BRAD CORE PROGRAM
INDUSTRIAL AUTOMATION

molex

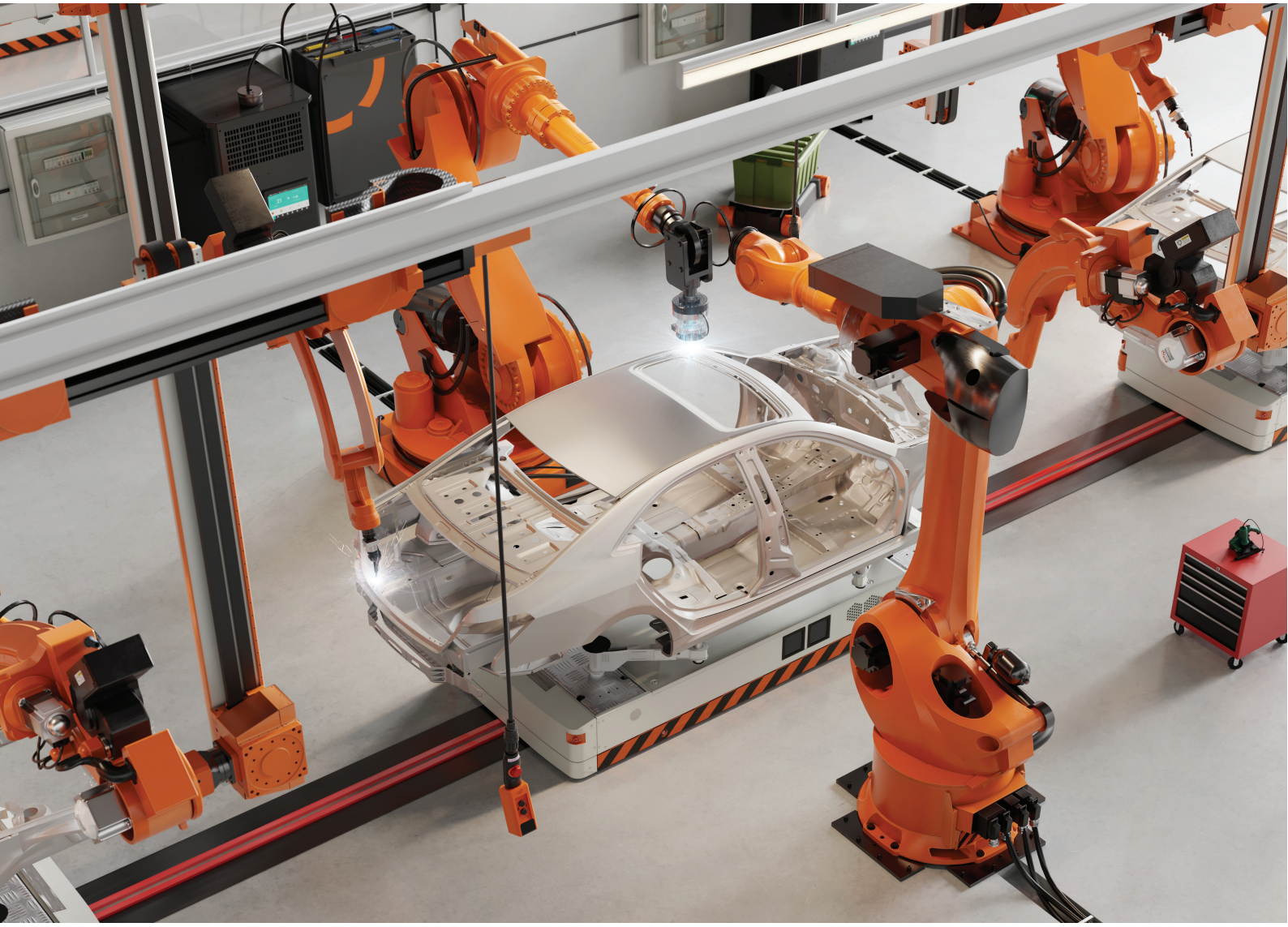








Table of Contents

Advantages and Benefits of Molex Solutions 3

Ethernet Infrastructure Components 7

Brad EtherNet/IP Infrastructure Connectivity • 8
Brad CAT6A Ethernet M12 X-Code Infrastructure Connectivity • 13
Brad PROFINET Infrastructure Connectivity • 15
Brad DeviceNet Infrastructure Connectivity • 18
T1 Industrial Single-Pair Ethernet (SPE) Connectors and Cable Assemblies • 22
Industrial SPE Connectors and Cable Assemblies • 24

Sensor Solutions 26

Brad MPIS Sensor/Actuator Distribution Boxes • 27
Brad Micro-Change M12 Sensor/Actuator Connectivity • 29
Brad Micro-Change M12 Ultra Lock 2.0 • 38
Brad Nano-Change M8 Sensor/Actuator Connectivity • 48
Brad mPm DIN Valve Connectors • 57

Power Distribution Connectivity 59

Brad Power • 61
Brad Power Accessories • 66
Brad Micro-Change M12 Power L-Code • 68
Brad Mini-Change 7/8” Auxiliary Power Infrastructure Components • 76
Brad Mini-Change 7/8” Connectivity Industrial Applications • 82
Brad Micro-Change M12 A-Code Auxiliary • 84
Heavy Duty Connectors • 85

All trademarks used herein are the property of their respective owners. Reference to any non-Molex trademarks is not intended to claim any endorsement or association between Molex and the respective trademark owners, and should not be construed.

Brad Core Program
Industrial Automation

Americas Region

Brad products pioneered the market for rugged connectors in industrial applications since the introduction of the Mini-Change in 1968.

Today Molex supports one of the largest portfolios of connectivity and wiring solutions and defined the standards in the industrial market, covering multiple segments and applications.



AUTOMOTIVE PRODUCTION LINES

Brad products are designed to withstand even the harshest environments with resistance to weld slag, abrasion, cuts and continuous flexing. Providing the foundation for your manufacturing plant, Brad Connectivity Solutions are used in metal stamping, body-weld, paint, final assembly and powertrain.

With functional safety as one of the most vital requirements on every factory floor, Molex has developed innovative solutions for Safety I/O modules which simplify the safety architecture of complex robotic work cells.



MATERIAL HANDLING

The combination of Brad products with Molex Heavy Duty Connectors and Flamar cables enables the creation of compact connection systems that accommodate the multiple connector interfaces as needed for Material Handling applications.



FOOD AND BEVERAGE

Brad Connectivity products are designed to meet the increasing need for IP67 and IP69K solutions in the food and beverage industry. The most unique and beneficial is the Brad M12 Ultra-Lock. It provides a safe, reliable connection of sensors, actuators and other control devices.

The products you need... when and where you need them.

THE BRAD CORE PROGRAM

The Brad Core Program includes the most commonly used items in the industrial automation market, ranging from connectivity products and presence sensing devices to active and passive I/O modules.

For further information or assistance, please contact Brad Connectivity tech support at wctechsup@molex.com

COMPLETE SOLUTIONS FROM MOLEX

Molex is focused on offering value-added solutions to the targeted markets through our long years of expertise and technology in connectivity solutions supported by multiple plants for in house production worldwide.

Molex Competitive Advantages:

- **Supports many common standards for industrial connectivity**
  Including 7/8" Mini-Change, M12, M8, M29, M35, HDC
- **Product design and manufacturing integration capabilities**
  —Product development and customization
  —Product testing
  —Total Quality Process
- **Fully integrated capabilities**
  Stamping, plating, moulding, assembly, potting and overmolding







Flamar Cable Solutions

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 resistance, fluid/chemical exposure, flexibility (C-track, torsion), temperature resistance and flame retardancy are required to select the cable that will provide performance and reliability in service.

Molex Flamar Solutions

Molex Flamar solutions propose a brand new set of cables designed to cover the broadest range of applications for machine builders and system integrators:

- Signal and 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 an extremely compact solution is required
- Encoder and Resolver: for movable or chain applications, are suited for reduced bending radius applications

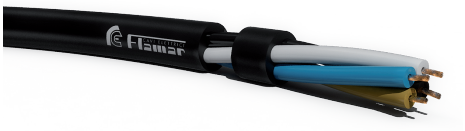
Jacket Choice for Most Demanding Industrial Applications

- 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.

Three Packaging Sizes

Each application section of the Brad Core Brochure includes the ordering number in Small, Medium and Large cable spool corresponding to the cable code from the Brad cordset engineering numbers.
More cable choices on **www.molex.com/flamar**

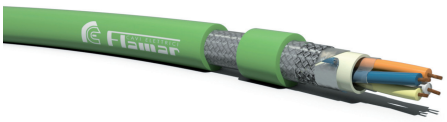
Signal and Control



Servo Motor



Network



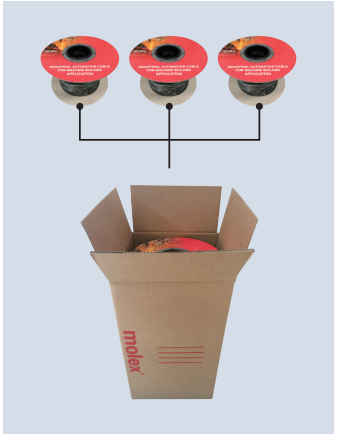
Hybrid



Encoder and Resolver



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





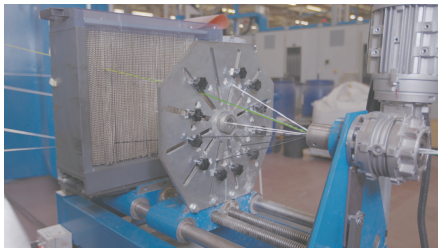


* Depending on cable diameter

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, UL AWM Style 21215 / CSA
- ECOLAB compatible: resistant to detergents, disinfectants and wash down water-jet used in Food and Beverage.

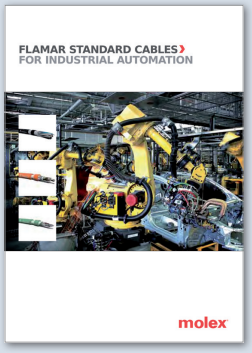
One Solution for Various Applications

- Available in a large cross-section offering: 0.25, 0.34, 0.50, 0.75, 1.00, 1.50 and 2.50mm^2 (AWG 24 to AWG 14) for use in a variety of applications, from sensors and valves to servo motors and networks.
- Suitable for a variety of industry-standard connectors: available overmolded with M8, M12, MiniChange (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 step of cordset production to provide price-effective cordsets. Choosing this polyvalent WSOR cable also helps 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



English
987651-3992

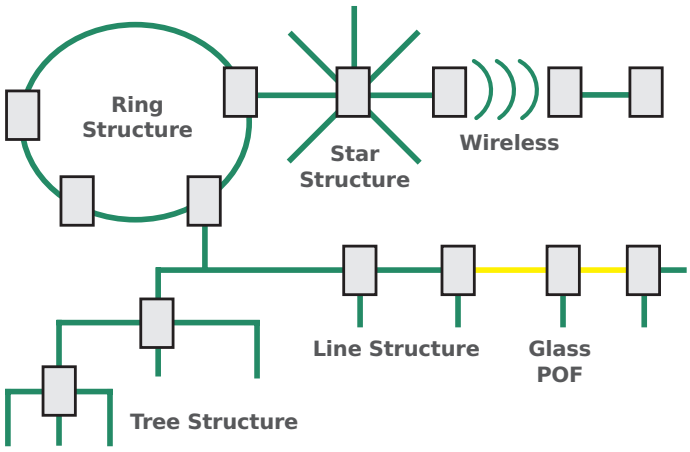
Chinese
987651-4141



Ethernet Infrastructure Components

Ethernet in combination with industrial protocols like PROFINET or EtherNet/IP provide deterministic behavior for machine and process control applications with only COTS components.

The transition from the fieldbus to the Ethernet communication technologies helps to simplify the industrial infrastructure and enhance the management and maintenance of the devices providing significant cost savings and performance improvement.



Type of Network

- Multi-station network
- CSMA/CD—Carrier Sense Multiple Access with Collision Detection

Physical Media

- Shielded two or four twisted pairs, AWG22 (PROFINET) RJ45 or M12 D-Code Connectivity

Network Topology

- Point-to-point communication
- Star topology with switches
- Daisy chain through device integrated 3 port switches
- Ring and redundancy topology protocol dedicated functionalities

Maximum Distance

- 100m between two devices
- Four connections between two devices allowed
- No termination required

Power and Communication

- Power is supplied separately from network communication

Infrastructure Connectivity

Brad EtherNet/IP

Plug-and-play infrastructure to interconnect CAT5e Ethernet IP67 devices based on four-pole D-Code M12 standard connectors.

Brad EtherNet/IP Double-Ended Male to Male M12 Cordsets (D-Code)



Length	EtherNet/IP Unshielded PVC Cable 02 - Teal		EtherNet/IP Unshielded TPE Cable 04 - Teal	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
0.3m	E11A06002M003	120049-0557	E11A06004M003	130048-0251
0.5m	E11A06002M005	130048-0084	E11A06004M005	130048-0262
5m	E11A06002M050	130048-0085	E11A06004M050	130048-0099
6m	—	—	E11A06004M060	130048-0100
8m	E11A06002M080	120108-0039	E11A06004M080	130048-0102
10m	E11A06002M100	120108-0038	E11A06004M100	130048-0104
12m	—	—	E11A06004M120	130048-0105
15m	E11A06002M150	120108-0037	E11A06004M150	130048-0107
20m	E11A06002M200	120108-0036	E11A06004M200	130048-0109
30m	—	—	E11A06004M300	130048-0111
	EtherNet/IP Shielded PVC Cable 15 - Teal		EtherNet/IP Shielded WSOR Cable16 - Teal	
1m	E11A06015M010	130048-0122	E11A06016M010	120108-8420
2m	E11A06015M020	130048-0124	E11A06016M020	120108-8421
3m	E11A06015M030	130048-0009	E11A06016M030	120108-8422
5m	E11A06015M050	130048-0126	E11A06016M050	120108-8424
10m	E11A06015M100	130048-0128	E11A06016M100	120108-8427



EtherNet/IP M12 Male (D-Code) to RJ45 Plug Cordsets



Length	EtherNet/IP Unshielded PVC Cable 02 - Teal		EtherNet/IP Unshielded TPE Cable 04 - Teal	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	E16A06002M010	130048-0205	E16A06004M010	130048-0309
2m	E16A06002M020	130048-8005	E16A06004M020	130048-0348
3m	E16A06002M030	130048-0206	E16A06004M030	130048-0349
5m	E16A06002M050	130048-0248	E16A06004M050	130048-0305
10m	E16A06002M100	130048-0015	E16A06004M100	130048-0306
15m	—	—	E16A06004M150	1300480307
20m	—	—	E16A06004M200	1300480308
	EtherNet/IP Shielded PVC Cable 15 - Teal		EtherNet/IP Shielded WSOR Cable 16 - Teal	
1m	E16A06015M010	130048-0280	E16A06016M010	120108-8450
2m	E16A06015M020	130048-8099	E16A06016M020	120108-8451
3m	E16A06015M030	130048-8195	E16A06016M030	120108-8452
5m	E16A06015M050	130048-0237	E16A06016M050	120108-8454
10m	E16A06015M100	130048-8101	E16A06016M100	120108-8458



Infrastructure Connectivity

Brad EtherNet/IP

Plug and Play infrastructure to interconnect CAT5e Ethernet IP67 devices based on four-pole D-Code M12 Ultra-Lock 2.0 connectors.

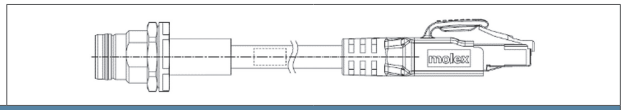
EtherNet/IP Double-Ended Male to Male M12 Ultra-Lock 2.0 Cordsets (D-Code)



16 WSOR Cable 2x2x24 AWG						
Length	Male Straight/ Male Straight		Male Straight/Male 90		Male 90/Male 90	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	EYYAS6016M010	120406-1021	EYYAS6216M010	120406-1029	EYYAS6316M010	120406-1037
2m	EYYAS6016M020	120406-1022	EYYAS6216M020	120406-1030	EYYAS6316M020	120406-1038
5m	EYYAS6016M050	120406-1023	EYYAS6216M050	120406-1031	EYYAS6316M050	120406-1039
10m	EYYAS6016M100	120406-1024	EYYAS6216M100	120406-1032	EYYAS6316M100	120406-1040



EtherNet/IP Female M12 Ultra-Lock 2.0 (D-Code) Receptacle to RJ45 Plug Cordsets



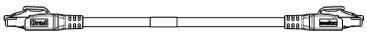
16 WSOR Cable 2x2x24 AWG		
Length	Female Straight/Male Straight	
	Engineering No.	Standard Order No.
0.5m	ERYPAU7016M005	120406-1046
1m	ERYPAU7016M010	120406-1047
2m	ERYPAU7016M020	120406-1048
5m	ERYPAU7016M050	120406-1049
10m	ERYPAU7016M100	120406-1050



Infrastructure Connectivity

Brad EtherNet/IP

EtherNet/IP RJ45 Plug to RJ45 Plug Cordsets



Length	EtherNet/IP Unshielded PVC Cable 02 - Teal		EtherNet/IP Unshielded TPE Cable 04 - Teal	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
0.5m	E66A06002M005	120108-0009	E66A06004M005	120108-0687
1m	E66A06002M010	120108-0008	E66A06004M010	120108-0557
2m	E66A06002M020	120108-0007	E66A06004M020	120108-0558
3m	E66A06002M030	120108-0006	E66A06004M030	120108-0559
5m	E66A06002M050	120108-0004	E66A06004M050	120108-0560
10m	E66A06002M100	130048-0034	E66A06004M100	120108-0561
Length	EtherNet/IP Shielded PVC Cable 15 - Teal		EtherNet/IP Shielded WSOR Cable 16 - Teal	
0.5m	E66A06015M005	120108-8264	E66A06016M005	120108-8532
1m	E66A06015M010	120108-8249	E66A06016M010	120108-8474
2m	E66A06015M020	120108-8250	E66A06016M020	120108-8475
3m	E66A06015M030	120108-8258	E66A06016M030	120108-8476
5m	E66A06015M050	120108-8251	E66A06016M050	120108-8478
10m	E66A06015M100	120108-8252	E66A06016M100	120108-8482



EtherNet/IP Female M12 (D-Code) Receptacle to RJ45 Plug Cordsets



Length	EtherNet/IP Unshielded 4 Pair PVC Cable 02 - Teal (PG9 BPM)		EtherNet/IP Unshielded TPE Cable 04 - Teal (M16 BPM)	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
0.5m	ER1PAB3002M005	130054-0003		
1m	ER1PAB3002M010	130054-0004	ERWPAU7004M010	120108-0675
2m	ER1PAB3002M020	130054-0005	ERWPAU7004M020	120108-0676
3m	ER1PAB3002M030	130054-0006		
4m	ER1PAB3002M040	130054-0007		
5m	ER1PAB3002M050	130054-0008		

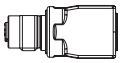


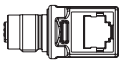
Infrastructure Connectivity

Brad EtherNet/IP

Plug-and-play infrastructure to interconnect CAT5e Ethernet IP67 devices based on four-pole D-Code M12 standard connectors.

EtherNet/IP Adapters (D-Code Female to RJ45 Jack)

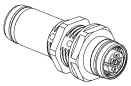


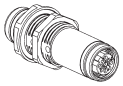




M12 Female Receptacle to Straight RJ45		M12 Female Receptacle to 90° RJ45	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
ER1PADAPTER	130054-0031	ER1PADAPTER90	130054-0010

EtherNet/IP Adapters (D-Code female to D-Code female)





M12 Female to Female Bulkhead Receptacle	
Engineering No.	Standard Order No.
1200848170	120084-8170

Infrastructure Connectivity

Brad EtherNet/IP

EtherNet/IP M12 Shielded Field Attachable (D-Code)

Poles	Cable Size	Wire Gauge	Wire Termination Style	Male Straight		Female Straight	
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	6.0 - 8.0mm	< AWG 18	Screw	E1AS06-32	130047-0035	E1AS00-32	130047-0037
4	4.0 - 8.0mm	AWG 26-22	IDC	E1AS06-53	130047-0039	E1AS00-53	130047-0040

EtherNet/IP RJ45 Shielded Field Attachable





Poles	Cable Size	Wire Gauge	Wire Termination Style	Male Straight		Male 90°	
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
8	5.5 - 9.0mm	AWG 24-22	IDC	E6AS06-5	130047-8008	E6AS07-5	130047-8009
8	5.5 - 9.0mm	AWG 26-24	IDC	E6AS06-6	130047-8010	E6AS07-6	130047-8011

Raw Cable

EtherNet/IP PVC Cable 02 - Teal		EtherNet/IP Shielded WSOR Cable 16 - Teal	
Size	Standard Order No.	Size	Standard Order No.
500FT Boxed	130134-0001	3x100m	155421-6007
		1x1000m	155421-6009



This cable can also be used for any other Ethernet communication protocol

Infrastructure Connectivity

Brad CAT6A Ethernet M12 X-Code

Plug-and-play infrastructure to interconnect CAT6A Ethernet IP67 devices based on shielded eight-pole X-Code M12 standard connectors.

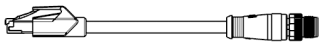
CAT6A Ethernet Double-Ended Male to Male M12 Cordsets (X-Code)



CAT6A EtherNet Shielded TPE Cable 21- Teal		
Length	Engineering No.	Standard Order No.
0.5m	E22E06020M005	120341-0300
1m	E22E06020M010	120341-0301
2m	E22E06020M020	120341-0302
3m	E22E06020M030	120341-0303
5m	E22E06020M050	120341-0305
10m	E22E06020M100	120341-0306



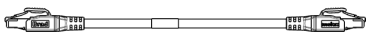
CAT6A Ethernet M12 Male (X-Code) to RJ45 Plug Cordsets



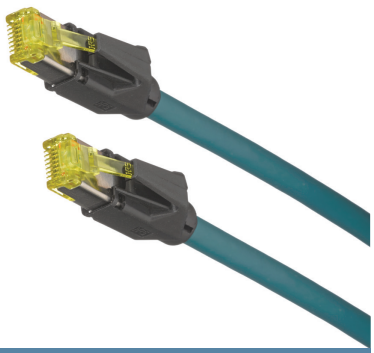
CAT6A EtherNet Shielded TPE Cable 21 - Teal		
Length	Engineering No.	Standard Order No.
0.5m	E26E06020M005	120341-0500
1m	E26E06020M010	120341-0501
2m	E26E06020M020	120341-0502
3m	E26E06020M030	120341-0503
5m	E26E06020M050	120341-0505
10m	E26E06020M100	120341-0506



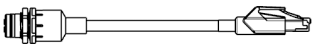
CAT6A Ethernet RJ45 Plug to RJ45 Plug Cordsets



CAT6A EtherNet Shielded TPE Cable 21 - Teal		
Length	Engineering No.	Standard Order No.
1m	E66E06020M010	120341-0601
2m	E66E06020M020	120341-0602
5m	E66E06020M050	120341-0605
10m	E66E06020M100	120341-0606



CAT6A Ethernet Female M12 (X-Code) Receptacle to RJ45 Plug Cordsets



CAT6A EtherNet Shielded TPE Cable 21 - Teal		
Length	Engineering No.	Standard Order No.
0.5m	ERWPEU7020M005	120341-0750
1m	ERWPEU7020M010	120341-0751
2m	ERWPEU7020M020	120341-0752



Infrastructure Connectivity

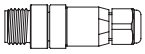
Brad CAT6A Ethernet M12 X-Code

Plug-and-play infrastructure to interconnect CAT6A Ethernet IP67 devices based on shielded eight-pole X-Code M12 standard connectors.

CAT6A Ethernet M12 Female (X-Code) PCB Receptacles

Front Panel Mount (M16 Thread)		Back Panel Mount (M16 Thread)		
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
ER2D2U303	120341-0075	ER2D2U703	120341-0150	

CAT6A Ethernet M12 Shielded Field Attachable (X-Code)

Poles	Cable Size	Wire Gauge	Wire Termination Style	Male Straight		
				Engineering No.	Standard Order No.	
8	6.5 - 8.5mm	< AWG 18	IDC	E2AS06-52	120341-0806	

CAT6A Ethernet RJ45 Shielded Field Attachable

							
Poles	Cable Size	Wire Gauge	Wire Termination Style	Male Straight		Male 90°	
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
8	5.5 - 9.0mm	AWG 24-22	IDC	E6AS06-5	130047-8008	E6AS07-5	130047-8009
8	5.5 - 9.0mm	AWG 26-24	IDC	E6AS06-6	130047-8010	E6AS07-6	130047-8011

Raw Cable

CAT6A EtherNet Shielded PUR Cable 20 - Teal	
Size	Standard Order No.
500FT Boxed	120341-0103



Infrastructure Connectivity

Brad PROFINET

Plug-and-play infrastructure to interconnect CAT5e PROFINET IP67 devices based on four-pole D-Code M12 standard connectors.

PROFINET Double-Ended Male to Male M12 Cordsets (D-Code)



PROFINET Shielded WSOR Cable 12 - Green		
Length	Engineering No.	Standard Order No.
0.5m	E11A06012M005	120108-8303
1m	E11A06012M010	120108-8304
2m	E11A06012M020	120108-8305
3m	E11A06012M030	120108-8306
5m	E11A06012M050	120108-8308
10m	E11A06012M100	120108-8311
15m	E11A06012M150	120108-8313
20m	E11A06012M200	120108-8315



PROFINET M12 Male (D-Code) to RJ45 Plug Cordsets



PROFINET Shielded WSOR Cable 12 - Green		
Length	Engineering No.	Standard Order No.
1m	E16A06012M010	120108-0521
2m	E16A06012M020	120108-0522
5m	E16A06012M050	120108-8333
10m	E16A06012M100	120108-0524



PROFINET RJ45 Plug to RJ45 Plug Cordsets



PROFINET Shielded WSOR Cable 12 - Green		
Length	Engineering No.	Standard Order No.
1m	E66A06012M010	120108-8353
2m	E66A06012M020	120108-8354
5m	E66A06012M050	120108-8357
10m	E66A06012M100	120108-8361



Infrastructure Connectivity

Brad PROFINET

Plug and Play infrastructure to interconnect CAT5e PROFINET IP67 devices based on four-pole D-Code M12 Ultra-Lock 2.0 connectors.

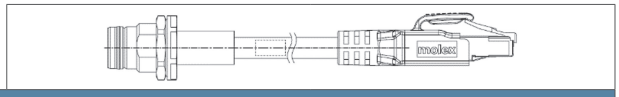
PROFINET Double-Ended Male to Male M12 Ultra-Lock 2.0 Cordsets (D-Code)



12 WSOR Cable 2x2x22 AWG						
Length	Male Straight/ Male Straight		Male Straight/Male 90		Male 90/Male 90	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	EYYAS6012M010	120406-1017	EYYAS6212M010	120406-1025	EYYAS6312M010	120406-1033
2m	EYYAS6012M020	120406-1018	EYYAS6212M020	120406-1026	EYYAS6312M020	120406-1034
5m	EYYAS6012M050	120406-1019	EYYAS6212M050	120406-1027	EYYAS6312M050	120406-1035
10m	EYYAS6012M100	120406-1020	EYYAS6212M100	120406-1028	EYYAS6312M100	120406-1036



PROFINET Female M12 Ultra Lock 2.0 (D-Code) Receptacle to RJ45 Plug Cordsets



12 WSOR Cable 2x2x22 AWG		
Length	Female Straight/Male Straight	
	Engineering No.	Standard Order No.
0.5m	ERYPAU7012M005	120406-1041
1m	ERYPAU7012M010	120406-1042
2m	ERYPAU7012M020	120406-1043
5m	ERYPAU7012M050	120406-1044
10m	ERYPAU7012M100	120406-1045



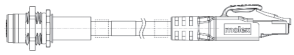
All cordsets/receptacles on these pages are available in additional lengths. Please contact Molex at europe.brad.tech.supp@molex.com

Infrastructure Connectivity

Brad PROFINET

Plug-and-play infrastructure to interconnect CAT5e PROFINET IP67 devices based on four-pole D-Code M12 standard connectors.

