

Алматы (7273)495-231
 Ангарск (3955)60-70-56
 Архангельск (8182)63-90-72
 Астрахань (8512)99-46-04
 Барнаул (3852)73-04-60
 Белгород (4722)40-23-64
 Благовещенск (4162)22-76-07
 Брянск (4832)59-03-52
 Владивосток (423)249-28-31
 Владикавказ (8672)28-90-48
 Владимир (4922)49-43-18
 Волгоград (844)278-03-48
 Вологда (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
 Калуга (4842)92-23-67
 Кемерово (3842)65-04-62
 Киров (8332)68-02-04
 Коломна (4966)23-41-49
 Кострома (4942)77-07-48
 Краснодар (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
 Новокузнецк (3843)20-46-81
 Ноябрьск (3496)41-32-12
 Новосибирск (383)227-86-73
 Омск (3812)21-46-40
 Орел (4862)44-53-42
 Оренбург (3532)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

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 (8692)22-31-93
 Саранск (8342)22-96-24
 Симферополь (3652)67-13-56
 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
 Ульяновск (8422)24-23-59
 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 (4112)23-90-97
 Ярославль (4852)69-52-93

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ULTRA-LOCK > CONNECTION SYSTEM



molex

The Brad Ultra-Lock system is comprised of a series of integrated distribution boxes and cordsets built on a patented “push-to-lock” technology that provides a simple and secure operator-independent connection.

Push-pull connectors providing a safe, reliable connection of sensors, actuators and other control devices. The operational benefits of the Ultra-Lock technology continue to grow over time, including up to an 80% reduction in electrical commissioning of industrial machinery and automation systems.



Improve your performance and reliability with the Brad Ultra-Lock Connection System

Performance

Ultra-Lock connectors incorporate a unique radial o-ring compression seal and mechanical locking design that deliver unsurpassed performance. A superior seal means fewer intermittent signals, less downtime for industrial operations and increased productivity for valued customers.

Reliability

The IP67/68/69K rated Brad Ultra-Lock connectors are designed to remain securely mated under the stresses of machine vibration, cable pulls and in-plant traffic of worker and mobile vehicles. The positive-locking design with built-in reliability eliminates the need to turn a coupler and connector-related intermittent signals due to harsh conditions or installer error resulting in a loose connection.

Saves Time and Money

Ultra-Lock technology is designed to eliminate connector-related production downtime and associated costs. The ability to change machine configurations quickly, without the need to hire a licensed electrician, can yield up to a 50% reduction in total installed cost.



Ultra-Lock

Connection System

Fast – Simple – Secure

Fast

Simply push down to connect and pull up to disconnect. Ultra-Lock Connectors form a secure seal simply by aligning and pushing.

Simple

There's no twisting or turning with Ultra-Lock connectors. That's a big advantage when working in tight spaces or with blind-mate applications. The simplicity and ergonomic design also mean operator fatigue is significantly reduced.

Secure

Ultra-Lock connectors are mated with the same, simple, downward pressure every time an installation is made because of the unique O-ring seal. This operator-independent, radial seal maintains an IP 67/68/69K watertight connection.



**Simply
push down
to lock!**





Sensors with Ultra-Lock technology will also work with standard threaded connectors.



Easy To Implement

The Ultra-Lock Connection System is backward-compatible with existing M12 connectivity systems. Ultra-Lock distribution boxes and receptacles will accept:

- Ultra-Lock connectors
- M12 threaded connectors
- MX-PTL M12 with push-to-lock coupling



Ultra-Lock

Connection System

Markets and Applications

Commercial Vehicle

Telematics

Industrial Automation

Automation Controls

Automation Equipment

Food and Beverage Processing

Material Handling Equipment

Petrochemical Complexes

Telecommunications

Base Stations

Universal, industry-standard M12 interface

Allows customers to easily change between Ultra-Lock and traditional threaded connection styles as needed

IP67/IP69K Protection

Radial O-ring provides proven protection against water ingress and dust

Operator-independent connection

Patented push-to-lock technology enables simple and fast connections that cannot be either too tight or too loose



