

Brad® Nano-Change® (M8) Connectors

Nano

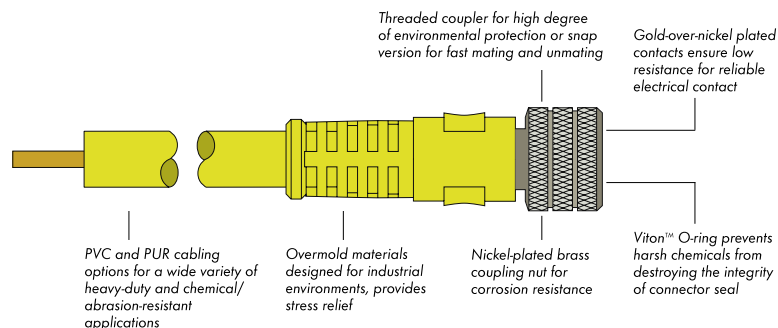
UNITED STATES (also includes Canada, Mexico and South America)

Brad® Nano-Change® (M8) compact connectors and cordsets from Molex are part of a broad selection of rugged, space-saving cordsets, receptacles, inserts, splitters and molded junction boxes.

Nano-Change connectors meet IEC 61076-2-104 standards and are built “industrial tough” to ensure flexibility, interoperability and rugged performance in tight spaces while minimizing downtime, maintenance and wiring time.

Molex Nano-Change offerings include 3-, 4- and 5-pin designs. The cordsets are available with threaded and snap coupling options. A wide array of cable types provides flexibility to accommodate multiple applications.

The molded junction boxes feature a compact, space-saving design that allows simplification of control wiring systems, providing the opportunity for machine builders to design more modular devices. The Nano-Change cable system provides a way to reduce cable bundling expenses by reducing field install cabinets and field wire terminations.



Features and Benefits

Cordsets

- Available with snap or threaded coupler; single- and double-ended cordsets; 3-, 4- and 5-pole configurations; straight and 90°; with and without LED to give users a wide variety of options to meet their requirements
- Compliant with IEC 61076-2-104, allowing intermating with industry-standard M8 devices
- IP67 (threaded) and IP65 (snap)-rated connector interfaces provide rugged, watertight connectors that are suited for harsh, wet environments
- Patented anti-vibration feature prevents backout in high-vibration and mechanical shock applications
- Gold-over-nickel-plated contacts feature a durable, corrosion-resistant plating that maintains low electrical resistance through the mate/unmate cycles

Receptacles, Field Attachables and Accessories

- Wide array of configurations, including front and back panel mount; with leads or PCB pins, give users a wide variety of options to meet their requirements
- Epoxy-potted, IP67-rated receptacles are ideal for rugged industrial environments

- Field attachable connectors with solder cup terminals allow users to customize their application

Distribution Boxes

- Available in 4-, 6-, 8- and 10-port distribution boxes. Single and dual I/O versions with vertical or horizontal mounting available, giving users a wide variety of options to meet application requirements.
- Fully potted housing ensures performance in vibration and fluid environments by providing rugged IP67 (IP68 cabled) rating
- Rugged, compact design allows placement in tight places anywhere on the machine

Applications

- 8.00mm proximity switches
- Miniature photo eyes
- Reed and Hall effect switches
- Other miniature I/O devices and sensors
- Robotic end-of-arm tooling
- Specialty sensors semiconductor assembly equipment

Viton® is a registered trademark of E.I. DuPont De Nemours and Company.

Brad® Nano-Change® (M8) Single-Ended Cordsets (US)

120086
Female, Pigtails
Straight, Right Angle
Threaded



Features and Benefits

- IEC compliant M8 cordset assemblies with threaded couplers
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3-, 4-, and 5-pole versions
- Patented anti-vibration feature to prevent loosening under high-vibration applications
- IP67 rated for harsh environments
- LED version provide power and signal trigger indication for PNP sensors (NPN versions available upon request)
- Wide selection of cables to fit applications:
 - PVC cables for light, cost-sensitive industrial applications
 - PUR cables for moderate flexing and for environments encountering cutting fluids and oils
 - Other types available upon request

Physical

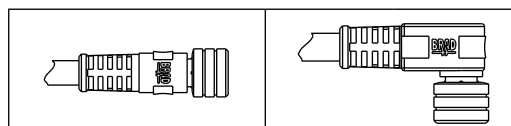
Connector Body: TPE (PVC for LED version)
Contact Carries: PBT
O-ring: Viton®
Coupling Nut: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Cables: A10—Yellow PVC jacket, 24 AWG PVC conductors, 300V, UL AWM2661
B09—Black PUR jacket, 24 AWG PVC conductors, 300V, 80° C, UL AWM 20549 (3 conductor) / AWM 21198 (5 conductor)

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Reference Information

UL File No.: E152210



Cordset without Indicating LEDs

Poles	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Female Straight		Female Right Angle	
							Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3 Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	UL 2661	PVC (A10)	24 AWG	2.0m	403000A10M020	120086-0102	403001A10M020	120086-0119
			UL 20549	PUR (B09)			403000B09M020	120086-0336	403001B09M020	120086-0022
4 Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	UL 2661	PVC (A10)	24 AWG	2.0m	404000A10M020	120086-0144	404001A10M020	120086-0175
				PUR (B09)			404000B09M020	120086-0171	404001B09M020	120086-0042
5 Pole 1 - Brown 4 - Black 2 - White 5 - Gray 3 - Blue	3.0A	60V AC / 75V DC	UL 2661	PVC (A10)	24 AWG	2.0m	405000A10M020	120086-0191	405001A10M020	120086-0200
			UL 21198	PUR (B09)			405000B09M020	120086-0196	405001B09M020	120086-0386

Cordset with Indicating LEDs

Poles	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Female Right Angle	
							Engineering No.	Standard Order No.
3 Pole with 1 LED 1 - Brown 4 - Black 3 - Blue	4.0A	30V AC/DC	UL 2661	PVC (A10)	24 AWG	2.0m	4030P1A10M020	120086-0421
			UL 20549	PUR (B09)			4030P1B09M020	120086-0009

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
Build-a-Part Number

	Length	Code
Meters	2	M020
	5	M050
	10	M100

403000A10M020

→ Cable Code

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Single-Ended Cordsets (US)

