 1.5 m 020 = 2 m 030 = 3 m 050 = 5 m





M8 Female - M12 Male	M8 Female - M12 Male
Straight - Right Angle	Right Angle - Right Angle
60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)
4 A	4 A
BCC M313-M423-3E-300X43T2	BCC M323-M423-3E-300X43T2
BCC M313-M423-3E-300X43T2	BCC M323-M423-3E-300X43T2 BCC M323-M423-3E-602X43T2
BCC M313-M423-3E-300X43T2	
BCC M313-M423-3E-300X43T2 BCC M314-M424-3E-304X44T2	BCC M323-M423-3E-602X43T2

Standard Cable Jackets: V = PVC P = PUR E = TPE

Standard Lengths Available:

003 = 0.3 m 006 = 0.6 m 010 = 1.0 m 015 = 1.5 m 020 = 2 m 030 = 3 m 050 = 5 m

Connectivity Solutions M12 single-ended cordsets





M12 Single-Ended			
Туре	M12 Female	M12 Female	
Configuration	Straight	Right Angle	
Voltage Rating	250 VAC/VDC (3&4wire), 36 VDC (LED)	250 VAC/VDC (3&4wire), 36 VDC (LED)	
Amperage	4 A	4 A	
3-wire, non-LED, N/O signal	BCC M415-0000-1A-001X43T2	BCC M425-0000-1A-001X43T2	
3-wire, non-LED, N/C signal	BCC M415-0000-1A-002X43T2	BCC M425-0000-1A-002X43T2	
3-wire, PNP-LED, N/O signal	BCC M415-0000-1A-004X43T2	BCC M425-0000-1A-004X43T2	
3-wire, PNP-LED, N/C signal	BCC M415-0000-1A-005X43T2	BCC M425-0000-1A-005X43T2	
3-wire, NPN-LED, N/O signal	BCC M415-0000-1A-006X43T2	BCC M425-0000-1A-006X43T2	
3-wire, NPN-LED, N/C signal	BCC M415-0000-1A-007X43T2	BCC M425-0000-1A-007X43T2	
4-wire, non-LED, N/O and N/C signal	BCC M415-0000-1A-003X44T2	BCC M425-0000-1A-003X44T2	
4-wire, PNP-LED, N/O signal	BCC M415-0000-1A-008X44T2	BCC M425-0000-1A-008X44T2	
4-wire, PNP-LED, N/O and N/C signal		BCC M425-0000-1A-010X44T2	
4-wire, NPN-LED, N/O signal	BCC M415-0000-1A-009X44T2	BCC M425-0000-1A-009X44T2	

Standard Cable Jackets:

V = PVCP = PUR $\mathsf{E} = \mathsf{TPE}$

Standard Lengths Available: 020 = 2 m 050 = 5 m 100 = 10 m

Connectivity Solutions M12 single-ended cordsets





M12 Male	M12 Male
Straight	Right Angle
250 VAC/VDC (3&4wire), 36 VDC (LED)	250 VAC/VDC (3&4wire), 36 VDC (LED)
4 A	4 A
BCC M413-0000-2A-001X43T2	BCC M423-0000-2A-001X43T2
BCC M413-0000-2A-002X43T2	BCC M423-0000-2A-002X43T2
	BCC M423-0000-2A-004X43T2
	BCC M423-0000-2A-005X43T2
	BCC M423-0000-2A-006X43T2
	BCC M423-0000-2A-007X43T2
BCC M414-0000-2A-003X44T2	BCC M424-0000-2A-003X44T2
	BCC M424-0000-2A-008X44T2
	BCC M424-0000-2A-009X44T2

Connectivity Solutions M12-M12 double-ended cordsets



M12-M12 Double-Ended

Туре			M12 Female - M12 Male	
Configuration			Straight - Straight	
Voltage Rating			250 VAC / VDC (non-LED), 10-30 VDC (LED)	
Amperage			4 A	
	Female LED	Male LED		
3-wire, non-LED			BCC M415-M413-3A-300X43T2	
3-wire, PNP-LED, Head 1	N/O		BCC M415-M413-3A-602X43T2	
3-wire, PNP-LED, Head 1&2	N/O	N/O		
3-wire, NPN-LED, Head 1	N/O		BCC M415-M413-3A-603X43T2	
3-wire, NPN-LED, Head 1&2	N/O	N/O		
4-wire, non-LED			BCC M415-M414-3A-304X44T2	
4-wire, PNP-LED, Head 1	N/O		BCC M415-M414-3A-606X44T2	
4-wire, PNP-LED, Head 1	N/O and N/C			
4-wire, PNP-LED, Head 1 & 2	N/O	N/O		
4-wire, PNP-LED, Head 1 & 2	N/O and N/C	N/O		
4-wire, NPN-LED, Head 1	N/O		BCC M415-M414-3A-607X44T2	
4-wire, NPN-LED, Head 1 & 2	N/O	N/O		

Standard Cable Jackets:

V = PVCP = PUR

E = TPE

Standard Lengths Available:

003 = 0.3 m 006 = 0.6 m 010 = 1.0 m 015 = 1.5 m 020 = 2 m 030 = 3 m 050 = 5 m

Connectivity Solutions M12-M12 double-ended cordsets







M12 Female - M12 Male	M12 Female - M12 Male	M12 Female - M12 Male
Right Angle - Straight	Straight - Right Angle	Right Angle - Right Angle
250 VAC / VDC (non-LED), 10-30 VDC (LED)	250 VAC / VDC (non-LED), 10-30 VDC (LED)	250 VAC / VDC (non-LED), 10-30 VDC (LED)
4 A	4 A	4 A
BCC M425-M413-3A-300X43T2	BCC M415-M423-3A-300X43T2	BCC M425-M423-3A-300X43T2
BCC M425-M413-3A-602X43T2	BCC M415-M423-3A-602X43T2	BCC M425-M423-3A-602X43T2
	BCC M415-M423-3A-302X43T2	BCC M425-M423-3A-302X43T2
BCC M425-M413-3A-603X43T2	BCC M415-M423-3A-603X43T2	BCC M425-M423-3A-603X43T2
	BCC M415-M423-3A-303X43T2	BCC M425-M423-3A-303X43T2
BCC M425-M414-3A-304X44T2	BCC M415-M424-3A-304X44T2	BCC M425-M424-3A-304X44T2
BCC M425-M414-3A-606X44T2	BCC M415-M424-3A-606X44T2	BCC M425-M424-3A-606X44T2
BCC M425-M414-3A-650X44T2		BCC M425-M424-3A-650X44T2
	BCC M415-M424-3A-306X44T2	BCC M425-M424-3A-306X44T2
BCC M425-M414-3A-651X44T2		BCC M425-M424-3A-651X44T2
BCC M425-M414-3A-607X44T2	BCC M415-M424-3A-607X44T2	BCC M425-M424-3A-607X44T2
	BCC M415-M424-3A-307X44T2	BCC M425-M424-3A-307X44T2

Connectivity Solutions M12-M8 double-ended cordsets



M12-M8 Double-Ended

Туре			M12 Female - M8 Male	
Configuration			Straight - Straight	
Voltage Rating		60 VAC/VDC (3wire)		
			30 VAC/VDC (4wire)	
			10-30 VDC (LED)	
Amperage			4 A	
	Female LED	Male LED		
3-wire, non-LED			BCC M415-M313-3F-300X43T2	
3-wire, PNP-LED, Head 1	N/O		BCC M415-M313-3F-602X43T2	
3-wire, NPN-LED, Head 1	N/O		BCC M415-M313-3F-603X43T2	
4-wire, non-LED			BCC M415-M314-3F-304X44T2	
4-wire, PNP-LED, Head 1	N/O		BCC M415-M314-3F-606X44T2	
4-wire, PNP-LED, Head 1	N/O and N/C			
4-wire, NPN-LED, Head 1	N/O		BCC M415-M314-3F-607X44T2	

Standard Cable Jackets:

V = PVC

P = PUR

 $\mathsf{E} = \mathsf{TPE}$

Standard Lengths Available: 003 = 0.3 m

006 = 0.6 m

010 = 1.0 m

015 = 1.5 m

020 = 2 m

030 = 3 m

050 = 5 m

Connectivity Solutions M12-M8 double-ended cordsets



Connectivity Solutions M12 4-wire+PE, 5-wire, 8-wire, 12-wire cordsets





Single-Ended			
Туре	M12 Female	M12 Female	
Configuration	Straight	Right Angle	
Voltage Rating	(4p+PE, 5p = 125 V), (8p = 60 V), (12p = 30 V)	(4p+PE, 5p = 125 V), (8p = 60 V), (12p = 30 V)	
Amperage	(4p+PE, 5p = 4 A), (8p = 2 A), (12p = 1 A)	(4p+PE, 5p = 4 A), (8p = 2 A), (12p = 1 A)	
Conductor Cross-Section	(5p = 0.34 mm ²), (8p, 12p = 0.25 mm ²)	(5p = 0.34 mm ²), (8p, 12p = 0.25 mm ²)	
4 wire DE non LED	PCC M415 0000 14 024 DV0524	RCC M425 0000 14 024 DV0524	
4-wire+PE, non-LED	BCC M415-0000-1A-034-PX0534	BCC M425-0000-1A-034-PX0534	
4-wire+PE, non-LED 4-wire+PE, PNP-LED, N/O & N/C signals	BCC M415-0000-1A-034-PX0534	BCC M425-0000-1A-034-PX0534 BCC M425-0000-1A-040-PX0534	
,	BCC M415-0000-1A-034-PX0534 BCC M415-0000-1A-017X_534		
4-wire+PE, PNP-LED, N/O & N/C signals		BCC M425-0000-1A-040-PX0534	
4-wire+PE, PNP-LED, N/O & N/C signals 5-wire, non-LED		BCC M425-0000-1A-040-PX0534 BCC M425-0000-1A-017X_534	





Double-Ended		
Туре	M12 Female - M12 Male	M12 Female - M12 Male
Configuration	Straight - Straight	Right Angle - Straight
Voltage Rating	4p+PE & 5p = 125V, 8p=60V, 12p = 30V	125V
Amperage	4p+PE & 5p = 4A, 8p=2A, 12p = 1A	4A
Conductor Cross-Section	4p+PE & 5p = 0.34 mm², 8p & 12p = 0.25 mm². Yellow = 22 AWG	0.34 mm ²
Cable Jacket Material	Black PUR, Yellow TPE, Yellow PVC	Black PUR
4-wire+PE, non-LED	BCC M415-M415-3A-313-PX0534	BCC M425-M415-3A-313-PX0534
4-wire+PE, PNP-N/O & N/C signals		BCC M425-M415-3A-661-PX0534
5-wire, non-LED	BCC M415-M415-3A-312	BCC M425-M415-3A-312-PX0534
5-wire, PNP-N/O & N/C signals		BCC M425-M415-3A-660-PX0534
8-wire, non-LED	BCC M418-M418-3A-342-PX0825	
12-wire, non-LED	BCC M41C-M41C-3A-325-PX0C25	