Welding Devices



Automation Controls



Automation Equipment



Material Handling



Food and Beverage



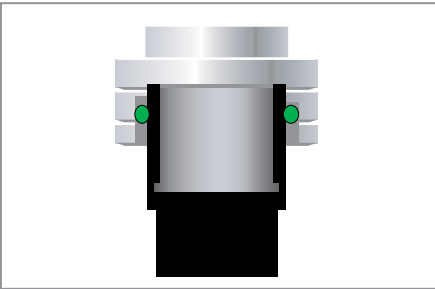
Base Stations

Features and Benefits



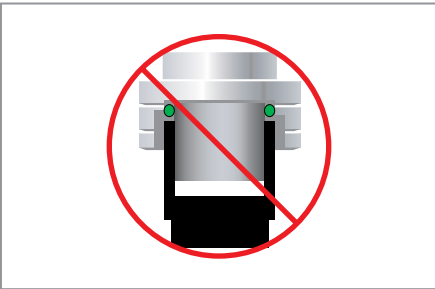
Push-to-lock technology	Simple and fast operator-independent connection
360° Positive-Locking-System	Reliable and secure connection
360° Radial Sealing	Superior protection against water-ingrees rated to IP67/68/69K
Receptacles accept Ultra-Lock or standard M12 threaded cordsets	Provides customer with option to use either format
Rated to 250V, up to 4,0A	Ideal for power and network circuit applications
Full portfolio available	Can fully substitute M12
Pre-wired MPIS distribution boxes with Ultra-Lock connections molded in PBT plastic or stainless steel housings	Saves wiring time and prevents mis-wiring for applications with a high-density of input or output connections

Ultra-Lock Radial Seal
Operator-Independent, reliable, watertight and constant-pressure seal.

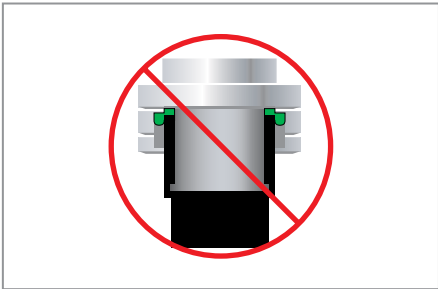


Traditional Threaded Connectors

Under-Tightening
Axial Compression Seal is incomplete allowing moisture to penetrate and create shorts.



Over-Tightening
Axial Compression Seal can become damaged so moisture can enter.

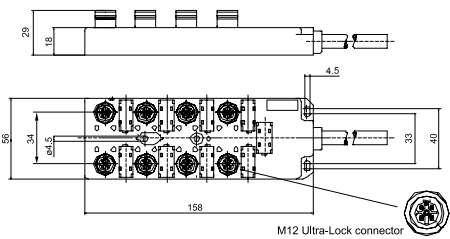


Brad M12 Ultra-Lock

Distribution Boxes

Ultra-Lock Distribution Boxes are offered with 4, 6 or 8 ports, with single- or dual-input/output (I/O) per port. They are available in a variety of formats for backward compatibility with different connector styles. We also offer cabled, two-connector styles for the “Home Run” connection or field attachable MPIS.

- Accepts Ultra-Lock and threaded M12 cordsets
- For connecting actuators and sensors



Specifications

MECHANICAL

Housing: PBT
 Contact Carrier: PBT
 Shell Material: Nickel over Brass
 Contact Plating: Gold over Nickel
 Cable Jacket: PUR
 O-Ring: Viton

ELECTRICAL

Rated Voltage: 10-30V
 Rated Current 4A / port
 Maximum Total Current: 12A

ENVIRONMENTAL

Pollution Degree (IEC 60 664-1): 3
 Protection (IEC 60 529): IP67/68/69K
 Operating Temperature: -25°C / 85°C

Ordering Information

Cable Version PNP

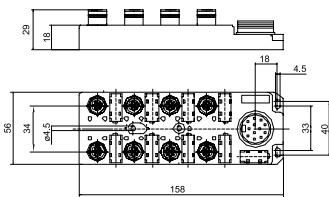
IO Type	Length	LED / Sensor	4 port		6 port		8 port	
			Engineering No	Standard Order No	Engineering No	Standard Order No	Engineering No	Standard Order No
Single IO	5m	PNP	BKY400P-FBP-05	1201190001	BKY600P-FBP-05	1201190009	BKY800P-FBP-05	1201190016
	10m		BKY400P-FBP-10	1200550891	BKY600P-FBP-10	1201190029	BKY800P-FBP-10	1201190026
Dual IO	5m		BKY405P-FBP-05	1201190007	BKY605P-FBP-05	1201190015	BKY805P-FBP-05	1201190023
	10m		BKY405P-FBP-10	1201148026	BKY605P-FBP-10	1201148004	BKY805P-FBP-10	1201148005

