Алматы (7273)495-231 Ангарск (3955)60-70-56 Архангельск (8182)63-90-72 Астраханк (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Благовещенск (4162)22-76-07 Брянск (4832)59-03-52 Владименск (4832)59-03-52 Владимец (4823)249-28-31 Владимец (4922)49-43-18 Волгоград (844)278-03-48 Волгоград (8172)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калигиниград (4012)72-03-81 Калигиниград (4012)72-03-81 Каров (332)68-02-04 Коломна (4962)23-41-49 Кострома (4942)77-07-48 Краснодр (861)203-40-90 Красноярск (391)204-63-61 Курск (4712)77-13-04 Курган (3522)50-90-47 Липецк (4742)52-20-81 Россия +7(495)268-04-70

Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Ноябрьск (3496)41-32-12 Ноябрьск (3496)41-32-12 Новосибирск (339)227-86-73 Омск (3812)21-46-40 Ореп (4862)44-53-42 Оренбург (3522)37-68-04 Пенза (8412)22-31-16 Петрозаводск (8142)55-98-37 Псков (8112)59-10-37 Пермь (342)205-81-47 Казахстан +7(7172)727-132

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Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Севастополь (8629)22-31-93 Саранск (8342)22-96-24 Симферополь (3652)207-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (8652)20-65-13 Сургут (3462)77-98-35 Сыктывкар (8212)25-95-17 Тамбов (4752)50-40-97 Тверь (4822)63-31-35 Киргизия +996(312)96-26-47 Тольятти (8482)63-91-07 Томск (3822)98-41-53 Тула (4872)33-79-87 Тюмень (3452)66-21-18 Улан-удэ (3012)59-97-51 Уфа (347)229-48-12 Хабаровск (4212)92-98-04 Чебоксары (8352)28-53-07 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Чита (3022)38-34-83 Якутск (412)23-90-97 Ярославль (4852)69-52-93

# BRADPOWER > MODULAR POWER SOLUTIONS

# Modular, Flexible Wiring Systems for Machine Power Distribution and Motor Control







Solutions for Food and Beverage Processors



**Solutions for Automotive** 



Solutions for Material Handling









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# **BradPower Modular Power Solutions**

## **Bottom-Line Benefits**

Compared to traditional, conduit-based hard wiring, BradPower modular solutions provide a host of operational advantages, including:

- Reduce wiring errors (the #1 added expense)
- Reduce skilled labor costs
- Reduce maintenance and operating costs
- Increase plant equipment flexibility
- Speed up delivery and commissioning of new equipment
- NFPA-79-2015 Standard Compliant

### Modular, Easy to Install

BradPower solutions from Molex replace machine hard wiring with modular quick-connect systems comprised of crush resistant, factory-molded, cord sets and connectors. The result is a robust, scalable, and easy-to-install power distribution system that does not require the specialized tools and labor typically associated with traditional conduit or raceway installations.

### Performance

BradPower's modular components make installation faster, easier, and more reliable. Where multiple machines are involved, assembling the systems is consistent and repeatable.

BradPower systems meet ALL of the same requirements as hard-wiring and they deliver the same unsurpassed performance and innovation the industry has come to expect from the Brad<sup>®</sup> brand.

# Stainless Steel options for Food & Beverage/Pharmaceutical Applications

- Smooth over molds designed to eliminate food traps
- 316 Stainless Steel coupling nuts for maximum corrosion resistance
- IP69K-rated environmental performance, ideal for high pressure, high temperature wash-down

#### **Drop/Branch Cordsets**

and Connectors, rated up to 15A, 600V, stem from the main trunk line and enable the quick connection of field devices to the trunk/feeder circuits. **Receptacles** provide an access point for quick connection of devices or power sources with the BradPower system.

**Trunk/Feeder Cordsets and Connectors**, rated 32A, 600V are the main components in the BradPower modular wiring system. They are flexible and modular and can be located anywhere on your machine. **Tees and Reducers** provide access points for branch or drop circuits. They are key components for establishing a modular, scalable, trunk and drop wiring topology. The optional **Locking Clips** snap over the outside of the connection points to limit access to the BradPower modular wiring system. They are available for both trunk/feeder connections as well as drop/branch connections.

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# **BradPower Modular Power Solutions**

## **Application Achievements**

- Automotive: An automotive chassis finishing plant used a total of 889 motor connection points to automate and synchronize its paint booth operations. Result: large labor and tooling savings.
- Food Processing: A large poultry processing plant experienced significant downtime savings by connectorizing 140 of their machine motors for fast, easy changeout.
- Beverage Industry: A beverage bottling plant replaced hard wiring from a centralized control cabinet with flexible cordsets to 30 motors in a case washing system.
- Automation: An automotive supplier reduced installation time of its brake assembly welding and inspection line from three days to one day.

# BradPower Solutions serve a world of industrial machinery:

- Conveyors and other material handling equipment
- Automated machine tools
- Food and Beverage
- Pharmaceutical
- Logistics and Distribution
- Printing and Converting
- Automotive assembly
- Semiconductor
- Motor-driven air handling equipment





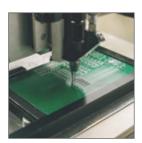
















## NFPA-79-2015 Standard Compliance

In 2004, revisions to the National Fire Protection Association's NFPA-79 Electrical Standard for Industrial Machinery, in cooperation with the National Electrical Code (NEC), opened the door to a practical alternative to hard-wired power distribution and motor control systems for industrial machinery. BradPower started as that alternative, and has now become the preferred method for power distribution.

The NFPA-79 standard focuses on best practices and guidelines for safe, robust electrical design and installation on of industrial machinery. It complements the National Electric Code by clarifying the proper implementation of NEC requirements in industrial equipment applications. The scope of NFPA-79 includes all electrical and electronic elements on industrial equipment operating at 600V or less.

When properly installed and maintained, BradPower systems are fully compliant with the NFPA-79-2015 Standard for Industrial Machinery and meet UL direct support requirements. The changes with the most impact on the applicability of the BradPower system are:

		Benefits
Conductor Sizing for Power Circuits	Section 12.6.1 Conductors shall not be smaller than 14AWG for power circuits unless otherwise permitted in 12.6.1.3 (16AWG and 18AWG shall be permitted for motor and non-motor circuits where part of a listed power cable assembly identified as suitable for the intended use and provided with overcurrent protection in accordance with its ratings.	<ul> <li>Greater flexibility for drop or branch circuits</li> <li>Use of BradPower 16 AWG drop cord sets for power distribution</li> </ul>
Wiring Methods and Practices Regarding Connectors	Section 13.1.2.3 Factory-applied connectors molded onto cables shall be permitted. Such connectors shall not be considered as splices or joints.	<ul> <li>No mis-wiring</li> <li>Quick change-out</li> <li>Easy maintenance</li> <li>Easy reconfiguration</li> <li>Allows connectors to be used within runs, permitting tees and other transitional components that provide: <ul> <li>Modular wiring solutions</li> <li>Application flexibility</li> </ul> </li> </ul>
Wiring Methods and Practices Regarding Exposed Cable	Section 13.1.6.1 Exposed cables installed along the structure of the equipment or system or in chases of the machinery shall be permitted. Exposed cables shall be installed to closely follow the surface and structural members of the machinery.	<ul> <li>Eliminates the need for conduit or raceways</li> <li>Fast installation</li> <li>No tools required</li> <li>Allows cable to be dressed along existing structures (no additional hardware required)</li> <li>Large labor savings</li> <li>Easy to change and maintain</li> </ul>

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# **Frequently Asked Questions**

# Q. What is a BradPower modular power solution?

A.It is a quick-connect, modular wiring solution comprised of factory-applied connectors over-molded onto cables to provide up to 32A feeder and 15A branch power distribution circuits up to 600VAC.

## Q. Where can BradPower products be used?

A. The intended application space for BradPower products includes automated machine-tools, conveyors and other material handling systems, packaging equipment, food & beverage/pharmaceutical processing equipment, baggage handling systems, and practically any motor installed on industrial equipment.

# Q. Are BradPower components 'listed' for use in the US and Canada?

A. Yes. Our BradPower product line has been evaluated by UL and listed to the following standards: UL2237 (PVVA). Some competitive systems are only approved to UL2238. This is not sufficient, as outlined in UL 508, Article 25.6.8.

Recent Revision to UL 508 – Industrial Control Equipment (added March 15, 2013)

 Article 25.6.8 Multi-pin cord fittings and cord sets of equipment restricted to use in Industrial Machinery applications as defined in the Electrical Standard for Industrial Machinery, NFPA 79, and intended for use in power and motor branch circuits shall comply with the requirements in the Outline of Investigation for Multi-Point Interconnection Power Cable Assemblies for Industrial Machinery - Subject 2237.

## Q. What type of connectors are allowed?

*A.* NFPA-79-15 lists general requirements for proper connector designs in section 13.4.5. BradPower products comply with these requirements:

NFPA-79 Requirements

- Attachment plug and receptacle (plug/socket) combinations shall be listed for the intended use and . . .
- Shall be of the locking type where rated greater than 20 amperes, and...
- On circuits of more than 300 volts to ground or 300 volts phase-to-phase, they shall be skirted and constructed to contain any arc generated when a connection is made or broken. (NFPA-79 Section 13.4.5.2)
- Ground pin should first mate I last break (NFPA-79 Section 13.4.5.3 (1)).
- Where more than one attachment plug and receptacle (plug/socket) combination is used at the same location, they shall be mechanically coded or be clearly Identified to prevent incorrect insertion. (NFPA•79 Section 13.4.5.5)

BradPower Solution:

- BradPower products are UL Listed for use in US and Canada
- BradPower threaded coupling nuts offer a way to lockdown connection preventing accidental disconnection.
- BradPower connectors are not designed for interrupting power and should not be disconnected while a circuit is energized. However, in the event the BradPower connector is disengaged under load, the likelihood of an electric shock — though possible — is minimized by the skirted female pin design.
- BradPower connectors provide an extended pin for the ground conductor and therefore meet the requirement for first mate/last break.
- For added flexibility, BradPower connectors are offered in two keying options for mechanically differentiated circuits.
   Further, 3 and 4 pole versions are not interchangeable.





# Q. What cable rating do the BradPower cordsets have?

A. For full flexibility and use on various applications, BradPower cordset assemblies are available with the following cable types:

- Dual-Rated STOOW for outdoor & portable use AND TC-ER (Tray Cable, Exposed Run) for exposed use outside of cable tray
- 2. Single-Rated TC-ER enables exposed use outside the cable tray. Smaller OD allows for placement in tight locations
- 3. Shielded TC-ER for use with variable frequency drives (VFD)
- 4. Continuous-Flex Rated TC-ER for dynamic applications

# Q. Why the multiple ratings on BradPower cables?

A. BradPower cables carry multiple ratings to accommodate a wide variety of applications, Including:

Permanent Installations: The TC-ER Wiring and MTW designation allows BradPower cordsets to be used In cable tray systems as well as for permanent exposed run installations on industrial machinery per NEC article 392- 'Cable Trays' and respective NEC article 336 — "Power and Control Tray Cable: Type TC".

Temporary Installations: The flexible cord STOOW rating allows the same BradPower product to be used for installations allowed under NEC article 400 — "Flexible Cords and Cables". The STOOW is a mechanically tougher cable that can be used to connect to temporary equipment, such as fans, lights, etc., and can be placed on the floor exposed to a harsher environment than a TC cable.

Machine Wiring - permanent or temporary: The multiple ratings allow the BradPower cable assemblies to be used virtually anywhere In the machine. The TC and MTW rating allows it to be used inside trays and raceways, While the STOOW and ER designation for TC allows the cable to run exposed along the structure of the machine while providing the crush and Impact resistance of metal clad (MC) cable.



A. BradPower wiring components are rated to 32A. 600V for 10AWG trunk connector and to 15A, 600V for 14 AWG drop or branch connectors. This amperage rating should be applied according to the rules set forth in NEC article 430 for sizing circuits for motor control applications.

# Q. Does NFPA-79 or NEC require a locking device to be used in BradPower products installations?

A. No. Neither the NEC nor NFPA 79 codes require the use of a locking device. However, for BradPower products users requiring an explicit precaution or additional margin of safety, Molex offers secure, easy to apply clamshell-style, locking clips that limit access to the flexible wiring system and requires a tool to remove.

# Q. Can exposed cables be installed on the machine? I thought it had to be inside conduit, cable tray or raceway.

A. The Section 13.1.6.1 of NFPA 79-15 relaxes the rules on exposed cable. Exposed cable is allowed on the machine if properly supported and attached to the permanent structure of the machine. Even though not explicitly mentioned, proper cable selection must be made to match the expected condition of service.

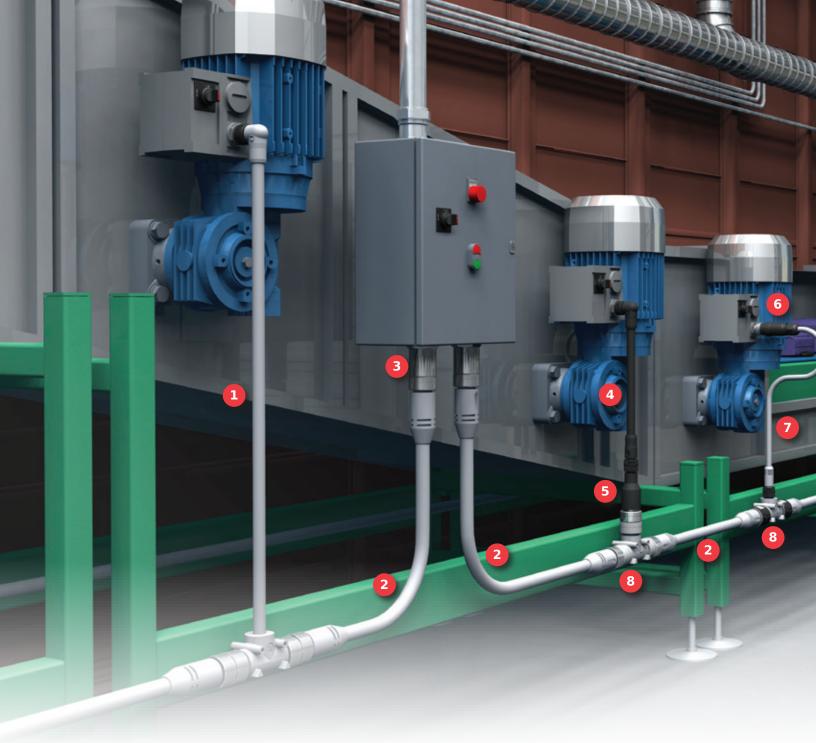
# Q. When using BradPower solutions for motors, do we need a disconnect switch close to the motor?