Connectivity Solutions M12 4-wire+PE, 5-wire, 8-wire, 12-wire





M12 Male	M12 Male
Straight	Right Angle
(4p+PE, 5p = 125 V), (8p = 60 V), (12p = 30 V)	(4p+PE, 5p = 125 V), (8p = 60 V), (12p = 30 V)
(4p+PE, 5p = 4 A), (8p = 2 A), (12p = 1 A)	(4p+PE, 5p = 4 A), (8p = 2 A), (12p = 1 A)
(5p = 0.34 mm ²), (8p, 12p = 0.25 mm ²)	(5p = 0.34 mm ²), (8p, 12p = 0.25 mm ²)
BCC M415-0000-2A-034-PX0534	
BCC M415-0000-2A-017X_534	
BCC M418-0000-2A-044X_825	BCC M428-0000-2A-044X_825
BCC M41C-0000-2A-049X_C25	BCC M42C-0000-2A-049X_C25

Standard Cable Jackets: V X8= PVC (grey, 8) PX0 = PUR (black, 0)

Standard Lengths Available: 020 = 2 m 050 = 5 m 100 = 100 m





M12 Female - M12 Male	M12 Female - M12 Male
Straight - Straight	Right Angle - Straight
125V	125V
4A	4A
0.34 mm ²	0.34 mm ²
Orange High Shore PUR, Weld Resistant*	Orange High Shore PUR, Weld Resistant*
BCC M415-M415-3A-313-PW3534-006	BCC M425-M415-3A-313-PW3534-006
BCC M425-M415-3A-661-PW3534-006	

lacket Materials: Yellow PVC = VX45T2 Black PUR = PX0534 Yellow TPE = EX45T2

Available Lengths: 003 = 0.3 m 006 = 0.6 m 010 = 1.0 m 015 = 1.5 m 020 = 2.0 m 030 = 3.0 m 050 = 5.0 m 100 = 10.0 m

*Also available in single-ended versions. See page 3.37.

M12 shielded cordsets





ingle-Ended			
Туре	M12 Female	M12 Female	
Configuration	Straight	Right Angle	
Voltage Rating	(3p, 4p = 250 V), (4p+PE, 5p = 125 V), (8p = 60 V)	(3p, 4p = 250 V), (4p+PE, 5p = 125 V), (8p = 60 V)	
Amperage	(3p, 4p = 4 A), (5p = 4 A), (8p = 2 A)	(3p, 4p = 4 A), (5p = 4 A), (8p = 2 A)	
Conductor Cross-Section	(3p, 4p, 5p = 0.34 mm ²), (8p = 0.25 mm ²)	(3p, 4p, 5p = 0.34 mm ²), (8p = 0.25 mm ²)	
3-wire, non-LED, N/O signal, shielded	BCC M415-0000-1A-036S_334	BCC M425-0000-1A-036S_334	
3-wire, non-LED, N/C signal, shielded	BCC M415-0000-1A-037S_334	BCC M425-0000-1A-037S_334	
4-wire, non-LED, shielded	BCC M415-0000-1A-014S_434	BCC M425-0000-1A-014S_434	
4-wire+PE, non-LED, shielded	BCC M415-0000-1A-043-PS0534	BCC M425-0000-1A-043-PS0534	
5-wire, non-LED, shielded	BCC M415-0000-1A-016-PS0525		
8-wire, non-LED, shielded	BCC M418-0000-1A-046-PS0825	BCC M428-0000-1A-046-PS0825	



Double-Ended

Type Configuration Voltage Rating Amperage Conductor Cross-Section **4-wire, non-LED, shielded**

M12 Female - M12 MaleAvailableStraight - Straight010 = 14p = 250V, 8p = 60V020 = 24p = 4A, 8p = 2A050 = 5 $4p = 0.34 \text{ mm}^2, 8p = 0.25 \text{ mm}^2$ 100 = 1BCC M415-M414-3A-305-PS0434-___BCC M418-M418-3A-351-PS0825-003

Available Lengths: 010 = 1.0 m 020 = 2.0 m 025 = 2.5 m 050 = 5.0 m 100 = 10.0 m 200 = 20.0 m

Connectivity Solutions M12 shielded cordsets





M12 Male	M12 Male
Straight	Right Angle
250 V	250 V
4 A	4 A
(3p, 4p, 5p = 0.34 mm ²)	(3p, 4p = 0.34 mm ²), (8p = 0.25 mm ²)
BCC M413-0000-2A-036- S 334-	DOO M400 0000 04 000 0 004
BCC MH 13-0000-2A-0303_334	BCC M423-0000-2A-036S_334
BCC M413-0000-2A-037S_334	BCC M423-0000-2A-036S_334 BCC M423-0000-2A-037S_334
BCC M413-0000-2A-037S_334	BCC M423-0000-2A-037S_334

Standard Cable Jackets: VS8 = PVC (grey, 8) PS0 = PUR (black, 0)

Standard Lengths Available: 020 = 2 meters 050 = 5 meters 100 = 100 meters

Connectivity Solutions M8 and M12 specialty cables IP69K, ECOLAB, stainless





M8 and M12 Specialty Cables		
Туре	IP69K Rated	1.4404 Stainless, ECOLAB, H2O2 Reistant
Configuration	Stainless Nut	Stainless Nut, Grey Overmold & PUR Cable
Voltage Rating	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12)	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12 non-LED), 36 V (M12 LED)
Amperage	4 A	4 A
M8 Versions		
M8 Female, 3-wire, Straight		BCC S313-0000-10-001-PX8334-100-C002
M8 Female, 3-wire, Right Angle		BCC S323-0000-10-001-PX8334-100-C002
M8 Female, 3-wire, Right Angle, N/O PNP-LED	BCC S323-0000-10-004-PX0334	BCC S323-0000-10-004-PX8334-030-C002
M8 Female, 4-wire, Straight		BCC S314-0000-10-003-PX8434-100-C002
M8 Female, 4-wire, Right Angle		BCC S324-0000-10-003-PX8434-100-C002
M12 Versions		
M12 Female, 3-wire, Right Angle, PNP-LED, N/O	BCC S425-0000-1A-004-PX0334	BCC S425-0000-1A-004-PX8334-030-C002
M12 Female, 4-wire, Straight	BCC S415-0000-1A-003-VX8434	BCC S415-0000-1A-003-PX8434C002
M12 Female, 4-wire, Straight, N/O PNP-LED		
M12 Female, 4-wire, Right Angle	BCC S425-0000-1A-003-VX8434	BCC S425-0000-1A-003-PX8434C002
M12 Female, 4-wire, Right Angle, N/O PNP-LED	BCC S425-0000-1A-008-PX0434	BCC S425-0000-1A-008-PX8434-100-C002
M12 Female, 5-wire, Straight		BCC S415-0000-1A-017-PX8534C002
M12 Female, 5-wire, Straight, Braided Shield		BCC S415-0000-1A-017-PS8525C002
M12 Female, 5-wire, Right Angle		BCC \$425-0000-1A-017-PX8534C002
M12 Female, 5-wire, Right Angle, Braided Shield		BCC S425-0000-1A-017-PS8525-100-C002
M12 Female, 8-wire, Straight, Braided Shield		BCC S418-0000-1A-069-PS8825C002

Standard Lengths A	vailable:
LED	Non-LED
030 = 3 meters	100 = 10.0 meters
050 = 5 meters	150 = 15.0 meters
100 = 10 meters	200 = 20.0 meters

Standard Lengths Available: 100 = 10 meters 200 = 20 meters 250 = 25 meters

Connectivity Solutions M8 and M12 specialty cables Stainless, high temperature





1.4404 Stainless	High Temperature
Stainless Nut, Yellow Overmold & PVC Cable	-25°C120°C
60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12 non-LED), 36 V (M12 LED)	125 VAC / 150 VDC
4 A	4 A
BCC S313-0000-10-001-VX43T2	BCC M313-0000-10-001-PH0334-050
BCC S323-0000-10-001-VX43T2	
BCC S314-0000-10-003-VX44T2	
BCC S324-0000-10-003-VX44T2	
BCC S425-0000-1A-004-VX43T2	BCC M415-0000-1A-001-PH0334
BCC S415-0000-1A-003-VX44T2	BCC M425-0000-1A-001-PH0334
BCC S415-0000-1A-008-VX44T2	
BCC S425-0000-1A-003-VX44T2	
BCC S425-0000-1A-008-VX44T2	
Standard Lengths Available:	Standard Lengths Available:

Standard Lengths Available 020 = 2 meters 050 = 5 meters 100 = 10 meters Standard Lengths Available: 020 = 2 meters 050 = 5 meters 100 = 10 meters

Connectivity Solutions M8 and M12 specialty cables

Global cables, economy line

M8 and M12 Specialty		
Туре	Global Cables	Economy Line
Unique Specification	Black Overmold, Yellow PVC Cable	non-UL / non-CSA, Black PVC
Voltage Rating	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12)	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12)
Amperage	4 A	4 A
M8 Versions		
M8 Female Straight, 3-wire	BCC M313-0000-10-001-VX43T2C013*	BCC M313-0000-10-001-VI0325
M8 Female Right Angle, 3-wire	BCC M323-0000-10-001-VX43T2C013*	BCC M323-0000-10-001-VI0325
M8 Female Right Angle, 3-wire, PNP-LED, N/O		
M8 Female Straight, 4-wire	BCC M314-0000-10-003-VX44T2C013*	BCC M314-0000-10-003-VI0425
M8 Female Right Angle, 4-wire	BCC M324-0000-10-003-VX44T2C013*	BCC M324-0000-10-003-VI0425
M12 Versions		
M12 Female Straight, 3-wire		
M12 Female Right Angle, 3-wire	BCC M415-0000-1A-003-VX44T2C013*	BCC M415-0000-1A-003-VI0425
M12 Female Right Angle, 3-wire, PNP-LED, N/O		
M12 Female Straight, 4-wire	BCC M425-0000-1A-003-VX44T2C013*	BCC M425-0000-1A-003-VI0425
M12 Female Right Angle, 4-wire		
M12 Female Straight, 4-wire+PE		
M12 Female Right Angle, 4-wire+PE, PNP-LED, N/O&N/C		
*Consult factory for availability	Standard Lengths Available: 050 = 5 meters 100 = 10 meters	Standard Lengths Available: 050 = 5 meters 100 = 10 meters