Mini-Change
Home Run Cordsets

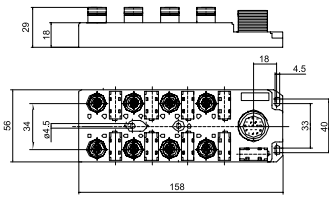


M23 Home Run Connectors –
Field Attachable

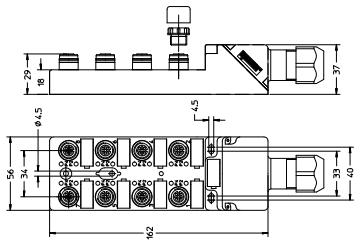




Brad Mini-Change
Home Run Connector



M23 Home Run
Connector



Field Attachable



Ordering Information

Homerun Connector & Field Attachable

IO Type	Homerun Connector	LED / Sensor	4 port		6 port		8 port	
			Engineering No	Standard Order No	Engineering No	Standard Order No	Engineering No	Standard Order No
Single IO	M23	PNP	BKY401P-FBC	1201190003	BKY601P-FBC	1201190011	BKY801P-FBC	1201190018
	Mini-Change		BKY401P-FBB	1201190002	BKY601P-FBB	1201190010	BKY801P-FBB	1201190017
Dual IO	M23		BKY403P-FBC	1201190006	BKY603P-FBC	1201190014	BKY803P-FBC	1201190021
	Mini-Change		BKY403P-FBB	1201190005	BKY603P-FBB	1201190013	BKY803P-FBB	1201190020
Dual IO	Field Attachable		BKY403P-FBA	1201190004	BKY603P-FBA	1201190012	BKY803P-FBA	1201190019

Overmolded Home Run Cables: 10m

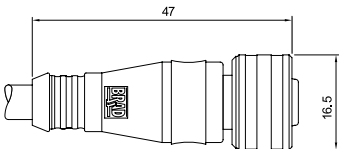
IO Type	Homerun Connector	for 4 port MPIS		for 6 port MPIS		for 8 port MPIS		Field Attachable for all ports	
		Engineering No	Standard Order No	Engineering No	Standard Order No	Engineering No	Standard Order No	Engineering No	Standard Order No
Single IO	M23	K02301P80M100	1200945023	K02201P80M100	1200948013	K02101P80M100	1200940125	KASCS00-025	1202300032
	Mini-Change	302301P80M100	1300088009	302201P80M100	1300088006	302101P80M100	1300080476		
Dual IO	M23	K03301P80M100	1200948045	K03201P80M100	1200948027	K03001P80M100	1200940044	KASLS00-225	1202300059
	Mini-Change	303201P80M100	1300085006	303201P80M100	1300085006	303001P80M100	1300080316		

Brad M12 Ultra-Lock

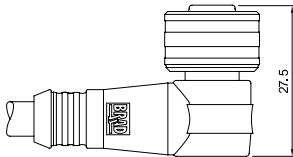
Cordsets

Ultra-Lock single-keyway M12 cordsets are available with many cable types and manufactured to optimize performance for your application. Ultra-Lock cordsets are offered in single- or double-ended configurations.

- PVC – for most standard applications
- PUR – for oil and coolant environments
- WSOR – for welding areas and oil resistance requirements



Mates with Ultra-Lock Compatible Sensors and Receptacles



Mates with Ultra-Lock Compatible Sensors and Receptacles



Specifications

MECHANICAL
Connector Body: PUR
Contact Carrier: PUR
Locking Mechanism: Nickel Plated Brass
Contact Plating: Gold over Nickel
O-Ring: Viton

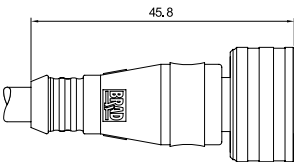
ELECTRICAL
Rated Voltage:
3 & 4-Pole: 250V
5-Pole: 60V
8-Pole: 30V
Rated Current:
3, 4, 5-Pole: 4A
8-Pole: 2A

ENVIRONMENTAL
Pollution Degree (IEC 60 664-1): 3
Protection (IEC 60 529): IP67/68/69K
Operating Temperature: -25°C / 85°C