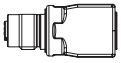
PROFINET Female M12 (D-Code) Receptacle to RJ45 Plug Cordsets

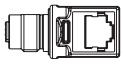


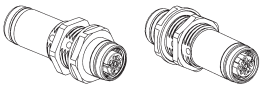
PROFINET Shielded WSOR Cable 12 - Green		
Length	Engineering No.	Standard Order No.
1m	ERWPAU7012M010	120108-0519
2m	ERWPAU7012M020	120108-0520



PROFINET Female M12 Adapters



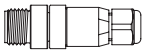


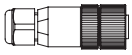




M12 Female Receptacle to Straight RJ45		M12 Female Receptacle to 90° RJ45		M12 Female to Female Bulkhead Receptacle	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
ER1PADAPTER	130054-0031	ER1PADAPTER90	130054-0010	1200848170	120084-8170

PROFINET M12 Shielded Field Attachable (D-Code)





				Male Straight		Male 90°	
Poles	Cable Size	Wire Gauge	Wire Termination Style	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
8	5.5 - 9.0mm	AWG 24-22	IDC	E6AS06-5	130047-8008	E6AS07-5	130047-8009
8	5.5 - 9.0mm	AWG 26-24	IDC	E6AS06-6	130047-8010	E6AS07-6	130047-8011

PROFINET RJ45 Shielded Field Attachable





				Male Straight		Male 90°	
Poles	Cable Size	Wire Gauge	Wire Termination Style	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
8	5.5 - 9.0mm	AWG 24-22	IDC	E6AS06-5	130047-8008	E6AS07-5	130047-8009
8	5.5 - 9.0mm	AWG 26-24	IDC	E6AS06-6	130047-8010	E6AS07-6	130047-8011

Raw Cable

PROFINET Shielded WSOR Cable 12 - Green	
Size	Standard Order No.
3x100m	155421-5001
1x500m	155421-5002
1x1000m	155421-5003



Infrastructure Connectivity

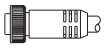
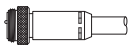
Brad DeviceNet

Plug-and-play infrastructure to DeviceNet IP67 devices based on Mini-Change 7/8" standard connectors.



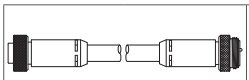
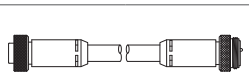
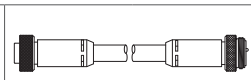
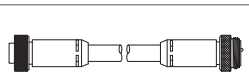
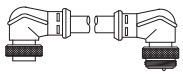
DeviceNet™

DeviceNet Mini-Change 7/8" 5-Pole Single-Ended Cordsets

Length	Single-End Female Straight - Thick PVC		Single-End Male Straight - Thick PVC	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	DN10A-M010	130024-0073	DN01A-M010	130024-0028
2m	DN10A-M020	130024-0077	DN01A-M020	130024-0031

DeviceNet Mini-Change 7/8" 5-Pole Double-Ended Cordsets

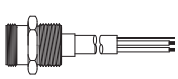
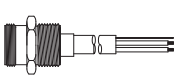
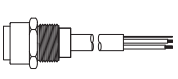
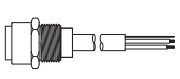
Length	Straight to Straight - Thick PVC - Gray		Straight to Straight - Thin PVC - Gray		Straight to Straight - Thick TPE Flex		Straight to Straight - Thin TPE Flex		90° to 90° - Thin TPE Flex	
	Eng. No.	Standard Order No.	Eng. No.	Standard Order No.	Eng. No.	Standard Order No.	Eng. No.	Standard Order No.	Eng. No.	Standard Order No.
0.5m	DN11A-M005	130025-0051	DND11A-M005	130025-0285	DNF11A-M005	130025-0406	—	—	—	—
1m	DN11A-M010	130025-0054	DND11A-M010	130025-0287	DNF11A-M010	130025-0408	DNDF11A-M010	130025-0502	DNDF99A-M010	130025-0513
2m	DN11A-M020	130025-0061	DND11A-M020	130025-0290	DNF11A-M020	130025-0411	DNDF11A-M020	130025-0503	DNDF99A-M020	130025-0332
3m	DN11A-M030	130025-0067	DND11A-M030	130025-0292	DNF11A-M030	130025-0412	DNDF11A-M030	130025-0504	DNDF99A-M030	130025-0333
4m	DN11A-M040	130025-0071	DND11A-M040	130025-0294	DNF11A-M040	130025-0413	DNDF11A-M040	130025-0506	DNDF99A-M040	130025-0334
5m	DN11A-M050	130025-0073	DND11A-M050	130025-0295	DNF11A-M050	130025-0415	DNDF11A-M050	130025-0508	DNDF99A-M050	130025-0515
6m	—	—	DND11A-M060	130025-0297	DNF11A-M060	130025-0416	—	—	—	—
10m	DN11A-M100	130025-0085	—	—	DNF11A-M100	130025-0420	—	—	—	—
12m	—	—	—	—	DNF11A-M120	130025-0421	—	—	—	—
15m	DN11A-M150	130025-0092	—	—	DNF11A-M150	130025-0424	—	—	—	—
20m	DN11A-M200	130025-0097	—	—	DNF11A-M200	130025-0429	—	—	—	—
30m	DN11A-M300	130025-0108	—	—	DNF11A-M300	130025-0435	—	—	—	—

DeviceNet Micro-Change M12 to Mini-Change 7/8" 5-Pole Cordsets

Length	Male Mini-Change 7/8" to Female M12 - Thin PVC	
	Engineering No.	Standard Order No.
1m	DND21A-M010	130039-0157
2m	DND21A-M020	130039-0159
3m	DND21A-M030	130039-0164
5m	DND21A-M050	130039-0166



DeviceNet Mini-Change 7/8" 5-Pole Receptacles

Length	Male Receptacle - Thick PVC		Male Receptacle - Thin PVC		Female Receptacle - Thick PVC		Female Receptacle - Thin PVC	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
0.5m	DN5100-M005	130039-0297	DND5100-M005	130031-0040	DN5000-M005	130039-0283	DND5000-M005	130039-0322
1m	DN5100-M010	130039-0299	DND5100-M010	130039-0327	DN5000-M010	130039-0284	DND5000-M010	130039-0323
2m	DN5100-M020	130039-0300	DND5100-M020	130039-0328	DN5000-M020	130039-0285	DND5000-M020	130031-0039

Infrastructure Connectivity

Brad DeviceNet

Plug-and-play infrastructure to DeviceNet IP67 devices based on Mini-Change 7/8" standard connectors.

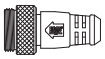


DeviceNet™

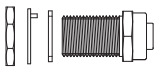
DeviceNet Mini-Change 7/8" 5-Pole Field Attachable Connectors

			
Male		Female	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1A5006-34DN	130034-0006	1A5000-34DN	130034-0005

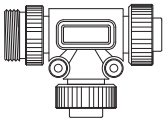
DeviceNet Mini-Change 7/8" 5-Pole Terminators

				
Indicator	Male		Female	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
No LED	DN100	130039-0370	DN150	130039-0376
LED	DN100L	130039-0371	DN150L	130039-0072

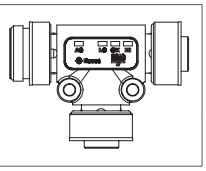
DeviceNet Mini-Change 7/8" 5-Pole Receptacle Pass-Thru, Male to Female

Pass-Thru		
Engineering No.	Standard Order No.	
1R5030	130013-0541	

DeviceNet Mini-Change 7/8" 5-Pole Passive Tee

TEE		
Engineering No.	Standard Order No.	
DN3020	130035-0057	

DeviceNet Mini-Change 7/8" 5-Pole Power Monitor Tee w/LED

Male to Female		Female to Male		
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
DN3020PM-1	130035-0060	DN3020PM-3	130035-0061	

Infrastructure Connectivity

Brad DeviceNet

Plug-and-play infrastructure to interconnect DeviceNet IP67 devices based on Micro-Change M12 and Nano-Change M8 standard connectors.



DeviceNet Micro-Change M12 5-Pole Single-Ended Cordsets

Length	Male Straight - Thin PVC - Gray		Female Straight - Thin PVC - Gray		Female 90° - Thin PVC - Gray	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	DND02A-M010	130027-0012	DND20A-M010	130027-0048	DND30A-M010	130027-0075
2m	DND02A-M020	130027-0014	DND20A-M020	130027-0049	DND30A-M020	130027-0076
3m	DND02A-M030	130027-0015	DND20A-M030	130027-0050	DND30A-M030	130027-0077
5m	DND02A-M050	130027-0017	DND20A-M050	130027-0052	DND30A-M050	130027-0079

DeviceNet Micro-Change M12 5-Pole Double-Ended Cordsets

Length	Straight to Straight - Thin PVC - Gray		Female straight to Male 90° - Thin PVC - Gray	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
0.5m	DND22A-M005	130028-0023	—	—
1m	DND22A-M010	130028-0028	DND32A-M010	130028-0085
2m	DND22A-M020	130028-0033	DND32A-M020	130028-0087
3m	DND22A-M030	130028-0037	DND32A-M030	130028-0089
5m	DND22A-M050	130028-0042	DND32A-M050	130028-0091

DeviceNet Micro-Change M12 to Nano-Change M8 5-Pole Double-Ended Cordsets

Length	Female M12 Straight to Male M8 Straight - Thin PVC - Gray		Female M12 90° to Male M8 Straight - Thin PVC - Gray	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
0.5m	845030D12M005	130030-0023	845031D12M005	130030-0032
1m	845030D12M010	130030-0027	845031D12M010	130030-0041
2m	845030D12M020	130030-0029	845031D12M020	130030-0058
3m	845030D12M030	130030-0075	845031D12M030	130030-0001

DeviceNet Micro-Change M12 5-Pole Receptacles

Length	Male Receptacle		Female Receptacle	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
12 inches	81612	130031-0026	81611	130031-0023

Infrastructure Connectivity

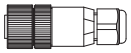
Brad DeviceNet

Plug-and-play infrastructure to interconnect DeviceNet IP67 devices based on Micro-Change M12 and Nano-Change M8 standard connectors.

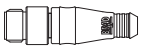
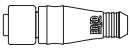


DeviceNet™

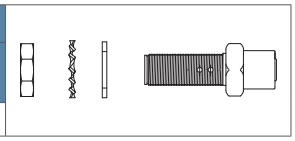
DeviceNet Micro-Change M12 5-Pole Field Attachable Connectors

			
Male		Female	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
8A5006-32DN	130034-0008	8A5000-32DN	130034-0007

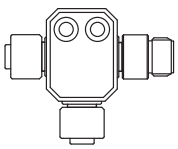
DeviceNet Micro-Change M12 5-Pole Terminators

				
Indicator	Male		Female	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
No LED	DND100	130039-0382	DND150	130039-0385
LED	DND100L	120039-0001	DND150L	120039-0003

DeviceNet Micro-Change M12 5-Pole Receptacle Pass-Thru, Male to Female

Pass-Thru		
Engineering No.	Standard Order No.	
8R5L30	120070-0237	

DeviceNet Micro-Change M12 5-Pole Passive Tee

TEE		
Engineering No.	Standard Order No.	
MICT555	130035-0090	

Infrastructure Connectivity

T1 Industrial Single-Pair Ethernet (SPE) Connectors and Cable Assemblies

Affords the standard T1 industrial interface and single-twisted-pair cabling to make Ethernet connectivity easy and affordable, support miniaturization and enable the transmission of data from the cloud to devices and sensors.

T1 Industrial Single-Pair Ethernet (SPE) Connectors		
Right Angle PCB Jack		
Description	Standard Order No.	
T1 Industrial Single-Pair Ethernet (SPE) PCB Jack, RA	220957-0001	
T1 Industrial Single-Pair Ethernet (SPE) PCB Jack, M12, RA	220957-0002	
Straight PCB Jack		
Description	Standard Order No.	
T1 Industrial Single-Pair Ethernet (SPE) PCB Jack, M12, STR, 8.00mm	220957-0005	
T1 Industrial Single-Pair Ethernet (SPE) PCB Jack, M12, STR, 12.50mm	220957-0008	

T1 Industrial Single-Pair Ethernet (SPE) Receptacles		
M12 Receptacle Shell, Straight IP67		
Description	Standard Order No.	
T1 Industrial Single-Pair Ethernet (SPE) M12 Receptacle Shell, Back Mount	220957-0011	
T1 Industrial Single-Pair Ethernet (SPE) M12 Receptacle Shell,Front Mount t	220957-0012	

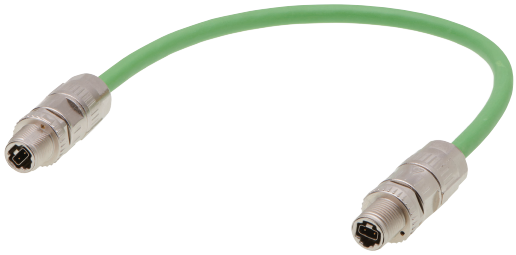
Infrastructure Connectivity

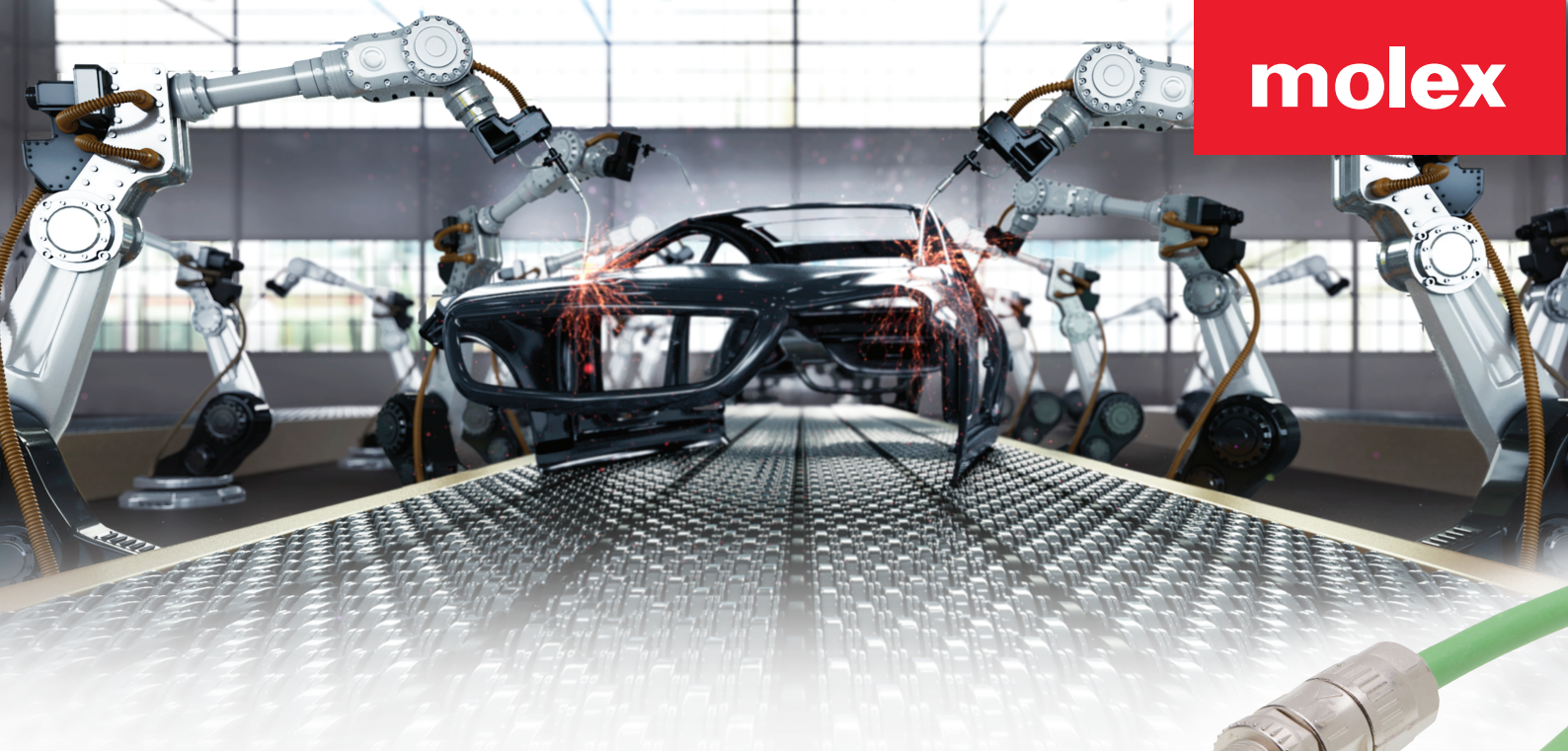
T1 Industrial Single-Pair Ethernet (SPE) Connectors and Cable Assemblies

T1 Industrial Single-Pair Ethernet (SPE) Plug Cable Assembly		
Plug Cable Assembly IP20		
Length	Description	Standard Order No.
0.3m	T1 SPE IP20 1x2xAWG 26 / 19 PUR 0.3m	220957-0102
1m	T1 SPE IP20 1x2xAWG 26 / 19 PUR 1m	220957-0104
3m	T1 SPE IP20 1x2xAWG 26 / 19 PUR 3m	220957-0107
5m	T1 SPE IP20 1x2xAWG 26 / 19 PUR 5m	220957-0108
10m	T1 SPE IP20 1x2xAWG 26 / 19 PUR 10m	220957-0110
15m	T1 SPE IP20 1x2xAWG 26 / 19 PUR 15m	220957-0111
20m	T1 SPE IP20 1x2xAWG 26 / 19 PUR 20m	220957-0112



Plug Cable Assembly IP65/67		
Length	Description	Standard Order No.
0.3m	M12 T1 SPE 1x2xAWG 22/7 PUR 0.3m	220957-0115
1m	M12 T1 SPE 1x2xAWG 22/7 PUR 1m	220957-0116
3m	M12 T1 SPE 1x2xAWG 22/7 PUR 3m	220957-0119
5m	M12 T1 SPE 1x2xAWG 22/7 PUR 5m	220957-0120
10m	M12 T1 SPE 1x2xAWG 22/7 PUR 10m	220957-0122
15m	M12 T1 SPE 1x2xAWG 22/7 PUR 15m	220957-0123
20m	M12 T1 SPE 1x2xAWG 22/7 PUR 20m	220957-0124
30m	M12 T1 SPE 1x2xAWG 22/7 PUR 30m	220957-0125





molex



FUTURE-PROOF YOUR INDUSTRIAL COMMUNICATION INFRASTRUCTURE

Introducing the Industrial SPE Connectors and Cable Assemblies

It's time to replace your fragmented legacy network with a unified Ethernet-based solution. Realize your Industrial IoT initiatives with Molex's new Industrial Connectors and Cable Assemblies.

ADVANCE NETWORKING STANDARDS WITH SINGLE PAIR ETHERNET

Faster Data Speeds of 1Gbps are achieved using only two wires and the simultaneous power supply for terminals through Power over Data Line (PoDL) up to 50W.

End-to-End TCP/IP-Based Communication permits a barrier-free connection of equipment and sensor/actuator technology to reduce costs, simplify setup and improve efficiency.

Miniaturization of the Molex SPE Series significantly eases cable routing and reduces weight by utilizing only one twisted pair of wires with a gauge as small as AWG26 and AWG22.

Ruggedization against harsh industrial environments has been designed into the series using halogen-free, oil-resistant and flame-retardant cable assemblies with IP20 rating.

From the factory floor to the cloud, future-proof your industrial communication infrastructure with Single Pair Ethernet by Molex.

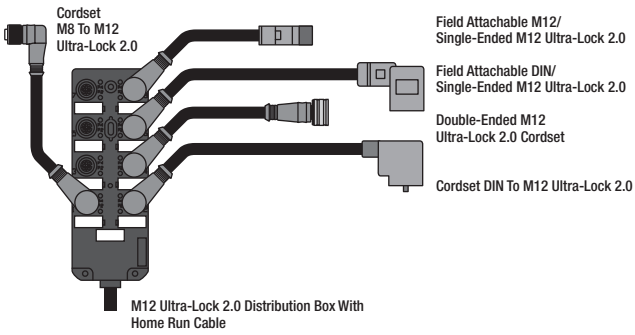
Learn more at
molex.com/link/spe

creating connections for life

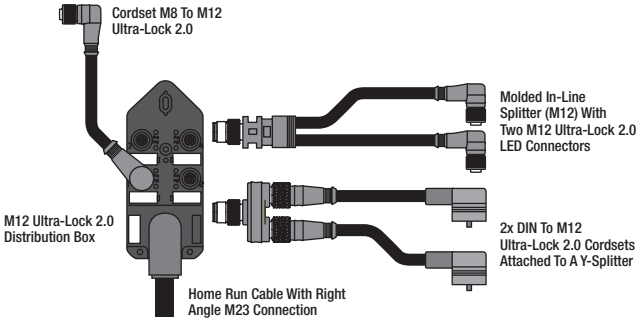


MICRO-CHANGE M12 SENSOR/ACTUATOR INTERCONNECTION

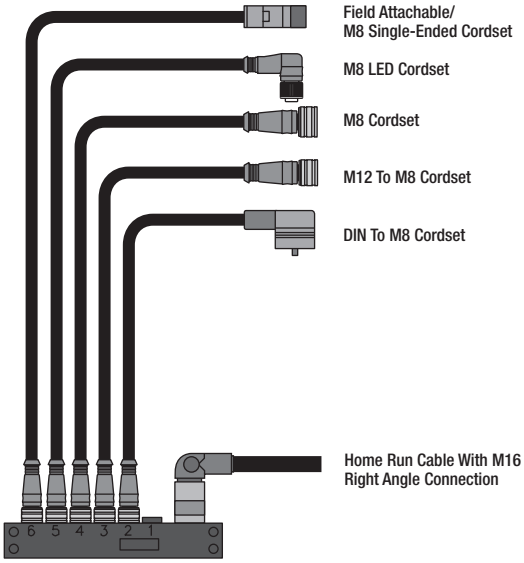
Single I/O



Twin I/O



NANO-CHANGE M8 SENSOR/ACTUATOR INTERCONNECTION





Sensors and Actuators Connectivity

ADDITIONAL INDUSTRIAL CONNECTORS FROM MOLEX

Brad Multi-Port Interconnection Systems (MPIS)

Solution to reduce installation time and costs

- IP67 protection can be installed directly on the machine, close to the automation devices keeping single wiring distances low.
- Concentrate sensor and actuator signals and distribute the power supply reducing homerun cable dimensions.
- Signal diagnostic information to quickly detect machine status and failures on devices.
- Home run cable termination via an M16/M23 connector, via field terminated screw terminal for installation flexibility or for cost savings directly mounted on the module.

MPIS Applications

MPIS solutions are ideal in case of small or mid-size machines.

Single and Dual signal ports

Brad MPIS can manage up to two signals per port (Twin I/O).

Signals are concentrated on Twin I/O ports:

- By using Splitter cordsets
- By using solid body Y or Tee Splitters as shown in the diagram on the previous page.

Primary signal (from device A) will be on Pin 4

Secondary signal (from device B) will be on Pin 2

As displayed below.



Sensor/Actuator Distribution Boxes

Brad MPIS

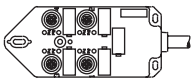
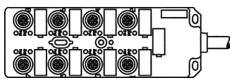
IP67-rated passive IO modules for harsh environments are designed to concentrate the sensor/actuator signals into one unique home run cable for better mechanical infrastructure wiring on the machine.



Specifications

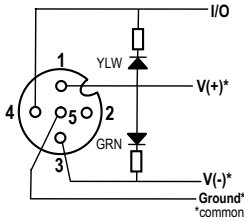
IP67 Molded PBT Housing, color: Black
Single or Dual Input/Output signal per port
Indicating LED for Power and sensor trigger
PNP Version (available also in NPN version)
Electrical: 10-30V DC max. & 12.0A max. (4.0A max. per port) Approvals: UL, CSA, IP67

Brad M12 Distribution Boxes with Home Run Cable

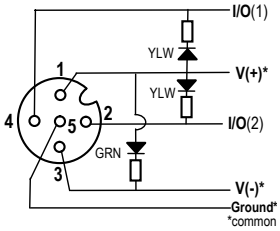



IO Type	Length	4 Ports		8 Ports	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
Single IO	5m	BTB400P-FBW-05	120248-0004	BTB800P-FBW-05	120248-0022
	10m	BTB400P-FBW-10	120248-0005	BTB800P-FBW-10	120248-0023
Dual IO	5m	BTB405P-FBW-05	120248-0031	BTB805P-FBW-05	120248-0049
	10m	BTB405P-FBW-10	120248-0032	BTB805P-FBW-10	120248-0050

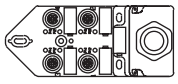
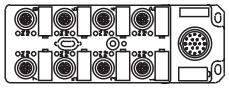
Micro-Change M12 Single IO Connector Wiring



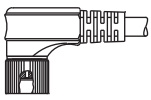
Micro-Change M12 Dual IO Connector Wiring



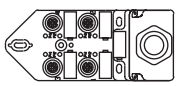
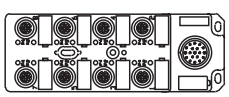
Brad M12 Distribution Boxes with M23 Connector and Home Run Cable

IO Type	4 Ports		8 Ports	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
Single IO	BTB401P-FBC	120248-0056	BTB801P-FBC	120248-0060
Dual IO	BTB403P-FBC	120248-0062	BTB803P-FBC	120248-0066
Length	Single IO Home Run Cable (12p/11 wires)		Dual IO Home Run Cable (19p/19 wires)	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
10m	K02101B80M100*	120094-8150	K03001B80M100*	120094-8163



Brad M12 Distribution Boxes with Mini-Change Connector and Home Run Cable

IO Type	4 Ports		8 Ports	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
Single IO	BTB401P-FBB	120248-0068	BTB801P-FBB	120248-0074
Dual IO	BTB403P-FBB	120248-0077	BTB803P-FBB	120248-0083
Length	Single IO Home Run Cable (12p/11 wires)		Dual IO Home Run Cable (19p/19 wires)	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
10m	302101A04M100	130008-0282	303001P80M100	130008-0316

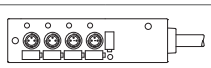
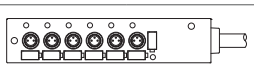


Home run cable also available in 1m, 5m, 15m, 20m, 30m and also with m23 straight connector.

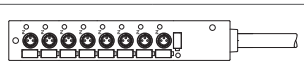
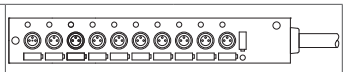
Sensor/Actuator Distribution Boxes

Brad MPIS

Brad M8 Distribution Boxes with Side Mount PUR Home Run Cable

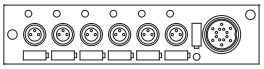
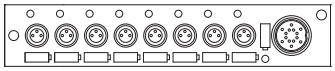
IO Type	Length	4 Ports		6 Ports	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
Single IO	5m	BEB401P-FBW-05	120247-0001	BEB601P-FBW-05	120247-0040
	10m	BEB401P-FBW-10	120247-0002	BEB601P-FBW-10	120247-0041

IO Type	Length	8 Ports		10 Ports	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
Single IO	5m	BEB801P-FBW-05	120247-0012	BEBA01P-FBW-05	120247-0006
	10m	BEB801P-FBW-10	120247-0013	BEBA01P-FBW-10	120247-0007

Brad M8 Distribution Boxes with M16 Connector and Home Run Cable

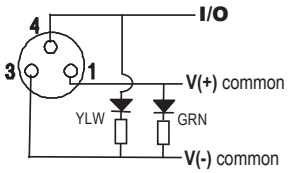
Single IO Distribution Box with M16 connector

6 Ports		8 Ports	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
BNB601P-FBC	120247-0061	BNB801P-FBC	120247-0063



Nano-Change M8 Single IO Connector Wiring



B80 WSOR Raw Cable Ordering Information



Black	Gray / White
Pink	Yellow / White
Yellow	Green / White Gray
Green	Blue / Red
White	Brown / Green
Gray	Yellow / Brown
Red	Yellow / Green
Violet	Gray / Brown
Blue	Gray / Pink
Brown	

Wires	Size	Standard Order No.
3xAWG19 + 16xAWG22	1x100m	155220-9019



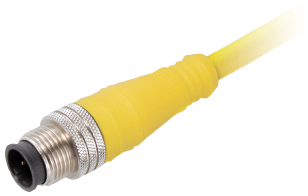
White	Brown
Yellow	Yellow / Green
Gray	Blue
Red	Green
Black	Pink
Violet	

Note:
Further technical information, datasheet or drawing can be downloaded from the Molex website using the ordering part number.