Connectivity Solutions M8 and M12 specialty cables High shore, coiled







Weld Resistant, High Shore PUR*	Short Coil Cable	Long Coil Cable
UL-AWM Style 20549, Orange cable	0.5m / 1.4m (coiled/stretched)	1.2m / 3.7m (coiled/stretched)
250 VAC / VDC (3&4-wire), 60 VDC (5-wire), 30 VDC (LED)	250 VAC / VDC	250 VAC / VDC,
4 A	4 A	4 A
BCC M323-0000-10-004-PW334-030		
BCC M425-0000-1A-001-PW3334		
BCC M425-0000-1A-004-PW3334		
BCC M415-0000-1A-003-PW3434	BCC M415-0000-1A-003-PC44T2-05/14	BCC M415-0000-1A-003-PC44T2-12/37
	BCC M425-0000-1A-003-PC44T2-05/14	BCC M425-0000-1A-003-PC44T2-12/37
BCC M415-0000-1A-034-PW3534		
BCC M425-0000-1A-040-PW3534		

*Also available in double-ended versions, see page 3.31

Connectivity Solutions M8 and M12 splitters





M8 Splitters			•	
Туре		M8 Female (x2) - M12 Male	M8 Female (x2) - M12 Male	
Configuration		Straight - Straight	Right Angle - Straight	
Voltage Rating		60 VAC / 75 VDC	60 VAC / 75 VDC	
Amperage		4 A	4 A	
Wiring	Jacket Mat.			
3-wire, non-LED	PVC	BCC M414-M313-M313-U2012	BCC M414-M323-M323-U2012	
3-wire, non-LED	PUR (black)			
3-wire, OR Logic	PUR (black)			



M12 Splitters

WIZ Splitters			
Туре		Flying Leads (x2) - M12 Male	M12 Female (x2) - M12 Male
Configuration		Open - Straight	Straight - Straight
Voltage Rating		250 VAC/ VDC	250 VAC / VDC
Amperage		4 A	4 A
Wiring	Jacket Mat.		
3-wire, non-LED, N/O	PVC	BCC M414-0000-0000-U2009	BCC M414-M415-M415-U2010
3-wire, non-LED, N/O	TPE		BCC M414-M415-M415-U2002
3-wire, PNP-LED, N/O	TPE		BCC M414-M415-M415-U2011
3-wire+PE, non-LED, N/O	PVC (black)		
3-wire, AND Logic	TPE		C04 EEC-04-TY-002M-V-F039
4-wire+PE, OR Logic	PVC (black)		
4-wire, N/C or N/O, non-LED	PUR (black)		BCC M414-M415-M415-U2018-002





M8 Female (x2) - M8 Male	M8 Female (x2) - M12 Male	Standard Lengths Available:
Straigt - Straight	U-style	003 = 0.3 m
30 VAC / 30 VDC	60 VAC / 60 VDC	006 = 0.6 m
4 A	4 A	010 = 1.0 m
		020 = 2 m
		050 = 5 m
	BCC M415-M313-M313-U0014-000	
BCC M314-M313-M313-U2024		
BCC M313-M313-M313-U2017-003		





M12 Female (x2) - M12 Male	M12 Female (x2) - M12 Male	Standard Lengths Available:
Right Angle - Straight	U-style	003 = 0.3 m 006 = 0.6 m
250 VAC / VDC	250 VAC / VDC	010 = 1.0 m
4 A	4 A	020 = 2 m
		050 = 5 m
BCC M414-M425-M425-U2010		Flying Lead Standard Lengths:
BCC M414-M425-M425-U2002		020 = 2 m
BCC M414-M425-M425-U2011		050 = 5 m
	BCC M415-M415-M415-U0003-000	
	BCC M415-M415-M415-U0016-000	

Connectivity Solutions

1/2" dual keyway single-ended 1/2" dual keyway double-ended





1/2" Dual Keyway Single-Ended

Туре	1/2" Dual Keyway Female	1/2" Dual Keyway Female
Configuration	Straight	Right Angle
Voltage Rating	250 VAC / VDC	250 VAC / VDC
Amperage	4 A	4 A
3-wire, 22AWG	C21 AE3-00YF	C21 BE3-00YF
3-wire, 22 AWG, Stainless Steel Nut	C21 AS3-00YF	C21 BS3-00YF
3-wire, 18AWG	C21 AE3-00-VYF-8	C21 BE3-00-VYF-8
4-wire, 18AWG	C21 AE4-00-VYF-8	C21 BE4-00-VYF-8
4-wire, 22 AWG, Braided Shield	C21 AE4-00-VYFB	C21 BE4-00-VYFB
5-wire, 22 AWG, Braided Shield	C21 AE5-00-VYFB	
6-wire, 22 AWG, Braided Shield	C21 AE6-00-VYFB	C21 BE6-00-VYFB

Standard Cable Jackets: V = PVCT = TPE

Single-Ended Std Lengths: 060F = 6 feet 120F = 12 feet 150F = 15 feet 300F = 30 feet





1/2" Dual Keyway Double-Ended			
1/2"AC Female - 7/8" Male	1/2" AC Female - 1/2" AC Male	1/2" AC Female - 1/2" AC Male	
Straight - Straight	Straight - Straight	Right Angle - Straight	
250 VAC / VDC	250 VAC / VDC	250 VAC / VDC	
4 A	4 A	4 A	
3-wire, 22AWG	C21 EE3-21-TYF	C21 GE3-21-TYF	

Double-Ended Std Lengths: 010F = 1 foot 030F = 3 feet 060F = 6 feet 120F = 12 feet

Connectivity Solutions 1/2" dual keyway double-ended





1/2" AC - 7/8" Double-Ended

3-wire, 18AWG	C21 EE3-05YM	C21 GE3-05YM
4 A	4 A	4 A
250 VAC / VDC	250 VAC / VDC	250 VAC / VDC
Straight - Straight	Straight - Straight	Right Angle - Straight
1/2"AC Female - 7/8" Male	1/2"AC Female - 7/8" Male	1/2"AC Female - 7/8" Male

Standard Cable Jackets: V = PVC T = TPE

Single-Ended Std Lengths: 060F = 6 feet 120F = 12 feet 150F = 15 feet 300F = 30 feet



C21 FE3-21-TYF	C21 HE3-21-TYF
4 A	4 A
250 VAC / VDC	250 VAC / VDC / VDC
Straight - Right Angle	Right Angle - Right Angle
1/2" AC Female - 1/2" AC Male	1/2" AC Female - 1/2" AC Male

Connectivity Solutions

7/8" single-ended MINI cordset





7/8" Single-Ended 7/8" Female (Int Threads) 7/8" Female (Int Threads) Туре Configuration Straight **Right Angle** Voltage Rating 300 V AC/DC 300 V AC/DC Amperage 12 A (3-wire)/9 A (4- and 5-wire) 12 A (3-wire)/9 A (4- and 5-wire) Conductor Cross-Section 16 AWG 16 AWG 3-wire US-Color Code BCC A323-0000-10-071-VX43W6-___ BCC A313-0000-10-071-VX43W6-_ _ _ BCC A314-0000-10-072-VX44W6-___ 4-wire US-Color Code BCC A324-0000-10-072-VX44W6-___ 4-wire DC-Color Code BCC A314-0000-10-003-_X44W6-_ _ _ BCC A324-0000-10-003-_X44W6-_ _ _ 5-wire DC-Color Code BCC A315-0000-10-063-VX45W6-___ BCC A325-0000-10-063-VX45W6-___

Standard Cable Jackets: V = PVC E = TPE Standard Lengths Available: 20 = 2 meters 050 = 5 meters 100 = 10 meters 150 = 15 meters 200 = 20 meters

Bulk Cables

Bulk Cable	BCC0AEF	BCC0AEH	BCC0AEJ	BCC0APC	
Jacket Material	PVC	PVC	PVC	TPE	
Length	100 m	100 m	100 m	100 m	
Number of Conductors	3	4	4	4	
Conductor Color Code	US AC	US AC	DC	DC	
Jacket Color	Yellow	Yellow	Yellow	Yellow	
Conductor Gauge	16 AWG	16 AWG	16 AWG	16 AWG	
Cordsets Used	7/8"	7/8"	7/8"	7/8"	
Temperature Rating	-40105°C	-40105°C	-40105°C	-40105°C	
Cable Diameter (mm)	10.24 ± 0.20 mm	10.67 ± 0.25 mm	10.67 ± 0.25 mm	10.67 ± 0.25 mm	







7/8" Male (Ext Threads)
Right Angle
300 V AC/DC
12 A (3-wire)/9 A (4- and 5-wire)
16 AWG
DOO 4000 0000 00 074 WY40WC
BCC A323-0000-20-071-VX43W6
BCC A324-0000-20-072-VX44W6
BCC A324-0000-20-003X44W6
BCC A325-0000-20-063-VX45W6



BCC0AEK			
PVC	PVC	PVC	PUR
100 m			
5	6, 7, 8	9, 10, 12	19
DC	US AC	US AC	
Yellow	Yellow	Yellow	Black
16 AWG	18 AWG	18 AWG	3x 18 AWG, 16 x 22 AWG
7/8"	1"	1 1/8"	1 1/8"
-40105°C	-40105°C	-40105°C	-4080°C
12.57 ± 0.25 mm			

Connectivity Solutions 7/8" double-ended mini cordset





7/8" Double-Ended - Internal Threads to External Threads

7/8" Female (Int) to 7/8" Male (Ext)	7/8" Female (Int) to 7/8" Male (Ext)	
Straight - Straight	Right Angle - Straight	
300 V AC/DC	300 V AC/DC	
12 A (3-wire)/9 A (4- and 5-wire)	12 A (3-wire)/9 A (4- and 5-wire)	
16 AWG	16 AWG	
BCC A313-A313-30-345-VX43W6	BCC A323-A313-30-345-VX43W6	
BCC A314-A314-30-346-VX44W6	BCC A324-A314-30-346-VX44W6	
BCC A314-A314-30-304X44W6	BCC A324-A314-30-304X44W6	
BCC A315-A315-30-335-VX45W6	BCC A325-A315-30-335-VX45W6	
	Straight - Straight 300 V AC/DC 12 A (3-wire)/9 A (4- and 5-wire) 16 AWG BCC A313-A313-30-345-VX43W6 BCC A314-A314-30-346-VX44W6 BCC A314-A314-30-304X44W6	Straight - Straight Right Angle - Straight 300 V AC/DC 300 V AC/DC 12 A (3-wire)/9 A (4- and 5-wire) 12 A (3-wire)/9 A (4- and 5-wire) 16 AWG 16 AWG BCC A313-A313-30-345-VX43W6 BCC A323-A313-30-345-VX43W6 BCC A314-A314-30-346-VX44W6 BCC A324-A314-30-346-VX44W6