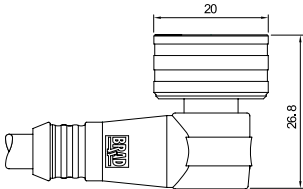
Ordering Information

Single-Ended Cordsets

Poles	Length	Female Straight		Female 90°		Male Straight		Male 90°	
		Engineering No	Standard Order No	Engineering No	Standard Order No	Engineering No	Standard Order No	Engineering No	Standard Order No
3	2m	W03000E03M020	1200795102	W03001E03M020	1200798143	W03006E03M020	1200795105	W03007E03M020	1200795107
	5m	W03000E03M050	1200798141	W03001E03M050	1200798144	W03006E03M050	1200798148	W03007E03M050	1200798150
	10m	W03000E03M100	1200798142	W03001E03M100	1200798145	W03006E03M100	1200798149	W03007E03M100	1200798151
4	2m	W04000E03M020	1200790266	W04001E03M020	1200790269	W04006E03M020	1200790263	W04007E03M020	1200795108
	5m	W04000E03M050	1200798001	W04001E03M050	1200795042	W04006E03M050	1200798003	W04007E03M050	1200798004
	10m	W04000E03M100	1200798014	W04001E03M100	1200790272	W04006E03M100	1200790265	W04007E03M100	1200798152
5	2m	W05000E03M020	1200790277	W05001E03M020	1200790281	W05006E03M020	1200790273	W05007E03M020	1200795111
	5m	W05000E03M050	1200795043	W05001E03M050	1200795044	W05006E03M050	1200795045	W05007E03M050	1200798153
	10m	W05000E03M100	1200790280	W05001E03M100	1200790284	W05006E03M100	1200790276	W05007E03M100	1200798154
8	2m	W08000H08M020	1200795023	W08001H08M020	1200798043	W08006H08M020	1200795026	W08007H08M020	1200798044
	5m	W08000H08M050	1200795024	W08001H08M050	1200798146	W08006H08M050	1200795027	W08007H08M050	1200798155
	10m	W08000H08M100	1200795025	W08001H08M100	1200798147	W08006H08M100	1200795028	W08007H08M100	1200798156



Mates with Ultra-Lock Distribution Boxes and Receptacles



Mates with Ultra-Lock Distribution Boxes and Receptacles



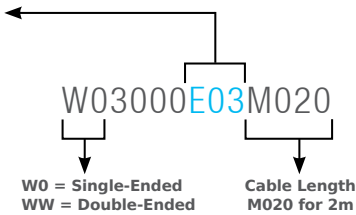
Ordering Information

Double-Ended Cordsets

Female Straight / Male Straight			
Poles	Length	Engineering No	Standard Order No
4	2m	WW4030E03M020	1200800470
	5m	WW4030E03M050	1200210002
	10m	WW4030E03M100	1200210001
5	2m	WW5030E03M020	1200808015
	5m	WW5030E03M050	1200808016
	10m	WW5030E03M100	1200798157
8	2m	WW8030H08M020	1200808139
	5m	WW8030H08M050	1200808140
	10m	WW8030H08M100	1200798158

Build-A-Part Number Configuration Code

	Poles	Cable	Code
0,34mm²	3, 4, 5	PVC	E03
		PUR/PVC	P03
		PUR	H09
		WSOR	B30
0,25mm²	8	PVC	E02
		PUR/PVC	P02
		PUR	H08
		WSOR	B41



Example:

W03000E03M020 =
Ultra-Lock single-ended cordset, 3-pole, female straight, PVC cable, 2m in length.

Brad M12 Ultra-Lock

Receptacles

Ultra-Lock receptacles give you greater flexibility because they are designed to accept both Ultra-Lock and standard M12 threaded cordsets.

Ultra-Lock receptacles are available in the following formats:

- Multiple M16 and PG9 mounting configurations.
- Front or rear panel mounting.
- With wire leads or PCB mount contacts.



Specifications

MECHANICAL

Receptacle Housing: Nickel Plated Brass
Contact Carrier: PA 6.6
Contact Plating: Gold over Nickel

ELECTRICAL

Rated Voltage:
4-Pole: 250V
5-Pole: 60V
8-Pole: 30V
Rated Current:
4, 5-Pole: 4A
8-Pole: 2A

ENVIRONMENTAL

Pollution Degree (IEC 60 664-1): 3
Protection (IEC 60 529): IP67/68/69K
Operating Temperature: -25°C / 85°C

Ordering Information

Panel Mount Receptacles

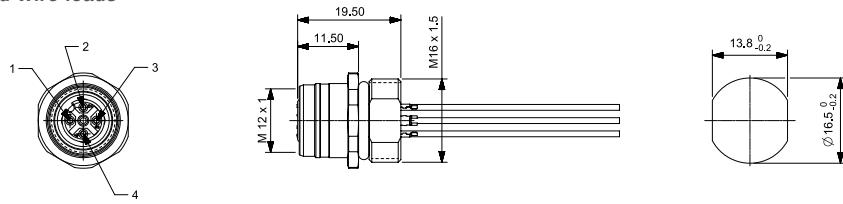
Female						
Poles	M16x1.5 Front Panel Mount		M16x1.5 Back Panel Mount		M16x1.5 Back Panel Mount	
	Wire Leads		Wire Leads		PCB mount contacts	
	Engineering No	Standard Order No	Engineering No	Standard Order No	Engineering No	Standard Order No
4	WR4U20E03C3003	1200845107	WR4W40E03C3003	1200845189	WR4W400003	1200845175
5	WR5U20E03C3003	1200845113	WR5W40E03C3003	1200845190	WR5W400003	1200845179
8	WR8U20E02C3003	1200845095	WR8W40E02C3003	1200845191	WR8W400003	1200840048