120086

**Male, Pigtails
Straight, Right Angle
Threaded**



Features and Benefits

- IEC compliant M8 cordset assemblies with threaded couplers
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3-, 4-, and 5-pole versions
- Patented anti-vibration feature to prevent loosening under high-vibration applications
- IP67 rated for harsh environments
- Wide selection of cables to fit applications:
 - PVC cables for light, cost-sensitive industrial applications
 - PUR cables for moderate flexing and for environments encountering cutting fluids and oils
 - Other types available upon request

Physical

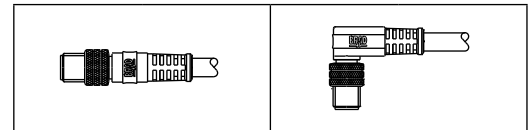
Connector Body: TPE
 Contact Carries: PBT
 O-ring: Viton®
 Coupling Nut: Nickel-plated Brass
 Contacts: Copper alloy with Gold over Nickel plating
 Cables: A10—Yellow PVC jacket, 24 AWG PVC conductors, 300V, UL AWM2661
 B09—Black PUR jacket, 24AWG PVC conductors, 300V, 80° C, UL AWM 20549 (3 conductor)/AWM 21198 (5 conductor)

Environmental

Protection: IP67
 NEMA Rating: NEMA 6

Reference Information

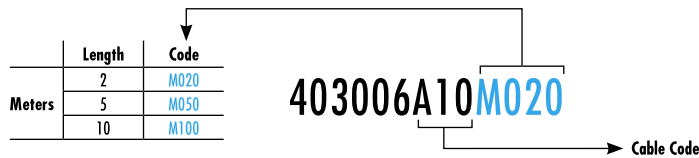
UL File No.: E152210



Poles	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Male Straight		Male Right Angle	
							Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3 Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	UL 2661	PVC (A10)	24 AWG	2.0m	403006A10M020	120086-0132	403007A10M020	120086-0139
			UL 20549	PUR (B09)			403006B09M020	120086-0027	403007B09M020	120086-0033
4 Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	UL 2661	PVC (A10)	24 AWG	2.0m	404006A10M020	120086-0183	404007A10M020	120086-0186
				PUR (B09)			404006B09M020	120086-0048	404007B09M020	120086-0052
5 Pole 1 - Brown 4 - Black 2 - White 5 - Gray 3 - Blue	3.0A	60V AC / 75V DC	UL 2661	PVC (A10)	24 AWG	2.0m	405006A10M020	120086-0206	405007A10M020	120086-0210
			UL 21198	PUR (B09)			405006B09M020	120086-0387	405007B09M020	120086-0390

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
 Build-a-Part Number



*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Double-Ended Cordsets (US)

120087

**Female Straight-to-Male Straight,
Female Right Angle-to-
Male Straight,
Female Straight-to-Male
Right Angle,
Female Right Angle-to-Male
Right Angle
Threaded**



Features and Benefits

- IEC compliant M8 cordset assemblies with threaded couplers
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3-, 4-, and 5-pole versions
- Patented anti-vibration feature to prevent loosening under high-vibration applications
- IP67 rated for harsh environments
- Wide selection of cables to fit applications:
 - PVC cables for light, cost-sensitive industrial applications
 - PUR cables for moderate flexing and for environments encountering cutting fluids and oils
 - Other types available upon request

Reference Information

UL File No.: E152210

Physical

Connector Body: TPE
 Contact Carries: PBT
 O-ring: Viton®
 Coupling Nut: Nickel-plated Brass
 Contacts: Copper alloy with Gold over Nickel plating
 Cables: A10—Yellow PVC jacket, 24 AWG PVC conductors, 300V, UL AWM2661
 B09—Black PUR jacket, 24 AWG PVC conductors, 300V, 80° C, UL AWM 20549 (3-conductor)/AWM 21198 (5-conductor)

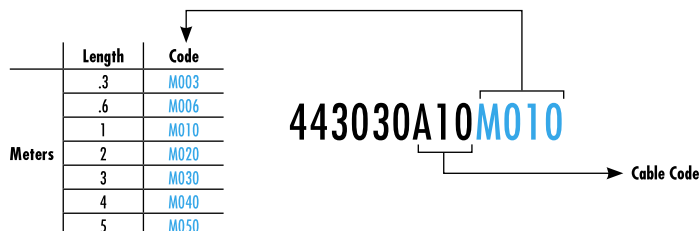
Environmental

Protection: IP67
 NEMA Rating: NEMA 6

Poles (Female View)	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size AWG	Length	Female Straight-to- Male Straight		Female Right Angle-to- Male Straight		Female Straight-to- Male Right Angle		Female Right Angle-to- Male Right Angle	
							Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
 3 Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC/ 75V DC	UL 2661	PVC (A10)	24	1.0m	443030A10M010	120087-0074	443031A10M010	120087-0243	443032A10M010	120087-0253	443033A10M010	120087-0088
 4 Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC/ 75V DC	UL 2661	PVC (A10)	24	1.0m	444030A10M010	120087-0093	444031A10M010	120087-0103	444032A10M010	120087-0281	444033A10M010	120087-0108
 5 Pole 1 - Brown 4 - Black 2 - White 5 - Gray 3 - Blue	3.0A	60V AC/ 75V DC	UL 2661	PVC (A10)	24	1.0m	445030A10M010	120087-0112	445031A10M010	120087-0287	445032A10M010	120087-0290	445033A10M010	120087-0117

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
 Build-a-Part Number



*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Receptacles (US)

120031/120090
Female
Front Panel Mount,
Back Panel Mount



Features and Benefits

- IEC compliant M8 panel mount receptacles
- Available in 3-, 4-, and 5-pole versions
- Fully potted assemblies provide IP67/68 protection for harsh environments
- Available in an array of configurations to fit your needs:
 - Various mounting thread sizes, including pipe threads for direct mounting on pipe fittings
 - Front panel mounts for installing from the outside of the enclosure
 - Back panel mount from inside the enclosure
 - Wire leads for terminating to terminal strips or PCB tails to incorporate with electronics

Physical

Shell Material: Nickel-plated Brass
 Contact Carriers: PBT
 O-Ring: M8—Red Viton®
 Panel—Black Viton
 Contacts: Copper alloy with Gold over Nickel plating
 Wire PVC Insulation: 300V, 80° C, UL1007/1569, 24 AWG