7/8" Double-Ended - Internal Threads to Internal Threads

3-wire US-Color Code	BCC A313-A313-70-345-VX43W6	BCC A323-A313-70-345-VX43W6	
Conductor Cross-Section	16 AWG	16 AWG	
Amperage	12 A	12 A	
Voltage Rating	300 V AC/DC	300 V AC/DC	
Configuration	Straight - Straight	Right Angle - Straight	
Туре	7/8" Female (Int) to 7/8" Male (Int)	7/8" Female (Int) to 7/8" Male (Int)	

Connectivity Solutions 7/8" double-ended mini cordset





7/8" Female (Int) to 7/8" Male (Ext) Straight - Right Angle 300 V AC/DC 12 A (3-wire)/9 A (4- and 5-wire) 16 AWG BCC A313-A323-30-345-VX43W6-___

BCC A314-A324-30-346-VX44W6-___ BCC A314-A324-30-304-_X44W6-_ _ _

BCC A315-A325-30-335-VX45W6-___

7/8" Female (Int) to 7/8" Male (Ext)
Right Angle - Right Angle
300 V AC/DC
12 A (3-wire)/9 A (4- and 5-wire)
16 AWG
BCC A323-A323-30-345-VX43W6
BCC A324-A324-30-346-VX44W6
BCC A324-A324-30-304X44W6
BCC A325-A325-30-335-VX45W6

Standard Cable Jackets: V = PVC $\mathsf{E} = \mathsf{TPE}$

Standard Lengths Available: 006 = 0.6 meters 020 = 2 meters 050 = 5 meters 100 = 10 meters 150 = 15 meters 200 = 20 meters





BCC A313-A323-70-345-VX43W6	BCC A323-A323-70-345-VX43W6	
		200 = 20 meters
16 AWG	16 AWG	150 = 15 meters
12 A	12 A	100 = 10 meters
300 V AC/DC	300 V AC/DC	050 = 5 meters
Straight - Right Angle	Right Angle - Right Angle	020 = 2 meters
7/8" Female (Int) to 7/8" Male (Int)	7/8" Female (Int) to 7/8" Male (Int)	Standard Lengths Available: $006 = 0.6$ meters

Connectivity Solutions 7/8" accessory connectors







7/8" Double-Ended - Internal Threads to External Threads

Туре	7/8" Tee Black	7/8" Tee Yellow	7/8" 90° Elbow	
Configuration	Female - Male Thru, Female Drop	Female - Male Thru, Female Drop	Female - Male	
Voltage Rating	300 VAC/VDC	300 VAC/VDC	600 VAC/VDC	
Amperage	(4p = 8 A), (5p = 8 A/4 A drop)	8 A	8 A	
3-wire	BCC0AA5			
	BCC A313-A313-A313-T0021-000			
4-wire	BCC0AA6	BCC071Y	BCC07Y1	
	BCC A314-A314-A314-T0022-000	BCC A314-A314-A314-T0001-000	BDN G-P-DEA-01	
5-wire	BCC0AA7			
	BCC A315-A315-A315-TO23-000			









7/8" Bulkhead	7/8" to M12 Converter	M12 to 7/8" Converter
Female - Male	Female - Male	Female - Male
600 VAC/VDC	300 V	300 V
(3p = 13 A), (4p = 10 A), (5p = 8 A)	4 A	4 A
BCC0A7M	BCC0A7E	BCC0A7J
BCC A353-A353-30-RN036-000	BCC A313-M413-3F-RA031-000	BCC M415-A313-3F-RA023-000
BCC0723	BCC0A7F	BCC0A7K
BCC A354-A354-30-RN011-000	BCC A314-M414-3E-RA032-000	BCC M415-A314-3F-RA034-000
BCC0A7N	BCC0A7H	BCC0A7L
BCC A355-A355-30-RN037-000	BCC A315-M415-3E-RA033-000	BCC M415-A315-3F-RA035-000

Connectivity Solutions 1" single-ended mini cordset

1" double-ended mini cordset



1" Single-Ended Female

Туре	1" Female (Int Threads)	1" Female (Int Threads)
Configuration	Straight	Right Angle
Voltage Rating	300 VAC/VDC	300 VAC/VDC
Amperage	(6p = 5.5 A), (7p = 5 A), (8p = 5A)	(6p = 5.5 A), (7p = 5 A), (8p = 5A)
Conductor Cross-Section	18 AWG	18 AWG
6-wire	BCC A416-0000-10-085-VX46W8	BCC A426-0000-10-085-VX46W8
7-wire	BCC A417-0000-10-086-VX47W8	BCC A427-0000-10-086-VX47W8
8-wire	BCC A418-0000-10-087-VX48W8	BCC A428-0000-10-087-VX48W8

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters





1" Single-Ended Male & Double-Ended

Туре	1" Male (Int Threads)	1" Female (Int) - 1" Male (Int)
Configuration	Straight	Straight - Straight
Voltage Rating	300 VAC/VDC	300 VAC/VDC
Amperage	(6p = 5.5 A), (7p = 5 A), (8p = 5A)	(6p = 5.5 A), (7p = 5 A), (8p = 5A)
Conductor Cross-Section	18 AWG	18 AWG
6-wire	BCC A416-0000-C0-085-VX46W8	BCC A416-A416-70-357-VX46W8
7-wire	BCC A417-0000-C0-086-VX47W8	BCC A417-A417-70-358-VX47W8
8-wire	BCC A418-0000-C0-087-VX48W8	BCC A418-A418-70-359-VX48W8

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters

Connectivity Solutions 1 1/8" single-ended mini cordset 1 1/8" double-ended mini cordset





1 1/8" Single-Ended Female

Туре	1 1/8" Female (Int Threads)	1 1/8" Female (Int Threads)
Configuration	Straight	Right Angle
Voltage Rating	300 VAC/VDC	300 VAC/VDC
Amperage	(9p, 10p, 12p = 4 A), (19p = 3x8 A, 16 x 3 A)	4 A
Conductor Cross-Section	18 AWG	18 AWG
9-wire	BCC A519-0000-10-088-VX49W8-	BCC A529-0000-10-088-VX49W8
10-wire	BCC A51A-0000-10-089-VX4AW8	BCC A52A-0000-10-089-VX4AW8
12-wire	BCC A51C-0000-10-090-VX4CW8	BCC A52C-0000-10-090-VX4CW8
19-wire	BCC A51L-0000-10-091-PX0LW8	

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters





1 1/8" Single-Ended Male & Double-Ended

Туре	1 1/8" Male (Int Threads)	1 1/8" Female (Int) - 1 1/8" Male (Int)
Configuration	Straight	Straight - Straight
Voltage Rating	300 VAC/VDC	300 VAC/VDC
Amperage	(9p, 10p, 12p = 4 A), (19p = 3x8 A, 16 x 3 A)	(9p, 10p, 12p = 4 A), (19p = 3x8 A, 16 x 3 A)
Conductor Cross-Section	18 AWG	18 AWG
9-wire	BCC A519-0000-C0-088-VX49W8	BCC A519-A519-70-360-VX49W8
10-wire	BCC A51A-0000-C0-089-VX4AW8	BCC A51A-A51A-70-355-VX4AW8
12-wire	BCC A51C-0000-C0-090-VX4CW8	BCC A51C-A51C-70-362-VX4CW8

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters

Connectivity Solutions M8 junction blocks





M8 Junction Blocks (MIBs) - Quick Disconnect

Туре	M12 Quick Disconnect	M12 Quick Disconnect
Configuration	4 port	8 port
Voltage Rating	1030 VDC	1030 VDC
Current Rating / Block	6 A	6 A
Current Rating / Contact	2 A	2 A
Suggested Homerun Cable	BCC M4_8-0000-1A-044-PX0825	BCC M4_C-0000-1A-049-PX0C25
3-wire, PNP-LED	BPI 4M303P-2K-00-SM48T	BPI 8M303P-2K-00-SM4CT





M8 Junction Blocks (MIBs) - Cable Out

Туре	Cable Out	Cable Out
Configuration	4 port	8 port
Voltage Rating	1030 VDC	1030 VDC
Current Rating / Block	6 A	6 A
Current Rating / Contact	2 A	2 A
3-wire, PNP-LED	BPI 4M303P-2K-00-KPX60	BPI 8M303P-2K-00-KPXA0
4-wire, PNP-LED	BPI 4M304P-2K-00-KPXA0	BPI 8M304P-2K-00-KPXK0

Standard Lengths Available:

- 030 = 3 meters
- 050 = 5 meters

100 = 10 meters

150 = 15 meters

Connectivity Solutions M16 junction blocks

100000°



M16 Junction Blocks (MIBs) - Quick Disconnect

Туре	M16 Quick Disconnect	M16 Quick Disconnect
Configuration	4 port	8 port
Voltage Rating	1030 VDC	1030 VDC
Current Rating / Block	6 A	6 A
Current Rating / Contact	2 A	2 A
Suggested Homerun Cable	CM 16N8-00-PBM	CM 16N8-00-PBM
3-wire, non-LED	C49 T4F-16	C49 T8F-16
3-wire, PNP-LED	C49 T4E-16	C49 T8E-16



M16 Junction Blocks (MIBs) - Cable Out

Туре	Cable Out	Cable Out
Configuration	4 port	8 port
Voltage Rating	1030 VDC	1030 VDC
Current Rating / Block	6 A	6 A
Current Rating / Contact	2 A	2 A
3-wire, non-LED	C49 T4C-00-PB-050M	
3-wire, PNP-LED	C49 T4E-00-PBM	С49 Т8Е-00-РВМ

Standard Lengths Available: 050 = 5 meters

100 = 10 meters

Connectivity Solutions M12 junction blocks





M12 Junction Blocks (MIBs) - Quick Disconnect

Туре	M23 Quick Disconnect	M23 Quick Disconnect
Configuration	4 port	8 port
Voltage Rating	1030 VDC	1030 VDC
Current Rating / Block	6 A	12 A
Current Rating / Contact	2 A	2 A
Suggested Homerun Cable (3-wire)	BCC M6_C-0000-10-065-PX0BP4	BCC M6_C-0000-10-065-PX0BP4
Suggested Homerun Cable (4-wire)	BCC M6_L-0000-10-022-PX0LP4	BCC M6_L-0000-10-022-PX0LP4
3-wire+PE, PNP-LED	BPI 4M4A4P-2K-00-SM6CT	BPI 8M4A4P-2K-00-SM6CT
4-wire+PE, PNP-LED	BPI 4M4A5P-2K-00-SM6LT	BPI 8M4A5P-2K-00-SM6LT





M12 Junction Blocks (MIBs) - Cable Out

Туре	Cable Out	Cable Out
Configuration	4 port	8 port
Voltage Rating	1030 VDC	1030 VDC
Current Rating / Block	6 A	12 A
Current Rating / Contact	2 A	2 A
3-wire+PE, PNP-LED	BPI 4M4A4P-2K-00-KPX70	BPI 8M4A4P-2K-00-KPXB0
4-wire+PE, PNP-LED	BPI 4M4A5P-2K-00-KPXB0	BPI 8M4A5P-2K-00-KPXL0