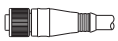
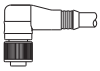
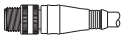
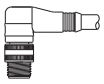
Sensor/Actuator Connectivity

Brad Micro-Change M12

Brad Micro-Change M12 connectivity is a ready-to-use solution based on the A-Code M12 standard with IP67/68 rating to wire a wide range of sensors and actuators from proximity switches to rotary encoders in harsh environments.

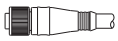
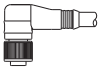
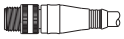
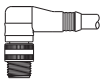


Brad Micro-Change M12 Single-Ended Cordsets

Poles	Length	A09 PVC Cable							
		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	803000A09M020	120065-0129	803001A09M020	120065-1444	803006A09M020	120065-0200	803007A09M020	120065-1497
	5m	803000A09M050	120065-0139	803001A09M050	120065-1451	803006A09M050	120065-0203	803007A09M050	120065-1499
	10m	803000A09M100	120065-0148	803001A09M100	120065-1457	803006A09M100	120065-0207	803007A09M100	120065-9208
4	2m	804000A09M020	120065-0255	804001A09M020	120065-1551	804006A09M020	120065-0414	804007A09M020	120065-1662
	5m	804000A09M050	120065-0265	804001A09M050	120065-1558	804006A09M050	120065-0419	804007A09M050	120065-1666
	10m	804000A09M100	120065-0277	804001A09M100	120065-1567	804006A09M100	120065-0425	804007A09M100	120065-1669
5	2m	805000A09M020	120065-0471	805001A09M020	120065-1697	805006A09M020	120065-0523	805007A09M020	120065-1724
	5m	805000A09M050	120065-0479	805001A09M050	120065-1701	805006A09M050	120065-0528	805007A09M050	120065-1727
	10m	805000A09M100	120065-0487	805001A09M100	120065-1706	805006A09M100	120065-0533	805007A09M100	120065-2123



Poles	Length	B30 WSOR Cable							
		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	803000B30M020	120065-2248	803001B30M020	120065-2260	803006B30M020	120065-2272	803007B30M020	120065-2284
	5m	803000B30M050	120065-2249	803001B30M050	120065-2261	803006B30M050	120065-2273	803007B30M050	120065-2285
	10m	803000B30M100	120065-2250	803001B30M100	120065-2262	803006B30M100	120065-2274	803007B30M100	120065-2286
4	2m	804000B30M020	120065-2252	804001B30M020	120065-2264	804006B30M020	120065-2276	804007B30M020	120065-2288
	5m	804000B30M050	120065-2253	804001B30M050	120065-2265	804006B30M050	120065-2277	804007B30M050	120065-2289
	10m	804000B30M100	120065-2254	804001B30M100	120065-2266	804006B30M100	120065-2278	804007B30M100	120065-2290
5	2m	805000B30M020	120065-9519	805001B30M020	120065-9523	805006B30M020	120065-9527	805007B30M020	120065-9531
	5m	805000B30M050	120065-9520	805001B30M050	120065-9524	805006B30M050	120065-9528	805007B30M050	120065-9532
	10m	805000B30M100	120065-9521	805001B30M100	120065-9525	805006B30M100	120065-9529	805007B30M100	120065-9533
8	2m	808000B41M020	120065-9458	808001B41M020	120065-2311	808006B41M020	120065-9453	808007B41M020	120065-2315
	5m	808000B41M050	120065-2308	808001B41M050	120065-2312	808006B41M050	120065-2304	808007B41M050	120065-2316
	10m	808000B41M100	120065-9463	808001B41M100	120065-2313	808006B41M100	120065-2305	808007B41M100	120065-2317

Sensor/Actuator Connectivity

Brad Micro-Change M12

Plug-and-play five-pole power distribution infrastructure to interconnect IP67 devices based on the A-Code M12 standard connectors.

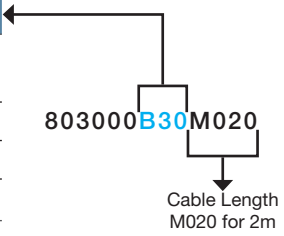


Brad Micro-Change M12 Single-Ended Cordsets

Poles	Length	K05/K03 TPE Cable							
		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	803000K05M020	120065-1108	803001K05M020	120065-1489	803006K05M020	120065-1114	803007K05M020	120065-1501
	5m	803000K05M050	120065-1110	803001K05M050	120065-1491	803006K05M050	120065-1117	803007K05M050	120065-1503
	10m	803000K05M100	120065-1112	803001K05M100	120065-1493	803006K05M100	120065-1119	803007K05M100	120065-1505
4	2m	804000K05M020	120065-1121	804001K05M020	120065-1639	804006K05M020	120065-1129	804007K05M020	120065-1691
	5m	804000K05M050	120065-1124	804001K05M050	120065-1642	804006K05M050	120065-1131	804007K05M050	120065-1693
	10m	804000K05M100	120065-1126	804001K05M100	120065-1644	804006K05M100	120065-1133	804007K05M100	120065-1695
5	2m	805000K03M020	120065-1367	805001K03M020	120065-1720	805006K03M020	120065-1374	805007K03M020	120065-2159
	5m	805000K03M050	120065-1370	805001K03M050	120065-1722	805006K03M050	120065-2151	805007K03M050	120065-2161
	10m	805000K03M100	120065-1373	805001K03M100	120065-2155	805006K03M100	120065-2153	805007K03M100	120065-2163

Build-A-Part Number Configuration Code

	Poles	Cable	Code
0.25mm² (24 AWG)	8	WSOR	B41
0.34mm² (22 AWG)	3, 4, 5	PVC	A09
		WSOR	B30
		TPE	K05



K05 Raw Cable Ordering Information

Poles	Size	Standard Order No.
4 Poles	1x1500m	155240-8006

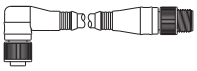
Sensor/Actuator Connectivity

Brad Micro-Change M12

Plug-and-play five-pole power distribution infrastructure to interconnect IP67 devices based on the A-Code M12 standard connectors.



Brad Micro-Change M12 Double-Ended Cordsets

					
Poles	Length	A09 PVC Cable			
		Female to Male Straight		Female 90° to Male Straight	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	.6m	884030A09M006	120066-0262	884031A09M006	120066-1261
	1m	884030A09M010	120066-0266	884031A09M010	120066-1262
	2m	884030A09M020	120066-0271	884031A09M020	120066-1265
	3m	884030A09M030	120066-0277	884031A09M030	120066-1268
	5m	884030A09M050	120066-0284	884031A09M050	120066-1273
	10m	884030A09M100	120066-0297	884031A09M100	120066-1280
5	.6m	885030A09M006	120066-0426	885031A09M006	120066-8730
	1m	885030A09M010	120066-0427	885031A09M010	120066-1389
	2m	885030A09M020	120066-0429	885031A09M020	120066-1391
	3m	885030A09M030	120066-0431	885031A09M030	120066-1392
	5m	885030A09M050	120066-0434	885031A09M050	120066-1394
	10m	885030A09M100	120066-0440	885031A09M100	120066-1396

A09 PVC M12 Cable Specification

For use in packaging machines and production lines, in static or less demanding environments.

Conductors: 3 x 22, 4 x 22 or 5 x 22 AWG (Black, Brown, Blue, White, Grey)

Jacket Material: Yellow PVC

Voltage Rating: 300V

Operating Temperature: -20 to +105°C

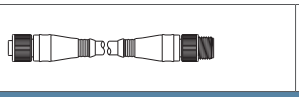
Diameter 3 pole 4.8 +/- 0.3 mm
Diameter 4 pole 5.1 +/- 0.3 mm
Diameter 5 pole 5.5 +/- 0.3 mm

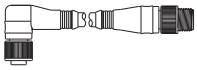
Approvals: UL Style 2661, CSA

Sensor/Actuator Connectivity

Brad Micro-Change M12 Double-Ended Cordsets

Brad Micro-Change M12 Double-Ended Cordsets





Poles	Length	B30 WSOR Cable			
		Female to Male Straight		Female 90° to Male Straight	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	2m	883030B30M020	120066-8891	883031B30M020	120066-8879
	5m	883030B30M050	120066-8893	883031B30M050	120066-8881
	10m	883030B30M100	120066-8894	883031B30M100	120066-8882
4	2m	884030B30M020	120066-8819	884031B30M020	120066-8831
	5m	884030B30M050	120066-8821	884031B30M050	120066-8833
	10m	884030B30M100	120066-8822	884031B30M100	120066-8834
5	2m	885030B30M020	120066-8993	885031B30M020	120066-8999
	5m	885030B30M050	120066-8995	885031B30M050	120066-9001
	10m	885030B30M100	120066-8996	885031B30M100	120066-9002
8	2m	888030B41M020	120066-8897	888031B41M020	120066-8885
	5m	888030B41M050	120066-8899	888031B41M050	120066-8887
	10m	888030B41M100	120066-8900	888031B41M100	120066-8888



B30 WSOR Cable Specification*

Conductors: 3x0.34 mm², 4x0.34 mm² or 5x0.34 mm² **
(Brown, White, Blue, Black, Grey)

Jacket material: Black WSOR, flame retardant, oil, UV & weld slag resistant, silicone & FCKW free

Diameter 3 Pole: 4.8 ±0.2mm
Diameter 4 Pole: 5.1 ±0.2mm
Diameter 5 Pole: 5.5 ±0.2mm

Voltage Rating: 600V

Static Operating Temp: –40 to +90°C

Dynamic Operating Temp: –25 to +80°C

Drag Chain (20 Mio cycles at 15xO.D.) & torsion suitable

Approvals: UL AWM Style 21215 / CSA

* Detailed cable specification attached to bulk cable drawings
** 8 pole cable specification: see B41 description in M8 section



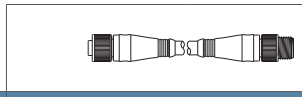
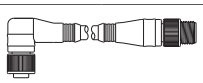
B30 Raw Cable Ordering Information

Poles	Size	Standard Order No.
3 Poles	1x1500m	155220-0054
4 Poles	3x200m	155220-0064
	1x1500m	155220-0066
5 Poles	3x200m	155220-0076
	1x800m	155220-0077
	1x1500m	155220-0078

Sensor/Actuator Connectivity

Brad Micro-Change M12

Brad Micro-Change M12 Double-Ended Cordsets

					
Poles	Length	K05/K03 TPE Cable			
		Female to Male Straight		Female 90° to Male Straight	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	.6m	884030K05M006	120066-0686	884031K05M006	120066-0375
	1m	884030K05M010	120066-0687	884031K05M010	120066-0376
	2m	884030K05M020	120066-0689	884031K05M020	120066-0378
	3m	884030K05M030	120066-0690	884031K05M030	120066-0379
	5m	884030K05M050	120066-0692	884031K05M050	120066-0381
	10m	884030K05M100	120066-0695	884031K05M100	120066-0546
5	.6m	885030K03M006	120066-1033	885031K03M006	120066-8731
	1m	885030K03M010	120066-1034	885031K03M010	120066-1046
	2m	885030K03M020	120066-1035	885031K03M020	120066-1047
	3m	885030K03M030	120066-1036	885031K03M030	120066-1048
	5m	885030K03M050	120066-1038	885031K03M050	120066-1050
	10m	885030K03M100	120066-1043	885031K03M100	120066-8732



K05/K03 TPE M12 Cable Specification

For use in machine tools, metal cutting production with harsh fluid, mechanical or continuous flex requirements.

Conductors: 3 x 22, 4 x 22 or 5 x 18 AWG (Black, Brown, Blue, White, Grey)

Jacket Material: Yellow TPE

Voltage Rating: 300V

Operating Temperature: –40 to +105°C

Bending Cycles: 20 Mio cycles at 15 x O.D.

Diameter 3 pole 5.0 ±0.2 mm
Diameter 4 pole 5.2 ±0.2 mm
Diameter 5 pole 7.0 ±0.2 mm

Approvals: UL PLTC, CSA FT4

Sensor/Actuator Connectivity

Brad Micro-Change M12

Brad Micro-Change M12 Front Mount Receptacles

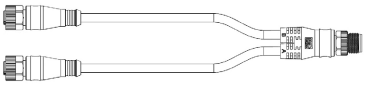


Poles	Mount Thread	12” PVC Wire Leads			
		Male		Female	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	1/4"-18NPT	—	—	8R3A00A18A120	120070-0056
	1/2"-14NPT	8R3006A18A120	120070-0093	8R3000A18A120	120070-5200
4	1/4"-18NPT	8R4A06A18A120	120070-0385	8R4A00A18A120	120070-0114
	1/2"-14NPT	8R4006A18A120	120070-0184	8R4000A18A120	120070-0173
5	1/4"-18NPT	8R5A06A18A120	120070-8180	8R5A00A18A120	120070-0201
	1/2"-14NPT	8R5006A18A120	120070-0252	8R5000A18A120	120070-5206

Sensor/Actuator Connectivity

Brad Micro-Change M12

Brad M12 Cable Splitters



A09 PVC Cable			
2x Female to Male Straight			
Poles	Length	Engineering No.	Standard Order No.
4	0.3m	884A30A09M003	120068-0175
	0.6m	884A30A09M006	120068-0176

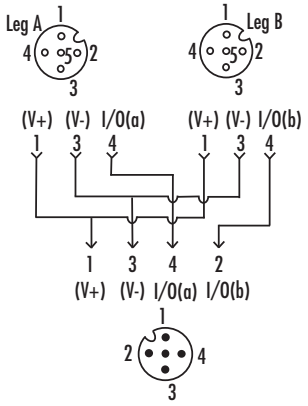
B30 WSOR Cable			
2x Female to Male Straight			
Poles	Length	Engineering No.	Standard Order No.
4	0.3m	884A30B30M003	120068-8282
	0.6m	884A30B30M006	120068-8193

K03 TPE Cable			
2x Female to Male Straight			
Poles	Length	Engineering No.	Standard Order No.
4	0.3m	884A30K03M003	120068-0187
	0.6m	884A30K03M006	120068-0189
	1m	884A30K03M010	120068-0190

B30 TPU/K05 TPE Cable			
2x Female to Male Straight			
Poles	Length	Engineering No.	Standard Order No.
4	0.3m	884A30K05M003	120068-8282
	0.6m	884A30K05M006	120068-8193
	1m	884A30K05M010	120068-0197

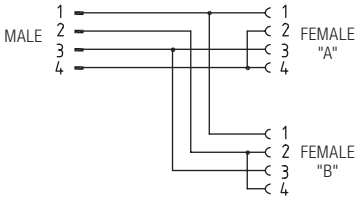


M12 Cable Splitter Wiring

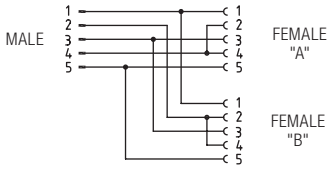


Y-Splitter Wiring Schematic

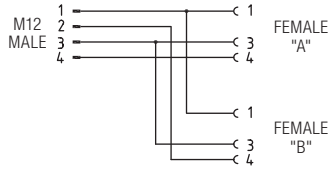
M12 to M12 4 Pole



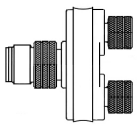
M12 to M12 5 Pole



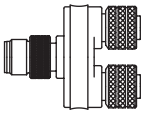
M12 to M8 4 Pole



Brad Micro-Change M12 Y-Splitters & Adapters



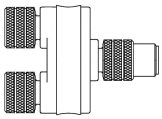
Y-Splitter M12 to M8		
1x M12 Male to 2x M8 Female		
Poles	Engineering No.	Standard Order No.
4	080804EMF00000	120089-0031



Y-Splitter M12 to M12		
1x M12 Male to 2x M12 Female		
Poles	Engineering No.	Standard Order No.
4	81594R	120068-0170
5	081205EMF00000	120068-0139

Brad Nano-Change M8 Y-Splitters & Adapters

Y-Splitter		
1x M8 Male to 2x M8 Female		
Poles	Engineering No.	Standard Order No.
4	080804LMF00000	120089-0033



Note: M8 male connector thread is fixed.

Sensor/Actuator Connectivity

Brad Micro-Change M12

Brad Micro-Change M12 Field Attachable for Sensors and Actuators

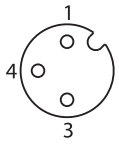


Poles	Cable Size	Wire Gage	Male Straight		Female Straight	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
Unshielded & Screw termination						
4	3.3-6.6	< AWG 18	8A4006-31	120071-0038	8A4000-31	120071-0035
	4.1-8.1	< AWG 18	8A4006-32	120071-0039	8A4000-32	120071-0036
5	3.3-6.6	< AWG 18	8A5006-31	120071-0045	8A5000-31	120071-0041
	4.1-8.1	< AWG 18	8A5006-32	120071-0047	8A5000-32	120071-0043
8	6.0-8.0	< AWG 20	8A8006-32	120071-0030	8A8000-32	120071-0031
Unshielded & IDC termination						
4	3.5-6.0	AWG26-22	8A4006-51	120071-0086	8A4000-51	120071-0087
	4.0-8.0	AWG22-18	8A4006-52	120071-0088	8A4000-52	120071-0089
Shielded & Screw termination						
4	6.0-8.0	< AWG 18	8A4S06-32	120071-0032	8A4S00-32	120071-0033
5	6.0-8.0	< AWG 18	8A5S06-32	120071-0034	8A5S00-32	120071-0081
8	6.0-8.0	< AWG 20	8A8S06-32	120071-0082	8A8S00-32	120071-0083

Poles	Cable Size	Wire Gage	Male 90°		Female 90°	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
Unshielded & Screw termination						
4	3.3-6.6	< AWG 18	8A4007-31	120071-0040	8A4001-31	120071-0037
	4.1-8.1	< AWG 18	8A4007-32	120071-5011	8A4001-32	120071-5010
5	3.3-6.6	< AWG 18	8A5007-31	120071-0049	8A5001-31	120071-0044
	4.1-8.1	< AWG 18	8A5007-32	120071-0071	8A5001-32	120071-0070

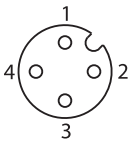
Micro-Change M12 Connector Pinout

3 Pole



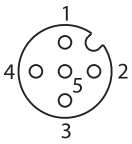
1 - Brown
3 - Blue
4 - Black

4 Pole



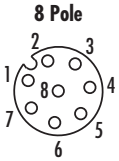
1 - Brown
2 - White
3 - Blue
4 - Black

5 Pole



1 - Brown
2 - White
3 - Blue
4 - Black
5 - Grey

8 Pole



1 - White
2 - Brown
3 - Green
4 - Yellow
5 - Grey
6 - Pink
7 - Blue
8 - Red

Sensor/Actuator Connectivity

Brad Micro-Change M12

Flamar Unshielded Signal and Control Cable Reels

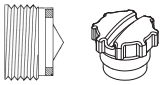


Cross Section		Cable Code - Material	No. of Circuits	Cable Diameter in mm	Packaging		
mm²	AWG				3x200m	1x800m	1x1500m
0.34	22	WSOR	3	4.8	155220-0052	155220-0053	155220-0054
			4	5.1	155220-0064	155220-0065	155220-0066
			5	5.5	155220-0076	155220-0077	155220-0078
		PVC	3	4.8	155210-0052	155210-0053	155210-0054
			4	5.1	155210-0064	155210-0065	155210-0066
			5	5.5	155210-0076	155210-0077	155210-0078
		PUR	3	4.8	155230-0052	155230-0053	155230-0054
			4	5.1	155230-0064	155230-0065	155230-0066
			5	5.5	155230-0076	155230-0077	155230-0078
					3x100m	1x500m	1x1000m
0.25	24	WSOR	8	6.4	155220-0034	155220-0035	155220-0036
		PVC			155210-0034	155210-0035	155210-0036
		PUR			155230-0034	155230-0035	155230-0036

Flamar Shielded Signal and Control Cable Reels

Cross Section		Cable Code - Material	No. of Circuits	Cable Diameter in mm	Packaging		
mm²	AWG				3x200m	1x800m	1x1500m
					*3x100m	*1x500m	*1x1000m
0.34	22	WSOR	3	5.4	155221-0001	155221-0002	155221-0003
			4	5.7	155221-0013*	155221-0014*	155221-0015*
			5	6.1	155221-0025*	155221-0026*	155221-0027*
		PVC	3	5.4	155211-0001	155211-0002	155211-0003
			4	5.7	155211-0013*	155211-0014*	155211-0015*
			5	6.1	155211-0025*	155211-0026*	155211-0027*
		PUR	3	5.4	155231-0001	155231-0002	155231-0003
			4	5.7	155231-0013*	155231-0014*	155231-0015*
			5	6.1	155231-0025*	155231-0026*	155231-0027*

Brad Micro-Change M12 Closure Caps

To Cover Male		To Cover Female		
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
—	120308-0680	—	120358-0007	 Plastic Closure Cap

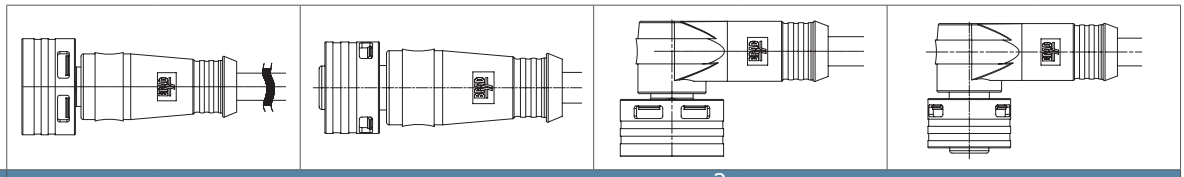
Sensor/Actuator Connectivity

Brad M12 Ultra-Lock 2.0 Connector System

The Brad M12 Ultra-Lock 2.0 products meet the IEC 61076-2-010 standard and provide an easy-to-assemble interface, delivering increased productivity and cost savings while surpassing the performance and reliability of traditional threaded connectors.



Brad M12 Ultra-Lock 2.0 Single-Ended A-Code Cordsets

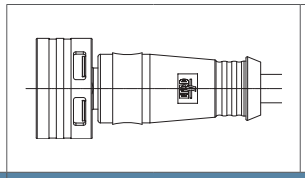
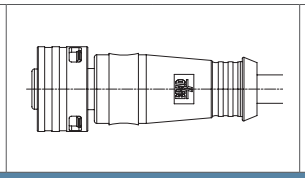
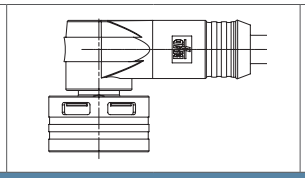
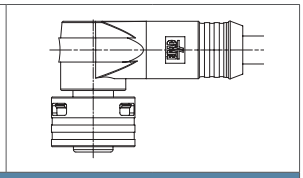


Poles	Length	E03 PVC Cable 0.34mm^2							
		Male Straight		Female Straight		Male 90		Female 90	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	1m	Y03006E03M010	120400-0037	Y03000E03M010	120400-0001	Y03007E03M010	120400-0236	Y03001E03M010	120400-0200
	2m	Y03006E03M020	120400-0038	Y03000E03M020	120400-0002	Y03007E03M020	120400-0237	Y03001E03M020	120400-0201
	5m	Y03006E03M050	120400-0039	Y03000E03M050	120400-0003	Y03007E03M050	120400-0238	Y03001E03M050	120400-0202
	10m	Y03006E03M100	120400-0040	Y03000E03M100	120400-0016	Y03007E03M100	120400-0239	Y03001E03M100	120400-0203
4	1m	Y04006E03M010	120400-0049	Y04000E03M010	120400-0013	Y04007E03M010	120400-0248	Y04001E03M010	120400-0212
	2m	Y04006E03M020	120400-0050	Y04000E03M020	120400-0014	Y04007E03M020	120400-0249	Y04001E03M020	120400-0213
	5m	Y04006E03M050	120400-0051	Y04000E03M050	120400-0015	Y04007E03M050	120400-0250	Y04001E03M050	120400-0214
	10m	Y04006E03M100	120400-0052	Y04000E03M100	120400-0016	Y04007E03M100	120400-0251	Y04001E03M100	120400-0215
5	1m	Y05006E03M010	120400-0061	Y05000E03M010	120400-0025	Y05007E03M010	120400-0260	Y05001E03M010	120400-0224
	2m	Y05006E03M020	120400-0062	Y05000E03M020	120400-0026	Y05007E03M020	120400-0261	Y05001E03M020	120400-0225
	5m	Y05006E03M050	120400-0063	Y05000E03M050	120400-0027	Y05007E03M050	120400-0262	Y05001E03M050	120400-0226
	10m	Y05006E03M100	120400-0064	Y05000E03M100	120400-0028	Y05007E03M100	120400-0263	Y05001E03M100	120400-0227
E02 PVC Cable 0.25mm^2									
8	1m	Y08006E02M010	120400-0116	Y08000E02M010	120400-0100	Y08007E02M010	120400-0316	Y08001E02M010	120400-0300
	2m	Y08006E02M020	120400-0117	Y08000E02M020	120400-0101	Y08007E02M020	120400-0317	Y08001E02M020	120400-0301
	5m	Y08006E02M050	120400-0118	Y08000E02M050	120400-0102	Y08007E02M050	120400-0318	Y08001E02M050	120400-0302
	10m	Y08006E02M100	120400-0119	Y08000E02M100	120400-0103	Y08007E02M100	120400-0319	Y08001E02M100	120400-0303

Sensor/Actuator Connectivity

Brad M12 Ultra-Lock 2.0 Connector System

Brad M12 Ultra-Lock 2.0 Single-Ended A-Code Cordsets

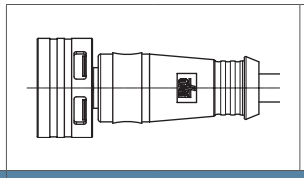
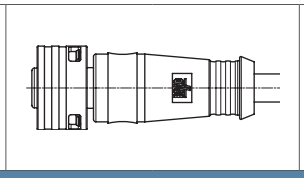
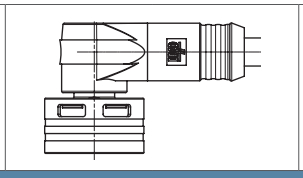
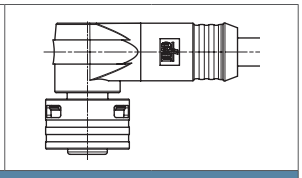





Poles	Length	B30 WSOR Cable 0.34mm^2							
		Male Straight		Female Straight		Male 90		Female 90	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	1m	Y03006B30M010	120400-0041	Y03000B30M010	120400-0005	Y03007B30M010	120400-0240	Y03001B30M010	120400-0204
	2m	Y03006B30M020	120400-0042	Y03000B30M020	120400-0006	Y03007B30M020	120400-0241	Y03001B30M020	120400-0205
	5m	Y03006B30M050	120400-0043	Y03000B30M050	120400-0007	Y03007B30M050	120400-0242	Y03001B30M050	120400-0206
	10m	Y03006B30M100	120400-0044	Y03000B30M100	120400-0008	Y03007B30M100	120400-0243	Y03001B30M100	120400-0207
4	1m	Y04006B30M010	120400-0053	Y04000B30M010	120400-0017	Y04007B30M010	120400-0252	Y04001B30M010	120400-0216
	2m	Y04006B30M020	120400-0054	Y04000B30M020	120400-0018	Y04007B30M020	120400-0253	Y04001B30M020	120400-0217
	5m	Y04006B30M050	120400-0055	Y04000B30M050	120400-0019	Y04007B30M050	120400-0254	Y04001B30M050	120400-0218
	10m	Y04006B30M100	120400-0056	Y04000B30M100	120400-0020	Y04007B30M100	120400-0255	Y04001B30M100	120400-0219
5	1m	Y05006B30M010	120400-0065	Y05000B30M010	120400-0029	Y05007B30M010	120400-0264	Y05001B30M010	120400-0228
	2m	Y05006B30M020	120400-0066	Y05000B30M020	120400-0030	Y05007B30M020	120400-0265	Y05001B30M020	120400-0229
	5m	Y05006B30M050	120400-0067	Y05000B30M050	120400-0031	Y05007B30M050	120400-0266	Y05001B30M050	120400-0230
	10m	Y05006B30M100	120400-0068	Y05000B30M100	120400-0032	Y05007B30M100	120400-0267	Y05001B30M100	120400-0231
B41 WSOR Cable 0.25mm^2									
8	1m	Y08006B41M010	120400-0120	Y08000B41M010	120400-0104	Y08007B41M010	120400-0320	Y08001B41M010	120400-0304
	2m	Y08006B41M020	120400-0121	Y08000B41M020	120400-0105	Y08007B41M020	120400-0321	Y08001B41M020	120400-0305
	5m	Y08006B41M050	120400-0122	Y08000B41M050	120400-0106	Y08007B41M050	120400-0322	Y08001B41M050	120400-0306
	10m	Y08006B41M100	120400-0123	Y08000B41M100	120400-0107	Y08007B41M100	120400-0323	Y08001B41M100	120400-0307