Environmental

Protection: IP67
 NEMA Rating: NEMA 6

Reference Information

UL File No.: E152210

Configuration	M8x0.5, Front Panel Mount		PG7, Back Panel Mount		PG7, Back Panel Mount		PCB Pins	
	Wire Type	PVC Lead, UL1007/1569	Wire Type	PVC Leads, UL1007/1569	Wire Type	PVC Leads, UL1007/1569	Wire Type	PVC Leads, UL1007/1569
Wire Size	24 AWG		24 AWG		24 AWG		24 AWG	
Length	0.3m		0.3m		0.3m		0.3m	
Poles	Max. Current per Contact	Max. Voltage	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3 Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	4R3P00A27C300	120090-0016	4R3H40E02C3003	120031-0046	4R3H400013	120090-5001
4 Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	4R4P00A27C300	120090-0029	4R4H40E02C3003	120031-0022	4R4H400013	120031-0118
5 Pole 1 - Brown 4 - Black 2 - White 5 - Gray 3 - Blue	3.0A	60V AC / 75V DC	4R5P00A27C300	120090-0037	4R5H40E02C3003	120031-0050		

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
 Build-a-Part Number

	Length	Code
Meters	0.3	C300
	1.0	M010

4R3P00A27C3003

Wire Type
 Configuration

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Receptacles (US)

120090

Male Front Panel Mount



Features and Benefits

- IEC compliant M8 panel mount receptacles
- Mates with threaded and snap M8 cordsets
- Available in 3-, 4-, and 5-pole versions
- Fully potted assemblies provide IP67/68 protection for harsh environments
- Receptacles with wired leads to be used in control panels, junction boxes and sensors. Other configurations also available.

Reference Information

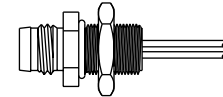
UL File No.: E152210

Physical

Shell Material: Nickel-plated Brass
 Contact Carries: PBT
 O-Ring: Panel—Black Viton®
 Contacts: Copper alloy with Gold over Nickel plating
 Wire PVC Insulation: 300V, 80° C, UL1007/1569, 24 AWG

Environmental

Protection: IP67
 NEMA Rating: NEMA 6



Configuration	M8x0.5, Front Panel Mount
Wire Type	PVC Lead, UL1007/1569
Wire Size	24 AWG
Length	0.3m

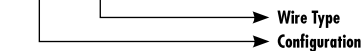
Poles	Max. Current per Contact	Max. Voltage	Engineering No.	Standard Order No.
3 Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	4R3P06A27C300	120090-0020
4 Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	4R4P06A27C300	120090-0032
5 Pole 1 - Brown 4 - Black 2 - White 5 - Gray 3 - Blue	3.0A	60V AC / 75V DC	4R5P06A27C300	120090-0038

Note: Sales drawings for all standard order numbers are available on molex.com.
 Viton® is a registered trademark of E.I. DuPont De Nemours and Company.

Configuration Code*
 Build-a-Part Number

	Length	Code
Meters	0.3	C300
	1.0	M010

4R3P06A27C3003



*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Threaded Field Attachable Connectors (US)

120091

**Female, Male
Straight, Right Angle**



Features and Benefits

- Allows field termination of cables to IEC compliant, M8 circular connector
- Preassembled contact carrier with solder cup contacts for easy conductor termination
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3- and 4-pole versions
- Back end housing and cable gland provides IP67 protection and strain relief

Physical

Connector Body: PA
Contact Carriers: PA
O-ring/Gaskets: NBR
Coupling Nut: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Termination: Contacts with solder cups, accepts conductors up to 24 AWG (0.25mm²)

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Female Connectors

Poles	Current per Contact	Max. Voltage	Cable Diameter Range	Female Straight		Female Right Angle	
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3 Pole 	4.0A	60V AC 75V DC	3.5-5.0mm (.137-.197")	N03FA03124	120091-0001	N03FA04124	120091-0003
4 Pole 	4.0A	60V AC 75V DC	3.5-5.0mm (.137-.197")	N04FA03124	120091-0007	N04FA04124	120091-0009

Male Connectors

Poles	Current per Contact	Max. Voltage	Cable Diameter Range	Male Straight		Male Right Angle	
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3 Pole 	4.0A	60V AC 75V DC	3.5-5.0mm (.137-.197")	N03MA03124	120091-0004	N03MA04124	120091-0006
4 Pole 	4.0A	60V AC 75V DC	3.5-5.0mm (.137-.197")	N04MA03124	120091-0010	N04MA04124	120091-0012

Note: Sales drawings for all standard order numbers are available on molex.com

Brad® Nano-Change® (M8) Distribution Boxes (US)

120113 Single Wired Ports with M16 HR Connector



Features and Benefits

- Fully potted, factory assembled boxes simplify on machine wiring installations
- Compact—small footprint for tight spaces
- Can be mounted in two orientations for added flexibility
- One input/output per port
- Indicating LEDs for power and sensor trigger indication
- M16 Home Run connector for easy replacement

Electrical

Voltage: 10-30V DC max.
 Amperage: Module—6.0A max.
 Port—2.0A max.

Physical

Housing: PBT
 Port Shell Material: Nickel-plated Brass
 Contacts: Copper alloy with Gold over Nickel plating
 Home Run Connector: M16 14-pole male connector
 Wiring Configuration: Single I/O, M8 3-pole female port
 Operating Temperature: -25 to +90° C

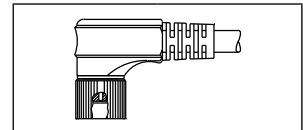
Environmental

Protection: IP67
 NEMA Rating: NEMA 6

Port Configuration	Box Configuration	Ports	LED Indicator	for Sensor	Engineering No.	Standard Order No.
		4	Yes	PNP	BNY401P-FBC	120113-0023
		6	Yes	PNP	BNY601P-FBC	120113-0026
		8	Yes	PNP	BNY801P-FBC	120113-0029
		10	Yes	PNP	BNYA01P-FBC	120113-0020

Suggested Home Run Cable Assemblies

M16 14-pole Female Cordsets



Use With	Cable Jacket	No. conductors	Cable Construction	Length	Engineering No.	Standard Order No.
4-port Block	PUR	6	Black PUR, 6x0.34mm ²	10.0m	L04301M78M100	130023-0063
6-port Block		8	Black PUR, 8x0.34mm ²		L04201M78M100	130023-0059
8-port Block		10	Black PUR, 10x0.34mm ²		L04101M78M100	130023-0055
10-port Block		12	Black PUR, 12x0.34mm ²		L04A01M78M100	130023-0068

Note: Sales drawings for all standard order numbers are available on molex.com

Brad® Nano-Change® (M8) Distribution Boxes (US)

120113 Single Wired Ports with PUR HR Cable



Features and Benefits

- Fully potted, factory assembled boxes simplify on machine wiring installations
- Compact—small footprint for tight spaces
- Can be mounted in two orientations for added flexibility
- One input/output per port
- Indicating LEDs for power and sensor trigger indication
- Integral Home Run cable eliminates need for purchase of additional component for installing

Electrical

Voltage: 10-30V DC max.
 Amperage: Module—6.0A max.
 Port—2.0A max.