A. Yes. BradPower solutions are a passive connection system that is not designed to interrupt power, therefore it cannot be used as a switch. When BradPower solutions are used, all aspects of the NEC need to be complied with, including the need for a disconnect switch in plain view from the motor.

## Q. Is tapping Into a larger sized conductor with a smaller conductor allowed? Is the use of a reducer allowed?

A. Yes. The NEC allows taps of feeder conductors with smaller sized wires. There are provisions and restrictions that must be followed in this situation. (See Section 12.6)







Reducing TEEs (D-Size to A-Size) See pages 24-29.



Double-Ended Patch Cords (D-Size) See pages 18-21.



Receptacles (D-Size) See pages 22-23.



Double-Ended Patch Cords (A-Size) See pages 44-47.



Reducers (D-Size to A-Size) See pages 32-33.



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# BradPower Modular Power Solutions

Modular, flexible wiring systems for machine power distribution and motor control



Field Attachables (A-Size) See page 51.



Single-Ended Cordsets (A-Size) See pages 40-43.



**TEEs (D-Size)** See pages 24-29.



Closure Caps (D-Size) See page 29.





The BradPower D-Size (1 3/8" – M35) Modular Power Solution allows the deployment of a flexible, scalable, trunk and drop wiring topology consisting of Cordsets, Patchcords, Receptacles, Tees, Reducers and Accessories.



# BradPower D-Size (1 3/8" – M35) Modular Power Solutions Meets UL2237 and NFPA 79-2015 standards for

Meets UL2237 and NFPA 79-2015 standards for Industrial Machinery and Motor Branch Circuits

D-Size Single-Ended Cordsets	14–17
D-Size Double-Ended Patchcords	18–21
D-Size Receptacles	22–23
D-Size Tees	24–28
D-Size Closure Caps & Locking Clips	29
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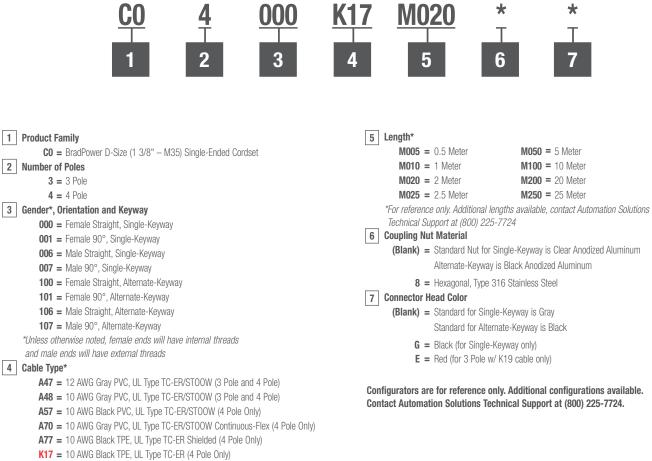






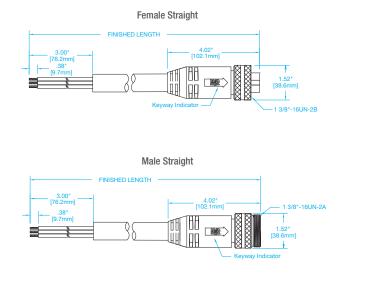
Single-Ended Trunk Cordset Configurator

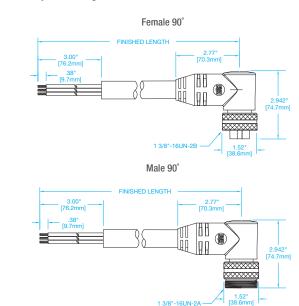
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K19 = 10 AWG Black TPE, UL Type TC-ER (3 Pole Only)

- K24 = 10 AWG Black TPE, UL Type TC-ER, Shielded VFD Continuous-Flex (4 Pole Only)
- K25 = 10 AWG Black TPE, UL Type TC-ER, Continuous-Flex (4 Pole Only)
- \*Cable highlighted in Red are Molex Preferred Cable Option.





Single-Ended Trunk Cordsets (Female)

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# Specifications

## MECHANICAL

Overmold Body: Oil-Resistant PVC Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Single Keyway – Clear Anodized Aluminum Alternative Keyway – Black Anodized Aluminum Optional – Hexagonal, Type 316 Stainless Steel Cable: Outer – Oil-Resistant Materials used (See Chart Specifications Below)

Inner – Stranded Copper Conductor Leads in PVC Minimum Bend Radius: 10x Cable Diameter

## ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Current: 32A Voltage: 600V AC/DC

### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

## CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

#### Female Straight<sup>‡</sup> and 90°<sup>‡</sup>

Poles	Keyway	Color Rotation	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded (Via Ground Pin)	Overmold Color	Female Straight Engineering No.	Female 90° Engineering No.	
	Single		#10/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.700" [17.78mm]	No	No	Gray	C03000A48M***	C03001A48M***	
3	Single	A	#10/3, Black TPE, UL TC-ER, FT4	ø 0.452" [11.48mm]	No	No	Red	C03000K19M***E	C03001K19M***E	
	Alternate		#10/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.700" [17.78mm]	No	No	Black	C03100A48M***	C03101A48M***	
			#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Gray	C04000A48M***	C04001A48M***	
		В	#10/4, Black PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Black	C04000A57M***G	C04001A57M***G	
			#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.780" [19.81mm]	Yes	No	Black	C04000A70M***G	C04001A70M***G	
	Single		#10/4, Black TPE, UL TC-ER, FT4	ø 0.680" [17.27mm]	No	Yes	Gray	C04000A77M***	C04001A77M***	
4		С	#10/4, Black TPE, UL TC-ER, FT4	ø 0.530" [13.46mm]	No	No	Black	C04000K17M***G	C04001K17M***G	
		U	#10/4, Black TPE, UL TC-ER, FT4	ø 0.600" [15.24mm]	Yes	No	Black	C04000K25M***G	C04001K25M***G	
				#10/4, Black TPE, UL TC-ER, FT4	ø 0.690" [17.53mm]	Yes	Yes (VFD)	Gray	C04000K24M***	C04001K24M***
	Alternate	В	#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Black	C04100A48M***	C04101A48M***	

Dimensional Information on Pg. 14

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. C04000A48M\*\*\*8 and C04001K24M\*\*\*8)

# **Color Code and Pinout Rotation**

			Face View Pinout Rotation					
		Singl	e Keyway	Alternate Keyway				
		Female		Fer	nale			
		0 0		<b>0 0</b>	000			
Color Code	Poles							
A	3	1 – Black	2 - Green/Yellow	3 – White				
В	4	1 – Black	2 - Green/Yellow	3 – Red	4 – White			
С	4	1 – Black #1	2 – Green/Yellow	3 – Black #3	4 – Black #2			



C03000K19M\*\*\*E



C04000K17M\*\*\*



C04001A48M\*\*\*



C04101A48M\*\*\*

Single-Ended Trunk Cordsets (Male)



# **Specifications**

### MECHANICAL

Overmold Body: Oil-Resistant PVC Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Single Keyway – Clear Anodized Aluminum Alternative Keyway – Black Anodized Aluminum Optional – Hexagonal, Type 316 Stainless Steel Cable: Outer – Oil-Resistant Materials used (See Chart Specifications Below) Inner – Stranded Copper Conductor Leads in PVC Minimum Bend Radius: 10x Cable Diameter

### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Current: 32A Voltage: 600V AC/DC

#### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information (Continued)**

#### Male Straight<sup>‡</sup> and 90°<sup>‡</sup>

Poles	Keyway	Color Rotation	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded (Via Ground Pin)	Overmold Color	Male Straight Engineering No.	Male 90° Engineering No.	
	Single		#10/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.700" [17.78mm]	No	No	Gray	C03006A48M***	C03007A48M***	
3	Single	А	#10/3, Black TPE, UL TC-ER, FT4	ø 0.452" [11.48mm]	No	No	Red	C03006K19M***E	C03007K19M***E	
	Alternate		#10/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.700" [17.78mm]	No	No	Black	C03106A48M***	C03107A48M***	
			#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Gray	C04006A48M***	C04007A48M***	
		В	В	#10/4, Black PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Black	C04006A57M***G	C04007A57M***G
			#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.780" [19.81mm]	Yes	No	Black	C04006A70M***G	C04007A70M***G	
4	Single		#10/4, Black TPE, UL TC-ER, FT4	ø 0.680" [17.27mm]	No	Yes	Gray	C04006A77M***	C04007A77M***	
4		0	#10/4, Black TPE, UL TC-ER, FT4	ø 0.530" [13.46mm]	No	No	Black	C04006K17M***G	C04007K17M***G	
		С	#10/4, Black TPE, UL TC-ER, FT4	ø 0.600" [15.24mm]	Yes	No	Black	C04006K25M***G	C04007K25M***G	
			#10/4, Black TPE, UL TC-ER, FT4	ø 0.690" [17.53mm]	Yes	Yes (VFD)	Gray	C04006K24M***	C04007K24M***	
	Alternate	В	#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Black	C04106A48M***	C04107A48M***	

#### Dimensional Information on Pg. 14

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. C03006A48M\*\*\*8 and C04007A70M\*\*\*G8)

# **Color Code and Pinout Rotation**

			Face View Pind	out Rotation	
			Single Keyway	Alterr	nate Keyway
			Male		Male
Color Code	Poles	6		60	
A	3	1 – Black	2 – Green/Yellow (Extended Pin)	3 – White	
В	4	1 – Black	2 – Green/Yellow (Extended Pin)	3 – Red	4 – White
С	4	1 – Black #1	2 – Green/Yellow (Extended Pin)	3 – Black #3	4 – Black #2



C03006K19M\*\*\*E



C04106A48M\*\*\*



C04007A48M\*\*\*



C04007K25M\*\*\*G

Trunk Cordsets Accessories



# **Specifications**

#### MECHANICAL

Material: Closure Caps – Clear Anodized Aluminum Locking Clips – Black ABS

#### ENVIRONMENTAL

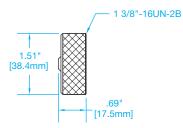
Operating Temperature: -20°C to +90°C RoHS: Compliant

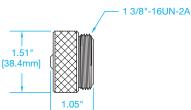


# **Ordering Information**

#### **Closure Caps**

Size	Gender	Bead Chain	Closure Cap Threads	Engineering No.	Standard Order No.
D-Size (1 3/8" – M35)	Male (Mates with Female Connector)	No	External	55-0198	1300700018
D-3120 (1 3/6 - 1033)	Female (Mates with Male Connector)	No	Internal	55-0298	1300700019





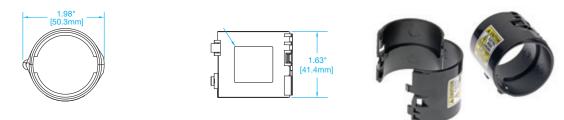
[26.7mm]



1300700018 (External Threads) and 1300700019 (Internal Threads)

#### Locking Clips (For Both Straight and 90° Connections)

Size	Quantity Per Bag	Warning Label	Engineering No.	Standard Order No.
D-Size (1 3/8" – M35)	10	CAUTION ELECTRIC SHOCK HAZARD DO NOT DESCONRECT UNDER (CAD NE PAS DEBRANCHER SOULTENSION	66200A-10	1300700020

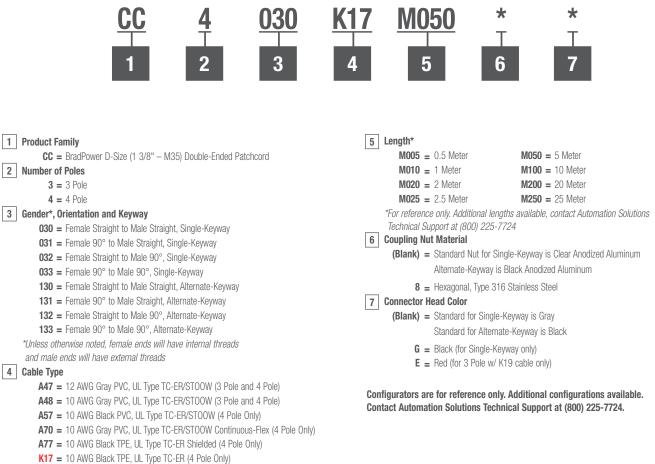


T

1300700020

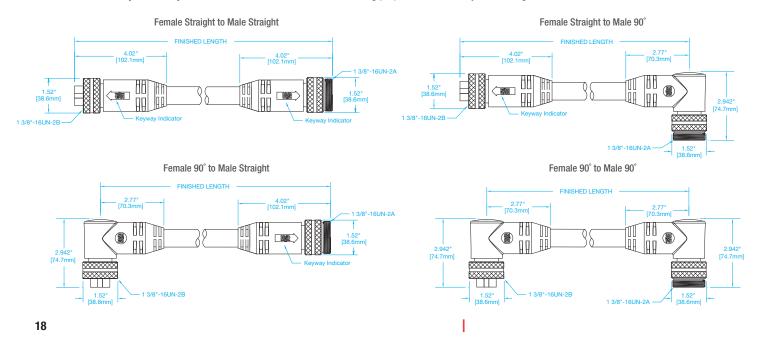
Double-Ended Trunk Patchcord Configurator

# molex



K19 = 10 AWG Black TPE, UL Type TC-ER (3 Pole Only)

- K24 = 10 AWG Black TPE, UL Type TC-ER, Shielded VFD Continuous-Flex (4 Pole Only)
- K25 = 10 AWG Black TPE, UL Type TC-ER, Continuous-Flex (4 Pole Only)
- \*Cable highlighted in Red are Molex Preferred Cable Option.