Male						
Poles	M16x1.5 Front Panel Mount		M16x1.5 Back Panel Mount		M16x1.5 Back Panel Mount	
	Wire Leads		Wire Leads		PCB mount contacts	
	Engineering No	Standard Order No	Engineering No	Standard Order No	Engineering No	Standard Order No
4	WR4U26E03C3003	1200845108	WR4W46E03C3003	1200845183	WR4W460003	1200845180
5	WR5U26E03C3003	1200250007	WR5W46E03C3003	1200845185	WR5W460003	1200845181
8	WR8U26E02C3003	1200845096	WR8W46E02C3003	1200845187	WR8W460003	1200840047

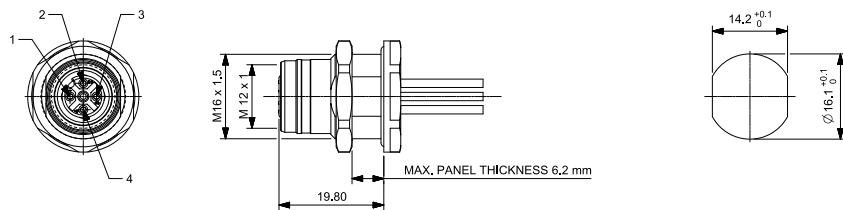
Ultra-Lock Receptacles Female

molex

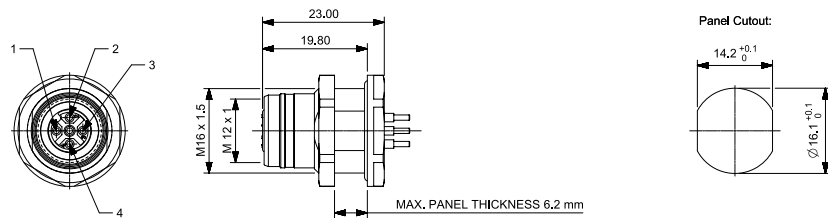
Front Mount with M16 x 1,5 mounting thread and wire leads



Back Mount with M16 x 1,5 mounting thread and wire leads

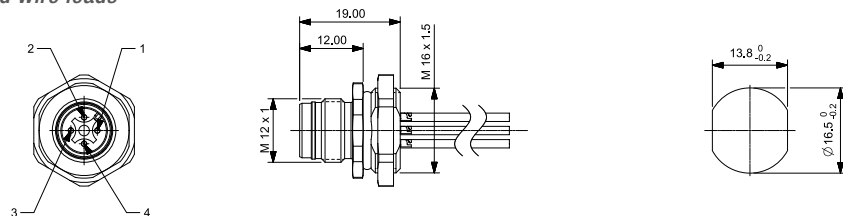


Back Mount with M16 x 1,5 mounting thread and PCB mount contacts

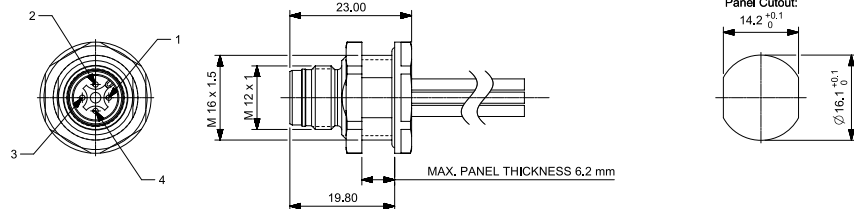


Ultra-Lock Receptacles Male

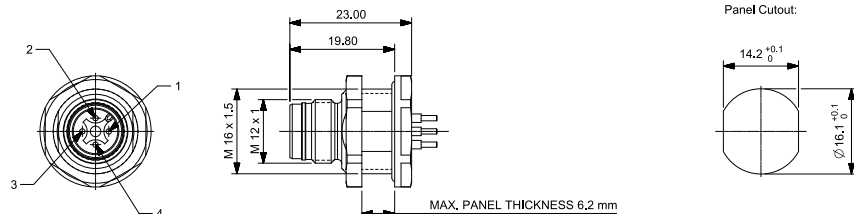
Front Mount with M16 x 1,5 mounting thread and wire leads