Physical

Housing: PBT
 Port Shell Material: Nickel-plated Brass
 Contacts: Copper alloy with Gold over Nickel plating
 Wiring Configuration: Single I/O, M8 3-pole female port
 Home Run Cable: Black PUR cable, conductors:
 4-port—4x0.34mm² + 2x0.75mm²
 6-port—6x0.34mm² + 2x0.75mm²
 8-port—8x0.34mm² + 2x0.75mm²
 10-port—10x0.34mm² + 2x0.75mm²

Environmental

Protection: IP67
 NEMA Rating: NEMA 6

Port Configuration	Box Configuration	HR Cable Exit	Ports	LED Indicator	for Sensor	Length	Engineering No	Standard Order No
		End Exit	4	Yes	PNP	5.0m	BEY401P-FBP-05	120113-0006
			6	Yes	PNP	5.0m	BEY601P-FBP-05	120113-0011
			8	Yes	PNP	5.0m	BEY801P-FBP-05	120113-0014
			10	Yes	PNP	5.0m	BEYA01P-FBP-05	120113-0002
		Top Exit	4	Yes	PNP	5.0m	BNY401P-FBP-05	120113-0025
			8	Yes	PNP	5.0m	BNY801P-FBP-05	120113-0032
			10	Yes	PNP	5.0m	BNYA01P-FBP-05	120113-0022

Note: Sales drawings for all standard order numbers are available on molex.com

Configuration Code*
 Build-a-Part Number

	Length	Code
Meters	5	05
	10	10
	15	15

BNYA01P-FBP-05

Cable Code

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Distribution Boxes (US)

120054/120113

Dual Wired Ports with PUR HR Cable



Features and Benefits

- Fully potted, factory assembled boxes simplify on machine wiring installations
- Compact—small footprint for tight spaces
- Can be mounted in two orientations for added flexibility
- One input/output per port
- Indicating LEDs for power and sensor trigger indication
- Integral Home Run cable eliminates need for purchase of additional component for installing

Electrical

Voltage: 10-30V DC max.
Amperage: Module—6.0A max.
Port—2.0A max.

Physical

Housing: PBT
Port Shell Material: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Wiring Configuration: Dual I/O, M8 4-pole female port
Home Run Cable: Black PUR cable, conductors:
4-port—8x0.34mm² + 2x0.75mm²
6-port—12x0.34mm² + 2x0.75mm²
8-port—16x0.34mm² + 2x0.75mm²
10-port—20x0.25mm² + 2x0.50mm²

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Port Configuration	Box Configuration	HR Cable Exit	Ports	LED Indicator	for Sensor	Length	Engineering No	Standard Order No
		End Exit	4	Yes	PNP	5.0m	BEY403P-FBP-05	120054-0034
			6	Yes	PNP	5.0m	BEY603P-FBP-05	120054-0043
			8	Yes	PNP	5.0m	BEY803P-FBP-05	120113-0017
			10	Yes	PNP	5.0m	BEYA03P-FBP-05	120054-0045
		Top exit	4	Yes	PNP	5.0m	BNY403P-FBP-05	120113-5100
			6	Yes	PNP	5.0m	BNY603P-FBP-05	120054-0044
			8	Yes	PNP	5.0m	BNY803P-FBP-05	120054-0004
			10	Yes	PNP	5.0m	BNYA03P-FBP-05	120054-0046

Note: Sales drawings for all standard order numbers are available on molex.com

Configuration Code*
Build-a-Part Number



*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Suggested Tee Splitter to Connect Two I/O per Port in Above Boxes

Wiring Schematic	Description	Engineering No	Standard Order No.
	Brad Nano-Change 'Y' Splitter	444A30	120089-5002

Brad® Nano-Change® (M8) Single-Ended Cordsets (US)

120088

**Female, Male Pigtails
Straight, Right Angle
Snap**



Features and Benefits

- IEC compliant M8 cordset assemblies with friction fit coupler design (snap design)
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3 and 4 pole versions
- Push on to make connection, friction fit of snap feature keeps connection
- IP67 rated for harsh environments
- LED version provide power and signal trigger indication for PNP sensors (NPN versions available upon request)
- Wide selection of cables to fit applications:
 - PVC cables for light, cost-sensitive industrial applications
 - PUR cables for moderate flexing and for environments encountering cutting fluids and oils
 - Other types available upon request

Physical

Connector Body: TPE (PVC for LED version)
 Contact Carries: PBT
 O-ring: Viton®
 Coupling Nut: Nickel-plated Brass (male only)
 Contacts: Copper alloy with Gold over Nickel plating
 Cables: A10—Yellow PVC jacket, 24 AWG PVC conductors, 300V, UL AWM2661
 B09—Black PUR jacket, 24 AWG PVC conductors, 300V, 80° C, UL AWM 20549 (3 conductor)/AWM 21198 (5 conductor)

Environmental

Protection: IP67
 NEMA Rating: NEMA 6

Female Pigtails

Poles	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Female Straight		Female Right Angle		Female Right Angle with LEDs	
							Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3 Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	UL 2661	PVC (A10)	24 AWG	2.0m	503000A10M020	120088-0022	503001A10M020	120088-0032	5030P1A10M020	120088-0099
			UL 20549	PUR (B09)			503000B09M020	120088-0002	503001B09M020	120088-0040	5030P1B09M020	120088-0001
4 Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	UL 2661	PVC (E03)	24 AWG	2.0m			504001A10M020	120088-0054		
				PUR (B09)			504000B09M020	120088-0116	504001B09M020	120088-0130		

Male Pigtails

Poles	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Male Straight	
							Engineering No.	Standard Order No.
3 Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	UL 2661	PVC (A10)	24 AWG	2.0m	503006A10M020	120088-0042
			UL 20549	PUR (B09)			503006B09M020	120088-0112
4 Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	UL 2661	PVC (E03)	24 AWG	2.0m	504006A10M020	120088-0059
				PUR (B09)			504006B09M020	120088-0014

Note: Sales drawings for all standard order numbers are available on molex.com.
 Viton® is a registered trademark of E.I. DuPont De Nemours and Company.