Double-Ended Trunk Patchcords



# **Specifications**

### **MECHANICAL**

Overmold Body: Oil-Resistant PVC Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Single Keyway - Clear Anodized Aluminum Alternative Keyway – Black Anodized Aluminum Optional – Hexagonal, Type 316 Stainless Steel Cable: Outer - Oil-Resistant Materials used (See Chart Specifications Below) Inner – Stranded Copper Conductor Leads in PVC

#### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Current: 32A Voltage: 600V AC/DC

#### **ENVIRONMENTAL**

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C **RoHS: Compliant** 

#### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 - 2015: Meets NFPA 79 - 2015 Standards for Industrial Machinery and Motor **Branch Circuits** 



# **Ordering Information**

Minimum Bend Radius: 10x Cable Diameter

#### Female Straight and 90° to Male Straight<sup>‡</sup>

Poles	Keyway	Color Rotation	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded (Via Ground Pin)	Overmold Color	Female Straight to Male Straight Engineering No.	Female 90° to Male Straight Engineering No.
	Cingle		#10/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.700" [17.78mm]	No	No	Gray	CC3030A48M***	CC3031A48M***
3	Single	А	#10/3, Black TPE, UL TC-ER, FT4	ø 0.452" [11.48mm]	No	No	Red	CC3030K19M***E	CC3031K19M***E
	Alternate		#10/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.700" [17.78mm]	No	No	Black	CC3130A48M***	CC3131A48M***
			#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Gray	CC4030A48M***	CC4031A48M***
	В	В	#10/4, Black PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Black	CC4030A57M***G	CC4031A57M***G
			#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.780" [19.81mm]	Yes	No	Black	CC4030A70M***G	CC4031A70M***G
	Single		#10/4, Black TPE, UL TC-ER, FT4	ø 0.680" [17.27mm]	No	Yes	Gray	CC4030A77M***	CC4031A77M***
4		С	#10/4, Black TPE, UL TC-ER, FT4	ø 0.530" [13.46mm]	No	No	Black	CC4030K17M***G	CC4031K17M***G
		U	#10/4, Black TPE, UL TC-ER, FT4	ø 0.600" [15.24mm]	Yes	No	Black	CC4030K25M***G	CC4031K25M***G
			#10/4, Black TPE, UL TC-ER, FT4	ø 0.690" [17.53mm]	Yes	Yes (VFD)	Gray	CC4030K24M***	CC4031K24M***
	Alternate	В	#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Black	CC4130A48M***	CC4131A48M***

#### **Dimensional Information on Pg. 18**

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. CC3030A48M\*\*\*8 and CC4031K25M\*\*\*68)

# **Color Code and Pinout Rotation**

			Face View Pinout Rotation						
			Single Keyway	Alternate Keyway					
		Female	Male	Female	Male				
		<b>0 0 0</b>	<b>60</b> <b>9</b>		000				
Color Code	Poles								
A	3	1 – Black	2 - Green/Yellow (Extended Pin	on Male) 3 – White	e				
В	4	1 – Black	2 - Green/Yellow (Extended Pin	on Male) 3 – Red	4 – White				
С	4	1 – Black #1	2 - Green/Yellow (Extended Pin	on Male) 3 - Black	k #3 4 – Black #2				



CC4031A77M\*\*\*



CC4030K17M\*\*\*G



CC4031A48M\*\*\*

CC3030K19M\*\*\*E

Double-Ended Trunk Patchcords (Continued)

# molex

# **Specifications**

## MECHANICAL

Overmold Body: Oil-Resistant PVC Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Single Keyway – Clear Anodized Aluminum Alternative Keyway – Black Anodized Aluminum Optional – Hexagonal, Type 316 Stainless Steel Cable: Outer – Oil-Resistant Materials used (See Chart Specifications Below) Inner – Stranded Copper Conductor Leads in PVC Minimum Bend Radius: 10x Cable Diameter

### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Current: 32A Voltage: 600V AC/DC

### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

## CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information (Continued)**

Female Straight and 90° to Male 90°<sup>±</sup>

Poles	Keyway	Color Rotation	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded (Via Ground Pin)	Overmold Color	Female Straight to Male 90° Engineering No.	Female 90° to Male 90° Engineering No.
	Cingle		#10/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.700" [17.78mm]	No	No	Gray	CC3032A48M***	CC3033A48M***
3	Single	A	#10/3, Black TPE, UL TC-ER, FT4	ø 0.452" [11.48mm]	No	No	Red	CC3032K19M***E	CC3033K19M***E
	Alternate		#10/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.700" [17.78mm]	No	No	Black	CC3132A48M***	CC3133A48M***
			#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Gray	CC4032A48M***	CC4033A48M***
		В	#10/4, Black PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Black	CC4032A57M***G	CC4033A57M***G
			#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.780" [19.81mm]	Yes	No	Black	CC4032A70M***G	CC4033A70M***G
4	Single		#10/4, Black TPE, UL TC-ER, FT4	ø 0.680" [17.27mm]	No	Yes	Gray	CC4032A77M***	CC4033A77M***
4		С	#10/4, Black TPE, UL TC-ER, FT4	ø 0.530" [13.46mm]	No	No	Black	CC4032K17M***G	CC4033K17M***G
		U	#10/4, Black TPE, UL TC-ER, FT4	ø 0.600" [15.24mm]	Yes	No	Black	CC4032K25M***G	CC4033K25M***G
			#10/4, Black TPE, UL TC-ER, FT4	ø 0.690" [17.53mm]	Yes	Yes (VFD)	Gray	CC4032K24M***	CC4033K24M***
	Alternate	В	#10/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.775" [19.69mm]	No	No	Black	CC4132A48M***	CC4133A48M***

#### Dimensional Information on Pg. 18

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. CC3032A48M\*\*\*8 and CC4033K25M\*\*\*G8)

# **Color Code and Pinout Rotation**

			Face View Pinout R	otation		
			Single Keyway	Alternate Keyway		
		Female	Male	Female	Male	
		<b>0 0 0</b>			00	
Color Code	Poles			000	<b>9</b> <b>9</b> <b>0</b>	
А	3	1 – Black	2 - Green/Yellow (Extended Pin on Ma	le) 3 – White		
В	4	1 – Black	2 - Green/Yellow (Extended Pin on Ma	le) 3 – Red	4 - White	
С	4	1 – Black #1	2 – Green/Yellow (Extended Pin on Ma	le) 3 – Black #3	8 4 – Black #2	



CC4032K24M\*\*\*



CC4133A48M\*\*\*

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Trunk Cordsets Accessories



# **Specifications**

#### MECHANICAL

Material: Closure Caps – Clear Anodized Aluminum Locking Clips – Black ABS

#### ENVIRONMENTAL

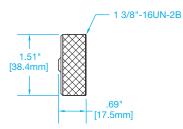
Operating Temperature: -20°C to +90°C RoHS: Compliant

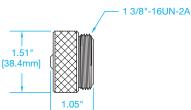


# **Ordering Information**

#### **Closure Caps**

Size	Gender	Bead Chain	Closure Cap Threads	Engineering No.	Standard Order No.
D-Size (1 3/8" – M35)	Male (Mates with Female Connector)	No	External	55-0198	1300700018
	Female (Mates with Male Connector)	No	Internal	55-0298	1300700019





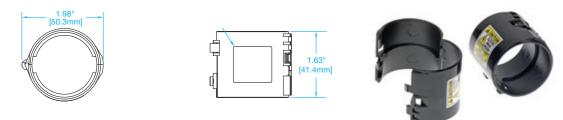
[26.7mm]



1300700018 (External Threads) and 1300700019 (Internal Threads)

#### Locking Clips (For Both Straight and 90° Connections)

Size	Quantity Per Bag	Warning Label	Engineering No.	Standard Order No.
D-Size (1 3/8" – M35)	10	CAUTION ELECTRIC: SHOCK HAZARD DO NOT ONCOMECT UNDER LOAD NE PAS DEBRANCHER SCUE TEMBOR	66200A-10	1300700020

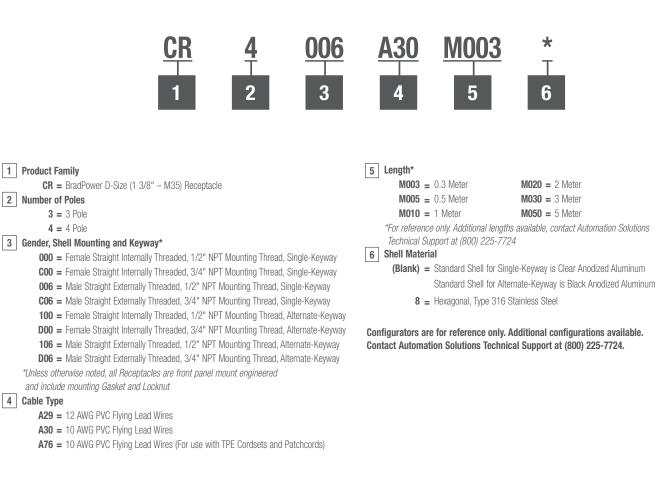


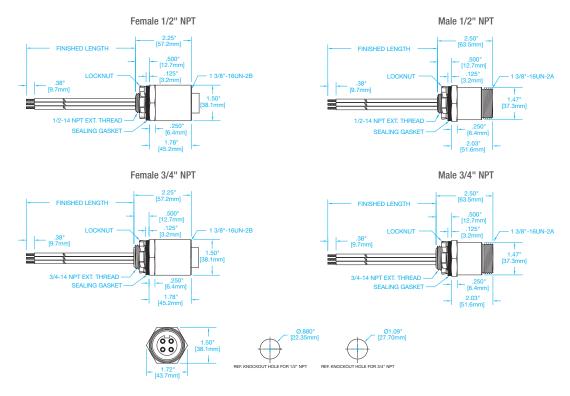
T

1300700020

Trunk Receptacle Configurator

# molex





Trunk Receptacles



# **Specifications**

#### MECHANICAL

Contact: Copper Alloy with Gold over Nickel Plating Wire Insulation: PVC Insert: Black PVC Receptacle Shell: Single Keyway – Clear Anodized Aluminum

Alternative Keyway – Black Anodized Aluminum Optional –Hexagonal, Type 316 Stainless Steel

Gasket: Black Neoprene

Locknut: 1/2" NPT – Steel with Zinc Plate 3/4" NPT – Steel with Zinc Plate

#### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Current: 32A Voltage: 600V AC/DC

#### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

#### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

#### **Receptacles<sup>‡</sup>**

Poles	Keyway	Color Rotation	Wire Size	Mounting Threads (Front Panel Mount)	Female Receptacle Engineering No.	Male Receptacle Engineering No.								
	Cingle		#10/3, PVC Leads	1/2" NPT	CR3000A30M***	CR3006A30M***								
3	Single	А	#10/3, PVC Leads	3/4" NPT	CR3C00A30M***	CR3C06A30M***								
3	Alternate	А	#10/3, PVC Leads	1/2" NPT	CR3100A30M***	CR3106A30M***								
	Alternate		#10/3, PVC Leads	3/4" NPT	CR3D00A30M***	CR3D06A30M***								
		B	5	5	5	5		D		D	#10/4, PVC Leads	1/2" NPT	CR4000A30M***	CR4006A30M***
	Single		#10/4, PVC Leads	3/4" NPT	CR4C00A30M***	CR4C06A30M***								
	Single	Ũ	#10/4, PVC Leads	1/2" NPT	CR4000A76M***	CR4006A76M***								
4		С	#10/4, PVC Leads	3/4" NPT	CR4C00A76M***	CR4C06A76M***								
	Alternate	B -	#10/4, PVC Leads	1/2" NPT	CR4100A30M***	CR4106A30M***								
	Alternate		#10/4, PVC Leads	3/4" NPT	CR4D00A30M***	CR4D06A30M***								

Dimensional Information on Pg. 22

\*\*\* Length in Meters. Standard Lead Length is 0.5 Meters (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. CR3000A30M\*\*\*8 and CR4C06A30M\*\*\*8)

# **Color Code and Pinout Rotation**

		Face View Pinout Rotation					
		:	Single Keyway	Alternate Keyway			
		Female	Male	Female	Male		
		<b>0 0 0</b>	<b>60</b> <b>9</b>				
Color Code	Poles						
А	3	1 – Black	2 - Green/Yellow (Extended Pin	on Male) 3 -	- White		
В	4	1 – Black	2 - Green/Yellow (Extended Pin	on Male) 3 -	– Red 4 – White		
С	4	1 – Black #1	2 - Green/Yellow (Extended Pin	on Male) 3 -	– Black #3 4 – Black #2		



CR4C00A76M\*\*\*



I



CR4006A30M\*\*\*

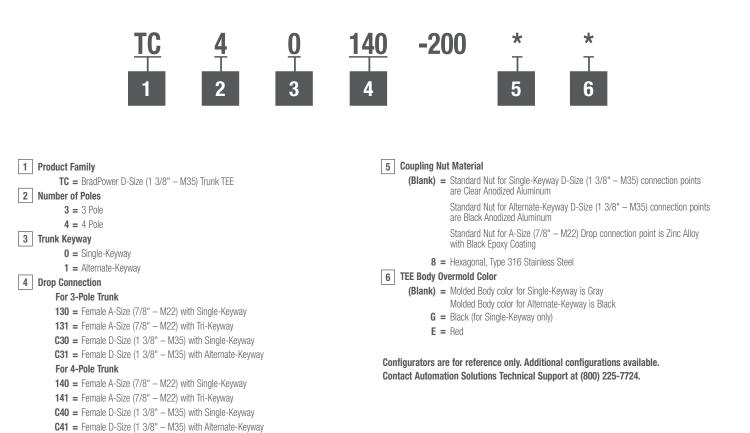


CR4100A30M\*\*\*

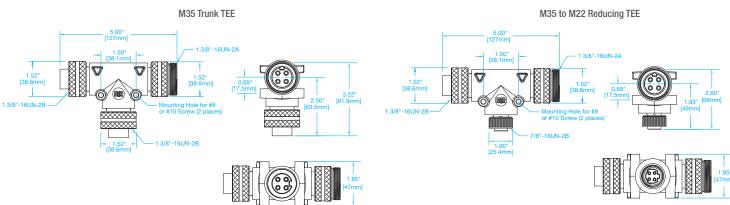
CR4D06A30M\*\*\*

Trunk TEE Configurator (Solid Body)

# molex



Dimensions in inches [millimeters]. Dimensions not to be used for manufacturing purposes and are subject to change.