Sensor/Actuator Connectivity

Brad M12 Ultra-Lock 2.0 Connector System

Brad M12 Ultra-Lock 2.0 Single-Ended A-Code Cordsets

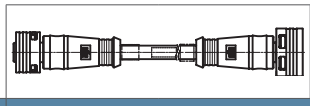
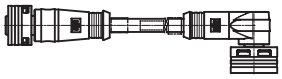
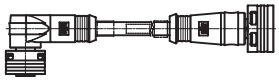
Poles	Length	H09 PUR Cable 0.34mm^2							
		Male Straight		Female Straight		Male 90		Female 90	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	1m	Y03006H09M010	120400-0045	Y03000H09M010	120400-0009	Y03007H09M010	120400-0244	Y03001H09M010	120400-0208
	2m	Y03006H09M020	120400-0046	Y03000H09M020	120400-0010	Y03007H09M020	120400-0245	Y03001H09M020	120400-0209
	5m	Y03006H09M050	120400-0047	Y03000H09M050	120400-0011	Y03007H09M050	120400-0246	Y03001H09M050	120400-0210
	10m	Y03006H09M100	120400-0048	Y03000H09M100	120400-0012	Y03007H09M100	120400-0247	Y03001H09M100	120400-0211
4	1m	Y04006H09M010	120400-0057	Y04000H09M010	120400-0021	Y04007H09M010	120400-0256	Y04001H09M010	120400-0220
	2m	Y04006H09M020	120400-0058	Y04000H09M020	120400-0022	Y04007H09M020	120400-0257	Y04001H09M020	120400-0221
	5m	Y04006H09M050	120400-0059	Y04000H09M050	120400-0023	Y04007H09M050	120400-0258	Y04001H09M050	120400-0222
	10m	Y04006H09M100	120400-0060	Y04000H09M100	120400-0024	Y04007H09M100	120400-0259	Y04001H09M100	120400-0223
5	1m	Y05006H09M010	120400-0069	Y05000H09M010	120400-0033	Y05007H09M010	120400-0268	Y05001H09M010	120400-0232
	2m	Y05006H09M020	120400-0070	Y05000H09M020	120400-0034	Y05007H09M020	120400-0269	Y05001H09M020	120400-0233
	5m	Y05006H09M050	120400-0071	Y05000H09M050	120400-0035	Y05007H09M050	120400-0270	Y05001H09M050	120400-0234
	10m	Y05006H09M100	120400-0072	Y05000H09M100	120400-0036	Y05007H09M100	120400-0271	Y05001H09M100	120400-0235
H08 PUR Cable 0.25mm^2									
8	1m	Y08006H08M010	120400-0124	Y08000H08M010	120400-0108	Y08007H08M010	120400-0324	Y08001H08M010	120400-0308
	2m	Y08006H08M020	120400-0125	Y08000H08M020	120400-0109	Y08007H08M020	120400-0325	Y08001H08M020	120400-0309
	5m	Y08006H08M050	120400-0126	Y08000H08M050	120400-0110	Y08007H08M050	120400-0326	Y08001H08M050	120400-0310
	10m	Y08006H08M100	120400-0127	Y08000H08M100	120400-0111	Y08007H08M100	120400-0327	Y08001H08M100	120400-0311
H45 PUR Cable 0.14mm^2									
12	1m	Y0C006H45M010	120400-0128	Y0C000H45M010	120400-0112	Y0C007H45M010	120400-0328	Y0C001H45M010	120400-0312
	2m	Y0C006H45M020	120400-0129	Y0C000H45M020	120400-0113	Y0C007H45M020	120400-0329	Y0C001H45M020	120400-0313
	5m	Y0C006H45M050	120400-0130	Y0C000H45M050	120400-0114	Y0C007H45M050	120400-0330	Y0C001H45M050	120400-0314
	10m	Y0C006H45M100	120400-0131	Y0C000H45M100	120400-0115	Y0C007H45M100	120400-0331	Y0C001H45M100	120400-0315

Sensor/Actuator Connectivity

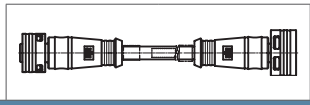
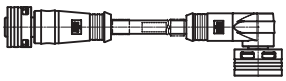
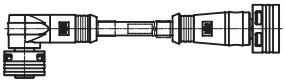
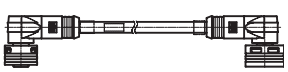
Brad M12 Ultra-Lock 2.0 Connector System

Brad M12 Ultra-Lock 2.0 Double-Ended A-Code Cordsets




Poles	Length	E03 PVC Cable 0.34mm^2							
		Female Straight/ Male Straight		Female Straight/Male 90		Female 90/Male Straight		Female 90/Male 90	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	1m	YY4030E03M010	120401-0001	YY4032E03M010	120401-0073	YY4031E03M010	120401-0037	YY4033E03M010	120401-0109
	2m	YY4030E03M020	120401-0002	YY4032E03M020	120401-0074	YY4031E03M020	120401-0038	YY4033E03M020	120401-0110
	5m	YY4030E03M050	120401-0003	YY4032E03M050	120401-0075	YY4031E03M050	120401-0039	YY4033E03M050	120401-0111
	10m	YY4030E03M100	120401-0004	YY4032E03M100	120401-0076	YY4031E03M100	120401-0040	YY4033E03M100	120401-0112
5	1m	YY5030E03M010	120401-0013	YY5032E03M010	120401-0085	YY5031E03M010	120401-0049	YY5033E03M010	120401-0121
	2m	YY5030E03M020	120401-0014	YY5032E03M020	120401-0086	YY5031E03M020	120401-0050	YY5033E03M020	120401-0122
	5m	YY5030E03M050	120401-0015	YY5032E03M050	120401-0087	YY5031E03M050	120401-0051	YY5033E03M050	120401-0123
	10m	YY5030E03M100	120401-0016	YY5032E03M100	120401-0088	YY5031E03M100	120401-0052	YY5033E03M100	120401-0124
E02 PVC Cable 0.25mm^2									
8	1m	YY8030E02M010	120401-0025	YY8032E02M010	120401-0097	YY8031E02M010	120401-0061	YY8033E02M010	120401-0133
	2m	YY8030E02M020	120401-0026	YY8032E02M020	120401-0098	YY8031E02M020	120401-0062	YY8033E02M020	120401-0134
	5m	YY8030E02M050	120401-0027	YY8032E02M050	120401-0099	YY8031E02M050	120401-0063	YY8033E02M050	120401-0135
	10m	YY8030E02M100	120401-0028	YY8032E02M100	120401-0100	YY8031E02M100	120401-0064	YY8033E02M100	120401-0136

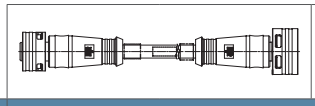
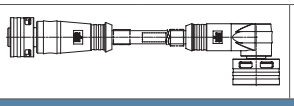
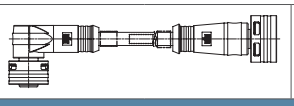
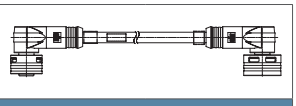





B30 WSOR Cable 0.34mm^2									
Poles	Length	Female Straight/ Male Straight		Female Straight/Male 90		Female 90/Male Straight		Female 90/Male 90	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	1m	YY4030B30M010	120401-0005	YY4032B30M010	120401-0077	YY4031B30M010	120401-0041	YY4033B30M010	120401-0113
	2m	YY4030B30M020	120401-0006	YY4032B30M020	120401-0078	YY4031B30M020	120401-0042	YY4033B30M020	120401-0114
	5m	YY4030B30M050	120401-0007	YY4032B30M050	120401-0079	YY4031B30M050	120401-0043	YY4033B30M050	120401-0115
	10m	YY4030B30M100	120401-0008	YY4032B30M100	120401-0080	YY4031B30M100	120401-0044	YY4033B30M100	120401-0116
5	1m	YY5030B30M010	120401-0017	YY5032B30M010	120401-0089	YY5031B30M010	120401-0053	YY5033B30M010	120401-0125
	2m	YY5030B30M020	120401-0018	YY5032B30M020	120401-0090	YY5031B30M020	120401-0054	YY5033B30M020	120401-0126
	5m	YY5030B30M050	120401-0019	YY5032B30M050	120401-0091	YY5031B30M050	120401-0055	YY5033B30M050	120401-0127
	10m	YY5030B30M100	120401-0020	YY5032B30M100	120401-0092	YY5031B30M100	120401-0056	YY5033B30M100	120401-0128
B41 WSOR Cable 0.25mm^2									
8	1m	YY8030B41M010	120401-0029	YY8032B41M010	120401-0101	YY8031B41M010	120401-0065	YY8033B41M010	120401-0137
	2m	YY8030B41M020	120401-0030	YY8032B41M020	120401-0102	YY8031B41M020	120401-0066	YY8033B41M020	120401-0138
	5m	YY8030B41M050	120401-0031	YY8032B41M050	120401-0103	YY8031B41M050	120401-0067	YY8033B41M050	120401-0139
	10m	YY8030B41M100	120401-0032	YY8032B41M100	120401-0104	YY8031B41M100	120401-0068	YY8033B41M100	120401-0140

Sensor/Actuator Connectivity

Brad M12 Ultra-Lock 2.0 Connector System

Brad M12 Ultra-Lock 2.0 Double-Ended A-Code Cordsets

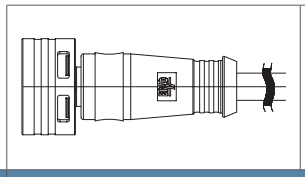
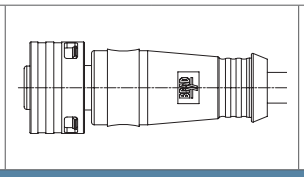
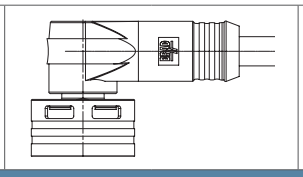
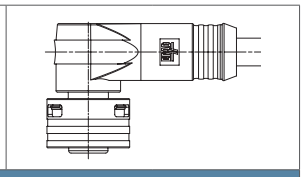
Poles	Length	H09 PUR Cable 0.34mm^2							
		Female Straight / Male Straight		Female Straight/Male 90		Female 90/Male Straight		Female 90/Male 90	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	1m	YY4030H09M010	120401-0009	YY4032H09M010	120401-0081	YY4031H09M010	120401-0045	YY4033H09M010	120401-0117
	2m	YY4030H09M020	120401-0010	YY4032H09M020	120401-0082	YY4031H09M020	120401-0046	YY4033H09M020	120401-0118
	5m	YY4030H09M050	120401-0011	YY4032H09M050	120401-0083	YY4031H09M050	120401-0047	YY4033H09M050	120401-0119
	10m	YY4030H09M100	120401-0012	YY4032H09M100	120401-0084	YY4031H09M100	120401-0048	YY4033H09M100	120401-0120
5	1m	YY5030H09M010	120401-0021	YY5032H09M010	120401-0093	YY5031H09M010	120401-0057	YY5033H09M010	120401-0129
	2m	YY5030H09M020	120401-0022	YY5032H09M020	120401-0094	YY5031H09M020	120401-0058	YY5033H09M020	120401-0130
	5m	YY5030H09M050	120401-0023	YY5032H09M050	120401-0095	YY5031H09M050	120401-0059	YY5033H09M050	120401-0131
	10m	YY5030H09M100	120401-0024	YY5032H09M100	120401-0096	YY5031H09M100	120401-0060	YY5033H09M100	120401-0132
H08 PUR Cable 0.25mm^2									
8	1m	YY8030H08M010	120401-0033	YY8032H08M010	120401-0105	YY8031H08M010	120401-0069	YY8033H08M010	120401-0141
	2m	YY8030H08M020	120401-0034	YY8032H08M020	120401-0106	YY8031H08M020	120401-0070	YY8033H08M020	120401-0142
	5m	YY8030H08M050	120401-0035	YY8032H08M050	120401-0107	YY8031H08M050	120401-0071	YY8033H08M050	120401-0143
	10m	YY8030H08M100	120401-0036	YY8032H08M100	120401-0108	YY8031H08M100	120401-0072	YY8033H08M100	120401-0144

Sensor/Actuator Connectivity

Brad M12 Ultra-Lock 2.0 Connector System

Brad M12 Ultra-Lock 2.0 Single-Ended D-Code Cordsets

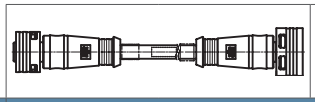
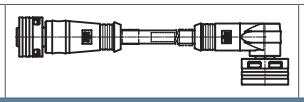
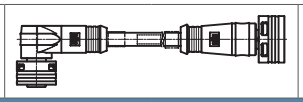
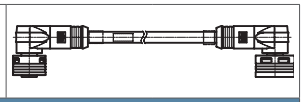


Poles	Length	04 TPE Cable 24 AWG							
		Male Straight		Female Straight		Male 90		Female 90	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	0.6m	EY0A00604M006	120406-0015	EY0A00004M006	120406-0001	EY0A00704M006	120406-0022	EY0A00104M006	120406-0008
	1m	EY0A00604M010	120406-0016	EY0A00004M010	120406-0002	EY0A00704M010	120406-0023	EY0A00104M010	120406-0009
	2m	EY0A00604M020	120406-0017	EY0A00004M020	120406-0003	EY0A00704M020	120406-0024	EY0A00104M020	120406-0010
	5m	EY0A00604M050	120406-0018	EY0A00004M050	120406-0004	EY0A00704M050	120406-0025	EY0A00104M050	120406-0011
	10m	EY0A00604M100	120406-0019	EY0A00004M100	120406-0005	EY0A00704M100	120406-0026	EY0A00104M100	120406-0012
	25m	EY0A00604M250	120406-0020	EY0A00004M250	120406-0006	EY0A00704M250	120406-0027	EY0A00104M250	120406-0013
	30m	EY0A00604M300	120406-0021	EY0A00004M300	120406-0007	EY0A00704M300	120406-0028	EY0A00104M300	120406-0014

Brad M12 Ultra-Lock 2.0 Double-Ended D-Code Cordsets



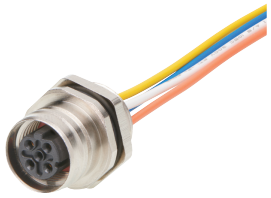





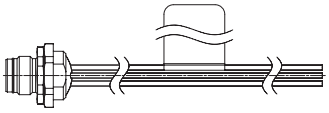
Poles	Length	04 TPE Cable 24 AWG							
		Female Straight/ Male Straight		Male Straight/Male 90		Male Straight/ Male Straight		Male 90/Male 90	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	1m	EYYA03004M010	120406-1000	EYYA06204M010	120406-1008	EYYA06004M010	120406-1004	EYYA06304M010	120406-1012
	2m	EYYA03004M020	120406-1001	EYYA06204M020	120406-1009	EYYA06004M020	120406-1005	EYYA06304M020	120406-1013
	5m	EYYA03004M050	120406-1002	EYYA06204M050	120406-1010	EYYA06004M050	120406-1006	EYYA06304M050	120406-1014
	10m	EYYA03004M100	120406-1003	EYYA06204M100	120406-1011	EYYA06004M100	120406-1007	EYYA06304M100	120406-1015

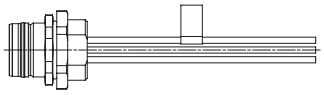
Sensor/Actuator Connectivity

Brad M12 Ultra-Lock 2.0 Connector System

Brad M12 Ultra-Lock 2.0 Front Mount Receptacles with Wires





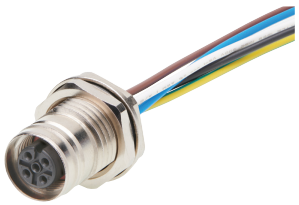


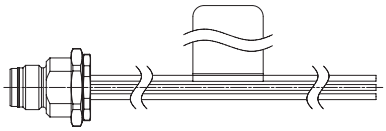
Wires with PVC Insulation							
Poles	Coding	Mount Thread	Length	Male		Female	
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	A-code	PG9	0.3m	YR4J26E03C300	120404-0058	YR4J20E03C300	120404-0011
			0.5m	YR4J26E03C500	120404-0062	YR4J20E03C500	120404-0036
		M16x1.5	0.3m	YR4U26E03C300	120404-0066	YR4U20E03C300	120404-0021
			0.5m	YR4U26E03C500	120404-0070	YR4U20E03C500	120404-0041
5		PG9	0.3m	YR5J26E03C300	120404-0059	YR5J20E03C300	120404-0012
			0.5m	YR5J26E03C500	120404-0063	YR5J20E03C500	120404-0037
		M16x1.5	0.3m	YR5U26E03C300	120404-0067	YR5U20E03C300	120404-0022
			0.5m	YR5U26E03C500	120404-0071	YR5U20E03C500	120404-0042
8		PG9	0.3m	YR8J26E02C300	120404-0060	YR8J20E02C300	120404-0013
			0.5m	YR8J26E02C500	120404-0064	YR8J20E02C500	120404-0038
		M16x1.5	0.3m	YR8U26E02C300	120404-0068	YR8U20E02C300	120404-0023
			0.5m	YR8U26E02C500	120404-0072	YR8U20E02C500	120404-0043
12		PG9	0.3m	YRCJ26E01C300	120404-0061	YRCJ20E01C300	120404-0014
			0.5m	YRCJ26E01C500	120404-0065	YRCJ20E01C500	120404-0039
		M16x1.5	0.3m	YRCU26E01C300	120404-0069	YRCU20E01C300	120404-0024
			0.5m	YRCU26E01C500	120404-0073	YRCU20E01C500	120404-0044
4	D-code	PG9	0.3m	ERYA2J26E03C300	120406-3009	ERYA2J20E03C300	120406-3002
			0.5m	ERYA2J26E03C500	120406-3010	ERYA2J20E03C500	120406-3005
		M16x1.5	0.3m	ERYA2U26E03C300	120406-3011	ERYA2U20E03C300	120406-3003
			0.5m	ERYA2U26E03C500	120406-3012	ERYA2U20E03C500	120406-3006

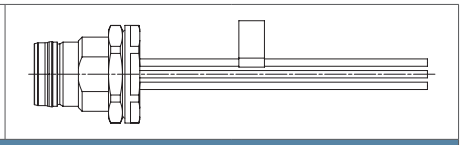
Sensor/Actuator Connectivity

Brad M12 Ultra-Lock 2.0 Connector System

Brad M12 Ultra-Lock 2.0 Back Mount M16x1.5 Thread Receptacles with Wires







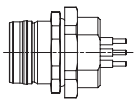
Wires with PVC insulation						
Poles	Coding	Length	Male		Female	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	A-code	0.3m	YR4U46E03C300	120404-0046	YR4U40E03C300	120404-0001
		0.5m	YR4U46E03C500	120404-0050	YR4U40E03C500	120404-0031
5		0.3m	YR5U46E03C300	120404-0047	YR5U40E03C300	120404-0002
		0.5m	YR5U46E03C500	120404-0051	YR5U40E03C500	120404-0032
8		0.3m	YR8U46E02C300	120404-0048	YR8U40E02C300	120404-0003
		0.5m	YR8U46E02C500	120404-0052	YR8U40E02C500	120404-0033
12		0.3m	YRCU46E01C300	120404-0049	YRCU40E01C300	120404-0004
		0.5m	YRCU46E01C500	120404-0053	YRCU40E01C500	120404-0034
4	D-code	0.3m	ERYA2U46E03C300	120406-3007	ERYA2U40E03C300	120406-3001
		0.5m	ERYA2U46E03C500	120406-3008	ERYA2U40E03C500	120406-3004

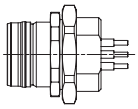
Sensor/Actuator Connectivity

Brad M12 Ultra-Lock 2.0 Connector System

Brad M12 Ultra-Lock 2.0 Front Mount Receptacles PCB Pins



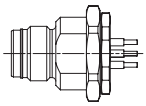


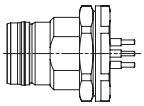


Poles	Coding	PCB Pins			
		Female PG9 Mount Thread		Female M16x1.5 Mount Thread	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	A-code	YR4J20000	120404-0016	YR4U20000	120404-0026
5		YR5J20000	120404-0017	YR5U20000	120404-0027
8		YR8J20000	120404-0018	YR8U20000	120404-0028
12		YRCJ20000	120404-0019	YRCU20000	120404-0029
4	D-code	ERYD2J20000	120406-2002	ERYD2U20000	120406-2003

Brad M12 Ultra-Lock 2.0 Back Mount M16x1.5 Thread Receptacles PCB Pins





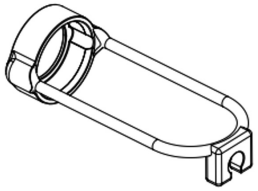


PCB Pins					
Poles	Coding	Male		Female	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	A-code	YR4U46000	120404-0054	YR4U40000	120404-0006
5		YR5U46000	120404-0055	YR5U40000	120404-0007
8		YR8U46000	120404-0056	YR8U40000	120404-0008
12		YRCU46000	120404-0057	YRCU40000	120404-0009
4	D-code	ERYD2U46000	120406-2004	ERYD2U40000	120406-2001

Brad M12 Ultra-Lock 2.0 Connector System

Brad M12 Ultra-Lock 2.0 Accessories

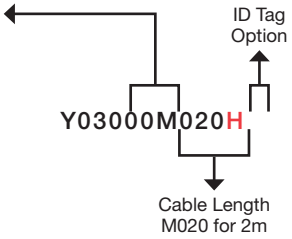
Male Puller
Standard Order No.
120466-0004



Below configuration valid for A-code cordsets

Build-A-Part Number Configuration Code

	Poles	Cable	Code
0.34mm² (22 AWG)	3, 4, 5	PVC	E03
		WSOR	B30
		PUR	H09
0.25mm² (24 AWG)	8	PVC	E02
		WSOR	B41
		PUR	H08
0.14mm² (26 AWG)	12	PUR	H45



All cordsets/receptacles on these pages are available in additional lengths. Please contact Molex at europe.brad.tech.supp@molex.com

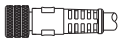
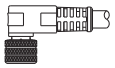
Sensor/Actuator Connectivity

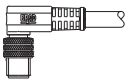
Brad Nano-Change M8

Brad Nano-Change M8 connectivity provides a rugged and space-saving solution to wire a wide range of sensors and actuators from proximity switches to rotary encoders in harsh environments.



Brad Nano-Change M8 Single-Ended Cordsets



Poles	Length	A10 PVC Cable							
		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	1m	403000A10M010	120086-0100	403001A10M010	120086-0118	403006A10M010	120086-0131	403007A10M010	120086-0031
	2m	403000A10M020	120086-0102	403001A10M020	120086-0119	403006A10M020	120086-0132	403007A10M020	120086-0139
	5m	403000A10M050	120086-0107	403001A10M050	120086-0122	403006A10M050	120086-0134	403007A10M050	120086-0141
	10m	403000A10M100	120086-0111	403001A10M100	120086-0124	403006A10M100	120086-0135	403007A10M100	120086-0142
4	1m	404000A10M010	120086-0143	404001A10M010	120086-0174	404006A10M010	120086-0182	404007A10M010	120086-0051
	2m	404000A10M020	120086-0144	404001A10M020	120086-0175	404006A10M020	120086-0183	404007A10M020	120086-0186
	5m	404000A10M050	120086-0147	404001A10M050	120086-0178	404006A10M050	120086-0185	404007A10M050	120086-0188
	10m	404000A10M100	120086-0155	404001A10M100	120086-0180	404006A10M100	120086-0577	404007A10M100	120086-0605
5	1m	405000A10M010	120086-0190	405001A10M010	120086-0199	405006A10M010	120086-0204	405007A10M010	120086-0209
	2m	405000A10M020	120086-0191	405001A10M020	120086-0200	405006A10M020	120086-0206	405007A10M020	120086-0210
	5m	405000A10M050	120086-0193	405001A10M050	120086-0202	405006A10M050	120086-0208	405007A10M050	120086-0212
	10m	405000A10M100	120086-0194	405001A10M100	—	405006A10M100	120086-0579	405007A10M100	—

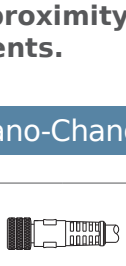
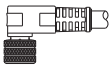
Sensor/Actuator Connectivity

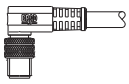
Brad Nano-Change M8

Brad Nano-Change M8 connectivity provides a rugged and space-saving solution to wire a wide range of sensors and actuators from proximity switches to rotary encoders in harsh environments.



Brad Nano-Change M8 Single-Ended Cordsets



Poles	Length	B41 WSOR Cable							
		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	1m	403000B41M010	120086-8655	403001B41M010	120086-8667	403006B41M010	120086-8631	403007B41M010	120086-8643
	2m	403000B41M020	120086-8656	403001B41M020	120086-8668	403006B41M020	120086-8632	403007B41M020	120086-8644
	5m	403000B41M050	120086-8657	403001B41M050	120086-8669	403006B41M050	120086-8633	403007B41M050	120086-8645
	10m	403000B41M100	120086-8658	403001B41M100	120086-8670	403006B41M100	120086-8634	403007B41M100	120086-8646
4	1m	404000B41M010	120086-8659	404001B41M010	120086-8671	404006B41M010	120086-8635	404007B41M010	120086-8647
	2m	404000B41M020	120086-8660	404001B41M020	120086-8672	404006B41M020	120086-8636	404007B41M020	120086-8648
	5m	404000B41M050	120086-8661	404001B41M050	120086-8673	404006B41M050	120086-8637	404007B41M050	120086-8649
	10m	404000B41M100	120086-8662	404001B41M100	120086-8674	404006B41M100	120086-8638	404007B41M100	120086-8650
5	1m	405000B41M010	120086-8663	405001B41M010	120086-8675	405006B41M010	120086-8639	405007B41M010	120086-8651
	2m	405000B41M020	120086-8664	405001B41M020	120086-8676	405006B41M020	120086-8640	405007B41M020	120086-8652
	5m	405000B41M050	120086-8665	405001B41M050	120086-8677	405006B41M050	120086-8641	405007B41M050	120086-8653
	10m	405000B41M100	120086-8666	405001B41M100	120086-8678	405006B41M100	120086-8642	405007B41M100	120086-8654

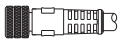
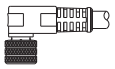
Sensor/Actuator Connectivity

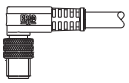
Brad Nano-Change M8

Brad Nano-Change M8 connectivity provides a rugged and space-saving solution to wire a wide range of sensors and actuators from proximity switches to rotary encoders in harsh environments.



Brad Nano-Change M8 Single-Ended Cordsets



Poles	Length	K05 TPE Cable							
		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	1m	403000K05M010	120086-0508	403001K05M010	120086-0614	403006K05M010	120086-8520	403007K05M010	120086-8524
	2m	403000K05M020	120086-0338	403001K05M020	120086-0350	403006K05M020	120086-8521	403007K05M020	120086-8525
	5m	403000K05M050	120086-0340	403001K05M050	120086-0351	403006K05M050	120086-8522	403007K05M050	120086-8526
	10m	403000K05M100	120086-0342	403001K05M100	120086-0352	403006K05M100	120086-8523	403007K05M100	120086-8527
4	1m	404000K05M010	120086-8529	404001K05M010	120086-8531	404006K05M010	120086-8534	404007K05M010	120086-8538
	2m	404000K05M020	120086-0369	404001K05M020	120086-8532	404006K05M020	120086-8535	404007K05M020	120086-8539
	5m	404000K05M050	120086-0370	404001K05M050	120086-0377	404006K05M050	120086-8536	404007K05M050	120086-8540
	10m	404000K05M100	120086-0371	404001K05M100	120086-0378	404006K05M100	120086-8537	404007K05M100	120086-8541

Build-A-Part Number Configuration Code

	Cable	Code
0.25mm² (24 AWG)	PVC	E02
	WSOR	B41
	PUR	H08

403000B41M020

Cable Length
M020 for 2m

Sensor/Actuator Connectivity

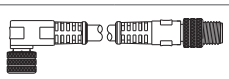
Brad Nano-Change M8

Brad Nano-Change M8 connectivity provides a rugged and space-saving solution to wire a wide range of sensors and actuators from proximity switches to rotary encoders in harsh environments.