Configuration Code*
 Build-a-Part Number

	Length	Code
Meters	2	M020
	5	M050
	10	M100

503000A10M020

→ Cable Code

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Connectors

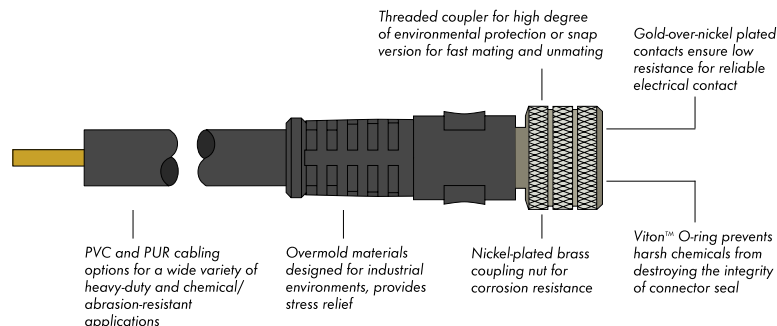
EUROPE

Brad® Nano-Change® (M8) compact connectors and cordsets from Molex are part of a broad selection of rugged, space-saving cordsets, receptacles, inserts, splitters and molded junction boxes.

Nano-Change connectors meet IEC 61076-2-104 standards and are built "industrial tough" to ensure flexibility, interoperability and rugged performance in tight spaces while minimizing downtime, maintenance and wiring time.

Molex Nano-Change offerings include 3-, 4- and 5-pin designs. The cordsets are available with threaded and snap coupling options. A wide array of cable types provides flexibility to accommodate multiple applications.

The molded junction boxes feature a compact, space-saving design that allows simplification of control wiring systems, providing the opportunity for machine builders to design more modular devices. The Nano-Change cable system provides a way to reduce cable bundling expenses by reducing field install cabinets and field wire terminations.



Features and Benefits

Cordsets

- Available with snap or threaded coupler; single- and double-ended cordsets; 3-, 4- and 5-pole configurations; straight and 90°; with and without LED to give users a wide variety of options to meet their requirements
- Compliant with IEC 61076-2-104, allowing intermating with industry-standard M8 devices
- IP67 (threaded) and IP65 (snap)-rated connector interfaces provide rugged, watertight connectors that are suited for harsh, wet environments
- Patented anti-vibration feature prevents backout in high-vibration and mechanical shock applications
- Gold-over-nickel-plated contacts feature a durable, corrosion-resistant plating that maintains low electrical resistance through the mate/unmate cycles

Receptacles, Field Attachables and Accessories

- Wide array of configurations, including front and back panel mount; with leads or PCB pins, give users a wide variety of options to meet their requirements
- Epoxy-potted, IP67-rated receptacles are ideal for rugged industrial environments

- Field attachable connectors with solder cup terminals allow users to customize their application

Distribution Boxes

- Available in 4-, 6-, 8- and 10-port distribution boxes. Single and dual I/O versions with vertical or horizontal mounting available, giving users a wide variety of options to meet application requirements.
- Fully potted housing ensures performance in vibration and fluid environments by providing rugged IP67 (IP68 cabled) rating
- Rugged, compact design allows placement in tight places anywhere on the machine

Applications

- 8.00mm proximity switches
- Miniature photo eyes
- Reed and hall effect switches
- Other miniature I/O devices and sensors
- Robotic end-of-arm tooling
- Specialty sensors semiconductor assembly equipment

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Brad® Nano-Change® (M8) Single-Ended Cordsets (Europe)

120027/120086

Female, Pigtail
Straight, Right Angle
Threaded



Features and Benefits

- IEC compliant M8 cordset assemblies with threaded couplers
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3-, 4-, and 5-pole versions
- Patented anti-vibration feature to prevent loosening under high-vibration applications
- IP67 rated for harsh environments
- LED version provide power and signal trigger indication for PNP sensors (NPN versions available upon request)
- Wide selection of cables to fit applications:
 - PVC cables for light, cost-sensitive industrial applications
 - PUR cables for moderate flexing and for environments encountering cutting fluids and oils
 - Other types available upon request

Physical

Connector Body: PUR
Contact Carries: PUR
O-ring: Viton®
Coupling Nut: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Cables: E02—Black PVC jacket, 0.25mm² PVC conductors, 300V, 80° C, UL AWM 2464
P02—Black PUR/PVC jacket, 0.25mm² PVC conductors, 300V, 80° C
H08—Black PUR jacket, 0.25mm² TPM conductors, 300V, 80° C, Low Smoke/Zero Halogen (LSOH), UL AWM 21198

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Reference Information

UL File No.: E152210 (PVC versions)

Cordset without Indicating LEDs

Pole	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Female Straight		Female Right Angle	
							Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3-Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm ²	2.0m	403000E02M020	120027-0066	403001E02M020	120027-0090
				PUR/PVC (P02)			403000P02M020	120086-8001	403001P02M020	120086-8155
4-Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm ²	2.0m	404000E02M020	120027-0127	404001E02M020	120027-0152
				PUR/PVC (P02)			404000P02M020	120086-8156	404001P02M020	120086-8159
5-Pole 1 - Brown 4 - Black 2 - White 5 - Gray 3 - Blue	3.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm ²	2.0m	405000E02M020	120086-8099	405001E02M020	120086-8178
				PUR/PVC (P02)			405000P02M020	120027-0709	405001P02M020	120086-8391

Cordset with Indicating LEDs

Poles	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Female Right Angle	
							Engineering No.	Standard Order No.
3-Pole with 1 LED 1 - Brown 4 - Black 3 - Blue	4.0A	30V AC/DC	UL 2464	PVC (E02)	0.25mm ²	2.0m	4030P1E02M020	120027-0115
				PUR/PVC (P02)			4030P1P02M020	120086-8337

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
Build-a-Part Number

	Length	Code
Meters	2	M020
	5	M050
	10	M100

443000E02M020

Cable Code

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Single-Ended Cordsets (Europe)

120027/120086

Male, Pigtail
Straight, Right Angle
Threaded



Features and Benefits

- IEC compliant M8 cordset assemblies with threaded couplers
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3-, 4-, and 5-pole versions
- Patented anti-vibration feature to prevent loosening under high-vibration applications
- IP67 rated for harsh environments
- Wide selection of cables to fit applications:
 - PVC cables for light, cost-sensitive industrial applications
 - PUR cables for moderate flexing and for environments encountering cutting fluids and oils
 - Other types available upon request