Back Mount with M16 x 1,5 mounting thread and wire leads



Back Mount with M16 x 1,5 and PCB mount contacts

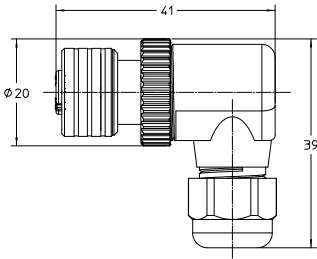
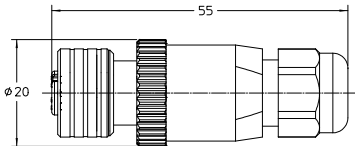


Brad M12 Ultra-Lock

Field-Attachable Connectors

The performance and reliability of the Ultra-Lock connection system have been combined with the flexibility of the attachable connector. A user can take the male or female single-ended cordset, dress it out on the machine to the exact length required and then finish it off with an Ultra-Lock attachable connector. Attachable connectors are available in straight and right-angle designs. Both are available as either male or female connectors.

Female



Specifications

MECHANICAL
Connector Face: Polyamide
Molded Body: Polyamide
Coupling Nut: Nickel Plated Brass
Grommet: Nitrile Rubber
Maximum Conductor Size: 18 AWG

ELECTRICAL
Voltage Rating:
4-Pole: 250V
5-Pole: 60V
Amperage:
4-Pole: 4A
5-Pole: 4A

ENVIRONMENTAL
Protection: IP67/68
Operating Temperature: -25°C / 85°C

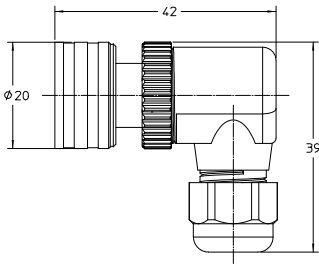
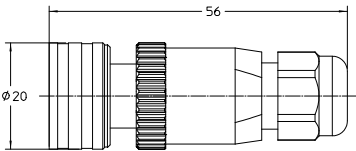
Ordering Information

Female

Poles	Female Straight		Female 90°	
	PG7 Cable Fitting 3.3mm-6.6mm		PG7 Cable Fitting 3.3mm-6.6mm	
	Engineering No	Standard Order No	Engineering No	Standard Order No
4	WA4000-31	1200850011	WA4001-31	1200850015
5	WA5000-31	1200850012	WA5001-31	1200850016

Poles	PG9 Cable Fitting 4.1mm-8.1mm	
	Engineering No	Standard Order No
	Engineering No	Standard Order No
4	WA4000-32	1200850013
5	WA5000-32	1200850014

Male



Ordering Information

Male

Poles	Male Straight		Male 90°	
	PG7 Cable Fitting 3.3mm-6.6mm		PG7 Cable Fitting 3.3mm-6.6mm	
	Engineering No	Standard Order No	Engineering No	Standard Order No
4	WA4006-31	1200850003	WA4007-31	1200850007
5	WA5006-31	1200850004	WA5007-31	1200850008

Poles	PG9 Cable Fitting 4.1mm-8.1mm	
	Engineering No	Standard Order No
	Engineering No	Standard Order No
4	WA4006-32	1200850005
5	WA5006-32	1200850006

Brad M12 Ultra-Lock

In-Line Splitters

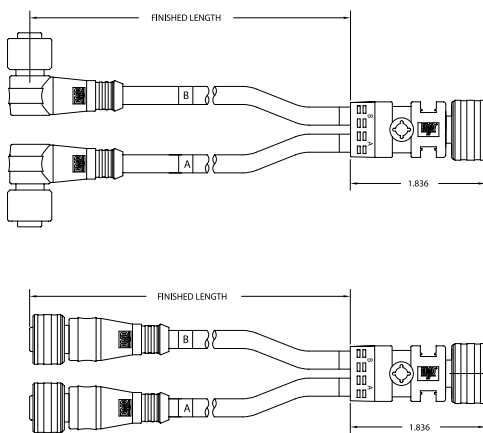
molex

Ultra-Lock In-Line Splitters allow you to service two devices through just one connection to the Ultra-Lock dual-I/O distribution box. Splitters are available with straight or right-angle connectors on the device ends.

In-Line Splitters are offered with Ultra-Lock connectors on all ends or with threaded connectors on the device ends. This gives you immediate use of the Ultra-Lock connector on the distribution box so you can connect to existing threaded sensors or other devices.