Brad Nano-Change M8 Double-Ended Cordsets





Poles	Length	A10 PVC Cable			
		Female to Male Straight		Female 90° to Male Straight	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	.6m	443030A10M006	120087-0071	443031A10M006	120087-0242
	1m	443030A10M010	120087-0074	443031A10M010	120087-0243
	2m	443030A10M020	120087-0078	443031A10M020	120087-0245
	5m	443030A10M050	120087-0081	443031A10M050	120087-0248
4	.6m	444030A10M006	120087-0092	444031A10M006	120087-8583
	1m	444030A10M010	120087-0093	444031A10M010	120087-0103
	2m	444030A10M020	120087-0095	444031A10M020	120087-0104
	5m	444030A10M050	120087-0098	444031A10M050	120087-0107
5	.6m	445030A10M006	120087-0677	445031A10M006	120087-1019
	1m	445030A10M010	120087-0112	445031A10M010	120087-0287
	2m	445030A10M020	120087-0113	445031A10M020	120087-0288
	5m	445030A10M050	120087-0041	445031A10M050	120087-0289

A10 PVC M8 Cable Specification

For use in packaging machines and production lines in static or less demanding environments.

Conductors: 3 x 24 or 4 x 24 AWG (Black, Brown, Blue, White)

Jacket Material: Yellow PVC

Voltage Rating: 300V, Max 4 Amps

Operating Temperature: -30 to +80°C

Diameter 3 pole 4.2 +/-0.3mm
Diameter 4 pole 4.6 +/-0.3mm

Approvals: UL AWM 2661 / CSA

Sensor/Actuator Connectivity

Brad Nano-Change M8

Brad Nano-Change M8 Double-Ended Cordsets

Poles	Length	B41 WSOR Cable			
		Female to Male Straight		Female 90° to Male Straight	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	.6m	443030B41M006	120087-8703	443031B41M006	120087-8721
	1m	443030B41M010	120087-8704	443031B41M010	120087-8722
	2m	443030B41M020	120087-8705	443031B41M020	120087-8723
	3m	443030B41M030	120087-8706	443031B41M030	120087-8724
	5m	443030B41M050	120087-8707	443031B41M050	120087-8725
4	.6m	444030B41M006	120087-8709	444031B41M006	120087-8727
	1m	444030B41M010	120087-8710	444031B41M010	120087-8728
	2m	444030B41M020	120087-8711	444031B41M020	120087-8729
	3m	444030B41M030	120087-8712	444031B41M030	120087-8730
	5m	444030B41M050	120087-8713	444031B41M050	120087-8731
5	.6m	445030B41M006	120087-8715	445031B41M006	120087-8733
	1m	445030B41M010	120087-8716	445031B41M010	120087-8734
	2m	445030B41M020	120087-8717	445031B41M020	120087-8735
	3m	445030B41M030	120087-8718	445031B41M030	120087-8736
	5m	445030B41M050	120087-8719	445031B41M050	120087-8737



B41 WSOR Cable Specification

Conductors: 3x0.25 mm², 4x0.25 mm²
5x0.25 mm² , 8x0.25 mm²
(Brown, White, Blue, Black, Grey)
(BN, WH, BE, RD, GY, GN, YE, PK)

Jacket material: Black WSOR, flame retardant, oil, UV & Weld Slag resistant, silicone & FCKW free

Diameter 3 Pole: 4.5 ±0.2mm
Diameter 4 Pole: 4.8 ±0.2mm
Diameter 5 Pole: 5.3 ±0.2mm
Diameter 8 Pole: 6.4 ±0.2mm

Voltage Rating: 600V

Static Operating Temp: –40 to +90°C

Dynamic Operating Temp: –25 to +80°C

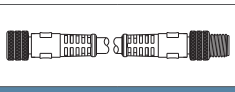
Drag Chain (20 Mio cycles at 15xO.D.) & torsion suitable

Approvals: UL AWM Style 21215 / CSA

Sensor/Actuator Connectivity

Brad Nano-Change M8

Brad Nano-Change M8 Double-Ended Cordsets





Poles	Length	K05 TPE Cable			
		Female to Male Straight		Female 90° to Male Straight	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	.6m	443030K05M006	120086-8544	443031K05M006	120086-8545
	1m	443030K05M010	120087-0235	443031K05M010	120087-0485
	2m	443030K05M020	120087-0236	443031K05M020	120087-0486
	5m	443030K05M050	120087-1000	443031K05M050	120086-8546
4	.6m	444030K05M006	120086-8547	444031K05M006	120086-8549
	1m	444030K05M010	120087-0999	444031K05M010	120086-8550
	2m	444030K05M020	120086-8548	444031K05M020	120086-8551
	5m	444030K05M050	120087-0992	444031K05M050	120086-8552



K05 TPE M8 Cable Specification

For use in machine tools, metal cutting production with harsh fluid, mechanical or continuous flex requirements.

Conductors: 3 x 22 or 4 x 22 AWG
(Black, Brown, Blue, White)

Jacket Material: Yellow TPE

Voltage Rating: 300V, Max 4 Amps

Operating Temperature: –30 to +80°C

Bending Cycles: 20 Mio cycles at 15xO.D.

Diameter 3 pole 5.0 ±0.2mm
Diameter 4 pole 5.2 ±0.2mm

Approvals: UL PL TC, CSA FT4

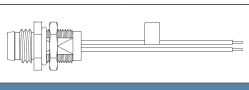
K05 Raw Cable Ordering Information

Poles	Size	Standard Order No.
3 Poles	3x200m	155240-8001
	1x800m	155240-8002
	1x1500m	155240-8003
4 Poles	3x200m	155240-8004
	1x800m	155240-8005
	1x1500m	155240-8006
5 Poles	3x100m	155240-8007
	1x500m	155240-8008
	1x1000m	155240-8009

Sensor/Actuator Connectivity

Brad Nano-Change M8

Brad Nano-Change M8 Receptacles





Poles	Front Mounting	Male		Female	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	M8x0.5	4R3P06A27C300	120090-0020	4R3P00A27C300	120090-0016
4	M8x0.5	4R4P06A27C300	120090-0032	4R4P00A27C300	120090-0029
5	M8x0.5	4R5P06A27C300	120090-0038	4R5P00A27C300	120090-0037

Sensor/Actuator Connectivity

Brad Nano-Change M8

Brad Nano-Change M8 Field Attachable Connectors

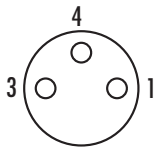


Poles	Cable Size	Wire Gage	Male Straight		Female Straight	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
Unshielded & soldering termination						
3	3.5-5.0	AWG 24	N03MA03124	120091-0004	N03FA03124	120091-0001
4	3.5-5.0	AWG 24	N04MA03124	120091-0010	N04FA03124	120091-0007
Unshielded & Screw termination						
3	3.5-5.0	AWG26-20	N03MA03134	120091-0023	N03FA03134	120091-0024
4	3.5-5.0	AWG26-20	N04MA03134	120091-0025	N04FA03134	120091-0026
Unshielded & IDC termination						
3	2.5-5.2	AWG24-20	N03MA03144	120091-0027	N03FA03144	120091-0028
4	2.5-5.2	AWG24-20	N04MA03144	120091-0029	N04FA03144	120091-0030

Poles	Cable Size	Wire Gage	Male 90°		Female 90°	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
Unshielded & soldering termination						
3	3.5-5.0	AWG 24	N03MA04124	120091-0002	N03FA04124	120091-0003
4	3.5-5.0	AWG 24	N04MA04124	120091-0012	N04FA04124	120091-0009

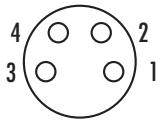
Nano-Change M8 Connector Pinout
(Front View)

3 Pole



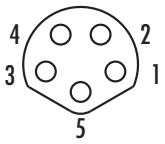
1 - Brown 4 - Black
3 - Blue

4 Pole



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

5 Pole



1 - Brown 4 - Black
2 - White 5 - Grey
3 - Blue

Sensor/Actuator Connectivity

Brad Nano-Change M8

Flamar Unshielded Signal & Control Cable Reels



Cross Section		Cable Code - Material	No. of Circuits	Cable Diameter in mm	Packaging		
mm²	AWG				3x200m	1x800m	1x1500m
0.25	24	WSOR	3	4.5	155220-0001	155220-0002	155220-0003
			4	4.8	155220-0013	155220-0014	155220-0015
			5	5.3	155220-0025	155220-0026	155220-0027
		PVC	3	4.5	155210-0001	155210-0002	155210-0003
			4	4.8	155210-0013	155210-0014	155210-0015
			5	5.3	155210-0025	155210-0026	155210-0027
		PUR	3	4.5	155230-0001	155230-0002	155230-0003
			4	4.8	155230-0013	155230-0014	155230-0015
			5	5.3	155230-0025	155230-0026	155230-0027

Brad Nano-Change M8 Closure Caps

To Cover Female		
Engineering No.	Standard Order No.	
AG15042	120308-0677	 Plastic Closure Cap

DIN Valve Connectors

Brad mPm

The mPm DIN valve connectors conform to electrical connectors industry standard EN 175301-803, which is commonly used with solenoid valves. The new generation of Molex DIN connectors provides unsurpassed sealing performance, easier assembly and mounting, and lower applied costs.



Brad mPm Field Attachable DIN Valve Connectors

Form A External Thread			
Description	Engineering No.	Standard Order No.	
Non-Electronic	C28200N2RSN	121201-0034	
With Electronic	S28200TC422RSN	121207-0358	

Form Industrial External Thread			
Description	Engineering No.	Standard Order No.	
Non-Electronic	C22200N2RSN	121202-0012	
With Electronic	S22200TC422RSN	121208-0230	

Form B External Thread			
Description	Engineering No.	Standard Order No.	
Non-Electronic	C92200N2TSN	121203-0009	
With Electronic	S92200TC422TSN	121209-0197	

Form C External Thread			
Description	Engineering No.	Standard Order No.	
Non-Electronic	C25200N2TSN	121204-0010	
With Electronic	S25200TC422TSN	121210-0332	

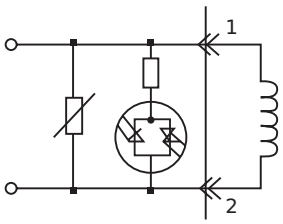
Form Micro External Thread			
Description	Engineering No.	Standard Order No.	
Non-Electronic	C29200N2TSN	121205-0012	
With Electronic	S29200TC422TSN	121211-0332	

Circuit C4 Schematics

Bipolar LED and VDR to protect supply and switch.

Available voltage rating on C4 circuit against peak of overvoltage:

12, 24, 48, 115 and 230 V AC-DC



Note:

The mPm DIN valve connectors are available with various pole counts, housings and electronics.

Further technical information, datasheet or drawing can be downloaded from the Molex website using the ordering part number.

UL recognized, cURus marked, file E218123 (product available upon request or specific part number)

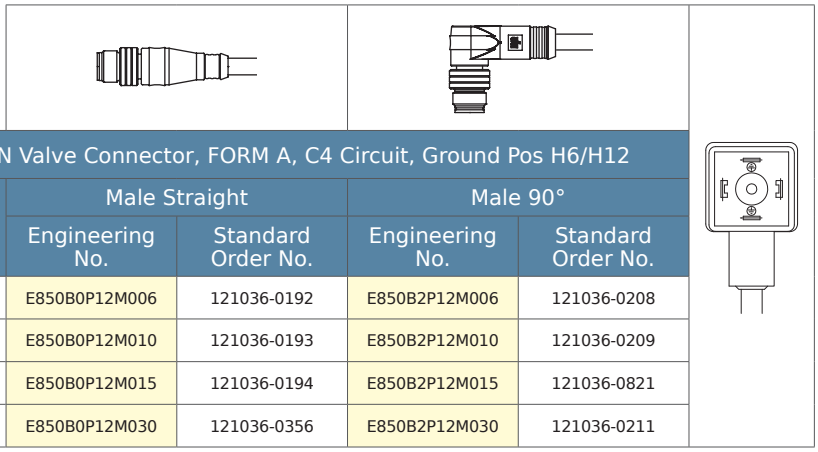
DIN Valve Connectors

Brad mPm

The mPm connectors with molded-in cable are suitable for use with most types of solenoid. These connectors offer a fast and efficient method of connection resulting in greatly reduced installation time and costs.

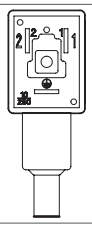


Brad mPm DIN Valve Connectors Overmolded to M12 Male Connector

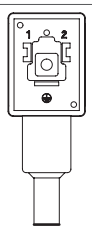


DIN Valve Connector, FORM A, C4 Circuit, Ground Pos H6/H12				
Length	Male Straight		Male 90°	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
0.6m	E850B0P12M006	121036-0192	E850B2P12M006	121036-0208
1m	E850B0P12M010	121036-0193	E850B2P12M010	121036-0209
1.5m	E850B0P12M015	121036-0194	E850B2P12M015	121036-0821
3m	E850B0P12M030	121036-0356	E850B2P12M030	121036-0211

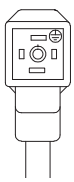
DIN Valve Connector, FORM Industrial, C4 Circuit, Ground Pos H6				
0.6m	F850B0P12M006	121036-0352	F850B2P12M006	121036-0505
1m	F850B0P12M010	121036-0255	F850B2P12M010	121036-0506
1.5m	F850B0P12M015	121036-0822	F850B2P12M015	121036-0823
3m	F850B0P12M030	121036-0257	F850B2P12M030	121036-0824



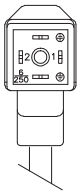
DIN Valve Connector, FORM B, C4 Circuit, Ground Pos H6				
0.6m	D850B0P12M006	121036-0056	D850B2P12M006	121036-0828
1m	D850B0P12M010	121036-0825	D850B2P12M010	121036-0829
1.5m	D850B0P12M015	121036-0826	D850B2P12M015	121036-0830
3m	D850B0P12M030	121036-0827	D850B2P12M030	121036-0831



DIN Valve Connector, FORM C, C4 Circuit, Ground Pos H6/H12				
0.6m	H850B0P12M006	121036-0295	H850B2P12M006	121036-0832
1m	H850B0P12M010	121036-0296	H850B2P12M010	121036-0305
1.5m	H850B0P12M015	121036-0471	H850B2P12M015	121036-0833
3m	H850B0P12M030	121036-0440	H850B2P12M030	121036-0834



DIN Valve Connector, FORM Micro, C4 Circuit, Ground Pos H6/H12				
0.6m	G850B0P12M006	121036-0406	G850B2P12M006	121036-0836
1m	G850B0P12M010	121036-0277	G850B2P12M010	121036-0621
1.5m	G850B0P12M015	121036-0835	G850B2P12M015	121036-0837
3m	G850B0P12M030	121036-0481	G850B2P12M030	121035-0270



DIN PUR/PVC Cable Specification

Conductors: 3x0.5mm² PVC (Brown, Blue, Green/Yellow)

Jacket Material: Black PUR

Voltage Rating: 300V

Operating Temperature:
–5 to +90°C (flexing)
–30 to +90°C (static)

Diameter: 5.5 0.3 mm

Notes:

The mPm DIN valve overmolded cordsets are available with various pole counts, housings, cables, lengths and electronics.

Further technical information, datasheet or drawing can be downloaded from the Molex website using the ordering part number.

Power Distribution Connectivity

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.

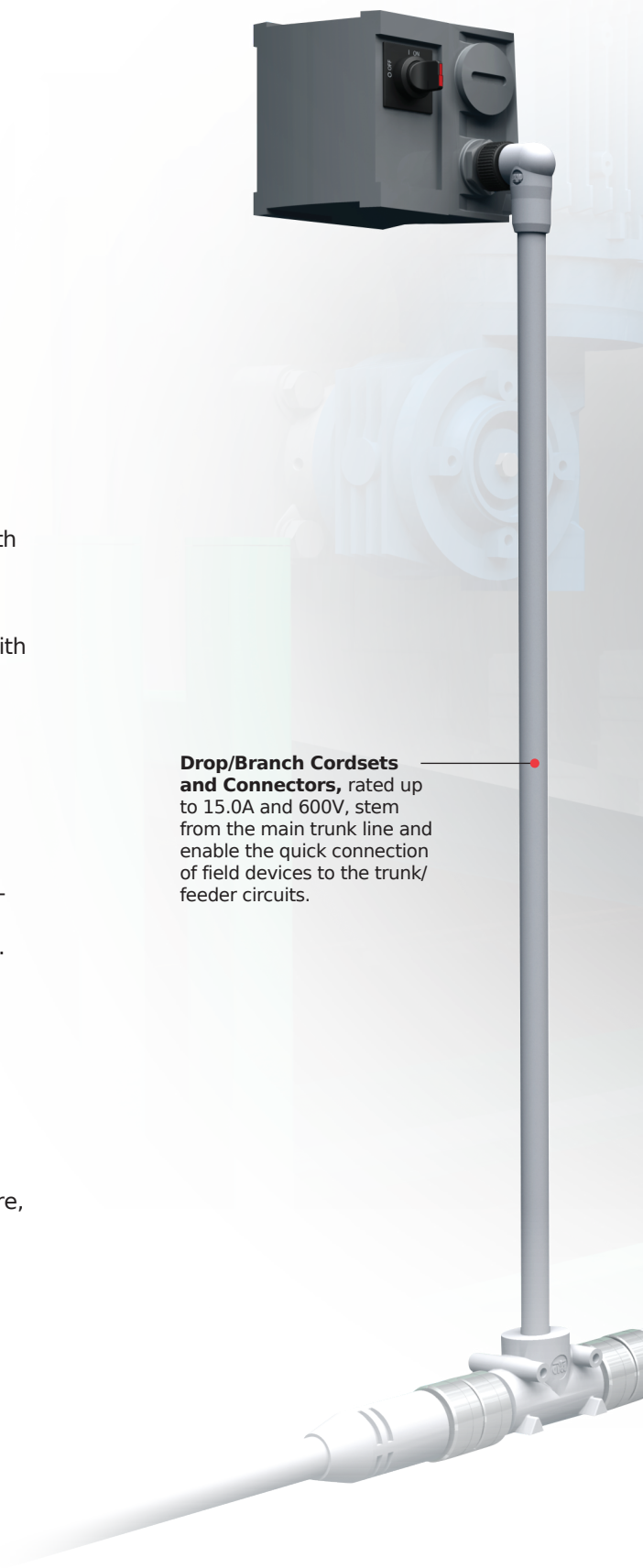
Performance

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 brand.

Stainless Steel Options for Food & Beverage/ Pharmaceutical Applications

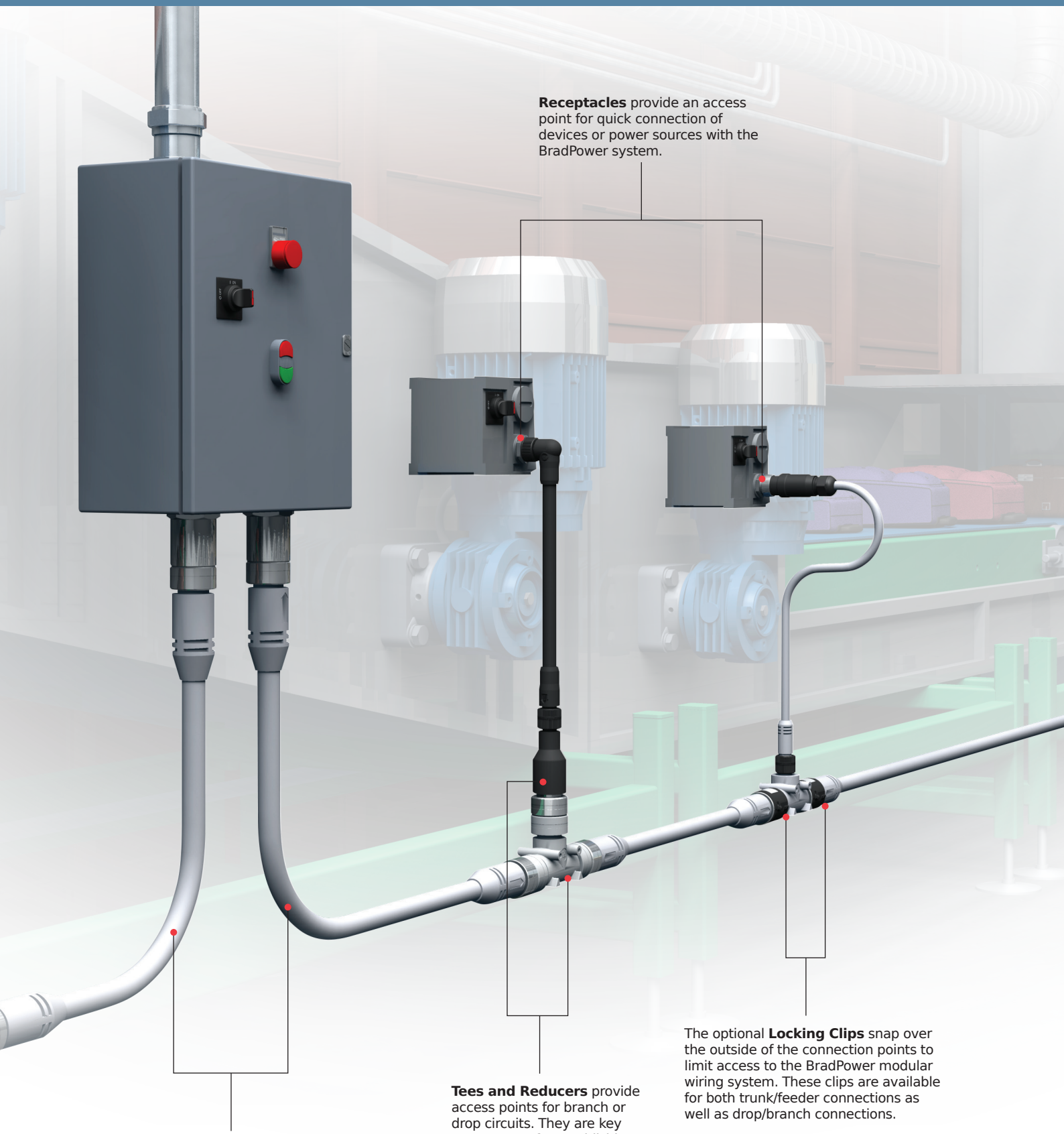
- Smooth over molds designed to eliminate food traps
- 316 stainless steel coupling nuts for maximum corrosion resistance
- IP69K-rated environmental performance, ideal for high pressure, high temperature wash-down



Drop/Branch Cordsets and Connectors, rated up to 15.0A and 600V, stem from the main trunk line and enable the quick connection of field devices to the trunk/ feeder circuits.

Power Distribution Connectivity

BradPower Modular Power Solutions



Receptacles provide an access point for quick connection of devices or power sources with the BradPower system.

Trunk/Feeder Cordsets and Connectors, rated 32.0A and 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. These clips are available for both trunk/feeder connections as well as drop/branch connections.

Modular Power Solutions

BradPower

Specifications

MECHANICAL

Molded Connector: Black (4 pole), Red (3 pole) Oil-Resistant TPE

Coupling Nut: Clear Anodized Aluminum or Black epoxy coated Zinc

Cable: Black TPE jacketed UL Type TC-ER

Minimum Bend Radius: 10x Cable Diameter

ELECTRICAL

Contact: Copper Alloy with Gold over Nickel Plating

Current: 32.0A Trunk, 15.0A Drop

Voltage: 600V AC/DC

ENVIRONMENTAL

Enclosure Rating (Mated): IP67, UL Type 4/12

Operating Temperature: −20 to +90°C

RoHS: Compliant

CERTIFICATIONS

UL Listed per UL 2237, E258922, Category PVVA for Industrial Machinery

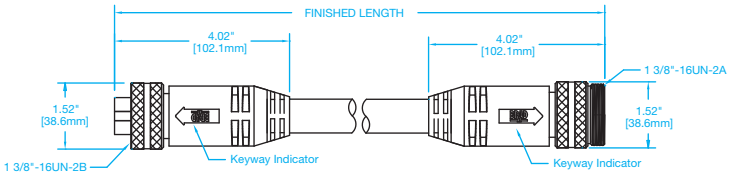
Meets NFPA 79 – 2018 Standards for Industrial Machinery and Motor Branch Circuits

UL 2237 RoHS COMPLIANT UL NFPA

BradPower D-Size (1 3/8" – M35), Three-Pole Double-Ended Trunk Patchcords

Female Straight to Male Straight		
Length	Engineering No.	Standard Order No.
1m	CC3030K19M010E	130064-0447
2m	CC3030K19M020E	130064-0437
3m	CC3030K19M030E	130064-0448
5m	CC3030K19M050E	130064-0450
10m	CC3030K19M100E	130064-0452

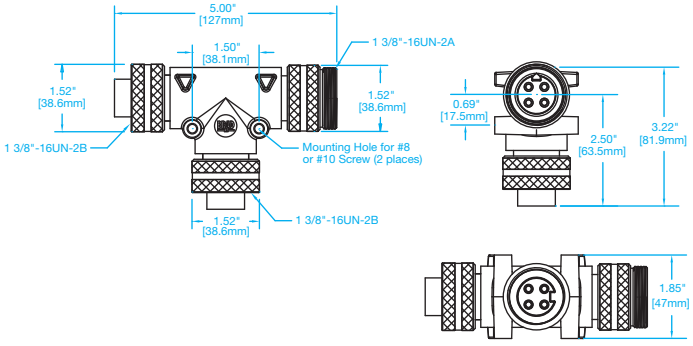
Female Straight to Male Straight



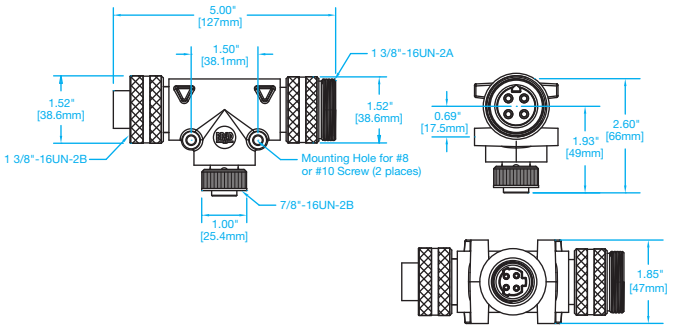
BradPower D-Size (1 3/8" – M35), Three-Pole Tee

M35 Trunk TEE	
Engineering No.	Standard Order No.
TC30C30-200E	130068-0104
M35 to M22 Reducing TEE	
Engineering No.	Standard Order No.
TC30130-200E	130068-0105

M35 Trunk TEE



M35 to M22 Reducing TEE



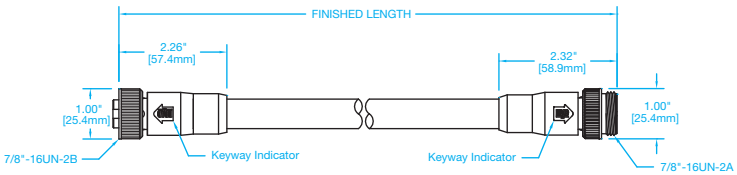
Modular Power Solutions

BradPower

BradPower A-Size (7/8" – M22), Three-Pole Double-Ended Drop Patchcords

Female Straight to Male Straight		
Length	Engineering No.	Standard Order No.
1m	113030K20M010E	130062-1011
2m	113030K20M020E	130062-1009
3m	113030K20M030E	130062-1012
5m	113030K20M050E	130062-1014
10m	113030K20M100E	130062-1016

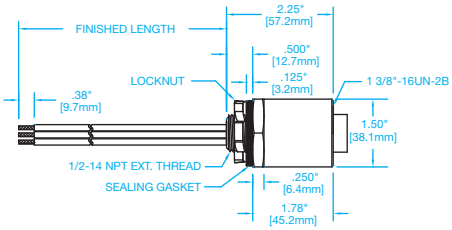
Female Straight to Male Straight



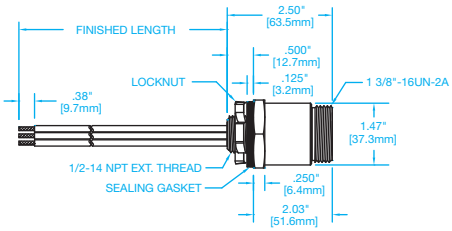
BradPower D-Size (1 3/8" – M35), Three-Pole Trunk Receptacles