Reference Information

UL File No.: E152210 (PVC versions)

Physical

Connector Body: PUR
Contact Carries: PUR
O-ring: Viton®
Coupling Nut: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Cables: E02—Black PVC jacket, 0.25mm² PVC conductors, 300V, 80° C, UL AWM 2464
P02—Black PUR/PVC jacket, 0.25mm² PVC conductors, 300V, 80° C
H08—Black PUR jacket, 0.25mm² TPM conductors, 300V, 80° C, Low Smoke/Zero Halogen (LSOH), UL AWM 21198

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Poles	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Male Straight		Male Right Angle	
							Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
							<p>1 - Brown 2 - Black 3 - Blue 4 - Black</p>	4.0A	60V AC / 75V DC	UL 2464
	PUR/PVC (P02)	403006P02M020	120027-0911	403007P02M020	120086-8329					
<p>1 - Brown 2 - White 3 - Blue 4 - Black</p>	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm²	2.0m	404006E02M020	120086-8368	404007E02M020	120027-0483
			PUR/PVC (P02)	404006P02M020			120086-8373	404007P02M020	120086-8382	
<p>1 - Brown 2 - White 3 - Blue 4 - Black 5 - Gray</p>	3.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm²	2.0m	405006E02M020	120086-8173	405007E02M020	120086-8083
			PUR/PVC (P02)	405006P02M020			120027-0752	405007P02M020	120086-8061	

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
Build-a-Part Number

	Length	Code
Meters	2	M020
	5	M050
	10	M100

403006E02M020

→ Cable Code

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Double-Ended Cordsets (Europe)

120028/120087

Female Straight-to-Male Straight,
Female Right Angle-to-Male Straight,
Female Straight-to-Male Right Angle,
Female Right Angle-to-Male
Right Angle
Threaded



Features and Benefits

- IEC compliant M8 cordset assemblies with threaded couplers
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3-, 4-, and 5-pole versions
- Patented anti-vibration feature to prevent loosening under high-vibration applications
- IP67 rated for harsh environments
- Wide selection of cables to fit applications:
 - PVC cables for light, cost-sensitive industrial applications
 - PUR cables for moderate flexing and for environments encountering cutting fluids and oils
 - Other types available upon request

Reference Information

UL File No.: E1 52210 (PVC versions)

Physical

Connector Body: PUR
Contact Carries: PUR
O-ring: Viton®
Coupling Nut: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Cables: E02—Black PVC jacket, 0.25mm² PVC conductors, 300V, 80° C, UL AWM 2464
P02—Black PUR/PVC jacket, 0.25mm² PVC conductors, 300V, 80° C
H08—Black PUR jacket, 0.25mm² TPM conductors, 300V, 80° C, Low Smoke/Zero Halogen (LSOH), UL AWM 21198

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Poles (Female View)	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Female Straight-to-Male Straight		Female Right Angle-to-Male Straight	
							Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3-Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm²	1.0m	443030E02M010	120087-8258	443031E02M010	120028-0016
				PUR/PVC (P02)			443030P02M010	120087-8140	443031P02M010	120087-8316
4-Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm²	1.0m	444030E02M010	120087-8349	444031E02M010	120087-8365
				PUR/PVC (P02)			444030P02M010	120087-8359	444031P02M010	120087-8372

Poles (Female View)	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Female Straight-to-Male Right Angle		Female Right Angle-to-Male Right Angle	
							Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3-Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm²	1.0m	443032E02M010	120087-8321	443033E02M010	120087-8329
				PUR/PVC (P02)			443032P02M010	120087-8324	443033P02M010	120087-8502
4-Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm²	1.0m	444032E02M010	120087-8503	444033E02M010	120087-8507
				PUR/PVC (P02)			444032P02M010	120087-8504	444033P02M010	120087-8380

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
Build-a-Part Number

Meters	Length	Code
	.3	M003
	.6	M006
	1	M010
	2	M020
	3	M030
	4	M040
	5	M050

443030E02M010

Cable Code

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Receptacles (Europe)

120031/120090

Female
Front Panel Mount,
Back Panel Mount



Features and Benefits

- IEC compliant M8 panel mount receptacles
- Available in 3-, 4-, and 5-pole versions
- Fully potted assemblies provide IP67/68 protection for harsh environments
- Available in an array of configurations to fit your needs:
 - Various mounting thread sizes, including pipe threads for direct mounting on pipe fittings
 - Front panel mounts for installing from the outside of the enclosure
 - Back panel mount from inside the enclosure
 - Wire leads for terminating to terminal strips or PCB tails to incorporate with electronics

Physical

Shell Material: Nickel-plated Brass
Contact Carriers: PBT
O-Ring: M8—Red Viton®
Panel—Black Viton
Contacts: Copper alloy with Gold over Nickel plating
Wire PVC Insulation: 300V, 80° C, UL1007/1569, 0.25mm²

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Reference Information

UL File No.: E152210

		M8x0.5, Front Panel Mount		PG7, Back Panel Mount		PG7, Back Panel Mount			
		PVC Lead, UL1007/1569		PVC Leads				PCB Pins	
		0.25mm ²		0.25mm ²					
		0.3m		0.3m					
Poles	Max. Current per Contact	Max. Voltage	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	Engineering No.	Standard Order No.	
3-Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	4R3F30E02C3003	120031-0015	4R3H40E02C3003	120031-0046	4R3L40001	120149-0016	
4-Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	4R4F30E02C3003	120031-0049	4R4H40E02C3003	120031-0022	4R4L40001	120149-0064	
5-Pole 1 - Brown 4 - Black 2 - White 5 - Gray 3 - Blue	3.0A	60V AC / 75V DC	4R5F30E02C3003	120031-0028	4R5H40E02C3003	120031-0050	4R5L40001	120149-0095	

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
Build-a-Part Number

	Length	Code
Meters	0.3	C300
	1.0	M010

4R3F30E02C3003

Wire Type
Configuration

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Receptacles (Europe)

120090

Male Front Panel Mount



Features and Benefits

- IEC compliant M8 panel mount receptacles
- Mates with threaded and snap M8 cordsets
- Available in 3-, 4-, and 5-pole versions
- Fully potted assemblies provide IP67/68 protection for harsh environments
- Receptacles with wired leads to be used in control panels, junction boxes and sensors. Other configurations also available