Standard Lengths Available

- 030 = 3 meters
- 050 = 5 meters

100 = 10 meters

150 = 15 meters







M12 Junction Blocks (MIBs) - Quick Disconnect

Туре	M23 Quick Disconnect	M23 Quick Disconnect
Configuration	4 port	8 port
Voltage Rating	1030 VDC	1030 VDC
Current Rating / Block	6 A	12 A
Current Rating / Contact	2 A	2 A
Suggested Homerun Cable (3-wire)	BCC M6_C-0000-10-065-PX0BP4	BCC M6_C-0000-10-065-PX0BP4
Suggested Homerun Cable (4-wire)	BCC M6_L-0000-10-022-PX0LP4	BCC M6_L-0000-10-022-PX0LP4
3-wire+PE, non-LED	C04 T4L-23	C04 T8L-23
3-wire+PE, PNP-LED	C04 T4M-23	C04 T8M-23
3-wire+PE, NPN-LED		C04 T8N-23
4-wire+PE, non-LED	C04 T4Q-23	C04 T8Q-23
4-wire+PE, PNP-LED	C04 T4R-23	C04 T8R-23
4-wire+PE, NPN-LED	C04 T4S-23	C04 T8S-23





M12 Junction Blocks (MIBs) - Cable Out

Туре	Cable Out	Cable Out
Configuration	4 port	8 port
Voltage Rating	1030 VDC	1030 VDC
Amperage	4A per Port, 12 A per Block	4A per Port, 12 A per Block
3-wire+PE, non-LED	C04 T4L-00-PBM	C04 T8L-00-PBM
3-wire+PE, PNP-LED	C04 T4M-00-PBM	C04 T8M-00-PBM
3-wire+PE, NPN-LED	C04 T4N-00-PBM	C04 T8N-00-PBM
4-wire+PE, non-LED	C04 T4Q-00-PBM	C04 T8Q-00-PBM
4-wire+PE, PNP-LED	C04 T4R-00-PBM	C04 T8R-00-PBM
4-wire+PE, NPN-LED	C04 T4S-00-PBM	С04 Т8S-00-РВМ

Standard Lengths Available: 050 = 5 meters 100 = 10 meters

Connectivity Solutions M12 terminal blocks

M12 terminal blocks M12 blocks - M23 homerun cables





M12 Terminal Junction Blocks (MIBs)

Туре	Spring Terminals	Spring Terminals
Configuration	4 port	8 port
Voltage Rating	48 VDC	48 VDC
Amperage	3A per Port, 8A per Block	3A per Port, 8A per Block
Cable Diameter	513 mm	513 mm
3-wire+PE, non-LED	BPI 4M4A40-2K-MC-HHF7	BPI 8M4A40-2K-MC-HHFB
		BITOMHAHO-ZIC-MO-TITIED
4-wire+PE, non-LED	BPI 4M4A50-2K-MC-HHFB	BPI 8M4A50-2K-MC-HHFL
4-wire+PE, PNP-LED	BPI 4M4A5P-2K-MC-HHFB	BPI 8M4A5P-2K-MC-HHFL
4-wire+PE, NPN-LED	BPI 4M4A5N-2K-MC-HHFB	BPI 8M4A5N-2K-MC-HHFL





M12 Terminal Junction Blocks (MIBs)

Туре	Screw Terminals	Screw Terminals
Configuration	4 port	8 port
Voltage Rating	1830 VDC	1830 VDC
Amperage	2A per Port, 8A per Block	2A per Port, 8A per Block
4-wire+PE, PNP-LED	BPI 4M4A5P-2K-00-TPSG	BPI 8M4A5P-2K-00-TPSN

Connectivity Solutions M8 blocks - M12 homerun cables

M8 blocks - M12 homerun cables M8 blocks - M16 homerun cables M12 blocks - M23 homerun cables





M8 Blocks - M12 Homerun Cables

Туре	M12 Female	M12 Female
Configuration	Straight	Right Angle
Voltage Rating	(8p = 60 V), (12p = 30 V)	(8p = 60 V), (12p = 30 V)
Amperage	(8p = 2 A), (12p = 1A)	(8p = 2 A), (12p = 1A)
8-wire	BCC M418-0000-1A-044-PX0825	BCC M428-0000-1A-044-PX0825
12-wire	BCC M41C-0000-1A-049-PX0C25	BCC M42C-0000-1A-049-PX0C25

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters





M8 Blocks - M16 Homerun Cables

12-pin	CM 16-AN8-00-PB-050M	CM 16-BN8-00-PBM
Amperage	6 A	6 A
Voltage Rating	300 VAC / VDC	300 VAC / VDC
Configuration	Straight	Right Angle
Туре	M16 Female	M16 Female

Standard Lengths Available:

050 = 5 meters

100 = 10 meters 200 = 20 meters





M12 Blocks - M23 Homerun Cables

Туре	M23 Female	M23 Female
Configuration	Straight	Right Angle
Voltage Rating	(12p = 250 VAC/VDC), (19p = 125 VAC/VDC)	(12p = 250 VAC/VDC), (19p = 125 VAC/VDC)
Amperage	(12p = 8 A), (19p = 3x8 A)	(12p = 8 A), (19p = 3x8 A)
12-wire	BCC M61C-0000-10-065-PX0BP4	BCC M62C-0000-10-065-PX0BP4
19-wire	BCC M61L-0000-10-022-PX0LP4	BCC M62L-0000-10-022-PX0LP4

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters

Connectivity Solutions M8 and M23 receptacles





M8 Receptacles

Туре		M8 Female	M8 Male
Configuration		Straight	Straight
Wire Gauge		24 AWG	24 AWG
Connector Thread Type)	Internal	External
No. Conductors	Mounting	Order Code/Part Number	
3-wire	M8 x 0.5	BCC02AA	BCC02AF
		R49 AN-03-F-24A-010F*	R49 CN-03-F-24A-010F
	M8 x 1		BCC02AH
			R49 CN-03-G-24A-010F
4-wire	M8 x 0.5	BCC02AJ	BCC02AL
		R75 AN-04-F-24A-010F*	R75 CN-04-F-24A-010F
	M8 x 1		BCC02AM
			R75 CN-04-G-24A-010F
	1/2"-14 NPT		BCC01AJ
			R75 CN-04-B-24A-010F

* Longer lengths available, consult factory





M23 Receptacles

Туре		M23 Female	M23 Male
Configuration		Straight	Straight
Connector Thread Type		External	External
Cable Color Code		DC	DC
Metric Thread - Wire Gauge		22 AWG	22 AWG
No. Conductors Mounting		Order Code/Part Number	
19-wire M20		BCC02J4	BCC02J5
		R23 BN-19-L-22A-010F*	R23 CN-19-L-22A-030F

* Longer lengths available, consult factory

Connectivity Solutions M12 A-coded receptacles





M12 A-coded Rece	eptacles		
Туре		M12 Female	M12 Male
Configuration		Straight	Straight
Connector Thread Ty	rpe	Internal	External
Metric Thread - Wire	Gauge	0.25 mm ²	0.25 mm ²
NPT Thread - Wire G	auge	22 AWG (8-wire 24AWG)	22 AWG (8-wire 24AWG)
No. Conductors	Mounting	Order Code/Part Number	
3-wire	M16**		BCC04JT
			BCC M454-0000-2A-RM004-020
	1/4"-18 NPT	BCC0180	
		R04 AN-03-A-22A-010F	
4-wire	M16**	BCC099C*	BCC099A*
		BCC M455-0000-1A-RM020-005*	BCC M454-0000-2A-RM020-005*
	1/4"-18 NPT	BCC0181*	BCC0189
		R04 AN-04-A-22A-010F*	R04 CN-04-A-22A-010F
	1/2"-14 NPT	BCC017U	BCC0183*
		R04 AA-04-B-22A-010F	R04 CA-04-B-22A-010F*
5-wire	M16**	BCC09JZ*	BCC09K0
		BCC M455-0000-1A-RM014-005*	BCC M455-0000-2A-RM014-005
	1/4"-18 NPT	BCC0182	BCC018C
		R04 AN-05-A-22A-010F	R04 CN-05-A-22A-010F
	1/2"-14 NPT	BCC017W	BCC0186*
		R04 AA-05-B-22A-020M	R04 CA-05-B-22A-010F*
8-wire	M16**	BCC089N	
		BCC M458-0000-1A-RM015-015	
	1/4"-18 NPT		BCC018F
			R04 CN-08-A-24A-010F
	1/2"-14 NPT	BCC017Z	
		R04 AA-08-B-24A-020M	

*Longer lengths available, consult factory

**Metric versions do not include nuts

Connectivity Solutions 1/2" dual keyway receptacles





	•		
Туре		1/2" AC Female	1/2" AC Male
Configuration		Straight Dual Keyway	Straight Dual Keyway
Connector Thread Ty	pe	Internal	External
Metric Thread - Wire	Gauge	22 AWG	22 AWG
NPT Thread - Wire G	auge	22 AWG	22 AWG
No. Conductors	Mounting	Order Code/Part Number	
3-wire	M16		BCC01A8
			R21 CA-03-K-22B-010F
	1/4"-18 NPT	BCC02A0	BCC01AC
		R21 AA-03-A-22B-010F	R21 CN-03-A-22B-010F
	1/2"-14 NPT		BCC02A4
			R21 CA-03-B-22B-010F
4-wire	1/4"-18 NPT	BCC02A1	BCC01AE
		R21 AA-04-A-22B-010F	R21 CN-04-A-22B-010F
	1/2"-14 NPT		BCC02A5
			R21 CA-04-B-22B-010F
5-wire	1/4"-18 NPT	BCC02A2	BCC01AF
		R21 AA-05-A-22B-010F	R21 CN-05-A-22B-010F
	1/2"-14 NPT		BCC02A6
			R21 CA-05-B-22B-010F
6-wire	1/4"-18 NPT	BCC02A3	BCC01AH
		R21 AA-06-A-22B-010F	R21 CN-06-A-22B-010F
	1/2"-14 NPT		BCC02A7
			R21 CA-06-B-22B-010F

1/2" Dual Keyway Receptacles

Connectivity Solutions 7/8" receptacles







7/8" Receptacles

Туре		7/8" Female	7/8" Female	7/8" Male
Configuration		Straight	Straight	Straight
Connector Thread	d Type	Internal	External	External
Mounting Thread		1/2"-14 NPT	1/2"-14 NPT	1/2"-14 NPT
Wire Gauge		16 AWG	16 AWG	16 AWG
No. Color Code Conductors		Order Code/Part Number		
3-wire	US	BCC018H	BCC018L	BCC02JC
		R05 AA-03-B-16C-060F	R05 BA-03-B-16C-010F*	R05 CA-03-B-16C-010F*
4-wire US		BCC018K	BCC018N	BCC018Z
		R05 AA-04-B-16C-060F	R05 BA-04-B-16C-010F*	R05 CA-04-B-16C-010F
DC		BCC071Z		BCC0721
		BCC A354-0000-10-RN010-003*		BCC A354-0000-20-RN010-003*
5-wire	DC	BCC098M		BCC098P
		BCC A355-0000-10-RN022-006*		BCC A355-0000-20-RN022-006*