# Wiring Schematic

A-Size (7/8	– M22) Drop	D-Size (1 3/8 – M35) Drop		
3 Pole	4 Pole	3 Pole	4 Pole	
D-SIZE (1 3/8" – M35) FEMALE PIN 1 PIN 2 PIN 3 3 3 3 3 3 3 3 3	D-SIZE (1 3/8" - M35) FEMALE PIN 1 PIN 2 PIN 3 PIN 4 PIN 4	D-SIZE (1 3/8" - M35) FEMALE MALE PIN 1 PIN 2 PIN 3 D-SIZE (1 3/8" - M35) PIN 3 PIN	D-SIZE (1 3/8" - M35) FEMALE PIN 1 PIN 2 PIN 3 PIN 4 PIN 2 PIN 4 PIN 5 PIN 4 PIN 4 PIN 5 PIN 4 PIN 5 PIN 4 PIN 5 PIN 4 PIN 5 PIN 4 PIN 5 PIN 6 PIN 6 PIN 7 PIN 7	

TEEs (Solid Body)

# molex

# **Specifications**

### **MECHANICAL**

TEE Overmold Body: Oil-Resistant PVC TEE Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Single Keyway - Clear Anodized Aluminum Alternative Keyway – Black Anodized Aluminum Optional – Hexagonal, Type 316 Stainless Steel

### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Voltage: 600V AC/DC Max Input Current: 32A Max Drop Current: D-Size (1 3/8" - M35): 32A A-Size (7/8" - M22): 15A

#### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C **RoHS: Compliant** 

#### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 - 2015: Meets NFPA 79 - 2015 Standards for Industrial Machinery and Motor **Branch Circuits** 



# **Ordering Information**

#### Trunk TEEs (D-Size to D-Size)<sup>‡</sup>

Poles	Trunk Keyway	Overmold Color	Drop Connection	Drop Keyway	Engineering No.	Standard Order No.
	Ciratela	Gray	Female D-Size (1 3/8" – M35)	Single	TC30C30-200	1300680045
3	Single	Red	Female D-Size (1 3/8" – M35)	Single	TC30C30-200E	1300680104
	Alternate	Black	Female D-Size (1 3/8" – M35)	Alternate	TC31C31-200	1300680055
	Cingle	Gray	Female D-Size (1 3/8" – M35)	Single	TC40C40-200	1300680079
4	4 Single -	Black	Female D-Size (1 3/8" – M35)	Single	TC40C40-200G	1300680099
		Black	Female D-Size (1 3/8" – M35)	Alternate	TC41C41-200	1300680086

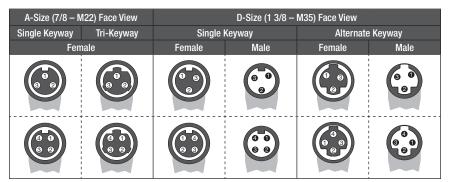
#### Reducing TEEs (D-Size to A-Size)<sup>‡</sup>

Poles	Trunk Keyway	Overmold Color	Drop Connection	Drop Keyway	Engineering No.	Standard Order No.
	Single	Gray	Female A-Size (7/8" – M22)	Single	TC30130-200	1300680034
3		Red	Female A-Size (7/8" – M22)	Single	TC30130-200E	1300680105
	Alternate	Black	Female A-Size (7/8" – M22)	Single	TC31130-200	1300680051
	Single	Gray	Female A-Size (7/8" – M22)	Single	TC40140-200	1300680069
4	Single	Black	Female A-Size (7/8" – M22)	Single	TC40140-200G	1300680106
4	4 Alternate	Black	Female A-Size (7/8" – M22)	Single	TC41140-200	1300680082
	Single	Black	Female A-Size (7/8" – M22)	Tri-Key	TC40141-200G	1300680094

#### **Dimensional Information on Pg. 24**

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. TC30130-2008 and TC40C40-20068)

## **TEE Pinout Rotation**









TC41C41-200

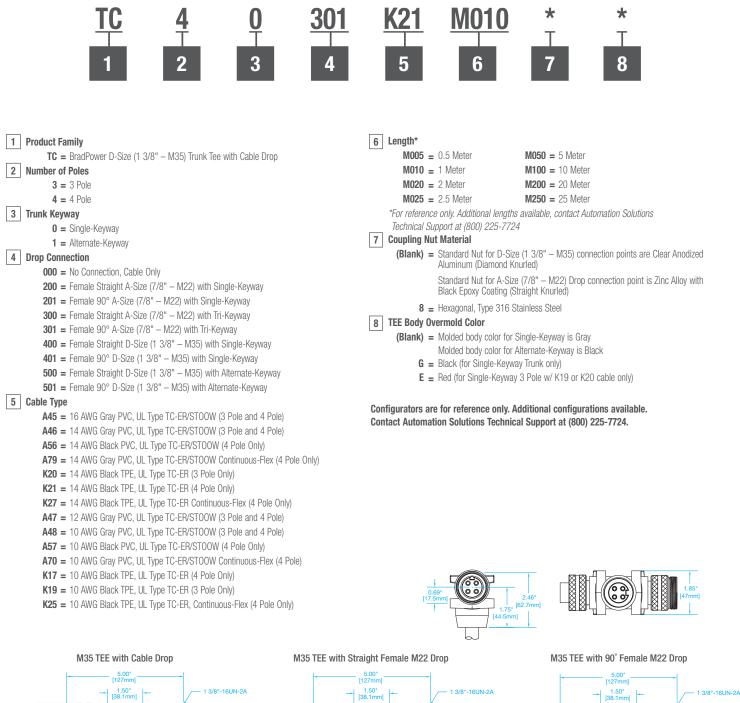


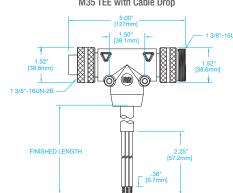
TC40140-200

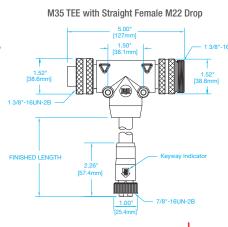
TC40141-200G

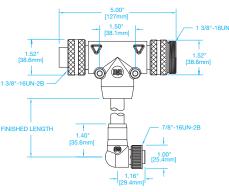
Trunk TEE with Cable Drop Configurator

# molex









Trunk TEE with Cable Drop

# molex

# **Specifications**

### MECHANICAL

TEE Overmold Body: Oil-Resistant PVC TEE Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Single Keyway – Clear Anodized Aluminum Alternative Keyway – Black Anodized Aluminum Optional – Hexagonal, Type 316 Stainless Steel Cable: Outer – Oil-Resistant Materials used (See Chart Below)

Inner – Stranded Copper Conductor Leads in PVC Minimum Bend Radius: 10x Cable Diameter

## ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Voltage: 600V AC/DC Max Input Current: 32A Max Drop Current: 15A

### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

## CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

### Trunk TEE with Drop Cable (D-Size to Cable Drop)<sup>‡</sup>

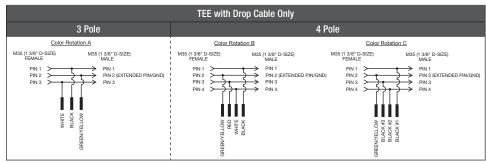
Poles	Color Rotation	Trunk Keyway	Overmold Color	Drop Cable	Cable Outer Diameter	Engineering No.
		Single	Gray	#14/3 Gray PVC UL TC-ER/STOOW FT4	ø 0.500" [12.70mm]	TC30000A46M***
3	A	Alternate	Gray	#14/3 Gray PVC UL TC-ER/STOOW FT4	ø 0.500" [12.70mm]	TC31000A46M***
	Single	Red	#14/3 Black TPE UL TC-ER FT4	ø 0.340" [8.64mm]	TC30000K20M***E	
4	В	Single	Gray	#14/4 Gray PVC UL TC-ER/STOOW FT4	ø 0.585" [14.86mm]	TC40000A46M***

#### Dimensional Information on Pg. 26

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. TC30000A46M\*\*\*8 and TC30000K20M\*\*\*E8)

## Wiring Schematic



## **TEE Pinout Rotation**

D-Size (1 3/8 – M35) Face View						
Single	Keyway	Alternate	Keyway			
Female	Male	Female	Male			
<b>60000000000000</b>	(°) (°)					
		000	0 0 0			



TC40000A46M\*\*\*



TC40000A56M\*\*\*G

Trunk TEE with Cable Drop



## **Specifications**

#### MECHANICAL

TEE Overmold Body: Oil-Resistant PVC TEE Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Single Keyway – Clear Anodized Aluminum Alternative Keyway – Black Anodized Aluminum Optional – Hexagonal, Type 316 Stainless Steel Cable: Outer – Oil-Resistant Materials used (See Chart Below) Inner – Stranded Copper Conductor Leads in PVC

Minimum Bend Radius: 10x Cable Diameter

### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Voltage: 600V AC/DC Max Input Current: 32A Max Drop Current: D-Size (1 3/8" – M35): 32A A-Size (7/8" – M22): 15A

#### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79-2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

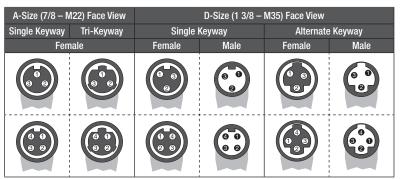
#### Reducing TEEs (D-Size to A-Size)<sup>‡</sup>

Poles	Trunk Keyway	Overmold Color	Drop Cable	Cable Outer Diameter	Drop Connection	Drop Keyway	Engineering No.
		Gray	#14/3 Gray PVC UL TC-ER/STOOW FT4	ø 0.500" [12.70mm]	Straight Female A-Size (7/8" – M22)	Single	TC30200A46M***
3	Single	Red	#14/3 Black TPE UL TC-ER FT4	ø 0.340" [8.64mm]	Straight Female A-Size (7/8" – M22)	Single	TC30200K20M***E
		neu	#14/3 Black TPE UL TC-ER FT4	ø 0.340" [8.64mm]	90° Female A-Size (7/8" – M22)	Single	TC30201K20M***E
		Gray	#14/4 Gray PVC UL TC-ER/STOOW FT4	ø 0.585" [14.86mm]	Straight Female A-Size (7/8" – M22)	Single	TC40200A46M***
		ingle Black	#14/4 Black PVC UL TC-ER/STOOW FT4	ø 0.585" [14.86mm]	Straight Female A-Size (7/8" – M22)	Tri-Key	TC40300A56M***G
			#14/4 Black PVC UL TC-ER/STOOW FT4	ø 0.585" [14.86mm]	90° Female A-Size (7/8" – M22)	Tri-Key	TC40301A56M***G
			#14/4 Gray PVC UL TC-ER/STOOW FT4	ø 0.596" [15.14mm]	Straight Female A-Size (7/8" – M22)	Tri-Key	TC40300A79M***G
4	Single		#14/4 Gray PVC UL TC-ER/STOOW FT4	ø 0.596" [15.14mm]	90° Female A-Size (7/8" – M22)	Tri-Key	TC40301A79M***G
			#14/4 Black TPE UL TC-ER FT4	ø 0.373" [9.47mm]	Straight Female A-Size (7/8" – M22)	Tri-Key	TC40300K21M***G
			#14/4 Black TPE UL TC-ER FT4	ø 0.373" [9.47mm]	90° Female A-Size (7/8" – M22)	Tri-Key	TC40301K21M***G
			#14/4 Black TPE High-Flex UL TC-ER FT4	ø 0.400" [10.16mm]	Straight Female A-Size (7/8" – M22)	Tri-Key	TC40300K27M***G
			#14/4 Black TPE High-Flex UL TC-ER FT4	ø 0.400" [10.16mm]	90° Female A-Size (7/8" – M22)	Tri-Key	TC40301K27M***G

#### Dimensional Information on Pg. 26

\*\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m) <sup>‡</sup> 316 Stainless Steel versions may be ordered by adding an **8** to the Engineering number. (Example: Engineering No. TC30200A46M\*\*\***8** and TC40301A79M\*\*\*6**8**)

# **TEE Pinout Rotation**



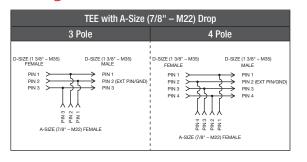




TC40200A46M\*\*\*

TC40300A56M\*\*\*G

# Wiring Schematic



Closure Caps and Locking Clips



# **Specifications**

### **MECHANICAL**

Material: D-Size (1 3/8" – M35) Closure Caps: Clear Anodized Aluminum A-Size (7/8" – M22) Closure Caps (External Thread): Black Epoxy-Coated Zinc A-Size (7/8" - M22) Closure Caps (Internal Thread): Clear Anodized Aluminum Bead Chain: Nickel-Plated Steel Locking Clips: Black ABS

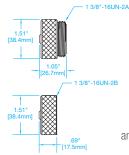
### **ENVIRONMENTAL**

Operating Temperature: -20°C to +90°C

# **Ordering Information**

#### **Closure Caps**

Size	Gender	Bead Chain	Closure Cap Threads	Engineering No.	Standard Order No.
D-Size (1 3/8" – M35)	Male (Mates with Female Connector)	No	External	55-0198	1300700018
	Female (Mates with Male Connector)	No	Internal	55-0298	1300700019
A-Size (7/8" – M22)	Male (Mates with Female Connector)	Yes	External	65-0085	1302011109
	Female (Mates with Male Connector)	Yes	Internal	65-0086	1302011111



Locking Clips (For Both Straight and 90° Connections)

1300700018 (External Threads) and 1300700019 (Internal Threads)	

1/8" I.D Ring Fittin

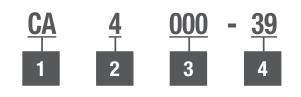


and 1302011111 (Internal Threads)

Size Quantity Per Bag Engineering No. Standard Order No. Warning Label CAUTION D-Size (1 3/8" - M35) 10 66200A-10 1300700020 ELECTRIC AZARD A-Size (7/8" - M22) 10 11400A-10 1300700012 WARNING LABEL D 1300700012 1300700020

# **BradPower** Field Wireable Connectors





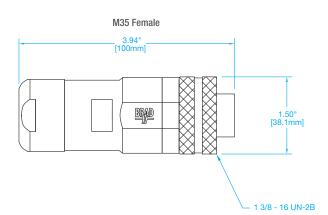


4 Suffix

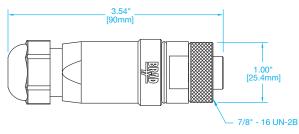
34PWR = Use only with "1A" Prefix for A-Size (7/8" – M22) 39 = Use only with "CA" Prefix for D-Size (1 3/8" – M35)

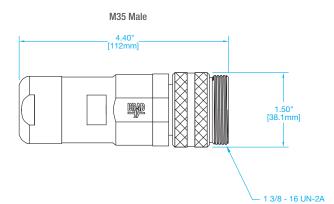
Configurators are for reference only. Additional configurations available. Contact Automation Solutions Technical Support at (800) 225-7724.