Reference Information

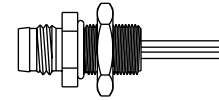
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Physical

Shell Material: Nickel-plated Brass
 Contact Carries: PBT
 O-Ring: Panel—Black Viton®
 Contacts: Copper alloy with Gold over Nickel plating
 Wire PVC Insulation: 300V, 80° C, UL1007/1569, 0.25mm²

Environmental

Protection: IP67
 NEMA Rating: NEMA 6



Configuration
 Wire Type
 Wire Size
 Length

M8x0.5, Front Panel Mount
 PVC Lead, UL1007/1569
 0.25mm²
 0.3m

Pole	Max. Current per Contact	Max. Voltage	Engineering No.	Standard Order No.
<p>3-Pole</p> <p>1 - Brown 2 - Blue 3 - Black</p>	4.0A	60V AC / 75V DC	4R3F06E02C3003	120031-0004
<p>4-Pole</p> <p>1 - Brown 2 - White 3 - Blue 4 - Black</p>	4.0A	60V AC / 75V DC	4R4F06E02C3003	120031-0006
<p>5-Pole</p> <p>1 - Brown 2 - White 3 - Blue 4 - Black 5 - Gray</p>	3.0A	60V AC / 75V DC	4R5F06E02C3003	120031-0027

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
 Build-a-Part Number

	Length	Code
Meters	0.3	C300
	1.0	M010

4R3F06E02C3003

Wire Type
 Configuration

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Threaded Field Attachable Connectors (Europe)

120091
Female, Male
Straight, Right Angle



Features and Benefits

- Allows field termination of cables to IEC compliant, M8 circular connector
- Preassembled contact carrier with solder cup contacts for easy conductor termination
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3- and 4-pole versions
- Back end housing and cable gland provides IP67 protection and strain relief

Physical

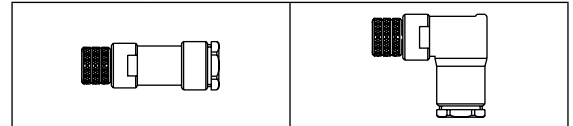
Connector Body: PA
Contact Carries: PA
O-ring/Gaskets: NBR
Coupling Nut: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Termination: Contacts with solder cups, accepts conductors up to 24 AWG (0.25mm²)

Environmental

Protection: IP67
NEMA Rating: NEMA 6

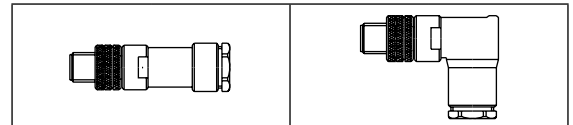
Female Connectors

Poles	Current per Contact	Max. Voltage	Cable Diameter Range	Female Straight		Female Right Angle	
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
<p>3-Pole</p>	4.0A	60V AC 75V DC	3.5-5.0mm (.137-.197")	N03FA03124	120091-0001	N03FA04124	120091-0003
<p>4-Pole</p>	4.0A	60V AC 75V DC	3.5-5.0mm (.137-.197")	N04FA03124	120091-0007	N04FA04124	120091-0009



Male Connectors

Poles	Current per Contact	Max. Voltage	Cable Diameter Range	Male Straight		Male Right Angle	
				Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
<p>3-Pole</p>	4.0A	60V AC 75V DC	3.5-5.0mm (.137-.197")	N03MA03124	120091-0004	N03MA04124	120091-0006
<p>4-Pole</p>	4.0A	60V AC 75V DC	3.5-5.0mm (.137-.197")	N04MA03124	120091-0010	N04MA04124	120091-0012



Note: Sales drawings for all standard order numbers are available on molex.com

Brad® Nano-Change® (M8) Distribution Boxes (Europe)

120113 Single Wired Ports with M16 HR Connector



Features and Benefits

- Fully potted, factory assembled boxes simplify on machine wiring installations
- Compact—small footprint for tight spaces
- Can be mounted in two orientations for added flexibility
- One input/output per port
- Indicating LEDs for power and sensor trigger indication
- M16 Home Run connector for easy replacement

Electrical

Voltage: 10-30V DC max.
Amperage: Module—6.0A max.
Port—2.0A max.

Physical

Housing: PBT
Port Shell Material: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Home Run Connector: M16 14-pole male connector
Wiring Configuration: Single I/O, M8 3-pole female port
Operating Temperature: -25 to +90° C

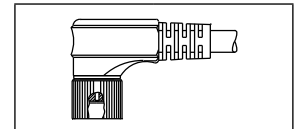
Environmental

Protection: IP67
NEMA Rating: NEMA 6

Port Configuration	Box Configuration	Ports	LED Indicator	for Sensor	Engineering No.	Standard Order No.
		4	Yes	PNP	BNY401P-FBC	120113-0023
		6	Yes	PNP	BNY601P-FBC	120113-0026
		8	Yes	PNP	BNY801P-FBC	120113-0029
		10	Yes	PNP	BNYA01P-FBC	120113-0020

Suggested Home Run Cable Assemblies

M16 14-pole Female Cordsets



use with	Cable Jacket	No. conductors	Cable Construction	Length	Engineering No.	Standard Order No.
4port Block	PUR	6	Black PUR, 6x0.34mm ²	10.0m	L04301M78M100	130023-0063
6port Block		8	Black PUR, 8x0.34mm ²		L04201M78M100	130023-0059
8port Block		10	Black PUR, 10x0.34mm ²		L04101M78M100	130023-0055
10port Block		12	Black PUR, 12x0.34mm ²		L04A01M78M100	130023-0068

Note: Sales drawings for all standard order numbers are available on molex.com

Brad® Nano-Change® (M8) Distribution Boxes (Europe)

120113
Single Wired Ports with PUR HR Cable



Features and Benefits

- Fully potted, factory assembled boxes simplify on machine wiring installations
- Compact—small footprint for tight spaces
- Can be mounted in two orientations for added flexibility
- One input/output per port
- Indicating LEDs for power and sensor trigger indication
- Integral Home Run cable eliminates need for purchase of additional component for installing

Electrical

Voltage: 10-30V DC max.
Amperage: Module—6.0A max.
Port—2.0A max.