* Longer lengths available, consult factory

Connectivity Solutions 1" receptacles





1" Receptacles			
Туре		1" Female	1" Male
Configuration		Straight	Straight
Connector Thread Ty	pe	External	External
Cable Color Code		US	US
Wire Gauge		18 AWG	18 AWG
Mounting		1/2"-14 NPT	1/2"-14 NPT
No. Conductors Lead Length		Order Code/Part Number	
6-wire	0.6 m	BCC0A66	BCC0A68
		BCC A456-0000-D0-RN024-006	BCC A456-0000-20-RN024-006
	2.0 m	BCC0A67	BCC0A69
		BCC A456-0000-D0-RN024-020	BCC A456-0000-20-RN024-020
7-wire	0.6 m	BCC0A6A	BCC0A6E
		BCC A457-0000-D0-RN025-006	BCC A457-0000-20-RN025-006
	2.0 m	BCC0A6C	BCC0A6F
		BCC A457-0000-D0-RN025-020	BCC A457-0000-20-RN025-020
8-wire	0.6 m	BCC0A6H	BCC0A6K
		BCC A458-0000-D0-RN026-006	BCC A458-0000-20-RN026-006
	2.0 m	BCC0A6J	BCC0A6L
		BCC A458-0000-D0-RN026-020	BCC A458-0000-20-RN026-020

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Connectivity Solutions 1 1/8" receptacles





1 1/8" Receptacles			•
Туре		1 1/8" Female	1 1/8" Male
Configuration		Straight	Straight
Connector Thread Type)	External	External
Cable Color Code		US	US
Wire Gauge (9-12 wire)		18 AWG	18 AWG
Wire Gauge (19-wire)		3x 18 AWG, 16x 22 AWG	3x 18 AWG, 16x 22 AWG
Mounting		1/2"-14 NPT	1/2"-14 NPT
No. Conductors	Lead Length	Order Code/Part Number	
9-wire	0.6 m	BCC0A6M	BCC0A6P
		BCC A559-0000-D0-RN027-006	BCC A559-0000-20-RN027-006
	2.0 m	BCC0A6N	BCC0A6R
		BCC A559-0000-D0-RN027-020	BCC A559-0000-20-RN027-020
10-wire	0.6 m	BCC0A6T	BCC0A6W
		BCC A55A-0000-D0-RN028-006	BCC A55A-0000-20-RN028-006
	2.0 m	BCC0A6U	BCC0A6Y
		BCC A55A-0000-D0-RN028-020	BCC A55A-0000-20-RN028-020
12-wire	0.6 m	BCC0A6Z	BCC0A71
		BCC A55C-0000-D0-RN029-006	BCC A55C-0000-20-RN029-006
	2.0 m	BCC0A70	BCC0A72
		BCC A55C-0000-D0-RN029-020	BCC A55C-0000-20-RN029-020
19-wire	0.6 m	BCC0A73	BCC0A75
		BCC A55L-0000-D0-RN030-006	BCC A55L-0000-20-RN030-006
	2.0 m	BCC0A74	BCC0A76
		BCC A55L-0000-D0-RN030-020	BCC A55L-0000-20-RN030-020





M8 Female Field Attachables

Туре		M8 Female	M8 Female	
Configuration		Straight	Straight	
Housing		Plastic/Metal	Plastic	
Connection		Piercon Terminals	Screw Terminals	
Conductor Maximum		0.140.38 (2622 AWG)	0.140.50 mm ² (2620 AWG)	
No. of Conductors	Cable Ø Range	Order Code/Part Number		
3-wire	35 mm	BCC09EU		
		BCC M333-0000-10-000-22X334-000		
	3.55 mm		BCC06Z1	
			BCC M333-0000-10-000-31X350-000	
4-wire	35 mm	BCC09EY		
		BCC M334-0000-10-000-22X434-000		
	3.55 mm		BCC06Z5	
			BCC M334-0000-10-000-31X450-000	





M8 Male Field Attachables				
Туре		M8 Male	M8 Male	
Configuration		Straight	Straight	
Housing		Plastic/Metal	Plastic	
Connection		Piercon Terminals	Screw Terminals	
Conductor Maximum		0.140.38 (2622 AWG)	0.140.50 mm ² (2620 AWG)	
No. of Conductors Cable Ø Range		Order Code/Part Number		
3-wire	35 mm	BCC09EW		
		BCC M333-0000-20-000-22X334-000		
	3.55 mm		BCC06Z3	
			BCC M333-0000-20-000-31X350-000	
4-wire	35 mm	BCC09EZ		
		BCC M334-0000-20-000-22X434-000		
	3.55 mm		BCC06Z7	
			BCC M334-0000-20-000-31X450-000	





M8 Female	M8 Female	Standard Cable Information			
Straight	Right Angle	Jacket	Wires	Conductors	Diameter
Plastic/Metal	Plastic	Yellow PVC	3	22 AWG	$4.7 \pm 0.15 \text{ mm}$
Solder Cup	Solder Cup	Yellow PVC	4	22 AWG	5.0 ± 0.15 mm
0.140.38 (2622 AWG)	0.140.38 (2622 AWG)	Grey PVC	3	0.34 mm ²	$4.5 \pm 0.15 \text{ mm}$
		Grey PVC	4	0.34 mm ²	$4.8 \pm 0.15 \text{ mm}$
		Yellow PUR	3	22 AWG	$4.3 \pm 0.20 \text{ mm}$
		Yellow PUR	4	22 AWG	$4.7 \pm 0.20 \text{ mm}$
BCC06YW	BCC06YY	Black PUR	3	0.34 mm ²	$4.3 \pm 0.20 \text{ mm}$
BCC M333-0000-10-000-34X325-000	BCC M343-0000-10-000-34X325-000	Black PUR	4	0.34 mm ²	$4.7 \pm 0.20 \text{ mm}$
		Yellow TPE	3	22 AWG	$5.3 \pm 0.13 \text{ mm}$
		Yellow TPE	4	22 AWG	$5.3 \pm 0.13 \text{ mm}$





M8 Male	M8 Male	Stan
Straight	Right Angle	Jack
Plastic/Metal	Plastic	Yello
Solder Cup	Solder Cup	Yello
0.140.38 (2622 AWG)	0.140.38 (2622 AWG)	Grey
		-

BCC06YZ	BCC06Z0
BCC M333-0000-20-000-34X325-000	BCC M343-0000-20-000-34X325-000

Standard Cable Information

Wires	Conductors	Diameter
3	22 AWG	4.7 ± 0.15 mm
4	22 AWG	5.0 ± 0.15 mm
3	0.34 mm ²	$4.5 \pm 0.15 \text{ mm}$
4	0.34 mm ²	$4.8 \pm 0.15 \text{ mm}$
3	22 AWG	4.3 ± 0.20 mm
4	22 AWG	$4.7 \pm 0.20 \text{ mm}$
3	0.34 mm ²	$4.3 \pm 0.20 \text{ mm}$
4	0.34 mm ²	$4.7 \pm 0.20 \text{ mm}$
3	22 AWG	$5.3 \pm 0.13 \text{ mm}$
4	22 AWG	$5.3 \pm 0.13 \text{ mm}$
	3 4 3 4 3 4 3 4 3 4 3 3	3 22 AWG 4 22 AWG 3 0.34 mm² 4 0.34 mm² 3 22 AWG 4 22 AWG 3 22 AWG 4 0.34 mm² 3 0.34 mm² 3 0.34 mm² 4 0.34 mm² 4 0.34 mm² 4 0.34 mm²







M12 Female Field Attachables

Туре	M12 Female	M12 Female	M12 Female	
Configuration	Straight	Straight	Straight	
Housing	Plastic	Plastic	Plastic	
Connection	Screw Terminals	Insulation Displacement	Spring Clamp	
Conductor Range	0.140.75 mm ² (2618 AWG)	0.140.34 mm ² (2622 AWG)	0.140.50 mm ² (2620 AWG)	

No. of Conductors	Allowable Cable Ø	Order Code/Part Number			
4-wire	46 mm	BCC06Z9	BCC06ZY		
		BCC M435-0000-1A-000-41X475-000	BCC M435-0000-1A-000-43X434-000		
	58 mm				
	68 mm	BCC06F6		BCC06Y6	
		BCC M435-0000-1A-000-51X475-000		BCC M435-0000-1A-000-55X450-000	
5-wire	2.13 mm or	BCC09JP			
	45 mm	BCC M435-0000-1A-000-A1X575-000			
	46 mm	BCC06ZF			
		BCC M435-0000-1A-000-41X575-000			
	58 mm				
	68 mm	BCC06W9			
		BCC M435-0000-1A-000-51X575-000			
8-wire	46 mm		BCC04MC		
	(shielded)		BCC M478-0000-1A-000-43X834-000		
	68 mm	BCC0A03*			
	(0.140.50 mm ²)	BCC M438-0000-1A-000-51X850-000			
12-wire	68 mm			BCC0A05* (solder cup)	
	(0.140.25 mm ²)			BCC M43C-0000-1A-000-54XC25-000	

*Consult facotry for availability

Standard Cable Information

Jacket	Wires	Conductors	Diameter	Jacket
Yellow PVC	3	22 AWG	4.7 ± 0.15 mm	Black PUF
Yellow PVC	4	22 AWG	5.0 ± 0.15 mm	Black PUF
Grey PVC	3	0.34 mm ²	4.5 ± 0.15 mm	Yellow TPE
Grey PVC	4	0.34 mm ²	4.8 ± 0.15 mm	Yellow TPE
Yellow PUR	3	22 AWG	4.3 ± 0.20 mm	
Yellow PUR	4	22 AWG	4.7 ± 0.20 mm	

Jacket	Wires	Conductors	Diameter
Black PUR	3	0.34 mm ²	$4.3 \pm 0.20 \text{ mm}$
Black PUR	4	0.34 mm ²	4.7 ± 0.20 mm
Yellow TPE	3	22 AWG	$5.3 \pm 0.13 \text{ mm}$
Yellow TPE	4	22 AWG	$5.3 \pm 0.13 \text{ mm}$