Ultra-Lock Splitters are available with three different application-specific cables:

- PVC – for most standard applications
- PUR – for oil and coolant environments
- WSOR – for welding areas and oil resistance requirements



Specifications

MECHANICAL

Connector Body: PUR
Contact Carrier: PUR
Locking Mechanism: Nickel Plated Brass
Contact Plating: Gold over Nickel
O-Ring: Viton

ELECTRICAL

Rated Voltage:
4-Pole: 250V
Rated Current: 4A

ENVIRONMENTAL

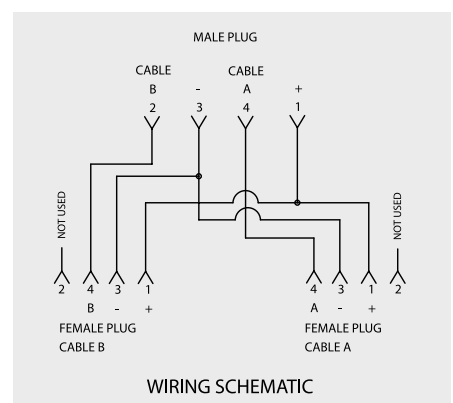
Pollution Degree (IEC 60 664-1): 3
Protection (IEC 60 529): IP67/68/69K
Operating Temperature: -25°C / 85°C

Ordering Information

Splitters

Male Ultra-Lock / (2) Female Straight Ultra-Lock			Male Ultra-Lock / (2) Female 90° Ultra-Lock		
Poles	Engineering No	Standard Order No	Engineering No	Standard Order No	
4	WW4A30E03M003	1200805072	WW4A31E03M003	1200805074	

Male Ultra-Lock / (2) Female Straight Threaded			Male Ultra-Lock / (2) Female 90° Threaded		
Poles	Engineering No	Standard Order No	Engineering No	Standard Order No	
4	8W4A30E03M003	1200805092	8W4A31E03M003	1200805094	

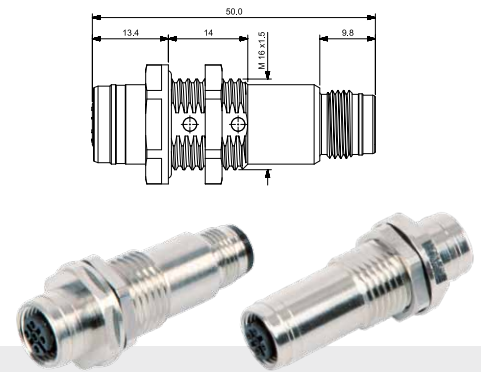


Brad M12 Ultra-Lock

Bulkhead

molex

The Bulkhead Connector offers the convenience of quick-disconnect on both sides of a fixed wall, panel, or bulkhead. Virtually any time the path of flexible cords and cables comes to a wall, bulkhead connectors provide a professional path through the fixed surface. Their moisture seal gasket makes them ideal for bringing the cable into an enclosure located in a harsh environment.



Specifications

MECHANICAL

Receptacle Housing: Nickel Plated Brass
Contact Carrier: PA 6.6
Contact Plating: Gold over Nickel

ELECTRICAL

Rated Voltage:
5-Pole: 60V
8-Pole: 30V
Rated Current:
5-Pole: 4A
8-Pole: 2A

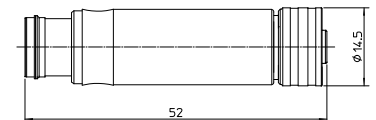
ENVIRONMENTAL

Pollution Degree (IEC 60 664-1): 3
Protection (IEC 60 529): IP67/68/69K
Operating Temperature: -25°C / 85°C

Brad M12 Ultra-Lock

Adapter

The Ultra-Lock Adapter is used to ease the transition from threaded to Ultra-Lock connectivity. As machine builders specify Ultra-Lock connectors into new and existing systems, there may be a few mating devices not yet available with Ultra-Lock technology.



Specifications

MECHANICAL

Connector Body: PUR
Contact Carrier: PUR
Locking Mechanism: Nickel Plated Brass
Contact Plating: Gold over Nickel
O-Ring: Viton

ELECTRICAL

Rated Voltage (IEC 60 664-1):
4-Pole: 250V
5-Pole: 60V
Rated Current: 4A

ENVIRONMENTAL

Pollution Degree (IEC 60 664-1): 3
Protection (IEC 60 529): IP67/68
Operating Temperature: -25°C / 85°C

Ordering Information

Bulkhead

M12 Threaded Female to Ultra-Lock Fixed Male		
Poles	Engineering No	Standard Order No
5	120084-8168	1200848168
8	120084-8169	1200848169

Adapter

M12 Threaded Female to Ultra-Lock Fixed Male		
Poles	Engineering No	Standard Order No
4	8W4030	1200850001
5	8W5030	1200765013

Flamar Cable Solutions for industrial automation applications

Selecting the right cable for your application is very important to ensure a reliable and problem-free installation. Careful consideration of mechanical abrasion, fluid/chemical exposure, flexibility (C-track, torsion), temperature resistance and flame retardancy requirements is required to select the cable that will provide performance and reliability in service.