Physical

Housing: PBT
Port Shell Material: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Wiring Configuration: Single I/O, M8 3-pole female port
Home Run Cable: Black PUR cable, conductors:
4-port—4x0.34mm² + 2x0.75mm²
6-port—6x0.34mm² + 2x0.75mm²
8-port—8x0.34mm² + 2x0.75mm²
10-port—10x0.34mm² + 2x0.75mm²

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Port Configuration	Box Configuration	HR Cable Exit	Ports	LED Indicator	for Sensor	Length	Engineering No	Standard Order No
		End Exit	4	Yes	PNP	5.0m	BEY401P-FBP-05	120113-0006
			6	Yes	PNP	5.0m	BEY601P-FBP-05	120113-0011
			8	Yes	PNP	5.0m	BEY801P-FBP-05	120113-0014
			10	Yes	PNP	5.0m	BEYA01P-FBP-05	120113-0002
		Top Exit	4	Yes	PNP	5.0m	BNY401P-FBP-05	120113-0025
			6	Yes	PNP	5.0m	BNY601P-FBP-05	120113-0032
			8	Yes	PNP	5.0m	BNY801P-FBP-05	120113-0032
		10	Yes	PNP	5.0m	BNYA01P-FBP-05	120113-0022	

Note: Sales drawings for all standard order numbers are available on molex.com

Configuration Code*
Build-a-Part Number

	Length	Code
Meters	5	05
	10	10
	15	15

BNYA01P-FBP-05

→ Cable Code

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Distribution Boxes (Europe)

120054/120113

Dual Wired Ports with
PUR HR Cable



Features and Benefits

- Fully potted, factory assembled boxes simplify on machine wiring installations
- Compact—small footprint for tight spaces
- Can be mounted in two orientations for added flexibility
- One input/output per port
- Indicating LEDs for power and sensor trigger indication
- Integral Home Run cable eliminates need for purchase of additional component for installing

Electrical

Voltage: 10-30V DC max.
Amperage: Module—6.0A max.
Port—2.0A max.

Physical

Housing: PBT
Port Shell Material: Nickel-plated Brass
Contacts: Copper alloy with Gold over Nickel plating
Wiring Configuration: Dual I/O, M8 4-pole female port
Home Run Cable: Black PUR cable, conductors:
4-port—8x0.34mm² + 2x0.75mm²
6-port—12x0.34mm² + 2x0.75mm²
8-port—16x0.34mm² + 2x0.75mm²
10-port—20x0.25mm² + 2x0.50mm²

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Port Configuration	Box Configuration	HR Cable Exit	Ports	LED Indicator	for Sensor	Length	Engineering No	Standard Order No
		End Exit	4	Yes	PNP	5.0m	BEY403P-FBP-05	120054-0034
			6	Yes	PNP	5.0m	BEY603P-FBP-05	120054-0043
			8	Yes	PNP	5.0m	BEY803P-FBP-05	120113-0017
			10	Yes	PNP	5.0m	BEY403P-FBP-05	120054-0045
		Top exit	4	Yes	PNP	5.0m	BNY403P-FBP-05	120113-5100
			6	Yes	PNP	5.0m	BNY603P-FBP-05	120054-0044
			8	Yes	PNP	5.0m	BNY803P-FBP-05	120054-0004
			10	Yes	PNP	5.0m	BNYA03P-FBP-05	120054-0046

Note: Sales drawings for all standard order numbers are available on molex.com

Configuration Code*
Build-a-Part Number

	Length	Code
Meters	5	05
	10	10
	15	15

BEY803P-FBP-05
Cable Code

*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.

Brad® Nano-Change® (M8) Single-Ended Cordsets (Europe)

120029/120086/120088

Female, Male Pigtails
SNAP
Straight, Right Angle



Features and Benefits

- IEC compliant M8 cordset assemblies with friction fit coupler design ('SNAP' design)
- Small, compact design for miniature sensors and space sensitive applications
- Available in 3- and 4-pole versions
- Push on to make connection, friction fit of snap feature keeps connection
- IP67 rated for harsh environments
- Wide selection of cables to fit applications:
 - PVC cables for light, cost-sensitive industrial applications
 - PUR cables for moderate flexing and for environments encountering cutting fluids and oils
 - Other types available upon request

Physical

Connector Body: PUR
Contact Carries: PUR
O-ring: Viton®
Coupling Nut: Nickel-plated Brass (male only)
Contacts: Copper alloy with Gold over Nickel plating
Cables: E02—Black PVC jacket, 0.25mm² PVC conductors, 300V, 80° C, UL AWM 2464
P02—Black PUR/PVC jacket, 0.25mm² PVC conductors, 300V, 80° C
H08—Black PUR jacket, 0.25mm² PVC conductors, 300V, 80° C, Low Smoke/Zero Halogen (LSOH), UL AWM 21198

Environmental

Protection: IP67
NEMA Rating: NEMA 6

Female Pigtails

Poles	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Female Straight		Female Right Angle	
							Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
3-Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm ²	2.0m	503000E02M020	120088-8001	503001E02M020	120088-8086
				PUR/PVC (P02)			503000P02M020	120088-8083	503001P02M020	120088-8090
			LSOH, UL 21198	PUR (H08)			503000H08M020	120088-8122	503001H08M020	120088-8128
4-Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm ²	2.0m	504000E02M020	120088-8095	504001E02M020	120088-8124
				PUR/PVC (P02)			504000P02M020	120088-8123	504001P02M020	120088-8125
			LSOH, UL 21198	PUR (H08)			504000H08M020	120088-8121	504001H08M020	120088-8126

Male Pigtails

Poles	Current per Contact	Max. Voltage	Cable Type	Cable Jacket (Cable Code)	Wire Size	Length	Male Straight	
							Engineering No.	Standard Order No.
3-Pole 1 - Brown 4 - Black 3 - Blue	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm ²	2.0m	503006E02M020	120088-8093
				PUR/PVC (P02)			503006P02M020	120088-8130
			LSOH, UL 21198	PUR (H08)			503006H08M020	120088-8129
4-Pole 1 - Brown 3 - Blue 2 - White 4 - Black	4.0A	60V AC / 75V DC	UL 2464	PVC (E02)	0.25mm ²	2.0m	504006E02M020	120088-8120
				PUR/PVC (P02)			504006P02M020	120088-8131
			LSOH, UL 21198	PUR (H08)			504006H08M020	120088-8127

Note: Sales drawings for all standard order numbers are available on molex.com.
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Configuration Code*
Build-a-Part Number



*Once an engineering number is created using the configuration code, consult Molex tech support for information regarding any part numbers.