Female 1/2" NPT	
Engineering No.	Standard Order No.
CR3000A30M005	130066-0110
Male 1/2" NPT	
Engineering No.	Standard Order No.
CR3006A30M005	130066-0255

Female 1/2" NPT



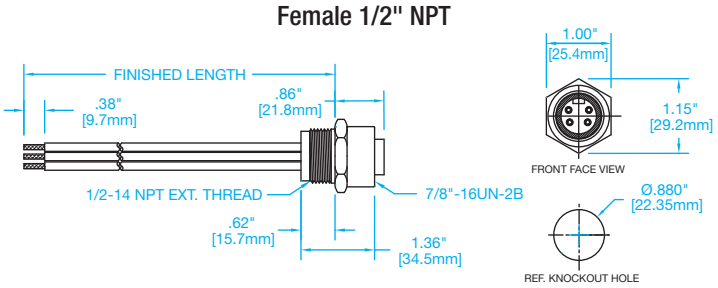
Male 1/2" NPT



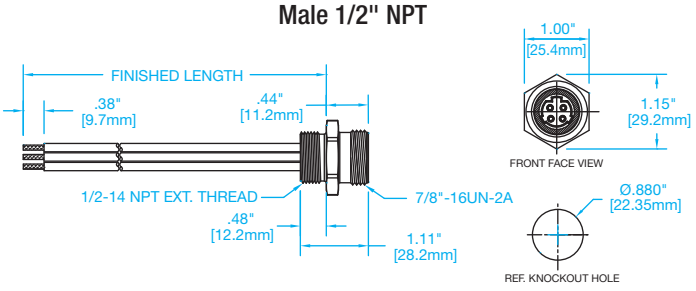
BradPower A-Size (7/8" – M22), Three-Pole Drop Receptacles

Female 1/2" NPT	
Engineering No.	Standard Order No.
1R3000A28M005G	130066-0035
Male 1/2" NPT	
Engineering No.	Standard Order No.
1R3006A28M005G	130066-0050

Female 1/2" NPT



Male 1/2" NPT

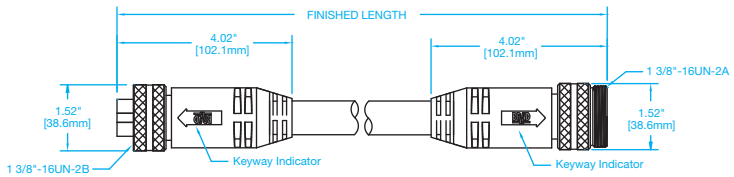


Modular Power Solutions

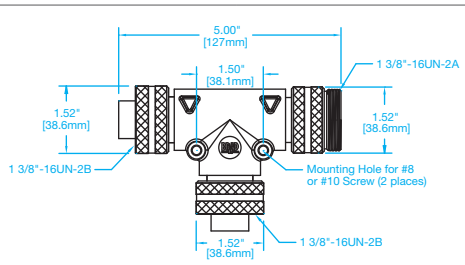
BradPower

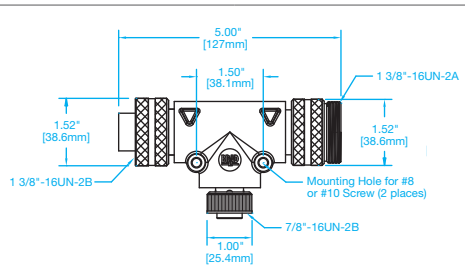
BradPower D-Size (1 3/8" – M35), Four-Pole Double-Ended Trunk Patchcords

Female Straight to Male Straight		
Length	Engineering No.	Standard Order No.
1m	CC4030K17M010G	130064-0453
2m	CC4030K17M020G	130064-0438
3m	CC4030K17M030G	130064-0439
5m	CC4030K17M050G	130064-0455
10m	CC4030K17M100G	130064-0458
Female Straight to Male 90°		
	CC4032A77MXXX	



BradPower D-Size (1 3/8" – M35), Four-Pole Tee

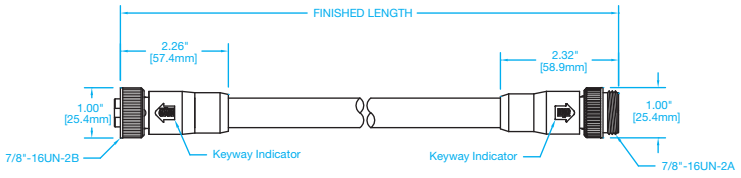




M35 Trunk TEE		M35 to M22 Reducing TEE	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
TC40C40-200G	130068-0099	TC40140-200G	130068-0106

BradPower A-Size (7/8" – M22), Four-Pole Double-Ended Drop Patchcords

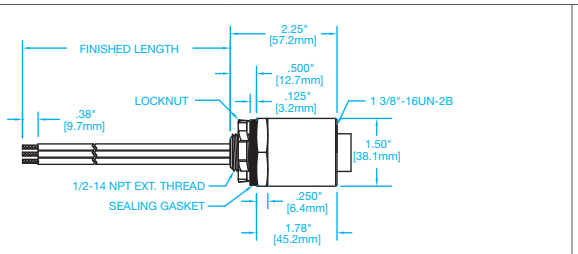
Female Straight to Male Straight		
Length	Engineering No.	Standard Order No.
1m	114030K21M010G	130062-1018
2m	114030K21M020G	130062-1028
3m	114030K21M030G	130062-1029
5m	114030K21M050G	130062-1030
10m	114030K21M100G	130062-1066

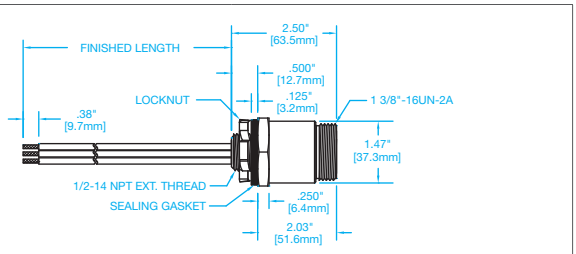


Modular Power Solutions

BradPower

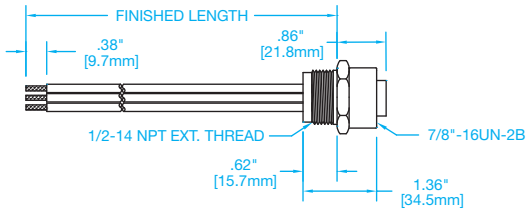
BradPower D-Size (1 3/8" – M35), Four-Pole Trunk Receptacles

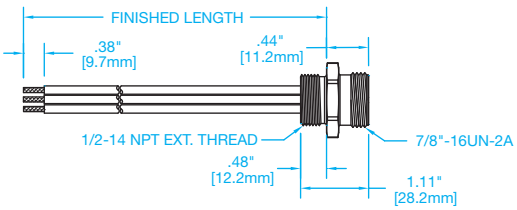




Female 1/2" NPT		Male 1/2" NPT	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
CR4000A76M005	130066-0235	CR4006A76M005	130066-0236

BradPower D-Size (1 3/8" – M35), Four-Pole Drop Receptacles





Female 1/2" NPT		Male 1/2" NPT	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1R4000A28M005G	130066-0069	1R4006A28M005G	130066-0090

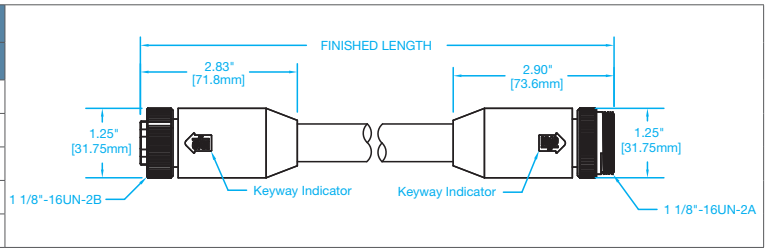
Modular Power Solutions

BradPower

BradPower C-Size (1 1/8" – M29) Four-Pole Double ended cordsets

For use with Rockwell ArmorStart ST variable frequency drives or motor starters.

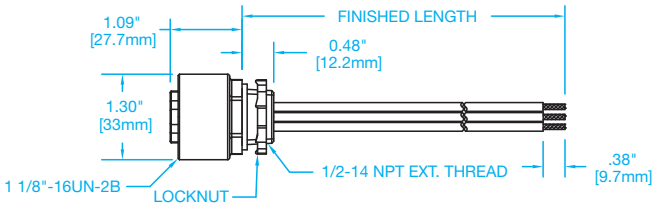
Female Straight to Male Straight		
Length	Engineering No.	Standard Order No.
1m	334T30K26M010A3	130062-1121
2m	334T30K26M020A3	130062-0300
3m	334T30K26M030A3	130062-1113
5m	334T30K26M050A3	130062-1120
10m	334T30K26M100A3	130062-1117



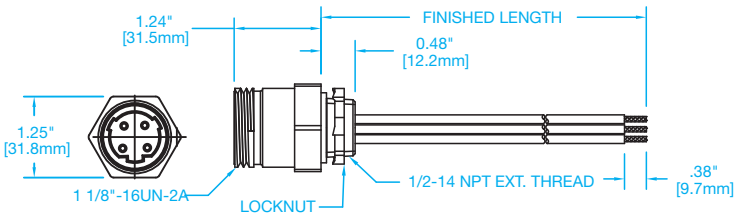
BradPower C-Size (1 1/8" – M29) Receptacles

M29 Female Straight Receptacle	
Engineering No.	Standard Order No.
3R4100A84M0053	130066-2018
M29 Male Straight Receptacle	
3R4106A84M0053	130066-2014

M29 Female Straight Receptacle

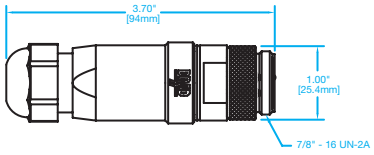


M29 Male Straight Receptacle

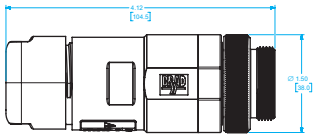


BradPower Field Attachable Connectors

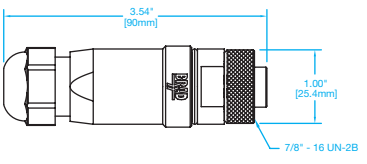
A-Size (7/8" – M22)				
Poles	Female		Male	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	1A3000-34PWR	130017-0055	1A3006-34PWR	130017-0056
4	1A4000-34PWR	130017-0057	1A4006-34PWR	130017-0058



C-Size (1 1/8“ – M29)				
Poles	Female		Male	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
4	3A4100-39	130070-0045	3A4106-39	130070-0046



D-Size (1 3/8" – M35)				
Poles	Female		Male	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3	CA3000-39	130070-0021	CA3006-39	130070-0022
4	CA4000-39	130070-0023	CA4006-39	130070-0024

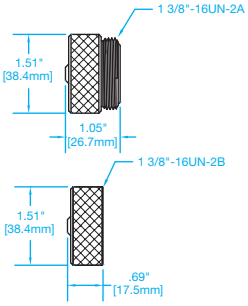


Accessories

BradPower

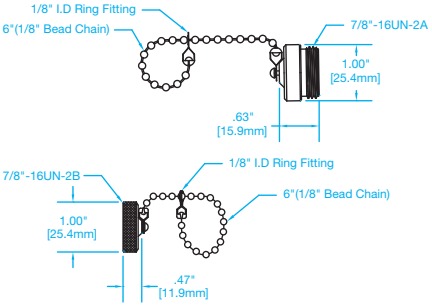
Closure Caps and Locking Clips

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	130070-0018
	Female (Mates with Male Connector)	No	Internal	55-0298	130070-0019
A-Size (7/8" – M22)	Male (Mates with Female Connector)	Yes	External	65-0085	130201-1109
	Male Stainless			65-0085SS	130201-1110
	Female (Mates with Male Connector)	Yes	Internal	65-0086	130201-1111
	Female Stainless			65-0086SS	130201-1113





1300700018 (External Threads)
and 1300700019 (Internal Threads)

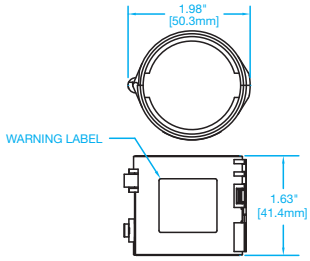




1302011109 (External Threads)
and 1302011111 (Internal Threads)

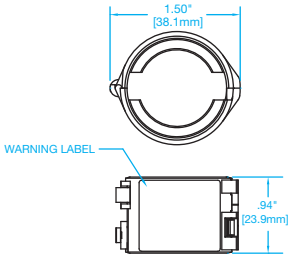
Locking Clips

Size	Quantity Per Bag	Warning Label	Engineering No.	Standard Order No.
D-Size (1 3/8" – M35)	10	CAUTION ELECTRIC SHOCK HAZARD DO NOT DISCONNECT UNDER LOAD NE PAS DEBRANCHER SOUS TENSION	66200A-10	1300700020
A-Size (7/8" – M22)	10		11400A-10	1300700012





1300700020





1300700012

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



Power Distribution Connectivity

Brad M12 Power L-Code Connector System

63V AC/DC; up to 16.0A current per pin

- **IP67-sealed interface**
- **Delivers four times the power of standard M12 connectors**



Brad Mini-Change 7/8" for Power Distribution

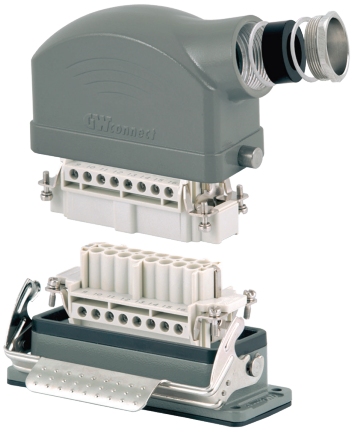
Dedicated +24V DC power supply for 60mm HarshIO modules.

- **Up to 8.0A UL per contacts**
- **16 AWG Wires (1.5mm²) for low voltage drop**
- **Five-poles version**



Heavy-Duty Connectors

- **Rectangular connectors for high-density and modular connectivity applications**
- **Up to 100.0A according to inserts and contacts used**



Power Infrastructure Connectivity

Brad M12 Power L-Code Connector System

Industrial Ethernet Switches for Industry 4.0
Electric Propulsion

Provides the power and performance required for Industry 4.0 electric propulsion applications.

- **Compact, high-performance design**
- **Reliable operation in demanding industrial environments**
- **Meets PROFIBUS and PROFINET International (PI) standards for PROFINET systems**



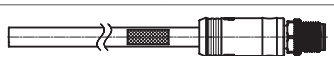
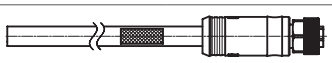
MALE
MATING SIDE



FEMALE
MATING SIDE



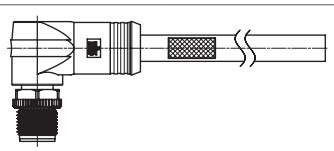
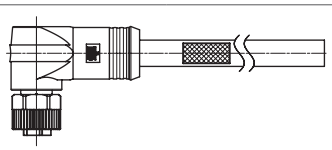
Brad M12 Power L-Code Single-Ended Four-Pole Cordsets

Length	B43 WSOR Cable 1.50mm^2			
	Male Straight		Female Straight	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	L0P4006B43M010	120500-0342	L0P4000B43M010	120500-0328
5m	L0P4006B43M050	120500-0345	L0P4000B43M050	120500-0331
10m	L0P4006B43M100	120500-0346	L0P4000B43M100	120500-0332
15m	L0P4006B43M150	120500-0347	L0P4000B43M150	120500-0333
20m	L0P4006B43M200	120500-0348	L0P4000B43M200	120500-0334



Brad M12 Power L-Code Single-Ended Four-Pole Cordsets

Length	B43 WSOR Cable 1.50mm^2			
	Male 90		Female 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	L0P4007B43M010	120500-0349	L0P4001B43M010	120500-0335
5m	L0P4007B43M050	120500-0352	L0P4001B43M050	120500-0338
10m	L0P4007B43M100	120500-0353	L0P4001B43M100	120500-0339
15m	L0P4007B43M150	120500-0354	L0P4001B43M150	120500-0340
20m	L0P4007B43M200	120500-0355	L0P4001B43M200	120500-0341

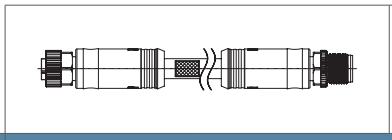
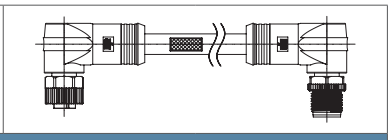
B43 WSOR Cable Specification

Conductors: 4 x AWG 16 (1.50mm^2)
Color cores: Brown, White, Blue, Black
Jacket Material: Weld, Slag, and Oil Resistant PUR based; Black, not halogen free, flame retardant, UV resistant, silicon and FCKW free.
Voltage rating: 600V
Operating Temperature Range: –40 to +90°C*
Drag Chain** and Torsion suitable
UL758 Certified
* Fixed temperature range
** Up to 5 million bending cycles @ 20°C

All cordsets/receptacles on these pages are available in additional lengths. Please contact Molex at europe.brad.tech.supp@molex.com

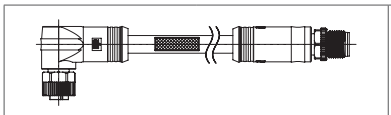
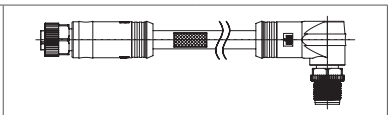
Brad M12 Power L-Code Connector System

Brad M12 Power L-Code Double-Ended Four-Pole Cordsets

Length	B43 WSOR Cable 1.50mm^2			
	Female Straight/Male Straight		Female 90/Male 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	LLP4030B43M010	120501-0233	LLP4033B43M010	120501-0257
5m	LLP4030B43M050	120501-0236	LLP4033B43M050	120501-0260
10m	LLP4030B43M100	120501-0237	LLP4033B43M100	120501-0261
15m	LLP4030B43M150	120501-0238	LLP4033B43M150	120501-0262
20m	LLP4030B43M200	120501-0239	LLP4033B43M200	120501-0263



Length	B43 WSOR Cable 1.50mm^2			
	Female 90/Male Straight		Female Straight/Male 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	LLP4031B43M010	120501-0241	LLP4032B43M010	120501-0249
5m	LLP4031B43M050	120501-0244	LLP4032B43M050	120501-0252
10m	LLP4031B43M100	120501-0245	LLP4032B43M100	120501-0253
15m	LLP4031B43M150	120501-0246	LLP4032B43M150	120501-0254
20m	LLP4031B43M200	120501-0247	LLP4032B43M200	120501-0255




B43 WSOR Cable Specification

Conductors: 4 x AWG 16 (1.50mm^2)

Color cores: Brown, White, Blue, Black

Jacket Material: Weld, Slag, and Oil Resistant PUR based; Black, not halogen free, flame retardant, UV resistant, silicon and FCKW free.

Voltage rating: 600V

Operating Temperature Range: –40 to +90°C*

Drag Chain** and Torsion suitable

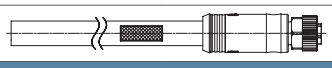
UL758 Certified

* Fixed temperature range
** Up to 5 million bending cycles @ 20°C

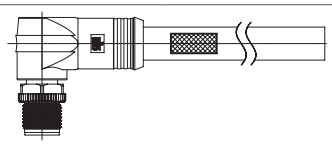
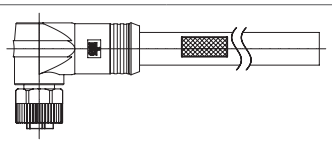
Power Infrastructure Connectivity

Brad M12 Power L-Code Connector System

Brad M12 Power L-Code Single-Ended Four-Pole Cordsets

Length	B65 WSOR Cable 2.50mm^2			
	Male Straight		Female Straight	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	L0P4006B65M010	120500-0242	L0P4000B65M010	120500-0228
5m	L0P4006B65M050	120500-0245	L0P4000B65M050	120500-0231
10m	L0P4006B65M100	120500-0246	L0P4000B65M100	120500-0232
15m	L0P4006B65M150	120500-0247	L0P4000B65M150	120500-0233
20m	L0P4006B65M200	120500-0248	L0P4000B65M200	120500-0234

Length	B65 WSOR Cable 2.50mm^2			
	Male 90		Female 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	L0P4007B65M010	120500-0249	L0P4001B65M010	120500-0235
5m	L0P4007B65M050	120500-0252	L0P4001B65M050	120500-0238
10m	L0P4007B65M100	120500-0253	L0P4001B65M100	120500-0239
15m	L0P4007B65M150	120500-0254	L0P4001B65M150	120500-0240
20m	L0P4007B65M200	120500-0255	L0P4001B65M200	120500-0241




B65 WSOR Cable Specification

Conductors: 4 x AWG 14 (2.50mm^2)

Color cores: Brown, White, Blue, Black

Jacket Material: Weld, Slag, and Oil Resistant PUR based; Black, not halogen free, flame retardant, UV resistant, silicon and FCKW free.

Voltage rating: 600V

Operating Temperature Range: –40 to +80°C*

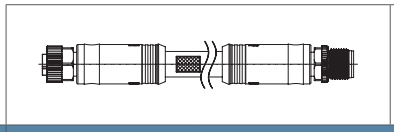
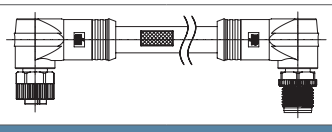
Drag Chain** and Torsion suitable

UL758 Certified

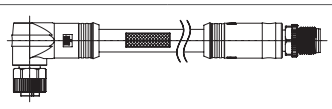
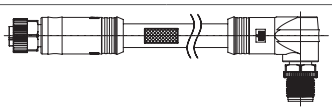
* Fixed temperature range

** Up to 5 million bending cycles @ 20°C

Brad M12 Power L-Code Double-Ended Four-Pole Cordset

Length	B65 WSOR Cable 2.50mm^2			
	Female Straight/Male Straight		Female 90/Male 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	LLP4030B65M010	120501-0133	LLP4033B65M010	120501-0157
5m	LLP4030B65M050	120501-0136	LLP4033B65M050	120501-0160
10m	LLP4030B65M100	120501-0137	LLP4033B65M100	120501-0161
15m	LLP4030B65M150	120501-0138	LLP4033B65M150	120501-0162
20m	LLP4030B65M200	120501-0139	LLP4033B65M200	120501-0163

Length	B65 WSOR Cable 2.50mm^2			
	Female 90/Male Straight		Female Straight/Male 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	LLP4031B65M010	120501-0141	LLP4032B65M010	120501-0149
5m	LLP4031B65M050	120501-0144	LLP4032B65M050	120501-0152
10m	LLP4031B65M100	120501-0145	LLP4032B65M100	120501-0153
15m	LLP4031B65M150	120501-0146	LLP4032B65M150	120501-0154
20m	LLP4031B65M200	120501-0147	LLP4032B65M200	120501-0155



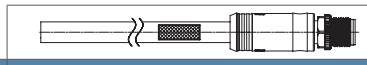
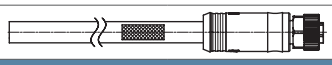



All cordsets/receptacles on these pages are available in additional lengths. Please contact Molex at europe.brad.tech.supp@molex.com

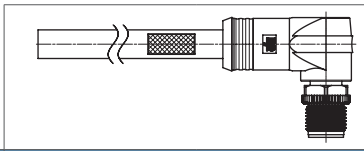
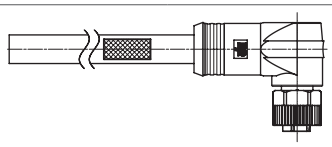
Power Infrastructure Connectivity

Brad M12 Power L-Code Connector System

Brad M12 Power L-Code Single-Ended Five-Pole Cordsets

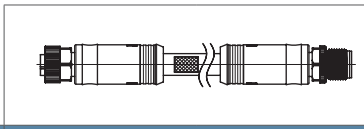
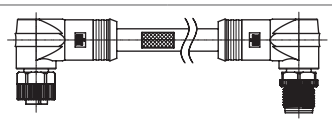



Length	B66 WSOR Cable 1.50mm^2			
	Male Straight		Female Straight	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	L0P5006B66M010	120500-0314	L0P5000B66M010	120500-0300
5m	L0P5006B66M050	120500-0317	L0P5000B66M050	120500-0303
10m	L0P5006B66M100	120500-0318	L0P5000B66M100	120500-0304
15m	L0P5006B66M150	120500-0319	L0P5000B66M150	120500-0305
20m	L0P5006B66M200	120500-0320	L0P5000B66M200	120500-0306

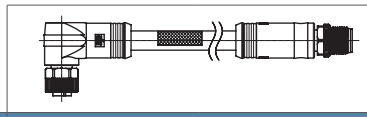
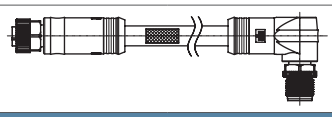



Length	B66 WSOR Cable 1.50mm^2			
	Male 90		Female 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	L0P5007B66M010	120500-0321	L0P5001B66M010	120500-0307
5m	L0P5007B66M050	120500-0324	L0P5001B66M050	120500-0310
10m	L0P5007B66M100	120500-0325	L0P5001B66M100	120500-0311
15m	L0P5007B66M150	120500-0326	L0P5001B66M150	120500-0312
20m	L0P5007B66M200	120500-0327	L0P5001B66M200	120500-0313

Brad M12 Power L-Code Double-Ended Five-Pole Cordsets

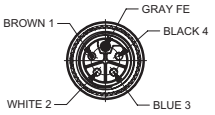
Length	B66 WSOR Cable 1.50mm^2			
	Female Straight/Male Straight		Female 90/Male 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	LLP5030B66M010	120501-0201	LLP5033B66M010	120501-0225
5m	LLP5030B66M050	120501-0204	LLP5033B66M050	120501-0228
10m	LLP5030B66M100	120501-0205	LLP5033B66M100	120501-0229
15m	LLP5030B66M150	120501-0206	LLP5033B66M150	120501-0230
20m	LLP5030B66M200	120501-0207	LLP5033B66M150	120501-0231

Length	B66 WSOR Cable 1.50mm^2			
	Female 90/Male Straight		Female Straight/Male 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	LLP5031B66M010	120501-0209	LLP5032B66M010	120501-0217
5m	LLP5031B66M050	120501-0212	LLP5032B66M050	120501-0220
10m	LLP5031B66M100	120501-0213	LLP5032B66M100	120501-0221
15m	LLP5031B66M150	120501-0214	LLP5032B66M150	120501-0222
20m	LLP5031B66M200	120501-0215	LLP5032B66M150	120501-0223



MALE MATING SIDE



FEMALE MATING SIDE





B66 WSOR Cable Specification

Conductors: 5 x AWG 16 (1.50mm^2)

Color cores: White, Blue, Black, Grey, Brown

Jacket Material: Weld, Slag, and Oil Resistant PUR based; Light grey, not halogen free, flame retardant, UV resistant, silicon and FCKW free.