Flamar from Molex

Flamar, a Molex company since 2014, proposes a brand new set of cables designed to cover the broadest range of applications for machine builders and system integrators:

- **Signal & Control:** to connect sensors, actuators, valves and distribution boxes
- **Servo Motor:** for power and encoder/resolver connection
- **Network:** for I/O modules and connection to PLC
- **Hybrid:** composite multicore cables whenever extremely compact solution is required

Jacket choice for most demanding industrial application

- **PVC:** The most cost-effective solution for flexible and static installation.
- **WSOR:** Weld-Slag and Oil-Resistant Cable, a single-cable solution designed to withstand the severe environments found in automotive and industrial factory floors. Suitable for drag chain applications.
- **PUR (Polyurethane):** Ensures top mechanical performance, withstands harsh environments, abrasion resistant. PUR Jacket are halogen free. Suitable for drag chain applications
- **TPE:** Cables defined according to the US/Canadian market requirements (UL «PLTC»). Suitable for drag chain application.

3 Packaging Sizes

Each application section of the Designer Guide includes the ordering number in Small, Medium and Large cable spool corresponding to the cable code from the Brad cordset engineering numbers. More cable choice

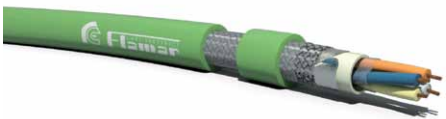
Signal & Control



Servo Motor

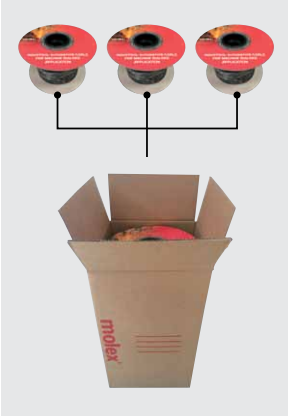


Network



Hybrid



Small	Medium	Large
3x100m - 3x200m*	250m - 800m*	500m - 1500m*
3 cardboard reels inside one box	1 plywood reel	1 wooden drum
		

* Depending on cable diameter

Weld-Slag and Oil-Resistant (WSOR) – the single-cable solution



Extended characteristics and resistance

- **Withstands severe conditions in harsh environments:** Weld-slag and oil-resistant outer jacket cable. Meets UL 758/1581 and VDE 472-803/B specifications for harsh environment applications. Hydrolysis resistant (EN50396); UV resistant (UL1581-300h); tear resistant (EN50396)
- **Multiple design options in drag-chain applications:** Highly flexible cables with bend radius specifications of 5x outside diameter for static and 7.5x outside diameter for dynamic and drag chain conditions
- **Wide temperature ranges:** static -40 to +90°C, dynamic -25 to +80°C and drag-chain -5 to +60°C
- **Ensures safety for out-of-the-cabinet use:** Certified flame retardant according to IEC 60332-1, CSA FT1, UL Vertical Flame Test UL21215, UL AWM Style 21215 / CSA
- **ECOLAB compatible** (resistant to detergents, disinfectants and wash down water-jet used in Food & Beverage).

One solution for various applications

- **Available in a large cross-section offering:** 0.25, 0.34, 0.50, 0.75, 1.00, 1.50 and 2,50mm² for use in a variety of applications, from sensors and valves to servo motors and networks.
- **Suitable to a variety of industry-standard connectors:** available over molded with M8, M12, Mini-Change (7/8"), M23 standard connectors for quick and reliable installation in the field or to be combined with Molex Field attachable connectors for increased flexibility.
- **Designed for use in multiple markets:** in the automotive and robotic area, from welding to cutting-oil environments, conveying and most machine applications.

Optimized and cost effective connectivity solution

As manufacturer of this cable range, Molex can control quality and cost at every steps of the cordsets production to provide price effective cordsets. Choosing this polyvalent WSOR cable helps also to reduce inventory costs. The WSOR cable can also be purchased raw by Molex for the termination on site.



**Flamar Standard Cables
for Industrial Automation
Brochure**

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (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
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (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
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)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

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 (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
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
Ульяновск (8422)24-23-59
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 (4112)23-90-97
Ярославль (4852)69-52-93

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