Dimensions in inches [millimeters]. Dimensions not to be used for manufacturing purposes and are subject to change.

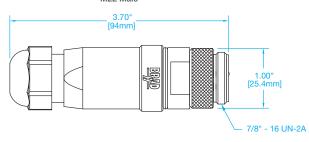


M22 Female





M22 Male



# **BradPower** Field Wireable Connectors



# **Specifications**

### **MECHANICAL**

Body: Black Polyamide PA6 Coupling Nut: D-Size (1 3/8" - M35) - Clear Anodized Aluminum A-Size (7/8" – M22) – Nickel-Plated Brass Cable O.D Range: D-Size  $(1 \ 3/8'' - M35) = 0.43''$  to 0.82" (11mm - 21mm) A-Size (7/8" - M22) = 0.20" to 0.48"(5mm - 12mm) Wire Gauge Range: D-Size (1 3/8" - M35) - 8AWG to 14 AWG (2.5mm<sup>2</sup> to 10mm<sup>2</sup>) A-Size (7/8" - M22) - 14AWG to 18 AWG (2.5mm<sup>2</sup> to 0.75mm<sup>2</sup>)

### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Voltage: 600V AC/DC Current: D-Size (1 3/8" - M35): 32A A-Size (7/8" - M22): 15A

ENVIRONMENTAL Temperature: -20°C to +90°C Protection: IEC IP67

### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery UL and cUL Listed: E258922 (A-Size (7/8" – M22) only) NFPA 79 - 2015: Meets NFPA 79 - 2015 Standards for Industrial Machinery and Motor **Branch Circuits** 



# **Ordering Information**

D-Size (1 3/8" - M35)

Poles	Keyway	Orientation	Fen	nale	Male		
10163	Reyway		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
3	Single	Straight	CA3000-39	1300700021	CA3006-39	1300700022	
4	Single	Straight	CA4000-39	1300700023	CA4006-39	1300700024	

## A-Size (7/8" - M22)

Poles	Keyway	Orientation	Fen	nale	Male		
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
0	Single		1A3000-34PWR 13		1A3006-34PWR	1300170056	
3	Tri-Key	Otusisht	1A3100-34PWR	1300170063	1A3106-34PWR	1300170062	
4	Single	Straight	1A4000-34PWR	1300170057	1A4006-34PWR	1300170058	
4	Tri-Key		1A4100-34PWR	1300170065	1A4106-34PWR	1300170064	

Dimensional Information on Pg. 30

# **Pinout Rotation**

A-Size (7/8 – N	/122) Face View	D-Size (1 3/8 – M35) Face View						
Single Keyway	Tri-Keyway	Single I	Keyway	Alternate	e Keyway			
Fen	nale	Female	Male	Female	Male			
	00	000	<b>9</b>		(°) (°)			
				000	<b>9999991111111111111</b>			



1A3000-34PWR (1300170055)

1A3006-34PWR (1300170056)

## **BradPower D-Size (1 3/8" – M35)** molex Reducers \* -200 4 Coupling Nut Material 1 Product Family (Blank) = Standard Nut for Single-Keyway D-Size (1 3/8" - M35) connection points 1C = BradPower D-Size (1 3/8" - M35) to A-Size (7/8 - M22) are Clear Anodized Aluminum 2 Number of Poles Standard Nut for Alternate-Keyway D-Size (1 3/8" - M35) connection points 3 = 3 Pole are Black Anodized Aluminum 4 = 4 Pole Standard Nut for A-Size (7/8" - M22) Drop connection point is Zinc Alloy 3 Connector Head Gender & Orientation\* with Black Epoxy Coating 030 = Male Straight Single-Keyway D-Size (1 3/8" - M35) to Female Straight 8 = Hexagonal, Type 316 Stainless Steel Single-Keyway A-Size (7/8" - M22) 5 Reducer Body Overmold Color

- 031 = Male Straight Single-Keyway D-Size (1 3/8" M35) to Female Straight Tri-Keyway A-Size (7/8" – M22)
- 130 = Male Straight Alternate-Keyway D-Size (1 3/8" M35) to Female Straight Single-Keyway A-Size (7/8" - M22)
- 131 = Male Straight Alternate-Keyway D-Size (1 3/8" M35) to Female Straight Tri-Keyway A-Size (7/8" - M22)

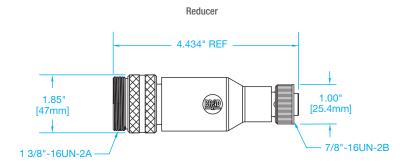
\*Unless otherwise noted, female ends will have internal threads and male ends will have external threads Configurators are for reference only. Additional configurations available. Contact Automation Solutions Technical Support at (800) 225-7724.

**G** = Black (for Single-Keyway only)

E = Red

(Blank) = Molded Body color for D-Size (1 3/8" - M35) with Single-Keyway is Gray

Molded Body color for D-Size (1 3/8" - M35) with Alternate-Keyway is Black







# **Specifications**

#### MECHANICAL

Body: PVC Coupling Nut: D-Size (1 3/8" – M35) – Clear Anodized Aluminum A-Size (7/8" – M22) – Black Epoxy-Coated Zinc Optional – Hexagonal, Type 316 Stainless Steel

#### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Voltage: 600V AC/DC Current: 15A

#### ENVIRONMENTAL

Temperature: -20°C to +90°C Protection: IEC IP67

#### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

#### Reducers<sup>‡</sup>

Poles	Trunk Keyway	Overmold Color	Reducing Connector	Reducing Keyway	Engineering No.	Standard Order No.
0	Single	Gray			1C3030-001	1300680015
	Alternate	Black	Female A-Size (7/8" – M22)	Single	1C3130-001	1300680017
4	Single	Gray	remale A-Size (1/6 - Mzz)	Single	1C4030-001	1300680019
4	Alternate	Black			1C4130-001	1300680022

#### Dimensional Information on Pg. 32

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. 1C4130-0018 and 1C3030-0018)

## **Wiring Schematic**



## **Pinout Rotation**

	D-Size (1 3/8 –	M35) Face View	A-Size (7/8 – M22) Face View				
	М	ale	Female				
Poles	Single Keyway	Alternate Keyway	Single Keyway	Tri-Keyway			
3	6 0	60	000	000			
4	<b>9 0</b> <b>9 9</b>	<b>9999999999991111111111111</b>					



# **BradPower** *Cable Specifications*



## Trunk Cables

Cable Code	Cable Material	AWG	Conductors	0.D.	Conductor Stranding	Conductor Insulation	Color Rotation	Ratings	Continuous- Flex Rated	Shielded	Standard Order No.	MLQ
A47	Gray PVC	#12 (3.31mm²)	3	.625"	65/30 BC	PVC	BK, WH, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302090035	500 FT
A47	GIAY PVG	#12 (3.31mm²)	4	.482"	65/30 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100036	500 FT
A48	Gray PVC	#10 (5.26mm²)	3	.700"	105/30 BC	PVC	BK, WH, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302090032	500 FT
A40	GIAY PVG	#10 (5.26mm²)	4	.775"	105/30 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100031	500 FT
A57	Black PVC	#10 (5.26mm²)	4	.775"	105/30 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100032	500 FT
A70	Gray PVC	#10 (5.26mm²)	4	.671"	105/30 BC	PVC	BK, WH, RD, GN	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	Yes	No	1302100034	500 FT
A77	Black TPE	#10 (5.26mm²)	4	.680"	104/30 BC	XLPE	BK 1, BK 2, BK 3, GN/YE (Shield)	Shieleded UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 90°C Wet Tray Cable	No	Yes	1302100152	500 FT
K09	Yellow TPE	#12 (4.00mm <sup>2</sup> )	4	.656"	165/34 BC	XLPE	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -40°C to 90°C	Yes	Yes	1302100181	500 FT
K17	Black TPE	#10 (5.26mm <sup>2</sup> )	4	.530"	104/30 BC	PVC/Nylon	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	No	No	1302100148	500 FT
K19	Black TPE	#10 (5.26mm <sup>2</sup> )	3	.452"	104/30 BC	PVC/Nylon	BK, WH, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	No	No	1302090160	500 FT
K24	Black TPE	#10 (6.00mm²)	4	.690"	Class M Proprietary Blend	Proprietary Blend	BK 1, BK 2, BK 3, GN/YE (Shield)	Shieleded UL TC-ER, FT4, 600V, -20°C to 75°C Dry, 90°C Wet Tray Cable	Yes	Yes	1302100173	500 FT
K25	Black TPE	#10 (6.00mm²)	4	.600"	Class M Proprietary Blend	PVC/Nylon	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 90°C Wet Tray Cable	Yes	No	1302100176	500 FT
K26	Black TPE	#12 (4.00mm²)	4	.656"	Class M Proprietary Blend	XLPE	BK 1, BK 2, BK 3, GN/YE	Shieleded UL TC-ER, FT4, 600V, -20°C to 90°C Wet or Dry Tray Cable	No	Yes	1302100163	500 FT

### Drop Cables

Cable Code	Cable Material	AWG	Conductors	0.D.	Conductor Stranding	Conductor Insulation	Color Rotation	Ratings	Continuous- Flex Rated	Shielded	Standard Order No.	MLQ
A45	Gray PVC	#16 (1.31mm²)	3	.456"	65/34 BC	PVC	BK, WH, GN/YE	UL TC-ER/STOOW, FT2, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302090041	500 FT
A40	GIAY PVC	#16 (1.31mm²)	4	.430"	65/34 BC	PVC/Nylon	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100041	500 FT
A46		#14 (2.08mm²)	3	.555"	105/34 BC	PVC	BK, WH, GN/YE	UL TC-ER/STOOW, FT2, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302090038	500 FT
A40	Gray PVC	#14 (2.08mm²)	4	.585"	105/34 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100039	500 FT
A56	Black PVC	#14 (2.08mm²)	4	.585"	105/34 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100160	500 FT
A79	Gray PVC	#14 (2.08mm²)	4	.596"	105/34 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT2, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	Yes	No	1302100132	500 FT
K20	Black TPE	#14 (2.08mm²)	3	.340"	41/30 Blend	PVC/Nylon	BK, WH, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	No	No	1302090161	500 FT
K21	Black TPE	#14 (2.08mm²)	4	.373"	41/30 Blend	PVC/Nylon	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	No	No	1302100156	500 FT
K27	Black TPE	#14 (2.08mm²)	4	.400"	105/34 BC	PVC/Nylon	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	Yes	No	1302100177	500 FT

I

# molex



The BradPower A-Size (7/8" – M22) and C-Size (1 1/8" – M29) Modular Power Solution allows the deployment of a flexible, scalable drop wiring topology consisting of Cordsets, Patchcords, Receptacles, Tees, Reducers and Accessories. The system, when combined with the BradPower D-Size (1 3/8" – M35) Trunk products, completes a Modular Power Solution.



# BradPower A-Size (7/8" – M22) and C-Size (11/8" – M29) Modular Power Solutions

Meets UL2237 and NFPA 79-2015 standards for Industrial Machinery and Motor Branch Circuits

A-Size Single-Ended Cordsets	40-43
A-Size Double-Ended Patchcords	44–47
A-Size Receptacles	48–49
A-Size Multi-Port Distribution System	50
A-Size Field Wireable Connectors	51
C-Size Cordsets and Patchcords	52–53
C-Size Receptacles	54–55
A/C-Size Closure Caps and Locking Clips	56
Cable Specifications	57
Hybrid Solutions	58



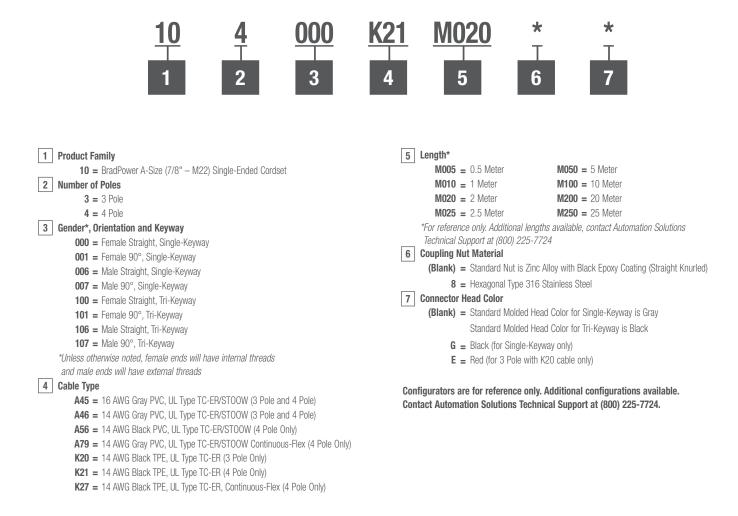


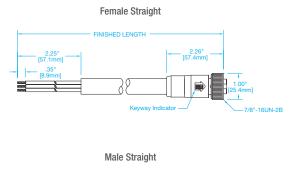


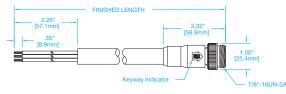


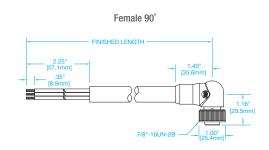
Single-Ended Drop Cordset Configurator

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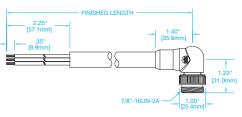












Single-Ended Drop Cordsets (Female)

# molex

# **Specifications**

### MECHANICAL

Overmold Body: Oil-Resistant PVC Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Black Epoxy-Coated Zinc Optional – Hexagonal Type 316 Stainless Steel Cable: Outer – Oil-Resistant Materials used (See Chart Specifications Below) Inner – Stranded Copper Conductor Leads in PVC Minimum Bend Radius: 10x Cable Diameter

### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Current: 15A (14 AWG), 13A (16 AWG) Voltage: 600V AC/DC

#### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

#### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

#### Female Straight<sup>‡</sup> and 90°<sup>‡</sup>

Poles	Keyway	Color Rotation	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded (Via Ground Pin)	Overmold Color	Female Straight Engineering No.	Female 90° Engineering No.
			#16/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.456" [11.58mm]	No	No	Gray	103000A45M***	103001A45M***
3	Single	А	#14/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.555" [14.10mm]	No	No	Gray	103000A46M***	103001A46M***
			#14/3, Black TPE, UL TC-ER, FT4	ø 0.340" [8.64mm]	No	No	Red	103000K20M***E	103001K20M***E
		le C	#16/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.430" [10.92mm]	No	No	Gray	104000A45M***	104001A45M***
	Oinala		#14/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.585" [14.86mm]	No	No	Gray	104000A46M***	104001A46M***
	Single		#14/4, Black TPE, UL TC-ER, FT4	ø 0.373" [9.47mm]	No	No	Black	104000K21M***G	104001K21M***G
			#14/4, Black TPE, UL TC-ER, FT4	ø 0.400" [10.16mm]	Yes	Yes	Black	104000K27M***G	104001K27M***G
4		В	#14/4, Black PVC, UL TC-ER/STOOW, FT4	ø 0.585" [14.86mm]	No	No	Black	104100A56M***	104101A56M***
	Alternate	В	#14/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.596" [15.14mm]	No	No	Black	104100A79M***	104101A79M***
		C	#14/4, Black TPE, UL TC-ER, FT4	ø 0.373" [9.47mm]	No	No	Black	104100K21M***	104101K21M***
			#14/4, Black TPE, UL TC-ER, FT4	ø 0.400" [10.16mm]	Yes	No	Black	104100K27M***	104101K27M***

#### Dimensional Information on Pg. 40

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. 103000A45M\*\*\*8 and 8 & 104001A\*\*\*8)

# **Color Code and Pinout Rotation**

		Face View Pinout Rotation					
		Single	Keyway	Tri-Keyway			
		Female		Female			
Color Code	Poles			00			
A	3	1 – Green/Yellow	2 – Black	3 – White			
В	4	1 – Black	2 – White	3 – Red	4 - Green/Yellow		
С	4	1 – Black #1	2 – Black #2	3 – Black #3	4 - Green/Yellow		



103000K20M\*\*\*E



104100K21M\*\*\*



104001A46M\*\*\*



103000A45M\*\*\*

# 

Single-Ended Drop Cordsets (Male)



# **Specifications**

### MECHANICAL

Overmold Body: Oil-Resistant PVC Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Black Epoxy-Coated Zinc Optional – Hexagonal Type 316 Stainless Steel Cable: Outer – Oil-Resistant Materials used (See Chart Specifications Below) Inner – Stranded Copper Conductor Leads in PVC Minimum Bend Radius: 10x Cable Diameter

#### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Current: 15A (14 AWG), 13A (16 AWG) Voltage: 600V AC/DC

#### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

#### Male Straight<sup>‡</sup> and 90°<sup>‡</sup>

Poles	Keyway	Color Rotation	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded (Via Ground Pin)	Overmold Color	Female Straight Engineering No.	Female 90° Engineering No.
			#16/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.456" [11.58mm]	No	No	Gray	103006A45M***	103007A45M***
3	Single	А	#14/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.555" [14.10mm]	No	No	Gray	103006A46M***	103007A46M***
			#14/3, Black TPE, UL TC-ER, FT4	ø 0.340" [8.64mm]	No	No	Red	103006K20M***E	103007K20M***E
		B	#16/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.430" [10.92mm]	No	No	Gray	104006A45M***	104007A45M***
	Cingle		#14/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.585" [14.86mm]	No	No	Gray	104006A46M***	104007A46M***
	Single		#14/4, Black TPE, UL TC-ER, FT4	ø 0.373" [9.47mm]	No	No	Black	104006K21M***G	104007K21M***G
		U	#14/4, Black TPE, UL TC-ER, FT4	ø 0.400" [10.16mm]	Yes	Yes	Black	104006K27M***G	104007K27M***G
4		D	#14/4, Black PVC, UL TC-ER/STOOW, FT4	ø 0.585" [14.86mm]	No	No	Black	104106A56M***	104107A56M***
		В	#14/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.596" [15.14mm]	No	No	Black	104106A79M***	104107A79M***
	Alternate	lite	#14/4, Black TPE, UL TC-ER, FT4	ø 0.373" [9.47mm]	No	No	Black	104106K21M***	104107K21M***
		U	#14/4, Black TPE, UL TC-ER, FT4	ø 0.400" [10.16mm]	Yes	No	Black	104106K27M***	104107K27M***

Dimensional Information on Pg. 40

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. 103006A45M\*\*\*8 and 104007A\*\*\*8)

# **Color Code and Pinout Rotation**

		Fa	ce View Pinout Rotatio	n
		Single Keyway		Tri-Keyway
		Male		Male
Color Code	Poles			
A	3	1 - Green/Yellow (Extended Pin) 2 -	- Black 3 – White	
В	4	1 – Black 2 –	- White 3 – Red	4 – Green/Yellow (Extended Pin)
С	4	1 – Black #1 2 –	- Black #2 3 – Black #	3 4 – Green/Yellow (Extended Pin)



103006K20M\*\*\*E



104106K21M\*\*\*





103006A45M\*\*\*

# BradPower A-Size (7/8" – M22) Closure Caps and Locking Clips



# **Specifications**

### MECHANICAL

Material: Closure Caps (Male): Black Epoxy-Coated Zinc Closure Caps (Female): Clear Anodized Aluminum Bead Chain: Nickel-Plated Steel Locking Clips: Black ABS

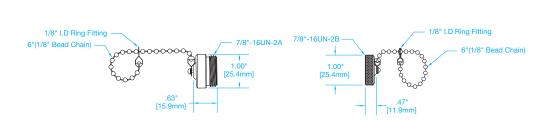
### ENVIRONMENTAL

Enclosure Rating (Mated): IP67 Operating Temperature: -20°C to +90°C

# **Ordering Information**

#### **Closure Caps**

Size	Gender	Bead Chain	Closure Cap Threads	Engineering No.	Standard Order No.
	Male (Mates with Female Connector)	Yes	External	65-0085	1302011109
A-Size (7/8" – M22)	Female (Mates with Male Connector)	Yes	Internal	65-0086	1302011111

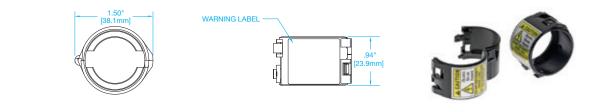




1302011109 (External Threads) and 1302011111 (Internal Threads)

#### Locking Clips (For Both Straight and 90° Connections)

Size	Quantity Per Bag	Warning Label	Engineering No.	Standard Order No.
A-Size (7/8" – M22)	10	CAUTION ELECTRIC SHOCK HAZARD DO NOT DESCONRECT UNDER (CAD) NE PAS DEBRANCHER SOULTENSION	11400A-10	1300700012

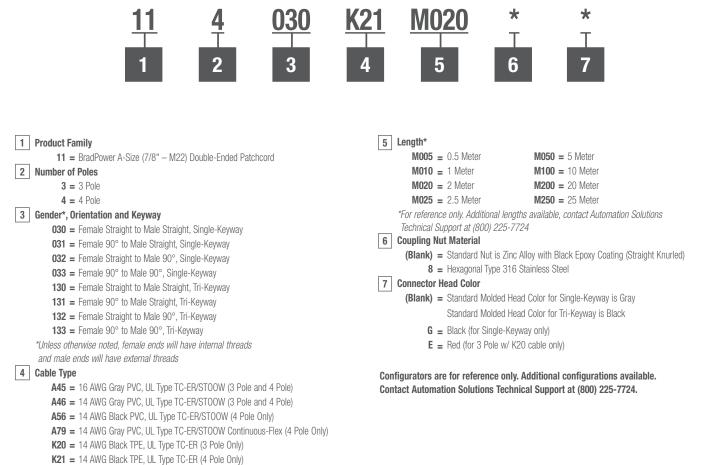


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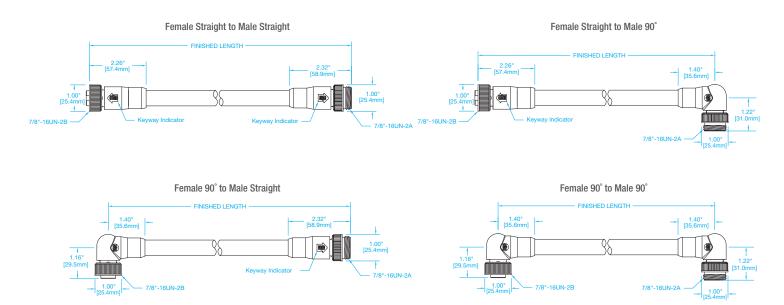
1300700012

Double-Ended Drop Patchcord Configurator

# molex



**K27** = 14 AWG Black TPE, UL Type TC-ER, Continuous-Flex (4 Pole Only)



Double-Ended Drop Patchcords

# molex

# **Specifications**

### **MECHANICAL**

Overmold Body: Oil-Resistant PVC Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Black Epoxy-Coated Zinc Optional – Hexagonal Type 316 Stainless Steel Cable: Outer - Oil-Resistant Materials used (See Chart Specifications Below) Inner – Stranded Copper Conductor Leads in PVC Minimum Bend Radius: 10x Cable Diameter

### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Current: 15A (14 AWG), 13A (16 AWG) Voltage: 600V AC/DC

#### **ENVIRONMENTAL**

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C **RoHS: Compliant** 

### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 - 2015: Meets NFPA 79 - 2015 Standards for Industrial Machinery and Motor **Branch Circuits** 



# **Ordering Information**

#### Female Straight and 90° to Male Straight<sup>‡</sup>

Poles	Keyway	Color Rotation	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded (Via Ground Pin)	Overmold Color	Female Straight to Male Straight Engineering No.	Female 90° to Male Straight Engineering No.
			#16/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.456" [11.58mm]	No	No	Gray	113030A45M***	113031A45M***
3	Single	А	#14/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.555" [14.10mm]	No	No	Gray	113030A46M***	113031A46M***
			#14/3, Black TPE, UL TC-ER, FT4	ø 0.340" [8.64mm]	No	No	Red	113030K20M***E	113031K20M***E
		В	#16/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.430" [10.92mm]	No	No	Gray	114030A45M***	114031A45M***
	Cingle		#14/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.585" [14.86mm]	No	No	Gray	114030A46M***	114031A46M***
	Single	С	#14/4, Black TPE, UL TC-ER, FT4	ø 0.373" [9.47mm]	No	No	Black	114030K21M***G	114031K21M***G
		U	#14/4, Black TPE, UL TC-ER, FT4	ø 0.400" [10.16mm]	Yes	No	Black	114030K27M***G	114031K27M***G
4		В	#14/4, Black PVC, UL TC-ER/STOOW, FT4	ø 0.585" [14.86mm]	No	No	Black	114130A56M***	114131A56M***
		В	#14/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.596" [15.14mm]	No	No	Black	114130A79M***	114131A79M***
	Alternate	C	#14/4, Black TPE, UL TC-ER, FT4	ø 0.373" [9.47mm]	No	No	Black	114130K21M***	114131K21M***
			#14/4, Black TPE, UL TC-ER, FT4	ø 0.400" [10.16mm]	Yes	No	Black	114130K27M***	114131K27M***

#### **Dimensional Information on Pg. 44**

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. 113030A45M\*\*\*8 and 114031K21M\*\*\*68)

# **Color Code and Pinout Rotation**

			Face View Pinout Rotation					
		Single Keyway		Tri-Keyway				
		Female Ma	ale	Ferr	ale	Male		
			9			<b>0000000000000</b>		
Color Code	Poles		0	()	9	00		
А	3	1 – Green/Yellow (Extended Pin on Male)	2 – Black	3 – White				
В	4	1 – Black	2 – White	3 – Red	4 - Green/Yellow (Ex	tended Pin on Male)		
С	4	1 – Black #1	2 – Black #2	3 – Black #3	4 - Green/Yellow (Ex	tended Pin on Male)		





114130K21M\*\*\*



114131K27M\*\*\*

I



113030K20M\*\*\*E

# BradPower A-Size (7/8" – M22) Double-Ended Drop Patchcords (Continued)

# molex

# **Specifications**

MECHANICAL

Overmold Body: Oil-Resistant PVC Overmold Color: See Chart Below Insert: Black PVC Coupling Nut: Black Epoxy-Coated Zinc Optional – Hexagonal Type 316 Stainless Steel Cable: Outer – Oil-Resistant Materials used (See Chart Specifications Below) Inner – Stranded Copper Conductor Leads in PVC Minimum Bend Radius: 10x Cable Diameter

#### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Current: 15A (14 AWG), 13A (16 AWG) Voltage: 600V AC/DC

#### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

#### Female Straight and 90° to Male 90°‡

Poles	Keyway	Color Rotation	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded (Via Ground Pin)	Overmold Color	Female Straight to Male 90° Engineering No.	Female 90° to Male 90° Engineering No.
			#16/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.456" [11.58mm]	No	No	Gray	113032A45M***	113033A45M***
3	Single	A	#14/3, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.555" [14.10mm]	No	No	Gray	113032A46M***	113033A46M***
			#14/3, Black TPE, UL TC-ER, FT4	ø 0.340" [8.64mm]	No	No	Red	113032K20M***E	113033K20M***E
		В	#16/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.430" [10.92mm]	No	No	Gray	114032A45M***	114033A45M***
	Cingle		#14/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.585" [14.86mm]	No	No	Gray	114032A46M***	114033A46M***
	Single		#14/4, Black TPE, UL TC-ER, FT4	ø 0.373" [9.47mm]	No	No	Black	114032K21M***G	114033K21M***G
4		U	#14/4, Black TPE, UL TC-ER, FT4	ø 0.400" [10.16mm]	Yes	No	Black	114032K27M***G	114033K27M***G
4		В	#14/4, Black PVC, UL TC-ER/STOOW, FT4	ø 0.585" [14.86mm]	No	No	Black	114132A56M***	114133A56M***
	A.U	_	#14/4, Gray PVC, UL TC-ER/STOOW, FT4	ø 0.596" [15.14mm]	No	No	Black	114132A79M***	114133A79M***
	Alternate		#14/4, Black TPE, UL TC-ER, FT4	ø 0.373" [9.47mm]	No	No	Black	114132K21M***	114133K21M***
			#14/4, Black TPE, UL TC-ER, FT4	ø 0.400" [10.16mm]	Yes	No	Black	114132K27M***	114133K27M***