Screw Terminals



Screw Terminals

Screw Terminals

0.140.75 (2618 AWG)	0.140.75 (2618 AWG)	0.140.75 (2618 AWG)	0.140.75 (2618 AWG)
BCC06ZA			
BCC M445-0000-1A-000-41X475-000			
	BCC06ZM		
	BCC M475-0000-1A-000-01X475-000		
BCC06Y8			
BCC M445-0000-1A-000-51X475-000			
BCC06ZH		BCC097P	BCC097T
BCC06ZH BCC M445-0000-1A-000-41X575-000		BCC097P BCC S435-0000-1A-000-41X575-000	BCC097T BCC S445-0000-1A-000-41X575-000
	BCC06ZN		
	BCC06ZN BCC M475-0000-1A-000-01X575-000		
BCC M445-0000-1A-000-41X575-000		BCC S435-0000-1A-000-41X575-000	BCC S445-0000-1A-000-41X575-000
BCC M445-0000-1A-000-41X575-000 BCC06ZJ		BCC \$435-0000-1A-000-41X575-000 BCC097R	BCC S445-0000-1A-000-41X575-000 BCC097U
BCC M445-0000-1A-000-41X575-000 BCC06ZJ BCC M445-0000-1A-000-51X575-000		BCC \$435-0000-1A-000-41X575-000 BCC097R	BCC S445-0000-1A-000-41X575-000 BCC097U
BCC M445-0000-1A-000-41X575-000 BCC06ZJ BCC M445-0000-1A-000-51X575-000 BCC04ME (IDC)		BCC \$435-0000-1A-000-41X575-000 BCC097R	BCC S445-0000-1A-000-41X575-000 BCC097U
BCC M445-0000-1A-000-41X575-000 BCC06ZJ BCC M445-0000-1A-000-51X575-000 BCC04ME (IDC)		BCC \$435-0000-1A-000-41X575-000 BCC097R	BCC S445-0000-1A-000-41X575-000 BCC097U
BCC M445-0000-1A-000-41X575-000 BCC06ZJ BCC M445-0000-1A-000-51X575-000 BCC04ME (IDC)		BCC \$435-0000-1A-000-41X575-000 BCC097R	BCC S445-0000-1A-000-41X575-000 BCC097U
BCC M445-0000-1A-000-41X575-000 BCC06ZJ BCC M445-0000-1A-000-51X575-000 BCC04ME (IDC)		BCC \$435-0000-1A-000-41X575-000 BCC097R	BCC S445-0000-1A-000-41X575-000 BCC097U

Screw Terminals







M12 Male Field Attachables

Туре	M12 Male	M12 Male	M12 Male	
Configuration	Straight	Straight	Straight	
Housing	Plastic	Plastic	Plastic	
Connection	Screw Terminals	Insulation Displacement	Spring Clamp	
Conductor Maximum	0.140.75 mm ² (2618 AWG)	0.140.34 mm ² (2622 AWG)	0.140.50 mm ² (2620 AWG)	

No. of Conductors	Allowable Cable Ø	Order Code/Part Number			
4-wire	46 mm	BCC06M4	BCC08C0		
		BCC M434-0000-2A-000-41X475-000	BCC M434-0000-2A-000-43X434-000		
58 mm					
	68 mm	BCC06F7		BCC06Y5	
		BCC M434-0000-2A-000-51X475-000		BCC M434-0000-2A-000-55X450-000	
5-wire	2.13 mm or	BCC09JW			
	45 mm	BCC M435-0000-2A-000-A1X575-000			
46 mm	BCC06YA				
	BCC M435-0000-2A-000-41X575-000				
	58 mm				
	68 mm	BCC06EY			
		BCC M435-0000-2A-000-51X575-000			
8-wire	46 mm	BCC01KR			
		C04 CNT-9			
	68 mm	BCC0A04*			
	(0.140.50 mm ²)	BCC M438-0000-2A-000-51X850-000			
12-wire	68 mm			BCC0A06* (solder cup)	
	(0.140.25 mm ²)			BCC M43C-0000-2A-000-54XC25-000	

 $4.3 \pm 0.20 \text{ mm}$

 $4.7 \pm 0.20 \text{ mm}$

 $5.3 \pm 0.13 \text{ mm}$

 $5.3\pm0.13\ mm$

*Consult facotry for availability

Standard Cable Information

Jacket	Wires	Conductors	Diameter	Jacket	Wires	Conductors	Diameter
Yellow PVC	3	22 AWG	4.7 ± 0.15 mm	Black PUR	3	0.34 mm ²	4.3 ± 0.20 r
Yellow PVC	4	22 AWG	$5.0 \pm 0.15 \text{ mm}$	Black PUR	4	0.34 mm ²	4.7 ± 0.20 r
Grey PVC	3	0.34 mm ²	$4.5 \pm 0.15 \text{ mm}$	Yellow TPE	3	22 AWG	5.3 ± 0.13 r
Grey PVC	4	0.34 mm ²	$4.8 \pm 0.15 \text{ mm}$	Yellow TPE	4	22 AWG	5.3 ± 0.13 r
Yellow PUR	3	22 AWG	4.3 ± 0.20 mm				
Yellow PUR	4	22 AWG	4.7 ± 0.20 mm				









1/2" Field Attachables

Туре	1/2" Female	1/2" Male
Configuration	Straight	Right Angle
Housing	Plastic	Plastic
Connection	Screw Terminals	Screw Terminals
Cable Gland	PG7	PG7
No. of Conductors	Order Code/Part Number	
No. of Conductors Female	Order Code/Part Number BCC01ZL	BCC0206
		BCC0206 C21 BN3-7
	BCC01ZL	





Туре		7/8" Female	7/8" Male
Configuration		Straight	Straight
Housing		Plastic	Plastic
Connection		Screw Terminals	Screw Terminals
Conductor Maximum		0.141.50 mm ² (2616 AWG)	0.141.50 mm ² (2616 AWG)
No. of Conductors	Allowable Cable Ø	Order Code/Part Number	
3-wire	810 mm	BCC0AT9	BCC0ATC
		BCC A333-0000-10-000-61X3A5-000	BCC A333-0000-20-000-61X3A5-000
	1012 mm	BCC0ATA	BCC0ATE
		BCC A333-0000-10-000-71X3A5-000	BCC A333-0000-20-000-71X3A5-000
4-wire	68 mm	BCC0706	BCC0709
		BCC A334-0000-10-000-51X4A5-000	BCC A334-0000-20-000-51X4A5-000
	810 mm	BCC0707	BCC070A
		BCC A334-0000-10-000-61X4A5-000	BCC A334-0000-20-000-61X4A5-000
	1012 mm	BCC0708	BCC070C
		BCC A334-0000-10-000-71X4A5-000	BCC A334-0000-20-000-71X4A5-000
5-wire	68 mm	BCC070E	BCC070J
		BCC A335-0000-10-000-51X5A5-000	BCC A335-0000-20-000-51X5A5-000
	810 mm	BCC070F	BCC070K
		BCC A335-0000-10-000-61X5A5-000	BCC A335-0000-20-000-61X5A5-000
	1012 mm	BCC070H	BCC070L
		BCC A335-0000-10-000-71X5A5-000	BCC A335-0000-20-000-71X5A5-000
	1214 mm	BCC0ATH	BCC0ATF
		BCC A335-0000-10-000-81X5A5-000	BCC A335-0000-20-000-81X5A5-000

Jacket Material	PVC	PVC	PVC	PVC
Number of Conductors	3	4	4	5
Conductor Color Code	US AC	US AC	DC	DC
Jacket Color	Yellow	Yellow	Yellow	Yellow
Conductor Gauge	16 AWG	16 AWG	16 AWG	16 AWG
Cordsets Used	7/8"	7/8"	7/8"	7/8"
Temperature Rating	-40105°C	-40105°C	-40105°C	-40105°C
Cable Diameter (mm)	10.24 ± 0.20 mm	10.67 ± 0.25 mm	10.67 ± 0.25 mm	12.57 ± 0.25 mm

7/8" Field Attachables





M23 Field Attachables

Туре		M23 Female	M23 Female	
Configuration		Straight	Right Angle	
Housing		Metal	Metal	
Connection		Solder Connections	Solder Connections	
Conductor Range		0.141.00 mm ² (2618 AWG)	0.141.00 mm ² (2618 AWG)	
No. of Conductors	Cable Min. Ø	Order Code/Part Number		
12-wire	69 mm	BCC08JH	BCC08JF	
		BCC M67C-0000-10-000-54XCA0-000	BCC M68C-0000-10-000-54XCA0-000	
19-wire	69 mm	BCC02HY	BCC02J0	
		CM 23-AN-19-13	CM 23-BN-19-13	





M23 Male (Internal Threads) Straight Metal Solder Connections 0.14...1.00 mm² (26...18 AWG)

M23 Male (External Threads)
Straight
Metal
Solder Connections
0.141.00 mm ² (2618 AWG)

BCC02J3

CM 23-EN-19-13

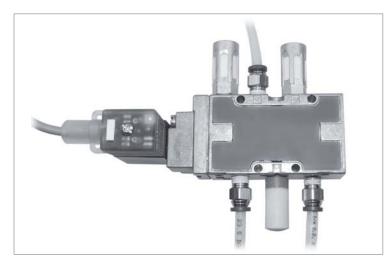
BCC02J1 CM 23-CN-19-13

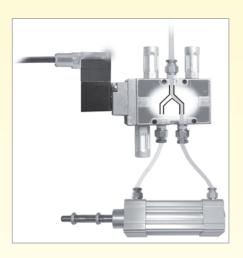
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Connectivity Solutions

DIN A style actuator cables

From sensors to cordsets, Balluff offers an extensive line, which includes valve connectors. These valve connectors cover all standard DIN connections per EN175301, while also offering drag chain rated cables, rugged housings, and an option of protective circuits. Balluff can essentially complete any valve connector solution.





While DIN & Industry style connectors are used in many industrial automation applications, the most popular uses are with simple motors and solenoid valves. As with most solenoid valve applications a DIN or Industry style connector is required to switch the valve's position. Whether the application is clamping a part or moving an object, the Balluff valve connector can be used to pass the control signal to the valve. Integrated LEDs allow for easy recognition of solenoid position.