Voltage rating: 600V

Operating Temperature Range: –40 to +80°C*

Drag Chain** and Torsion suitable

UL758 Certified

* Fixed temperature range
** Up to 5 million bending cycles @ 20°C






All cordsets/receptacles on these pages are available in additional lengths. Please contact Molex at europe.brad.tech.supp@molex.com

Power Infrastructure Connectivity

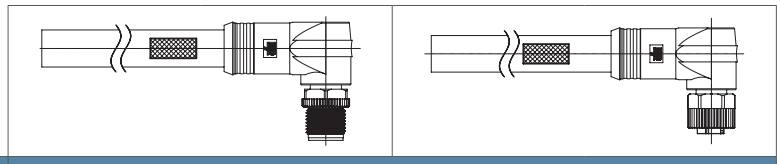
Brad M12 Power L-Code Connector System

Brad M12 Power L-Code Single-Ended Five-Pole Cordsets



Length	B63 WSOR Cable 2.50mm^2			
	Male Straight		Female Straight	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	L0P5006B63M010	120500-0214	L0P5000B63M010	120500-0200
5m	L0P5006B63M050	120500-0217	L0P5000B63M050	120500-0203
10m	L0P5006B63M100	120500-0218	L0P5000B63M100	120500-0204
15m	L0P5006B63M150	120500-0219	L0P5000B63M150	120500-0205
20m	L0P5006B63M200	120500-0220	L0P5000B63M200	120500-0206

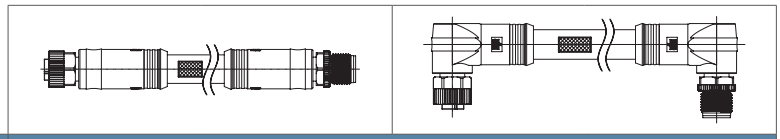




Length	B63 WSOR Cable 2.50mm^2			
	Male 90		Female 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	L0P5007B63M010	120500-0221	L0P5001B63M010	120500-0207
5m	L0P5007B63M050	120500-0224	L0P5001B63M050	120500-0210
10m	L0P5007B63M100	120500-0225	L0P5001B63M100	120500-0211
15m	L0P5007B63M150	120500-0226	L0P5001B63M150	120500-0212
20m	L0P5007B63M200	120500-0227	L0P5001B63M200	120500-0213



Brad M12 Power L-Code Double-Ended Five-Pole Cordsets



Length	B63 WSOR Cable 2.50mm^2			
	Female Straight/Male Straight		Female 90/Male 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	LLP5030B63M010	120501-0101	LLP5033B63M010	120501-0125
5m	LLP5030B63M050	120501-0104	LLP5033B63M050	120501-0128
10m	LLP5030B63M100	120501-0105	LLP5033B63M100	120501-0129
15m	LLP5030B63M150	120501-0106	LLP5033B63M150	120501-0130
20m	LLP5030B63M200	120501-0107	LLP5033B63M150	120501-0131



B63 WSOR Cable Specification

Conductors: 5 x AWG 14 (2.50mm^2)

Color cores: Brown, White, Blue, Black, Grey

Jacket Material: Weld, Slag, and Oil Resistant PUR based; Light Grey, not halogen free, flame retardant, UV resistant, silicon and FCKW free.

Voltage rating: 600V

Operating Temperature Range: –40 to +80°C*

Dag Chain** and Torsion suitable

UL758 Certified

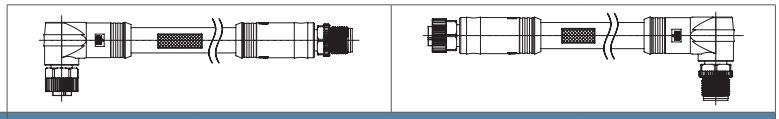
* Fixed temperature range

** Up to 5 million bending cycles @ 20°C

All cordsets/receptacles on these pages are available in additional lengths. Please contact Molex at europe.brad.tech.supp@molex.com

Brad M12 Power L-Code Connector System

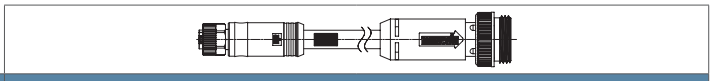
Brad M12 Power L-Code Double-Ended Five-Pole Cordsets



Length	B63 WSOR Cable 2.50mm²			
	Female 90 / Male Straight		Female Straight/Male 90	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
1m	LLP5031B63M010	120501-0109	LLP5032B63M010	120501-0117
5m	LLP5031B63M050	120501-0112	LLP5032B63M050	120501-0120
10m	LLP5031B63M100	120501-0113	LLP5032B63M100	120501-0121
15m	LLP5031B63M150	120501-0114	LLP5032B63M150	120501-0122
20m	LLP5031B63M200	120501-0115	LLP5032B63M150	120501-0123

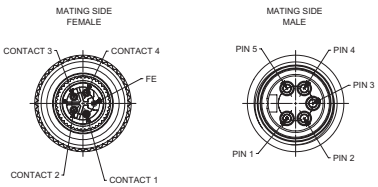


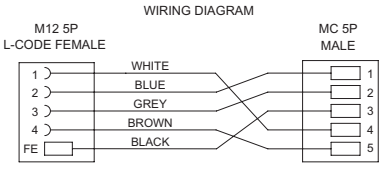
Brad M12 Power L-Code Adapter Five-Pole Cordsets

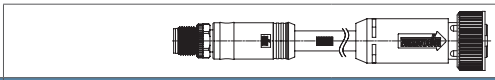


Length	B66 WSOR Cable 1.50mm²	
	M12 L-Code Female Straight/Mini Male Straight	
	Engineering No.	Standard Order No.
2m	L1P5030B66M020H	120505-0100
5m	L1P5030B66M050H	120505-0101
10m	L1P5030B66M100H	120505-0102
15m	L1P5030B66M150H	120505-0103
20m	L1P5030B66M200H	120505-0104



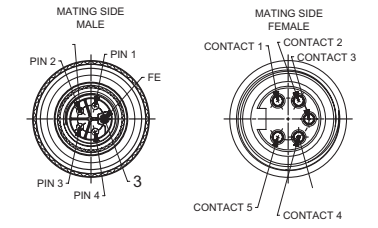


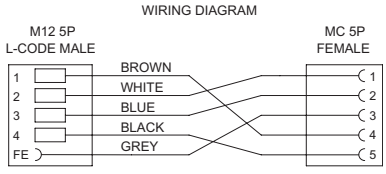




Length	B66 WSOR Cable 1.50mm²	
	Mini Female Straight/M12 L-Code Male Straight	
	Engineering No.	Standard Order No.
2m	1LP5030B66M020H	120505-0105
5m	1LP5030B66M050H	120505-0106
10m	1LP5030B66M100H	120505-0107
15m	1LP5030B66M150H	120505-0108
20m	1LP5030B66M200H	120505-0109







B66 WSOR Cable Specification

Conductors: 5 x AWG 16 (1.50mm²)

Color cores: White, Blue, Black, Grey, Brown

Jacket Material: Weld, Slag, and Oil Resistant PUR based; Light grey, not halogen free, flame retardant, UV resistant, silicon and FCKW free.

Voltage rating: 600V

Operating Temperature Range: –40 to +80°C*

Drag Chain** and Torsion suitable

UL758 Certified

* Fixed temperature range

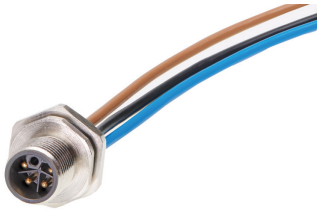
** Up to 5 million bending cycles @ 20°C

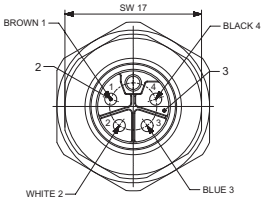
All cordsets/receptacles on these pages are available in additional lengths. Please contact Molex at europe.brad.tech.supp@molex.com

Power Infrastructure Connectivity

Brad M12 Power L-Code Receptacles

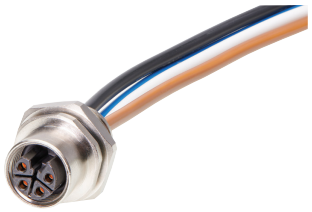
Brad Micro Change M12 Power L-Code 4x1.5mm² Receptacles

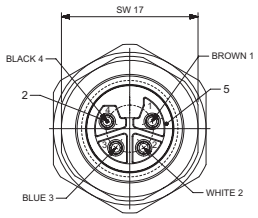




Length	M16x1.5 Front Panel Mount 1.5 mm² (16 AWG) Wire Leads			
	Male		Female	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
0.5m	LRP4U26L15M005	120502-0026	LRP4U24L15M005	120502-0028
0.2m	LRP4U26L15M002	120502-0027	LRP4U24L15M002	120502-0029

Brad Micro Change M12 Power L-Code 4x2.5mm² Receptacles

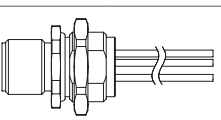
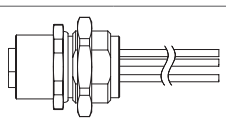




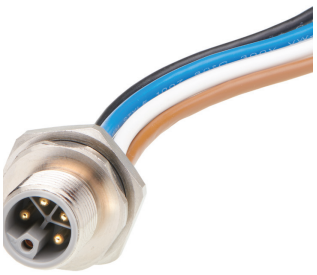
Length	M16x1.5 Front Panel Mount 2.5 mm² (14 AWG) Wire Leads			
	Male		Female	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
0.5m	LRP4U26L25M005	120502-0030	LRP4U24L25M005	120502-0032
0.2m	LRP4U26L25M002	120502-0031	LRP4U24L25M002	120502-0033

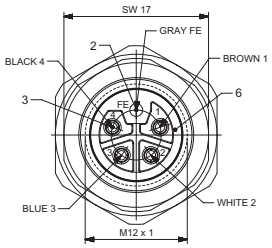
Brad M12 Power L-Code Receptacles

Brad Micro Change M12 Power L-Code 5.00 x 1.50mm² Receptacles

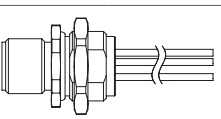
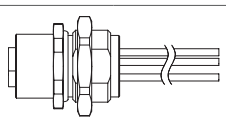



Length	M16x1.5 Front Panel Mount 1.50mm² (16 AWG) Wire Leads			
	Male		Female	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
0.5m	LRP5U26L15M005	120502-0012	LRP5U24L15M005	120502-0014
0.2m	LRP5U26L15M002	120502-0013	LRP5U24L15M002	120502-0015



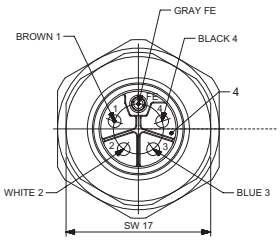


Brad Micro Change M12 Power L-Code 5x2.5mm² Receptacles

Length	M16x1.5 Front Panel Mount 2.50mm² (14 AWG) Wire Leads			
	Male		Female	
	Engineering No.	Std. Order No.	Engineering No.	Std. Order No.
0.5m	LRP5U26L25M005	120502-0022	LRP5U24L25M005	120502-0024
0.2m	LRP5U26L25M002	120502-0023	LRP5U24L25M002	120502-0025





All cordsets/receptacles on these pages are available in additional lengths. Please contact Molex at europe.brad.tech.supp@molex.com

Power Infrastructure Connectivity

Brad Mini-Change (7/8”) Auxiliary

Plug-and-play three-pole cable is in support of 120V AC power distribution infrastructure to connect IP67 devices based on the Mini-Change (7/8") connection system.



Brad Mini-Change (7/8") Single-Ended Three-Pole Cordsets

Length	Three-Pole Mini-Change Auxiliary Power TPE Cable			
	Male Straight		Female Straight	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
2m	103006K13M020	130006-2456	103000K13M020	130006-2383
5m	103006K13M050	130006-2459	103000K13M050	130006-9041
10m	103006K13M100	130006-2462	103000K13M100	130006-0419

Brad Mini-Change (7/8") Double-Ended Three-Pole Cordsets

Length	Three-Pole Mini-Change Auxiliary Power TPE Cable	
	Female Straight to Male Straight	
	Engineering No.	Standard Order No.
1m	113030K13M010	130010-0487
2m	113030K13M020	130010-0488
5m	113030K13M050	130010-0491
10m	113030K13M100	130010-5001
20m	113030K13M200	130010-5002

Brad Mini-Change (7/8") Three-Pole Receptacles*

Length	3 Pole Mini-Change Auxiliary Power PVC Wires			
	Male Receptacle		Female Receptacle	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	1R3006A20M010	130013-0223	1R3000A20M010	130013-0111
2m	1R3006A20M020	130013-0224	1R3000A20M020	130013-0112

* Gasket and Locknut Sold Separately.
Gasket: 130180-0059
1/2" NPT Locknut: 130184-0031

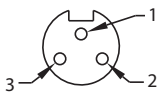
K13-3 TPE Cable Specification

Conductors: 3 x 16 AWG (1.5mm²)
Jacket Material: TPE
Jacket Color: Yellow
Voltage Rating: 600V AC/DC
Max. Current: 13A
Temperature Range: –40 to 90°C (–40 to 194°F)
C-Track & Torsional Flex Test: 20 Million Cycles
Cable O.D: ø 0.405" (10.28mm)
Minimum Bend Radius: 10x cable diameter
Approvals: UL Listed TC-ER

Mini-Change Three-Pole Female Connector Pinout

(Front view)

3 Pole



1 - Green/Yellow
2 - Black
3 - White

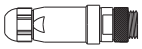
Raw Cable Ordering Information (250 FT)

K13-3 Yellow TPE: 130209-0010

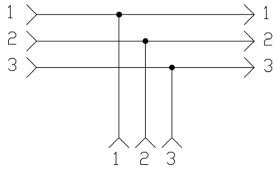
Brad Mini-Change (7/8") Auxiliary

Brad Mini-Change Three-Pole Field Attachable Connector

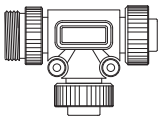


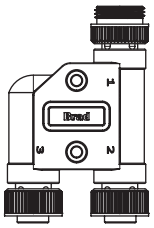
			
Male		Female	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1A3006-34	130017-0011	1A3000-34	130017-0004
Enhanced* Option Stainless			
1A3006-348	130017-0012	1A3000-348	130017-0005
* Coupling Nut = SS with Passivated finish instead of Brass with Nickel Plated finish			

3 Pole
Mini-Change Tee, Y-Splitter and Distribution Box Wiring



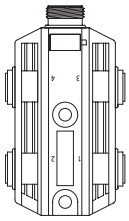
Brad Mini-Change Three-Pole Splitters

Mini-Change Tee		
Male		
Engineering No.	Standard Order No.	
61056	130018-0217	

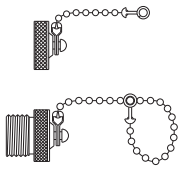
Mini-Change H-Splitter		
Male		
Engineering No.	Standard Order No.	
ACAUXH	130035-0121	



Note:
Further technical information, datasheet or drawing can be downloaded from the Molex website using the Standard Order part number listed.

Mini-Change Distribution Box			
Description	Engineering No.	Standard Order No.	
4 Ports	ACAUX4000	130060-0067	
6 Ports	ACAUX8000	130060-0068	

Brad Mini-Change Accessories

Mini-Change Caps			
Description	Engineering No.	Standard Order No.	
Int. Thread	65-0086	130201-1111	
Ext. Thread	65-0085	130201-1109	

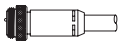
Power Infrastructure Connectivity

Brad Mini-Change (7/8") Auxiliary

Provides a plug-and-play, four-pole 24V DC power distribution infrastructure for connecting IP67 devices using the Mini-Change (7/8") connection system in EtherNet/IP and DeviceNet networks.

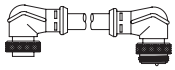


Mini-Change (7/8") Single-Ended Four-Pole Cordsets



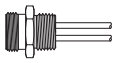
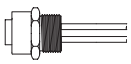

Length	Four-Pole Mini-Change Auxiliary Power TPE Cable			
	Male Straight		Female Straight	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
2m	104006K12M020	130006-2184	104000K12M020	130006-2166
5m	104006K12M050	130006-2183	104000K12M050	130006-0895
10m	104006K12M100	130006-2376	104000K12M100	130006-0897

Mini-Change (7/8") Double-Ended Four-Pole Cordsets

Length	Four-Pole Mini-Change Auxiliary Power TPE Cable			
	Female Straight to Male Straight		Female 90° to Male 90°	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	114030K12M010	130010-0864	114033K12M010	130010-0982
2m	114030K12M020	130010-0865	114033K12M020	130010-1744
5m	114030K12M050	130010-0868	114033K12M050	130010-1747
10m	114030K12M100	130010-0873	114033K12M100	130010-1905
20m	114030K12M200	130010-0882	114033K12M200	130010-1908

Mini-Change (7/8") Four-Pole Receptacles

Length	Four Pole Mini-Change Auxiliary Power PVC Wires			
	Male Receptacle		Female Receptacle	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	1R4006A39M010	130013-0377	1R4000A39M010	130013-0300
2m	1R4006A39M020	130013-0378	1R4000A39M020	130013-0301

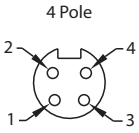
* Gasket and Locknut Sold Separately.
Gasket: 130180-0059
1/2" NPT Locknut: 130184-0031

K12-4 TPE Cable Specification

Conductors: 4 x 16 AWG (1.5mm²)
Jacket Material: TPE
Jacket Color: Yellow
Voltage Rating: 600V AC/DC
Max. Current: 10A
Temperature Range: –20 to 90°C (–4 to 194°F)
C-Track & Torsional Flex Test: 20 Million Cycles
Cable O.D: ø 0.430" (10.92mm)
Minimum Bend Radius: 10x cable diameter
Approvals: UL Listed TC-ER

Mini-Change 4 Pole Female Connector Pinout

(Front View)



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

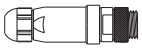
Raw Cable Ordering Information (250 FT)

K12-4 Yellow TPE: 130210-0018

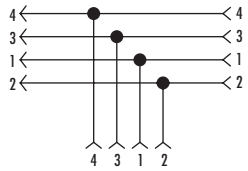
Brad Mini-Change (7/8") Auxiliary

Brad Mini-Change Four-Pole Field Attachable Connector



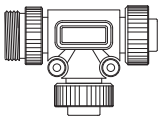
			
Male		Female	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1A4006-34	130017-0020	1A4000-34	130017-0015
Enhanced* Option Stainless			
1A4006-348	130017-0021	1A4000-348	130017-0016
* Coupling Nut = SS with Passivated finish instead of Brass with Nickel Plated finish			

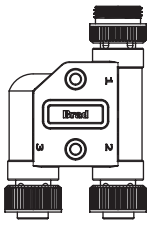
4 Pole
Mini-Change Tee, Y-Splitter and Distribution Box Wiring

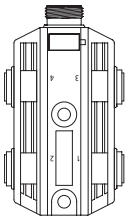


Note:
Further technical information, datasheet or drawing can be downloaded from the Molex website using the Standard Order part number listed.

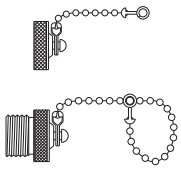
Brad Mini-Change Four-Pole Splitters

Mini-Change Tee		
Male		
Engineering No.	Standard Order No.	
DNETAUXPT	130035-0085	

Mini-Change H-Splitter		
Male		
Engineering No.	Standard Order No.	
DCAUXH	130035-0122	

Mini-Change Distribution Box			
Description	Engineering No.	Standard Order No.	
4 Ports	DNAUX4000	130060-0065	
6 Ports	DNAUX8000	130060-0066	

Brad Mini-Change Accessories

Mini-Change Caps			
Description	Engineering No.	Standard Order No.	
Int. Thread	65-0086	130201-1111	
Ext. Thread	65-0085	130201-1109	

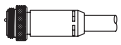
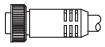
Power Infrastructure Connectivity

Brad Mini-Change (7/8") Auxiliary

Plug-and-play five-pole 24V DC power distribution infrastructure to connect IP67 devices in support of PROFINET/ PROFIBUS based on the Mini-Change (7/8") connection system.

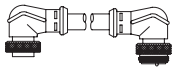


Brad Mini-Change (7/8") Single-Ended Five-Pole Cordsets

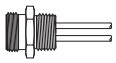
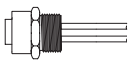
Length	Five-Pole Mini-Change Auxiliary Power TPE Cable			
	Male Straight		Female Straight	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
2m	105006K13M020	130006-2558	105000K13M020	130006-0049
5m	105006K13M050	130006-9050	105000K13M050	130006-0051
10m	105006K13M100	130006-9051	105000K13M100	130006-0052

Brad Mini-Change (7/8") Double-Ended Five-Pole Cordsets

Length	Five-Pole Mini-Change Auxiliary Power TPE Cable			
	Female Straight to Male Straight		Female 90° to Male 90°	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	115030K13M010	130010-0102	115033K13M010	130010-0118
2m	115030K13M020	130010-0103	115033K13M020	130010-0119
5m	115030K13M050	130010-0105	115033K13M050	130010-0121
10m	115030K13M100	130010-0106	115033K13M100	130010-0122
20m	115030K13M200	130010-1843	115033K13M200	130010-1960

Brad Mini-Change (7/8") Five-Pole Receptacles

Length	Five-Pole Mini-Change Auxiliary Power PVC Wires			
	Male Receptacle		Female Receptacle	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1m	1R5006A20M010	130013-0511	1R5000A20M010	130013-0425
2m	1R5006A20M020	130013-0512	1R5000A20M020	130013-0426

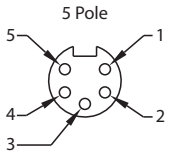
* Gasket and Locknut Sold Separately.
Gasket: 130180-0059
1/2" NPT Locknut: 130184-0031

K13-5 TPE Cable Specification

Conductors: 5 x 16 AWG (1.5mm²)
Jacket Material: TPE
Jacket Color: Yellow
Voltage Rating: 600V AC/DC
Max. Current: 8A
Temperature Range: –40 to 90°C (–40 to 194°F)
C-Track & Torsional Flex Test: 20 Million Cycles
Cable O.D: ø 0.401" (10.18mm)
Minimum Bend Radius: 10x cable diameter
Approvals: UL listed TC-ER

Mini-Change 5 Pole Female Connector Pinout

(Front View)



1 - White
2 - Red
3 - Green/Yellow
4 - Orange
5 - Black

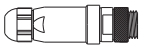
Raw Cable Ordering Information (250 FT)

K13-5 Yellow TPE: 130211-0122

Power Infrastructure Connectivity

Brad Mini-Change (7/8") Auxiliary

Brad Mini-Change Five-Pole Field Attachable Connector



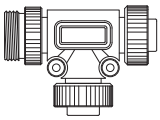

Male		Female	
Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
1A5006-34	130017-0029	1A5000-34	130017-0023
Enhanced* Option Stainless			
1A5006-348	130017-0030	1A5000-348	130017-0024

* Coupling Nut = SS with Passivated finish instead of Brass with Nickel Plated finish

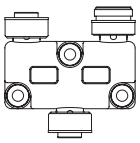


Brad Mini-Change Five-Pole Tees

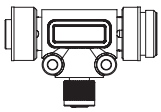
Mini-Change Tee	
Engineering No.	Standard Order No.
PBAPT	120101-0001



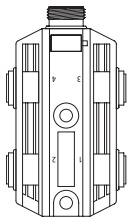
Mini-Change Y-Splitter	
Engineering No.	Standard Order No.
DN3200	130035-0071



Mini-Change Tee w/M12 Drop	
Engineering No.	Standard Order No.
DND3020	130039-0341

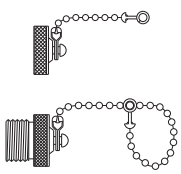


Mini-Change Distribution Box		
Description	Engineering No.	Standard Order No.
2 ports	DN2100	130039-0336
4 Ports	DN4000	130036-0005
6 Ports	DN6000	130036-0008
8 ports	DN8000	130036-0010



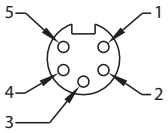
Brad Mini-Change Accessories

Mini-Change Caps		
Description	Engineering No.	Standard Order No.
Int. Thread	65-0086	130201-1111
Ext. Thread	65-0085	130201-1109



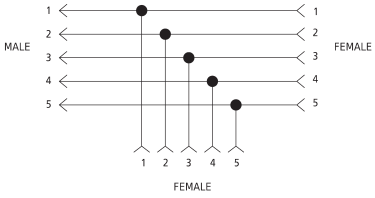
Mini-Change 5 Pole Female Connector Pinout
(Front View)

5 Pole



1 - Black – Output Power V-
2 - Blue – Bus Power V-
3 - Green/Yellow – Ground
4 - Brown – Bus Power V+
5 - White – Output Power V+

5 Pole Mini-Change Tee, Y-Splitter and Distribution Box Wiring





Note:
Further technical information, datasheet or drawing can be downloaded from the Molex website using the Standard Order part number listed.

Industrial Applications

Brad Mini-Change (7/8") Auxiliary

Brad Mini-Change (7/8") Single-Ended Cordsets

Internal thread couplers used on both male and female cord sets

Single-Ended Mini-Change PVC Cable							
Poles	Length	Male Straight		Female Straight		Female 90°	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3P	3F	103002A01F030	130006-0529	103000A01F030	130006-0217	103001A01F030	130006-0422
	6F	103002A01F060	130006-0534	103000A01F060	130006-0221	103001A01F060	130006-0426
		103002A01F0602†	130006-0536†	103000A01F0602†	130006-0223†	—	—
		—	—	103000A01F0601*	130006-0222*	—	—
	12F	103002A01F120	130006-0542	103000A01F120	130006-0232	103001A01F120	130006-0430
		103002A01F1202†	130006-0544†	103000A01F1202†	130006-0234†	—	—
		—	—	103000A01F1201*	130006-0233*	103001A01F1202*	130006-0432*
	20F	103002A01F200	130006-0549	103000A01F200	130006-0241	103001A01F200	130006-0436
4P	3F	104002A01F030	130006-0991	104000A01F030	130006-0725	104001A01F030	130006-0898
	6F	104002A01F060	130006-0995	104000A01F060	130006-0728	104001A01F060	130006-0902
	12F	104002A01F120	130006-1002	104000A01F120	130006-0737	104001A01F120	130006-0905
		104002A01F2001†	130006-1010†	104000A01F1202†	130006-0739†	—	—
		—	—	104000A01F1201*	130006-0738*	—	—
	20F	104002A01F200	130006-1009	104000A01F200	130006-0744	104001A01F200	130006-0912
		104002A01F2001†	130006-1010†	—	—	—	—
5P	3F	105002A01F030	130006-1435	105000A01F030	130006-1160	105001A01F030	130006-1346
	6F	105002A01F060	130006-1438	105000A01F060	130006-1163	105001A01F060	130006-1349
		—	—	105000A01F0601*	130006-1164*	—	—
	12F	105002A01F120	130006-1447	105000A01F120	130006-1171	105001A01F120	130006-1353
		—	—	105000A01F1201*	130006-1172*	—	—
	20F	105002A01F200	130006-1453	105000A01F200	130006-1179	105001A01F200	130006-1360

* Stainless Steel Material Option
† Nylon Material Option

Brad Mini-Change (7/8") Double-Ended Patchcords

Internal thread couplers used on both male and female cord sets

Double-Ended Mini-Change PVC Cable			
Poles	Length	Female Straight to Male Straight	
		Engineering No.	Standard Order No.
3P	3F	113020A01F030	130010-0214
	6F	113020A01F060	130010-0221
	12F	113020A01F120	130010-0228
	20F	113020A01F200	130010-0238
4P	3F	114020A01F030	130010-0519
	6F	114020A01F060	130010-0525
	12F	114020A01F120	130010-0533
	20F	114020A01F200	130010-0541
5P	3F	115020A01F030	130010-0999
	6F	115020A01F060	130010-1005
	12F	115020A01F120	130010-1013
	20F	115020A01F200	130010-1020



A01 PVC Cable Specification

Conductors:
- 3 x 16 AWG (1.5mm²)
- 4 x 16 AWG (1.5mm²)
- 5 x 16 AWG (1.5mm²)

Jacket Material: PVC

Jacket Color: Yellow

Voltage Rating: 600V AC/DC

Max. Current:
- 3 Conductor: 13.0A
- 4 Conductor: 10.0A
- 5 Conductor: 8.0A

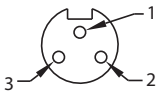
Temperature Range: –20 to 105°C (–4 to 221°F)

Cable O.D:
- 3 Conductor: ø 0.407" (10.33mm)
- 4 Conductor: ø 0.420" (10.66mm)
- 5 Conductor: ø 0.495" (12.57mm)

Minimum Bend Radius: 10x cable diameter

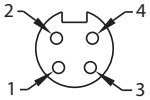
Approvals: UL Listed

3 Pole



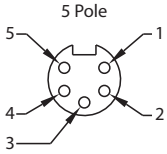
1. Green/Yellow
2. Black
3. White

4 Pole



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

5 Pole



1. White
2. Red
3. Green/Yellow
4. Orange
5. Black

Raw Cable Ordering Information (250 FT)

A01-3 Yellow PVC: 1302090043
A01-4 Yellow PVC: 1302100017

Industrial Applications

Brad Mini-Change (7/8") Auxiliary

Brad Mini-Change (7/8") Receptacles‡

Both male and female receptacles have external mating threads



12" PVC Leads				
Poles	Male		Female	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
2p	1R2006A20A120	130013-0076	1R2004A20A120	130013-0060
	1R2006A20A1202†	130013-0078†	—	—
3P	1R3006A20A120	130013-0202	1R3004A20A120	130013-0135
	1R3006A20A1201*	130013-0203*	1R3004A20A1201*	130013-0136*
	1R3006A20A1202†	130013-0204†	1R3004A20A1202†	130013-0137†
4P	1R4006A20A120	130013-0353	1R4004A20A120	130013-0314
	1R4006A20A1201*	130013-0354*	1R4004A20A1201*	130013-0315*
	1R4006A20A1202†	130013-0355†	—	—
5P	1R5006A20A120	130013-0493	1R5004A20A120	130013-0442
	1R5006A20A1201*	130013-0494*	—	—
	1R5006A20A1202†	130013-0495†	—	—

* Stainless Steel Material Option
† Nylon Material Option

‡ Gasket and Locknut Sold Separately.
Gasket: 130180-0059
1/2" NPT Locknut: 130184-0031

Brad Mini-Change (7/8") Field Wireables

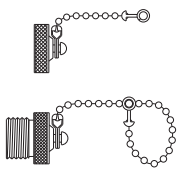
Internal thread couplers used on both male and female field wireables



Screw Termination				
	Male		Female	
Poles	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3P	1A3002-34	130017-0008	1A3000-34	130017-0004
4P	1A4002-34	130017-0018	1A4000-34	130017-0015
	1A4002-348*†	130017-0019*†	—	—
5P	1A5002-34	130017-0026	1A5000-34	130017-0023

* Stainless Steel Material Option
† Coupling Nut = SS with Passivated finish instead of Brass with Nickel Plated finish

Brad Mini-Change (7/8") Accessories

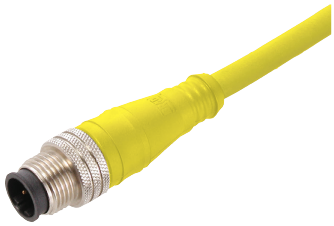
Mini-Change Caps			
Description	Engineering No.	Standard Order No.	
Int. Thread	65-0086	130201-1111	
	65-0086SS*	130201-1113*	
Ext. Thread	65-0085	130201-1109	
	65-0085SS*	130201-1110*	

* Stainless Steel Material Option

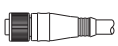
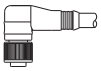
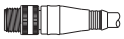
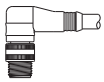
Power Infrastructure Components

Brad Micro-Change M12 A-Code Auxiliary

Provides a plug-and-play, five-pole power distribution infrastructure for interconnecting IP67 devices using A-Code M12 standard connectors.