#### Dimensional Information on Pg. 44

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. 113032A45M\*\*\*8 and 114033K21M\*\*\*68)

# **Color Code and Pinout Rotation**

			Face View Pi	inout Rotation			
		Single Keyway		Tri-Keyway			
		Female	Male	Fer	nale	Male	
			000			000	
Color Code	Poles		9 0 9 9				
А	3	1 – Green/Yellow (Extended Pin on Ma	le) 2 – Black	3 – White			
В	4	1 – Black	2 – White	3 – Red	4 - Green/Yello	ow (Extended Pin on Male)	
С	4	1 – Black #1	2 – Black #2	3 – Black #3	4 - Green/Yelle	ow (Extended Pin on Male)	





114033A46M\*\*\*







114133K27M\*\*\*

I

114132K21M\*\*\*E

# BradPower A-Size (7/8" – M22) Closure Caps and Locking Clips



# **Specifications**

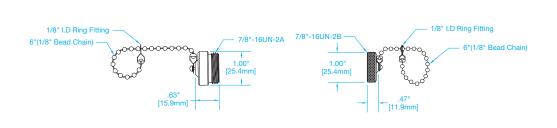
### MECHANICAL

Material: Closure Caps (Male 1302011109): Black Epoxy-Coated Zinc Closure Caps (Female 1302011111): Clear Annodized Aluminum Bead Chain: Nickel-Plated Steel Locking Clips: Black ABS *ENVIRONMENTAL* Operating Temperature: -20°C to +90°C

# **Ordering Information**

#### **Closure Caps**

Size	Gender	Bead Chain	Closure Cap Threads	Engineering No.	Standard Order No.
A-Size (7/8" – M22)	Male (Mates with Female Connector)	Yes	External	65-0085	1302011109
A-3120 (770 - 11122)	Female (Mates with Male Connector)	Yes	Internal	65-0086	1302011111

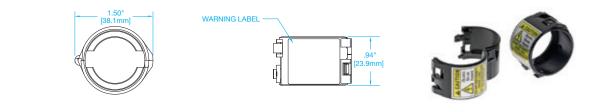




1302011109 (External Threads) and 1302011111 (Internal Threads)

#### Locking Clips (For Both Straight and 90° Connections)

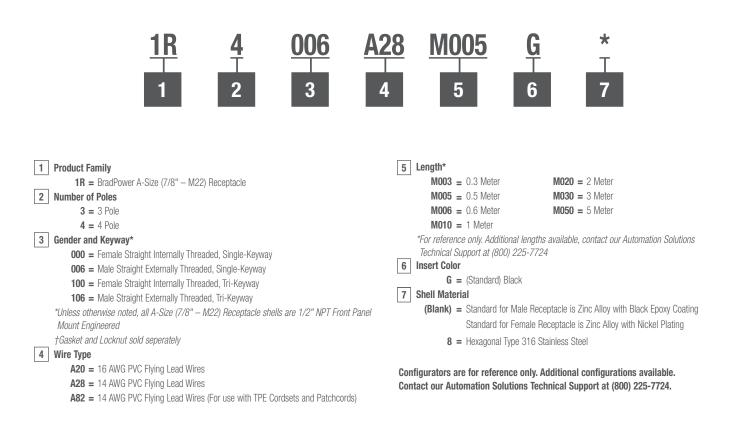
Size	Quantity Per Bag	Warning Label	Engineering No.	Standard Order No.
A-Size (7/8" – M22)	10	CAUTION ELECTRIC SHOCK HAZARD DO NOT DESCONRECT UNDER (CAD) NE PAS DEBRANCHER SOULTENSION	11400A-10	1300700012

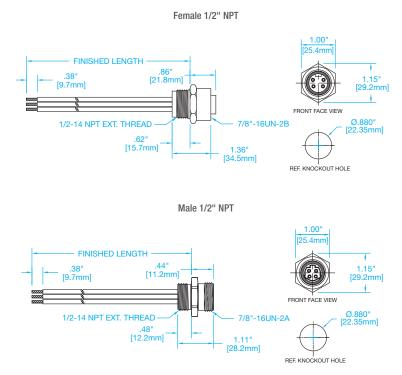


1300700012

Drop Receptacle Configurator

# molex





# BradPower A-Size (7/8" – M22) Drop Receptacles

# molex

# **Specifications**

#### MECHANICAL

Contact: Copper Alloy with Gold over Nickel Plating Wire Insulation: PVC Insert: Black PVC Receptacle Shell: Male – Black Epoxy-Coated Zinc Female – Nickel-Plated Zinc Optional – Hexagonal Type 316 Stainless Steel Gasket: Black Neoprene

Locknut: 1/2" NPT – Steel with Zinc Plating

#### ELECTRICAL

Current: 15A (14 AWG), 13A (16 AWG) Voltage: 600V AC/DC

#### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, IP69K (Stainless Steel), UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

#### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

#### Receptacles<sup>‡</sup>

Poles	Keyway	Color Rotation	Wire Size	Mounting Threads (Front Panel Mount)	Female Receptacle Engineering No.	Male Receptacle Engineering No.
0	Cinala		16 AWG	1/2" NPT	1R3000A20M***G	1R3006A20M***G
3	Single	A	14 AWG	1/2" NPT	1R3000A28M***G	1R3006A28M***G
		В	16 AWG	1/2" NPT	1R4000A20M***G	1R4006A20M***G
	Single	D	14 AWG	1/2" NPT	1R4000A28M***G	1R4006A28M***G
4		С	14 AWG	1/2" NPT	1R4000A82M***G	1R4006A82M***G
	Tri Kou	В	14 AWG	1/2" NPT	1R4100A28M***G	1R4106A28M***G
	Tri-Key	С	14 AWG	1/2" NPT	1R4100A82M***G	1R4106A82M***G

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#### Dimensional Information on Pg. 48

\*\*\* Length in Inches and Meters. (Examples: A120G = 12 inches, M005G = 0.5m, M010G = 1m, M050G = 5m, M100G = 10m)

\* 316 Stainless Steel versions may be ordered by adding an 8 to the Engineering number. (Example: Engineering No. 1R3000A28A\*\*\*G8 and 1R4106A28M\*\*\*G8) 1/2" NPT Locknut (1301840031) and Gasket (1300990149) Sold Separately

# **Color Code and Pinout Rotation**

		Face	View Pinout Rotation	
		Single Keyway	Tri-Key	way
		Female Male	Female	Male
				00
Color Code	Poles			
А	3	1 – Green/Yellow (Extended Pin on Male) 2 – B	lack 3 – White	
В	4	1 – Black 2 – V	/hite 3-Red 4-Green/Yello	w (Extended Pin on Male)
С	4	1 – Black #1 2 – B	lack #2 3 – Black #3 4 – Green/Yello	w (Extended Pin on Male)





1R4006A28M\*\*\*G



1R4006A28M\*\*\*G8

Pass-Through Multi-Port Interconnect System



# **Specifications**

#### MECHANICAL

Contact: Copper Alloy with Gold over Nickel Plating Housing: Black PBT Insert: Black PVC Receptacle Shell: Black Epoxy-Coated Zinc Label: White ABS Potting Material: Epoxy

#### *ELECTRICAL* Voltage: 600V AC/DC Current: 15A

**ENVIRONMENTAL** Enclosure Rating (Mated): IP67,

UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

### CERTIFICATIONS

NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



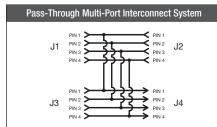
# **Ordering Information**

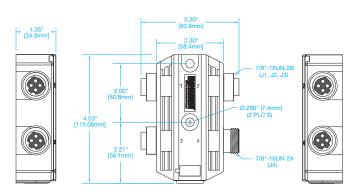
#### Pass-Through Multi-Port Interconnect System

Poles	Pass-Thru Keyway	Overmold Color	Drop Connections	Drop Keyway	Standard Order No.
4	1x - Male A-Size (7/8" – M22) Tri-Keyway 1x - Female A-Size (7/8" – M22) Tri-Keyway	Black	2x Female A-Size (7/8" – M22)	Tri-Keyway	1300600083

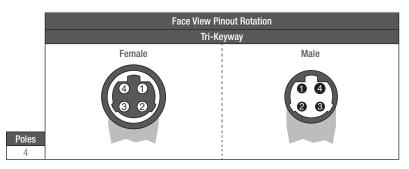
Dimensions in inches [millimeters]. Dimensions not to be used for manufacturing purposes and are subject to change.

# Wiring Schematic





# **Pinout Rotation**





1300600083



1300600083 (Input View)

# **BradPower** Field Wireable Connector



# **Specifications**

#### MECHANICAL

Body: Black Polyamide PA6 Coupling Nut: Nickel-Plated Brass Cable O.D Range: 0.20" to 0.48" (5mm - 12mm) Wire Gauge Range: 18 AWG to 14 AWG (0.75mm<sup>2</sup> to 2.5mm<sup>2</sup>)

#### ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating Voltage: 600V AC/DC Current: 15A

#### **ENVIRONMENTAL**

Temperature: -20°C to +90°C Protection: IP67

#### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 - 2015: Meets NFPA 79 - 2015 Standards for Industrial Machinery and Motor **Branch Circuits** 

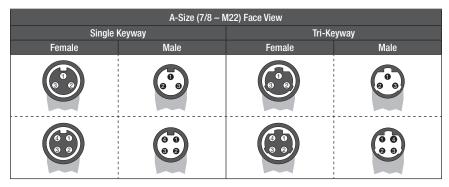


# **Ordering Information**

A-Size (7/8" - M22)

Poles	Keyway	Orientation	Fen	nale	Male		
	Noyway		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
0	Single		1A3000-34PWR	1300170055	1A3006-34PWR	1300170056	
3	Tri-Key	Ctroight	1A3100-34PWR	1300170063	1A3106-34PWR	1300170062	
4	Single	Straight	1A4000-34PWR	1300170057	1A4006-34PWR	1300170058	
4	Tri-Key		1A4100-34PWR	1300170065	1A4106-34PWR	1300170064	

# **Pinout Rotation**

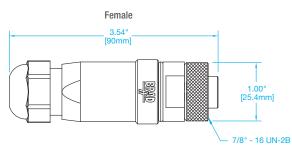


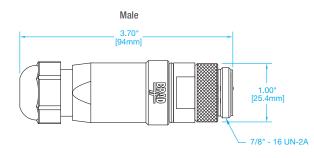


1A3000-34PWR (1300170055)



1A3006-34PWR (1300170056)



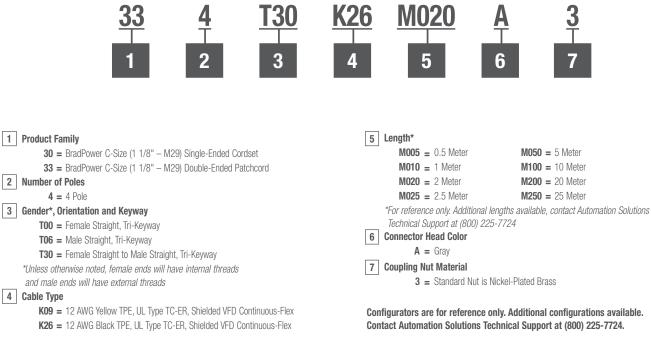


# BradPower C-Size (1 1/8" – M29)

# Cordset and Patchcord Configurator

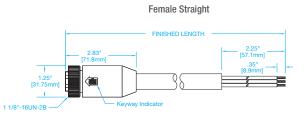
Compatible with Allen-Bradley ArmorStart ST motor connection\*\*

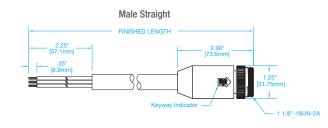




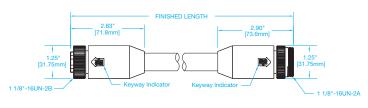
\*\*Allen-Bradley and ArmorStart are trademarks of Rockwell Automation.

Dimensions in inches [millimeters]. Dimensions not to be used for manufacturing purposes and are subject to change.