DIN A

-			DINLA Francis - MAGNAGIA	
Тур	0e	DIN A Female	DIN A Female - M12 Male	DIN A Female - M12 Male
Configuration		Right Angle	Right Angle - Straight	Right Angle - Right Angle
Straight Wired - Voltage Rating		230 VAC/VDC	230 VAC/VDC	230 VAC/VDC
Sup	opressor Diode - Voltage Rating	24 VAC/VDC	24 VAC/VDC	24 VAC/VDC
Cu	rrent Rating	4.0 A	4.0 A	4.0 A
°	DIN A 18 mm - Straight Wired	BCC VA04-0000-10-054X_350	BCC VA04-M413-3E-665X_350	BCC VA04-M423-665X_350
0	DIN A 18 mm - PNP & Suppressor Diode	BCC VA04-0000-10-053X_350	BCC VA04-M413-3E-664X_350	BCC VA04-M423-664X_350

Standard Cable Jacket: VX8 = PVC (grey, 8) PX0 = PUR (black, 0) Single-Ended Lengths: 020 = 2 m 050 = 5 m 100 = 10 m Double-Ended Lengths:

003 = 030 m	020 = 2 m
006 = 0.6 m	030 = 3 m
010 = 1.0 m	050 = 5 m
015 = 1.5 m	

Connectivity Solutions DIN B and industry B style actuator cables DIN C and industry C style actuator cables







DIN B and IND B

DIN B and IND B				
Туре		B Style Female	B Style Female - M12 Male	B Style Female - M12 Male
Со	nfiguration	Right Angle	Right Angle - Straight	Right Angle - Right Angle
Str	aight Wired - Voltage Rating	230 VAC/VDC	230 VAC/VDC	230 VAC/VDC
Su	ppressor Diode - Voltage Rating	24 VAC/VDC	24 VAC/VDC	24 VAC/VDC
Cu	rrent Rating	4.0 A	4.0 A	4.0 A
0°	DIN B 10mm - Straight Wired	BCC VB03-0000-10-056X_350	BCC VB03-M413-3E-667X_350	BCC VB03-M423-3E-667X_350
0	DIN B 10mm - PNP & Suppressor Diode	BCC VB03-0000-10-055X_350	BCC VB03-M413-3E-666X_350	BCC VB03-M423-3E-666X_350
80°	DIN B 10mm - Straight Wired	BCC VB23-0000-10-056X_350	BCC VB23-M413-3E-667X_350	BCC VB23-M423-3E-667X_350
18	DIN B 10mm - PNP & Suppressor Diode	BCC VB23-0000-10-055X_350	BCC VB23-M413-3E-666X_350	BCC VB23-M423-3E-666X_350
°.	IND B 11mm - Straight Wired	BCC VB43-0000-10-056X_350	BCC VB43-M413-3E-667X_350	BCC VB43-M423-3E-667X_350
0	IND B 11mm - PNP & Suppressor Diode	BCC VB43-0000-10-055X_350	BCC VB43-M413-3E-666X_350	BCC VB43-M423-3E-666X_350
80°	IND B 11mm - Straight Wired	BCC VB63-0000-10-056X_350	BCC VB63-M413-3E-667X_350	BCC VB63-M423-3E-667X_350
18	IND B 11mm - PNP & Suppressor Diode	BCC VB63-0000-10-055X_350	BCC VB63-M413-3E-666X_350	BCC VB63-M423-3E-666X_350

For face views and wiring diagrams, visit the technical reference section t.







DIN C and IND C

e	C-Style Female	C-Style Female - M12 Male	C-Style Female - M12 Male
nfiguration	Right Angle	Right Angle - Straight	Right Angle - Right Angle
aight Wired - Voltage Rating	230 VAC/VDC	230 VAC/VDC	230 VAC/VDC
pressor Diode - Voltage Rating	24 VAC/VDC	24 VAC/VDC	24 VAC/VDC
rent Rating	4.0 A	4.0 A	4.0 A
DIN C 8 mm - Straight Wired	BCC VC04-0000-10-054X_350	BCC VC04-M413-3E-665X_350	BCC VC04-M423-3E-665X_350
DIN C 8 mm - PNP & Suppressor Diode	BCC VC04-0000-10-053X_350	BCC VC04-M413-3E-664X_350	BCC VC04-M423-3E-664X_350
IND C 9.4 mm - Straight Wired	BCC VC44-0000-10-054X_350	BCC VC44-M413-3E-665X_350	BCC VC44-M423-3E-665X_350
IND C 9.4 mm - PNP & Suppressor Diode	BCC VC44-0000-10-053X_350	BCC VC44-M413-3E-664X_350	BCC VC44-M423-3E-664X_350
	hfiguration hight Wired - Voltage Rating opressor Diode - Voltage Rating rent Rating DIN C 8 mm - Straight Wired DIN C 8 mm - PNP & Suppressor Diode IND C 9.4 mm - Straight Wired	AnswerAnswerAnswerAnswerAnswerAnswerAnswerAnswerAnswerAnswerAnswerAnswerAnswerAnswerAnswerBCC VC04-0000-10-054X_350AnswerAnswerAnswerAnswerAnswerBCC VC04-0000-10-054X_350Answer<	ArrowRight AngleRight Angle - StraightAright Wired - Voltage Rating230 VAC/VDC230 VAC/VDCAppressor Diode - Voltage Rating24 VAC/VDC24 VAC/VDCArent Rating4.0 A4.0 ADIN C 8 mm - Straight WiredBCC VC04-0000-10-054X_350BCC VC04-M413-3E-665X_350DIN C 8 mm - Straight WiredBCC VC04-0000-10-054X_350BCC VC04-M413-3E-665X_350DIN C 9.4 mm - Straight WiredBCC VC44-0000-10-054X_350BCC VC44-M413-3E-665X_350

Connectivity Solutions

Accessories Caps, labels, and adapters

	•	9		9
	•	•	-	•
Size	M8x1	M12x1	M12x1	M12x1
Threads	External	External	External	External
Material	Plastic	Plastic	Plastic	CuZn
Use	M8 Female Port	M12 Female Port	M12 Female Port	M12 Female Port
Order Code	BAM01C1	BAM01C2	BAM0115	BAM0114
Part Number	BAM CS-XA-001-M8-C	BAM CS-XA-002-M12-A	BKS-12-CS-02	BKS-12-CS-01



Size	M12x1	7/8"-16UN	7/8"-16UN	M23
Threads	Internal	External	Internal	Internal
Material	Anodized Al	CuZn	CuZn	CuZn
Use	M12 Male Port	7/8" Female Port	7/8" Male Port	M23 Male Port
Order Code	BAM01LT	BAM012T	BAM012U	BAM012P
Part Number	BAM CS-XA-006-M12	BKS-7/8-CS-00-A	BKS-7/8-CS-00-I	BKS 23-CS-00

Туре	Internal thread adapters			
Use With	Internal Male - Interr	nal Female		
Compatibility	BCC A3, BCCA4.	BCC A3, BCCA4, BCC A5		
7/8"	Order Code	BAM01LP		
	Part Number	BAM AD-XA-009-7U8-1		
1"	Order Code	BAM01LM		
	Part Number	BAM AD-XA-009-1U0-1		
1 1/8"	Order Code	BAM01LN		
	Part Number	BAM AD-XA-009-9U8-1		



Connectivity Solutions

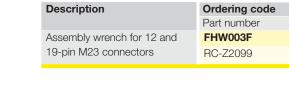
Accessories M23 assembly wrench and IP67 torque wrench

M23 Assembly wrench

M23 connectors are easy to assemble due to their size. After the components are assembled, the top and bottom section must be secured to one another to guarantee the high degree of protection.



Description	Ordering code
	Part number
Assembly wrench for 12 and	FHW003F
19-pin M23 connectors	RC-Z2099





Possible Wet/Oily Environment

Description

M8, 0.4 Nm torque rating M12, 0.6 Nm torque rating

7/8", 1.5 Nm torque rating

IP67 Torque Wrenches

wettest environments.

By using a calibrated IP67 torque wrench on the hex nut with

every cordset, you can ensure the IP67 rating at the sensor or

at the MIB, which will protect your sensor signals even in the



Order Code

BAM00ZL

BAM00ZM

BAM00ZN

Part Number

BAM TO-CC-001-M3-0,4/8,0

BAM TO-CC-001-M4-0,6/12,0

BAM TO-CC-001-A3-1,5/24,0

In this scenario there is a connection between cordsets, with the final connection to a sensor. This scenario is characteristic of homerun cables, patch cables, and adapter cables. The connection between cordsets can sometimes lie in an unexpected, oily or wet environment at the bottom of a work cell. By using a combination of a new Balluff cordset with hexagonal coupling nut and a properly calibrated torque wrench, the sensor connection is IP67 guaranteed. By ratcheting when the connection is properly sealed, it does not allow over-torque, which can be just as bad as too little torque.

Connectivity Solutions Control accessories for analog inputs

Balluff signal adapters are crucial for quick, versatile modifications, retrofits and enhancements of a sensor's functionality. Several available models provide quick change options that will convert PNP/NPN outputs, add delay timing and counting functions, or monitor frequency of machine speeds and motion. Applications with very high switching frequency can be slowed down using signal stretching devices or analog inputs can be converted to discrete setpoints without the use of a controller or logic. Sensor controller relay boxes are great for simple applications where a controller is overkill. All of these solutions are suitable as stand-alone solutions in areas lacking external controllers. They are also ideal for applications where a solution must be retrofit without changing the controller.



IP67 Inline - Analog Signal Discrete Setpoint Controller

Rated Operational Voltage Rated Operational Current		24 VDC 300mA	
Number of Discre		3	
Number of Analo	og Outputs	1	
Hysteresis		500mV	
Remote Teach		Yes	
Input Type	Wiring	Order Code	
010VDC PNP, N/O	PNP, N/O	BAE0070	
	NPN, N/O	BAE006Z	



Analog Signal Digital Panel Display

Input Signal		010 VDC, 420 mA
Supply Voltage		24 VDC
Resolution		16-bit A/D
Analog Output		16-bit, 100% adjustable
Display		6-digit (5-digit analog out)
Discrete Outputs	Scalable Analog Outputs	Order Code
Discrete Outputs	•	Order Code BAE004R
Discrete Outputs	•	
	Outputs	BAE004R
 4x PNP	Outputs 2x	BAE004R BAE004T



Connectivity Solutions Control accessories for discrete inputs



IP67 Inline - Signal Conditioning

° °		
Rated Operational Voltage	1030 VDC	
Maximum Load Current	400 mA	
Timer Maximum Delay	65.535 s	
Counter Maximum Count	65535	
Frequency Minimum Frequency	0.15 Hz	
Frequency Maximum Frequency	1000 Hz	
Remote Teach	Yes	
Туре	Wiring	Order Code
Timer	PNP	BAE002M
	NPN	BAE002N
Counter	PNP	BAE002E
	NPN	BAE002F
Signal Inverter	PNP to NPN	BAE002H
	NPN to PNP	BAE002J
Frequency	PNP	BAE002K
(under speed)	NPN	BAE002L

IP20 DIN-rail mount - Signal Stretching Device

0
1030 VDC
130 mA
2ms1s
1.5ms
Order Code
BAE0073

IP20 DIN-rail mount - Sensor Relay Controller

Supply Input Voltage	115 VAC, 60Hz
Sensor Output Voltage	24 VDC
Sensor Output Current Max	100mA DC
Number of Sensor Inputs & Relays	2
Relay Ratings	6A at 120 VAC or 24 VDC
Relay Life	100,000 Operations
Wiring	Order Code
PNP/NPN	BAE0023
PNP	BAE0027