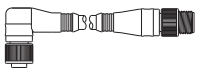
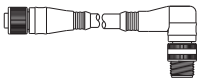
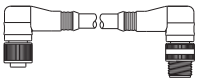


Brad Micro-Change M12 Single-Ended Cordsets

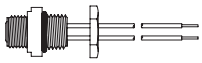
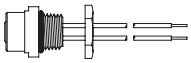
Poles	Length	A09 PVC Cable							
		Female Straight		Female 90°		Male Straight		Male 90°	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
5	2m	805000A09M020	120065-0471	805001A09M020	120065-1697	805006A09M020	120065-0523	805007A09M020	120065-1724
	5m	805000A09M050	120065-0479	805001A09M050	120065-1701	805006A09M050	120065-0528	805007A09M050	120065-1727
	10m	805000A09M100	120065-0487	805001A09M100	120065-1706	805006A09M100	120065-0533	805007A09M100	120065-2123

Brad Micro-Change M12 Double-Ended Cordsets

Poles	Length	Double-Ended Cordsets							
		Female Straight/ Male Straight		Female 90°/Male Straight		Female Straight/Male 90°		Female 90°/Male 90°	
		Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
5	2m	885030A09M020	120066-0429	885031A09M020	120066-1391	885032A09M020	120066-1400	885033A09M020	120066-1416
	5m	885030A09M050	120066-0434	885031A09M050	120066-1394	885032A09M050	120066-1403	885033A09M050	120066-0460
	10m	885030A09M100	120066-0440	885031A09M100	120066-1396	885032A09M100	120066-1408	885033A09M100	120066-8733

Brad Micro-Change M12 Auxiliary Power 5 Pole Receptacles

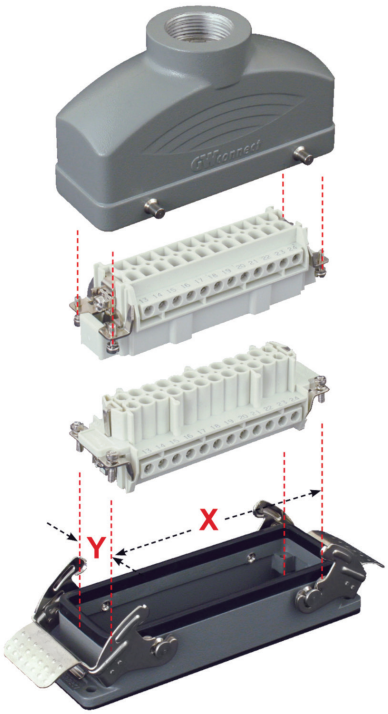
Poles	12” PVC Wire Leads			
	Male		Female	
	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
5	8R5A06A18A120	120066-0429	8R5A00A18A120	120070-0201
	8R5006A18A120	120066-0434	8R5000A18A120	120070-5206

Heavy-Duty Connectors

Overview

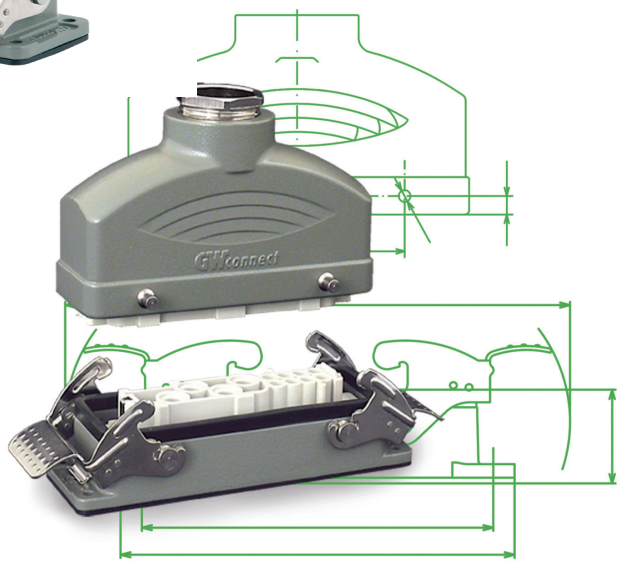
Ask about our full range of products–more than 6000 items available!

Type	Size	Housing Space for Inserts with Screw Fixing Center Distance X-Y (mm)
3A	21 x 21	21 x 21
10A	49 x 16	49.5 x 16
16A	66 x 16	66 x 16
32A	66 x 40	66 x 16 (2 inserts)
6B	44 x 27	44 x 27
10B	57 x 27	57 x 27
16B	77 x 27	77.5 x 27
24B	104 x 27	104 x 27
32B	77 x 62	77.5 x 27 (2 inserts)
48B	104 x 62	104 x 27 (2 inserts)
QD	32 x 13	32.2 x 13.4









Heavy-Duty Connectors

Size 3A 21x21

Inserts

Size	Poles	Voltage/Current	Description	Male		Female		
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
3A	3+PE	250V 10.0A	S-A Series	7203.6101.0	93601-0125	7203.6001.0	93601-0121	 Screw Terminal
	4+PE	250V 10.0A	S-A Series	7204.6102.0	93601-0133	7204.6002.0	93601-0129	 Screw Terminal
	5+PE	230/400V 16.0A	S-Q 0/5 Series	7605.5901.0	93601-0436	7605.5801.0	93601-0435	 Crimp Contacts
	7+PE	250V 10.0A	S-D Series	7107.4101.0	93601-0079	7107.4001.0	93601-0077	 Crimp Contacts
	8	250V 10.0A	S-D Series	7108.4102.0	93601-0084	7108.4002.0	93601-0081	 Crimp Contacts

Crimp contacts to be ordered separately. See page 86.

Single Lever Hoods and Housings

Size	Thread	Description	Metal		Plastic		**M** (Metric)
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
3A	M 20	Top entry	7803.6228.0	93601-0682	7803.6227.0	93601-0680	
	M 20	Side entry	7803.6230.0	93601-0687	7803.6229.0	93601-0685	
	M 20	Coupler	7803.6232.0	93601-0692	7803.6231.0	93601-0690	
		Bulkhead mount	7803.6202.0	93601-0616	7803.6201.0	93601-0614	
		Bulkhead mount angle	7803.6204.0	93601-0622	7803.6203.0	93601-0620	
	M 20	Surface mount	7803.6226.0	93601-0676	7803.6225.0	93601-0674	
		Cover male insert	7803.6804.0	93601-0710	7803.6803.0	93601-0708	
		Cover female insert	7803.6802.0	93601-0702	7803.6801.0	93601-0696	

PG threads also available

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

Heavy-Duty Connectors

Size QD 32x13

Inserts

Size	Poles	Voltage/Current	Description	Male		Female		
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
32x13	8+PE	500V 16.0A	S-QD 8 Series	7608.5907.0	93601-0446	7608.5807.0	93601-0445	 Crimp Contacts
	17+PE	250V 10.0A	S-QD 17 Series	7617.5911.0	93601-0450	7617.5811.0	93601-0449	 Crimp Contacts
	4+2+PE	460/690 + 250V 4x40.0A + 2x10.0A	S-QD 4/2 Series	7606.5915.0	93601-0438	7606.5815.0	93601-0437	 Crimp Contacts

Crimp contacts to be ordered separately. See page 86.

Single Lever Hoods and Housings

Size	Thread	Description	Engineering No.	Standard Order No.	
32x13	PG 16	Top entry*	7908.6646.1	93601-4684	
	PG 21		7908.6648.1	93601-4685	
	PG 16	Side entry*	7908.6640.1	93601-4682	
	PG 21		7908.6643.1	93601-4683	
	PG 16	Coupler*	7908.6667.1	93601-4688	
	PG 21		7908.6668.1	93601-4689	
	PG 16	Bulkhead angle + 1 cable entry*	7908.6663.1	93601-4686	
	PG 21		7908.6664.1	93601-4687	
	Thread	Bulkhead mount	7808.6660.1	93601-1041	
		Bulkhead mount angle	7808.6669.1	93601-1051	
		Cover male insert	7808.6666.1	93601-1048	
		Cover female insert with gasket	7808.6665.1	93601-1047	

* These enclosures include the relevant cable glands.
Metal versions available, M and PG

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

Heavy-Duty Connectors

Size 10A 49x16

Inserts

Size	Poles	Voltage/Current	Description	Male		Female		
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
10A	10 +PE	250V 16.0A	S-A Series	7210.4411.0	93601-0139	7210.4401.0	93601-0137	 Screw Terminal
				7210.4461.0	93601-0142	7210.4451.0	93601-0141	 Crimp Contacts
	15 +PE	250V 10.0A	S-D Series	7115.4106.0	93601-0092	7115.4006.0	93601-0091	 Crimp Contacts

Crimp contacts to be ordered separately. See page 86.

Single Lever Hoods and Housings

Size	Thread	Description	Engineering No.	Standard Order No.	**M** (Metric)
10A	M 20	Top entry	7810.4550.0	93601-1167	 HC
	M 25		7810.4551.0	93601-1170	
	M 20 HC		7810.4561.5	93601-1182	
	M 25 HC		7810.4562.5	93601-1188	
	M 20	Side entry	7810.4571.0	93601-1206	 HC
	M 20 HC		7810.4581.5	93601-1218	
	M 25 HC		7810.4582.5	93601-1224	
	M 20	Surface mounting	7810.4501.0	93601-1126	
	M 25		7810.4503.0	93601-1131	
	M 20 x2		7810.4502.0	93601-1128	
	M 25 x2		7810.4504.0	93601-1133	
	M 20	Surface mounting with cover	7810.4511.0	93601-1146	
	M 25		7810.4513.0	93601-1150	
	M 20 x2		7810.4512.0	93601-1148	
	M 25 x2		7810.4514.0	93601-1152	
		Bulkhead mounting	7810.4541.0	93601-1162	
		Bulkhead mounting with cover	7810.4542.0	93601-1165	
		Cover	7810.4591.0	93601-1239	
		Cover + lever	7810.4594.0	93601-1242	

PG threads available

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

Heavy-Duty Connectors

Size 16A 66x16

Inserts

Size	Poles	Voltage/Current	Description	Male		Female		
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
16A	16 +PE	250V 16.0A	S-A Series	7216.4412.0	93601-0147	7216.4402.0	93601-0143	 Screw Terminal
				7216.4462.0	93601-0153	7216.4452.0	93601-0151	 Crimp Contacts
	25 +PE	250V 10.0A	S-D Series*	7125.4112.0	93601-0101	7125.4012.0	93601-0099	 Crimp Contacts

* Also available w/ "Z" mark
Crimp contacts to be ordered separately. See page 86.

Single Lever Hoods and Housings

Size	Thread	Description	Engineering No.	Standard Order No.	**M** (Metric)
16A	M 20	Top entry	7816.4555.0	93601-2162	 HC
	M 25		7816.4556.0	93601-2165	
	M 20 HC		7816.4566.5	93601-2177	
	M 25 HC		7816.4567.5	93601-2183	
	M 20	Side entry	7816.4575.0	93601-2201	 HC
	M 20 HC		7816.4586.5	93601-2213	
	M 25 HC		7816.4587.5	93601-2219	
	M 20	Surface mounting	7816.4521.0	93601-2121	
	M 25		7816.4523.0	93601-2126	
	M 20 x2		7816.4522.0	93601-2123	
	M 25 x2		7816.4524.0	93601-2128	
	M 20	Surface mounting with cover	7816.4531.0	93601-2141	
	M 25		7816.4533.0	93601-2145	
	M 20 x2		7816.4532.0	93601-2143	
	M 25 x2		7816.4534.0	93601-2147	
		Bulkhead mounting	7816.4543.0	93601-2157	
		Bulkhead mounting with cover	7816.4544.0	93601-2160	
		Cover	7816.4592.0	93601-2234	
		Cover + lever	7816.4595.0	93601-2237	

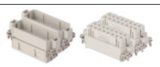
PG threads are available

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

Heavy-Duty Connectors

Size 32A 66x40

Inserts

Size	Voltage/Current	Description	Male		Female		
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
32A	250V 16.0A	S-A Series	7216.4412.0 + .4413.0	93601-0147 + 93601-0149	7216.4402.0 + .4403.0	93601-0143 + 93601-0145	 Screw Terminal
			7216.4462.0 + .4463.0	93601-0153+ 93601-0154	7216.4452.0 + .4453.0	93601-0151 + 93601-0152	 Crimp Contacts
	250V 10.0A	S-D Series	2 x 7125.4112.0	2 x 93601-0101	2 x 7125.4012.0	2 x 93601-0099	 Crimp Contacts
Crimp contacts to be ordered separately. See page 86.							

Double Lever Hoods and Housings

Size	Thread	Description	Engineering No.	Standard Order No.	**M** (Metric)
32A	M 25 HC	Top entry	7832.4641.5	93601-4121	
	M 32 HC		7832.4642.5	93601-4127	
	M 25	Side entry	7832.4647.0	93601-4142	 HC
	M 25 HC		7832.4651.5	93601-4154	
	M 32 HC		7832.4652.5	93601-4160	
	M 25	Surface mounting	7832.4600.0	93601-4067	
	M 32		7832.4602.0	93601-4072	
	M 25 x2		7832.4601.0	93601-4069	
	M 32 x2		7832.4603.0	93601-4074	
		Bulkhead mounting	7832.4631.0	93601-4112	
		Bulkhead mounting with cover	7832.4705.0	93601-4227	
	M 25	Reversed surface mounting	7832.4610.0	93601-4092	
	M 32		7832.4612.0	93601-4096	
	M 25 x2		7832.4611.0	93601-4094	
	M 32 x2		7832.4613.0	93601-4098	
		Reversed bulkhead mounting	7832.4633.0	93601-4115	 *
	M 25 HC	Reversed top entry	7832.4656.5	93601-4177	 HC
	M32 HC		7832.4657.5	93601-4181	
	M 25 HC	Reversed side entry	7832.4665.5	93601-4199	 HC
	M32 HC		7832.4666.5	93601-4203	
	4 pegs	Cover	7832.4671.0	93601-4213	
		Cover for reversed	7832.4673.0	93601-4219	
	2 Levers	Cover	7832.4672.0	93601-4216	
		Cover for reversed	7832.4674.0	93601-4221	
PG threads available					

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

Heavy-Duty Connectors

Size 6B 44x27

Inserts

Size	Poles	Voltage/ Current	Description	Male		Female		
				Engineer. No.	Std. Order No.	Engineer. No.	Std. Order No.	
6B	24 +PE	250V 10.0A	S-DD Series	7124.4140.0	93601-0094	7124.4040.0	93601-0093	 Crimp Contacts
	6 +PE	500V 16.0A	S-E Series	7306.6103.0	93601-0215	7306.6003.0	93601-0207	 Screw Terminal
				7306.6161.0	93601-0222	7306.6061.0	93601-0214	 Crimp Contacts
	6 +PE	500V 16.0A	S-ES Series	7306.5951.0	93601-0205	7306.5851.0	93601-0203	 Spring Terminal
	6 +PE	500V 16.0A	S-EP Series	7306.5961.0	93601-0206	7306.5861.0	93601-0204	 Push-in Terminal
	10 +PE	500V 16.0A	S-EE Series	7310.6190.0	93601-0244	7310.6090.0	93601-0237	 Crimp Contacts

Crimp contacts to be ordered separately. See page 86.

Single Lever Hoods and Housings

Size	Thread	Description	Engineering No.	Standard Order No.	**M** (Metric)
6B	M 20	Top entry	7806.6553.0	93601-0917	 HC
	M 25		7806.6554.0	93601-0920	
	M 25 HC		7806.6449.5	93601-0862	
	M 32 HC		7806.6450.5	93601-0868	
	M 20	Side entry	7806.6551.0	93601-0911	 HC
	M 25		7806.6552.0	93601-0914	
	M 25 HC		7806.6491.5	93601-0886	
	M 32 HC		7806.6492.5	93601-0892	
	M 20	Surface mount	7806.6351.0	93601-0828	 HC
	M 20 x2		7806.6352.0	93601-0831	
	M 32 HC		7806.7151.0	93601-0947	
	M 32 x2 HC		7806.7152.0	93601-0949	
	M 40 HC		7806.7153.0	93601-0952	
	M 40 x2 HC		7806.7154.0	93601-0954	
	M 20	Surface mount with cover	7806.6361.0	93601-0834	 HC
	M 20 x2		7806.6362.0	93601-0836	
	M 32 HC		7806.7265.0	93601-0995	
	M 32 x2 HC		7806.7266.0	93601-0996	
	M 40 HC		7806.7267.0	93601-0998	
	M 40 x2 HC		7806.7268.0	93601-0998	
		Bulkhead	7806.6401.0	93601-0842	
	M 20	Coupler	7806.6592.0	93601-0925	 HC
	M 25		7806.6581.0	93601-0923	
		Cover 1 lever	7806.6818.0	93601-0930	
		Cover 2 pegs	7806.6813.0	93601-0927	

PG threads available
Housings with automatic cover available

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

Heavy-Duty Connectors

Size 10B 57x27

Inserts

Size	Poles	Voltage/Current	Description	Male		Female		
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
10B	42 +PE	250V 10.0A	S-DD Series	7142.4146.0	+93601-0106	7142.4046.0	93601-0105	 Crimp Contacts
	10 +PE	500V 16.0A	S-E Series	7310.6104.0	93601-0238	7310.6004.0	93601-0231	 Screw Terminal
				7310.6162.0	93601-0243	7310.6062.0	93601-0236	 Crimp Contacts
	10 +PE	500V 16.0A	S-ES Series	7310.5952.0	93601-0229	7310.5852.0	93601-0227	 Spring Terminal
	10 +PE	500V 16.0A	S-EP Series	7310.5962.0	93601-0230	7310.5862.0	93601-0228	 Push-in Terminal
	18 +PE	500V 16.0A	S-EE Series	7318.6191.0	93601-0284	7318.6091.0	93601-0283	 Crimp Contacts

Crimp contacts to be ordered separately. See page 86.

Single Lever Hoods and Housings

Size	Thread	Description	Engineering No.	Standard Order No.	**M** (Metric)
10B	M 20	Top entry	7810.6556.0	93601-1738	 HC
	M 25		7810.6593.0	93601-1758	
	M 32 HC		7810.6451.5	93601-1637	
	M 40 HC		7810.6452.5	93601-1643	
	M 20	Side entry	7810.6555.0	93601-1735	 HC
	M 25		7810.6594.0	93601-1761	
	M 32 HC		7810.6493.5	93601-1703	
	M 40 HC		7810.6494.5	93601-1709	
	M 20	Surface mount	7810.6353.0	93601-1547	 HC
	M 20 x2		7810.6354.0	93601-1550	
	M 32 HC		7810.7160.0	93601-1886	
	M 32 x2 HC		7810.7161.0	93601-1888	
	M 40 HC		7810.7162.0	93601-1891	
	M 40 x2 HC		7810.7163.0	93601-1893	
	M 20	Surface mount with cover	7810.6363.0	93601-1553	 HC
	M 20 x2		7810.6364.0	93601-1556	
	M 32 HC		7810.7274.0	93601-1951	
	M 32 x2 HC		7810.7275.0	93601-1953	
	M 40 HC		7810.7276.0	93601-1956	
	M 40 x2 HC		7810.7277.0	93601-1958	
		Bulkhead	7810.6403.0	93601-1569	
	M 25	Coupler	7810.6582.0	93601-1751	 HC
	M 25 HC		7810.7008.5	93601-1825	
	M 32 HC		7810.7009.5	93601-1831	
		Cover 1 lever	7810.6819.0	93601-1802	
		Cover 2 pegs	7810.6814.0	93601-1800	

PG threads available
Housings with automatic cover available

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

Heavy-Duty Connectors

Size 10B 57x27

Double Lever Hoods and Housings

Size	Thread	Description	Engineering No.	Standard Order No.	**M** (Metric)
10B	M 20	Top entry	7810.6570.0	93601-1746	 HC
	M 32 HC		7810.6443.5	93601-1619	
	M 40 HC		7810.6444.5	93601-1629	
	M 20	Side entry	7810.6569.0	93601-1741	 HC
	M 32 HC		7810.6485.5	93601-1685	
	M 40 HC		7810.6486.5	93601-1695	
	M 20	Surface mount	7810.6372.0	93601-1559	 HC
	M 20 x2		7810.6373.0	93601-1564	
	M 32 HC		7810.7460.0	93601-1981	
	M 32x2 HC		7810.7461.0	93601-1986	
	M 40 HC		7810.7462.0	93601-1991	
	M 40 x2 HC		7810.7463.0	93601-1996	
		Bulkhead	7810.6412.0	93601-1575	
	M 20	Cable-to-cable	7810.6598.0	93601-1774	 HC
	M 25 HC		7810.7003.5	93601-1808	
	M 32 HC		7810.7004.5	93601-1816	
		Cover 2 levers	7810.6809.0	93601-1797	
		Cover 4 pegs	7810.6805.0	93601-1794	
PG threads are also available					

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

Heavy-Duty Connectors

Size 16B 77x27

Inserts

Size	Poles	Voltage/Current	Description	Male		Female		
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
16B	40 +PE	250V 10.0A	S-D Series	7140.4118.0	93601.0104	7140.4018.0	93601-0113	 Crimp Contacts
	72 +PE	250V 10.0A	S-DD Series	7172.4152.0	93601-0115	7172.4052.0	93601-0105	
	16 +PE	500V 16.0A	S-E Series	7316.6105.0	93601-0273	7316.6005.0	93601-0263	 Screw Terminal
				7316.6163.0	93601-0281	7316.6063.0	93601-0271	 Crimp Contacts
	16 +PE	500V 16.0A	S-ES Series	7316.5953.0	93601-0259	7316.5853.0	93601-0255	 Spring Terminal
	16 +PE	500V 16.0A	S-EP Series	7316.5963.0	93601-0261	7316.5863.0	93601-0257	 Push-in Terminal
	32 +PE	500V 16.0A	S-EE Series	7332.6192.0	93601-0321	7332.6092.0	93601-0318	 Crimp Contacts
	6 +PE	830V 35.0A		7306.6141.0	93601-0219	7306.6041.0	93601-0211	
	4 +PE	830V 80.0A	S-K Series	7304.6144.0	93601-0198	7304.6044.0	93601-0197	 Screw Terminal
	4+2 +PE	830/500V 80 + 16.0A		7306.6145.0	93601-0221	7306.6045.0	93601-0213	

Crimp contacts to be ordered separately. See page 86.

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

Heavy-Duty Connectors

Size 16B 77x27

Single Lever Hoods and Housings

Size	Thread	Description	Engineering No.	Standard Order No.	
16B	M 25	Top entry	7816.6558.0	93601-2816	 HC
	M 32		7816.6547.0	93601-2801	
	M 32 HC		7816.6453.5	93601-2667	
	M 40 HC		7816.6454.5	93601-2673	
	M 25	Side entry	7816.6557.0	93601-2813	 HC
	M 32		7816.6549.0	93601-2807	
	M 32 HC		7816.6495.5	93601-2761	
	M 40 HC		7816.6496.5	93601-2767	
	M 25	Surface mount	7816.6355.0	93601-2549	 HC
	M 25 x2		7816.6356.0	93601-2552	
	M 32 HC		7816.7169.0	93601-2934	
	M 32 x2 HC		7816.7170.0	93601-2936	
	M 40 HC		7816.7171.0	93601-2939	
	M 40 x2 HC		7816.7172.0	93601-2941	
	M 25	Surface mount with cover	7816.6365.0	93601-2555	 HC
	M 25 x2		7816.6366.0	93601-2558	
	M 32 HC		7816.7283.0	93601-2999	
	M 32 x2 HC		7816.7284.0	93601-3001	
	M 40 HC		7816.7285.0	93601-3004	
	M 40 x2 HC		7816.7286.0	93601-3006	
		Bulkhead	7816.6405.0	93601-2571	
	M 25	Coupler	7816.6583.0	93601-2829	 HC
	M 25 HC		7816.6461.5	93601-2695	
	M 32 HC		7816.6462.5	93601-2701	
		Cover 1 lever	7816.6820.0	93601-2892	
		Cover 2 pegs	7816.6815.0	93601-2890	

PG threads available
Housings with automatic cover available

Double Lever Hoods and Housings

Size	Thread	Description	Engineering No.	Standard Order No.	
16B	M 25	Top entry	7816.6572.0	93601-2824	 HC
	M 32		7816.6921.0	93601-2894	
	M 32 HC		7816.6445.5	93601-2649	
	M 40 HC		7816.6446.5	93601-2659	
	M 25	Side entry	7816.6571.0	93601-2819	 HC
	M 32		7816.6922.0	93601-2899	
	M 32 HC		7816.6487.5	93601-2743	
	M 40 HC		7816.6488.5	93601-2753	
	M 25	Surface mount	7816.6374.0	93601-2561	 HC
	M 25 x2		7816.6375.0	93601-2566	
	M 32 HC		7816.7469.0	93601-3024	
	M 32 x2 HC		7816.7470.0	93601-3029	
	M 40 HC		7816.7471.0	93601-3034	
	M 40 x2 HC		7816.7472.0	93601-3039	
		Bulkhead	7816.6413.0	93601-2577	
	M 25	Cable-to-cable	7816.6587.0	93601-2832	 HC
	M 32		7816.6923.0	93601-2904	
	M 25 HC		7816.6457.5	93601-2680	
	M 32 HC		7816.6458.5	93601-2688	
		Cover 2 levers	7816.6810.0	93601-2887	
		Cover 4 pegs	7816.6806.0	93601-2884	

PG threads available

Abbreviations PE = Ground HC = High Construction Thread x2 = Double entry

All trademarks used herein are the property of their respective owners. Reference to any non-Molex trademarks is not intended to claim any endorsement or association between Molex and the respective trademark owners, and should not be construed.

Get more insights at:
https://www.molex.com/en-us/products/industrial-automation

molex

Order No. 987652-5724 rev. 8 Printed in USA/1K/RT/LS/2026.09
©2026 Molex, LLC