#### Female Straight to Male Straight



# **BradPower C-Size (1 1/8" – M29)** Cordsets and Patchcords



# **Specifications**

### MECHANICAL

Overmold Body: Oil-Resistant TPE Overmold Color: Gray Insert: Black TPE Coupling Nut: Nickel-Plated Brass Cable: Outer - Oil-Resistant TPE Inner – Stranded Copper Conductor Leads with XLPE Insulation Minimum Bend Radius: 10x Cable Diameter

#### ELECTRICAL

Contact: Brass with Gold over Nickel Plating Current: 25A Voltage: 600V AC/DC

#### **ENVIRONMENTAL**

Enclosure Rating (Mated): IP67, UL Type 4/12 Operating Temperature: -20°C to +90°C **RoHS: Compliant** 

### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 - 2015: Meets NFPA 79 - 2015 Standards for Industrial Machinery and Motor **Branch Circuits** 



# **Ordering Information**

Female Straight Single-Ended Cordset

Poles	Keyway	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded	Overmold Color	Female Straight Engineering No.
4	Tri-Key	#12/4, Yellow TPE, UL TC-ER, FT4	ø 0.656" [16.66mm]	Yes	Yes	Gray	304T00K09M***A3
4	Tri-Key	#12/4, Black TPE, UL TC-ER, FT4	ø 0.656" [16.66mm]	No	Yes	Gray	304T00K26M***A3

#### Male Straight Single-Ended Cordset

Poles	Keyway	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded	Overmold Color	Male Straight Engineering No.
4	Tri-Key	#12/4, Yellow TPE, UL TC-ER, FT4	ø 0.656" [16.66mm]	Yes	Yes	Gray	304T06K09M***A3
4	Tri-Key	#12/4, Black TPE, UL TC-ER, FT4	ø 0.656" [16.66mm]	No	Yes	Gray	304T06K26M***A3

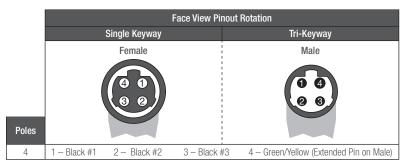
#### Female Straight to Male Straight Double-Ended Patchcord

Poles	Keyway	Cable Specifications	Cable Outer Diameter	Continuous- Flex Rated	Shielded	Overmold Color	Female Straight to Male Straight Engineering No.
4	Tri-Key	#12/4, Yellow TPE, UL TC-ER, FT4	ø 0.656" [16.66mm]	Yes	Yes	Gray	334T30K09M***A3
4	Tri-Key	#12/4, Black TPE, UL TC-ER, FT4	ø 0.656" [16.66mm]	No	Yes	Gray	334T30K26M***A3

#### Dimensional Information on Pg. 52

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

# **Color Code and Pinout Rotation**





304T00K26M\*\*\*A3



334T30K26M\*\*\*A3

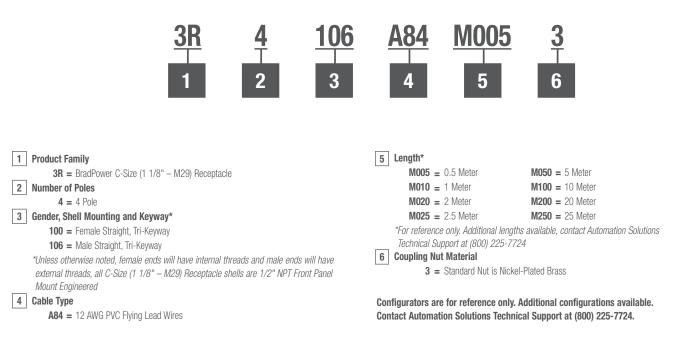


304T06K26M\*\*\*A3

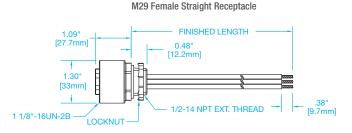
# BradPower C-Size (1 1/8" – M29) Receptacle Configurator

# molex

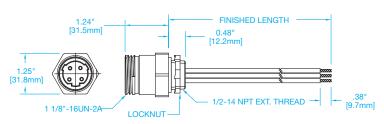
Compatible with Allen-Bradley ArmorStart ST motor connection\*\*



\*\*Allen-Bradley and ArmorStart are trademarks of Rockwell Automation.









# BradPower C-Size (1 1/8" – M29) Receptacles

# molex

# Specifications

### MECHANICAL

Receptacle Shell: Straight Shell – Nickel-Plated Brass 90° Shell – Nickel-Plated Zinc Wire Insulation: PVC Insert: Black TPE Locknut: Zinc-Plated Steel Gasket: Black Nitrile

#### ELECTRICAL

Contact: Brass with Gold over Nickel Plating Current: 25A Voltage: 600V AC/DC

#### ENVIRONMENTAL

Enclosure Rating (Mated): IP67, UL Type 4/12 Operating Temperature: -20°C to +90°C RoHS: Compliant

#### CERTIFICATIONS

UL2237: UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery NFPA 79 – 2015: Meets NFPA 79 – 2015 Standards for Industrial Machinery and Motor Branch Circuits



# **Ordering Information**

#### Female Straight Receptacle

Po	oles	Keyway	Wire Size	Mounting Threads (Front Panel Mount)	Female Straight Engineering No.	
	4	Tri-Key	12 AWG	Yes	3R4100A84M***3	

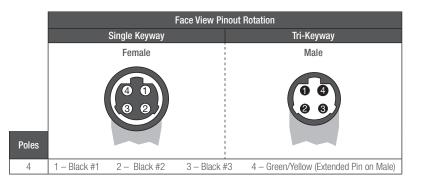
#### Male Straight Receptacle

Poles	Keyway	Wire Size	Mounting Threads (Front Panel Mount)	Male Straight Engineering No.
4	Tri-Key	12 AWG	Yes	3R4106A84M***3

Dimensional Information on Pg. 54

\*\*\* Length in Meters. (Examples: M005 = 0.5m, M010 = 1m, M050 = 5m, M100 = 10m)

# **Color Code and Pinout Rotation**





# BradPower A-Size (7/8" – M22) and C-Size (1 1/8" – M29)

Closure Caps



# **Specifications**

#### MECHANICAL

Material: Black Epoxy-Coated Zinc Bead Chain: Nickel-Plated Steel

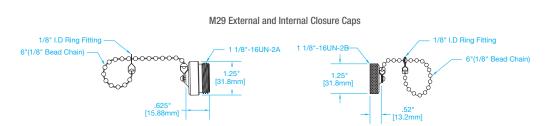
#### **ENVIRONMENTAL**

Operating Temperature: -20°C to +90°C

# **Ordering Information**

#### **Closure Caps**

Size	Gender	Bead Chain	Closure Cap Threads	Engineering No.	Standard Order No.
C Size (1.1/9" M20)	Male (Mates with Female Connector)	Yes	External	65-0104	1302011118
C-Size (1 1/8" – M29)	Female (Mates with Male Connector)	Yes	Internal	65-0105	1302011120





Dimensions in inches [millimeters]. Dimensions not to be used for manufacturing purposes and are subject to change.

1302011118 (External Threads) and 1302011120 (Internal Threads)

# **BradPower** *Cable Specifications*



#### Trunk Cables

Cable Code	Cable Material	AWG	Conductors	0.D.	Conductor Stranding	Conductor Insulation	Color Rotation	Ratings	Continuous- Flex Rated	Shielded	Standard Order No.	MLQ
A47	Gray PVC	#12 (3.31mm²)	3	.625"	65/30 BC	PVC	BK, WH, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302090035	500 FT
A47	GIAY PVG	#12 (3.31mm²)	4	.482"	65/30 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100036	500 FT
A48	Gray PVC	#10 (5.26mm²)	3	.700"	105/30 BC	PVC	BK, WH, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302090032	500 FT
A40	Glay FVG	#10 (5.26mm²)	4	.775"	105/30 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100031	500 FT
A57	Black PVC	#10 (5.26mm²)	4	.775"	105/30 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100032	500 FT
A70	Gray PVC	#10 (5.26mm²)	4	.671"	105/30 BC	PVC	BK, WH, RD, GN	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	Yes	No	1302100034	500 FT
A77	Black TPE	#10 (5.26mm²)	4	.680"	104/30 BC	XLPE	BK 1, BK 2, BK 3, GN/YE (Shield)	Shieleded UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 90°C Wet Tray Cable	No	Yes	1302100152	500 FT
K09	Yellow TPE	#12 (4.00mm <sup>2</sup> )	4	.656"	165/34 BC	XLPE	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -40°C to 90°C	Yes	Yes	1302100181	500 FT
K17	Black TPE	#10 (5.26mm <sup>2</sup> )	4	.530"	104/30 BC	PVC/Nylon	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	No	No	1302100148	500 FT
K19	Black TPE	#10 (5.26mm <sup>2</sup> )	3	.452"	104/30 BC	PVC/Nylon	BK, WH, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	No	No	1302090160	500 FT
K24	Black TPE	#10 (6.00mm²)	4	.690"	Class M Proprietary Blend	Proprietary Blend	BK 1, BK 2, BK 3, GN/YE (Shield)	Shieleded UL TC-ER, FT4, 600V, -20°C to 75°C Dry, 90°C Wet Tray Cable	Yes	Yes	1302100173	500 FT
K25	Black TPE	#10 (6.00mm²)	4	.600"	Class M Proprietary Blend	PVC/Nylon	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 90°C Wet Tray Cable	Yes	No	1302100176	500 FT
K26	Black TPE	#12 (4.00mm²)	4	.656"	Class M Proprietary Blend	XLPE	BK 1, BK 2, BK 3, GN/YE	Shieleded UL TC-ER, FT4, 600V, -20°C to 90°C Wet or Dry Tray Cable	No	Yes	1302100163	500 FT

### Drop Cables

Cable Code	Cable Material	AWG	Conductors	0.D.	Conductor Stranding	Conductor Insulation	Color Rotation	Ratings	Continuous- Flex Rated	Shielded	Standard Order No.	MLQ
A45	Gray PVC	#16 (1.31mm²)	3	.456"	65/34 BC	PVC	BK, WH, GN/YE	UL TC-ER/STOOW, FT2, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302090041	500 FT
A45	Gray PVC	#16 (1.31mm²)	4	.430"	65/34 BC	PVC/Nylon	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100041	500 FT
A46	Gray PVC	#14 (2.08mm²)	3	.555"	105/34 BC	PVC	BK, WH, GN/YE	UL TC-ER/STOOW, FT2, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302090038	500 FT
A40	Glay FVG	#14 (2.08mm²)	4	.585"	105/34 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100039	500 FT
A56	Black PVC	#14 (2.08mm²)	4	.585"	105/34 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	No	No	1302100160	500 FT
A79	Gray PVC	#14 (2.08mm²)	4	.596"	105/34 BC	PVC	BK, WH, RD, GN/YE	UL TC-ER/STOOW, FT2, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable, 105°C STOOW	Yes	No	1302100132	500 FT
K20	Black TPE	#14 (2.08mm <sup>2</sup> )	3	.340"	41/30 Blend	PVC/Nylon	BK, WH, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	No	No	1302090161	500 FT
K21	Black TPE	#14 (2.08mm <sup>2</sup> )	4	.373"	41/30 Blend	PVC/Nylon	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	No	No	1302100156	500 FT
K27	Black TPE	#14 (2.08mm²)	4	.400"	105/34 BC	PVC/Nylon	BK 1, BK 2, BK 3, GN/YE	UL TC-ER, FT4, 600V, -20°C to 90°C Dry, 75°C Wet Tray Cable	Yes	No	1302100177	500 FT

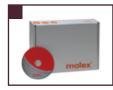
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# **OTHER SOLUTIONS AVAILABLE BY MOLEX**







# **In Cabinet**

- Network Interface Cards
- IP67 & IP20 Ethernet Switches
- CIP Safety Software Kits
- SST Communication Modules
- PICS Simulation Software
- Industrial Gateways







# I/O and Network

- Harsh I/O IP67 Modules
- Brad DeviceNet<sup>†</sup> Cables and Accessories
- Brad Ethernet Solutions
- Brad PROFIBUS<sup>‡</sup> Solutions
- IP67 Ethernet Switches
- Brad Industrial USB Plugs and Receptacles









# Connectivity

- Stainless Steel MPIS Distribution Boxes
- Brad Ultra-Lock Stainless Steel Connection System
- mPm DIN Valve Connectors
- Brad Mini-Change and M12 Power for 24VDC Auxiliary Power











# **Power and Motors**

- Brad M23 and M40 Connector Solutions
- BradPower Trunk and Drop Receptacles and Cordsets, Tees, Reducers and Field Attachables
- GWconnect Heavy Duty Connectors (HDC)
- Woodhead ArcArrest







# Plant Support

- Industrial and Heavy-Duty Cable Reels
- Industrial Duty GFCI
- Stainless Steel Strain Relief and Support Grips
- Woodhead LED Wide-Area Portable Magnet Light



# **Watertite Solutions**

- Woodhead Watertite Wet Location Wiring Devices
- Woodhead Watertite Push-Button Pendant Stations
- Woodhead Watertite FS/FD Boxes
- Woodhead Watertite GFCI Receptacles

# Innovators in the Oil and Gas Industrial Market

# **OTHER SOLUTIONS AVAILABLE BY MOLEX**









# In Cabinet

- Network Interface Cards
- Ethernet Switches
- CIP Safety Software Kits
- SST<sup>™</sup> Communication Modules
- PICS Simulation® Software







# I/O and Network

- Harsh I/O IP67 Modules
- Brad<sup>®</sup> DeviceNet\* Cables and accessories
- Brad® Ethernet Solutions
- Brad® PROFIBUS<sup> $\dagger$ </sup> Solutions



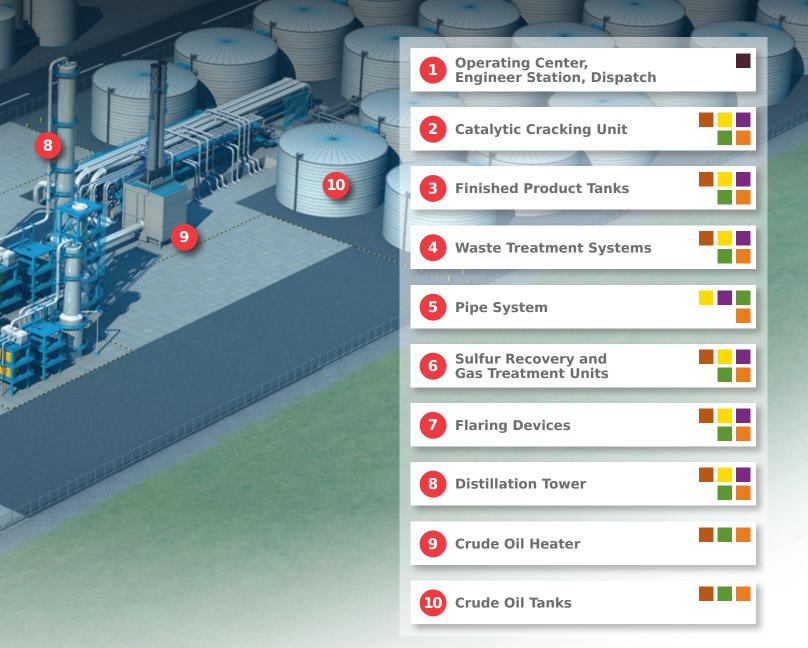






# Connectivity

- Brad<sup>®</sup> Micro-Change<sup>®</sup> (M12) Connectors
- mPm® DIN Value Connectors
- Brad® Distribution Boxes
- Brad<sup>®</sup> Mini-Change<sup>®</sup> Connectors









# **Power and Motors**

- Brad<sup>®</sup> Power Connectors
- Brad<sup>®</sup> M23 Connectors
- GWconnect® Heavy-Duty Cable Connectors









# Plant Support

- GFCI Receptacles and Inline Products
- Stainless Steel Strain Relief and Support Grips
- Woodhead® Power Distribution
- Super-Safeway<sup>™</sup> and Safeway<sup>®</sup> Heavy Duty Wiring Devices







# Hazardous Duty and Watertite®

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