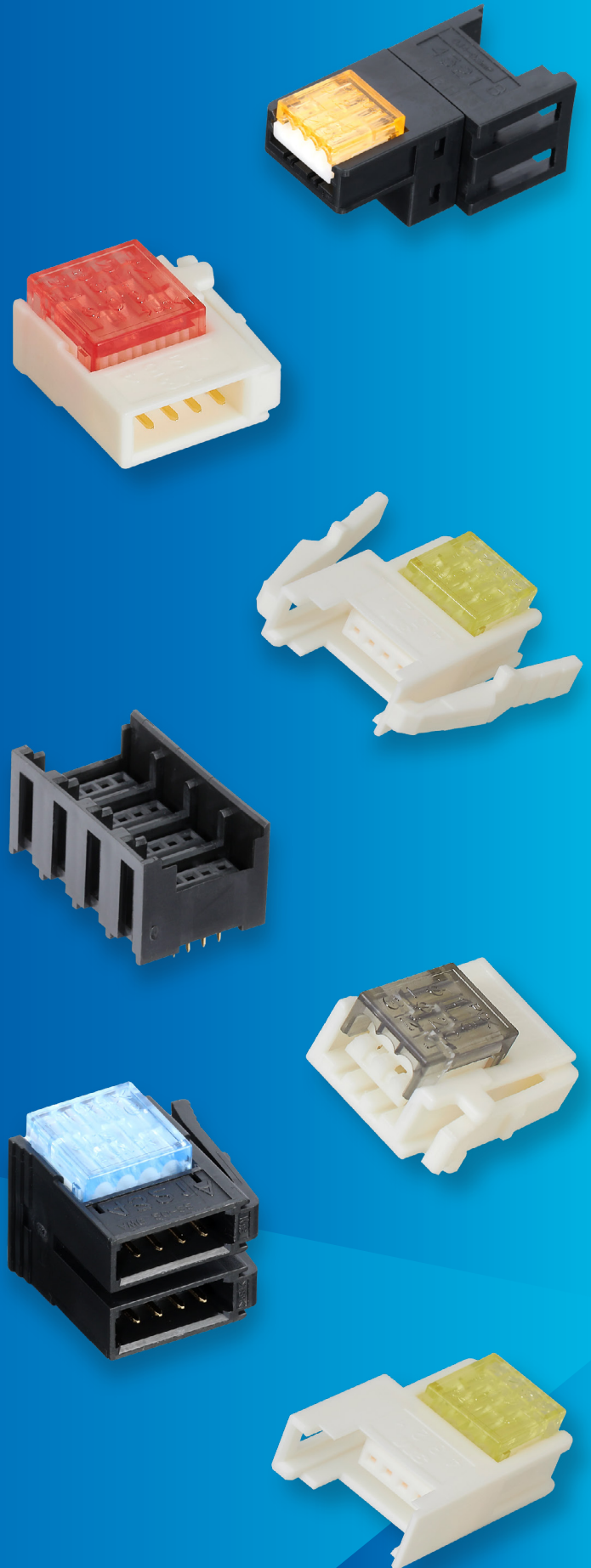**3M** Science.
Applied to Life.™

3M™ Mini-Clamp Connector Series

Miniature IDC connectors for sensors and other signal devices
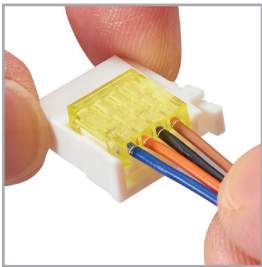
Save space. Save waste. Save time.

3M™ Mini-Clamp Connectors are a family of wiremount plugs and sockets, common sockets, and boardmount sockets for a wide variety of industrial applications.

All 3M Mini-Clamp connectors for power, signal and network connectivity feature Insulation Displacement Contact (IDC) termination. Invented by 3M in 1961, IDC technology allows technicians to terminate multiple wires simultaneously without wire stripping for fast, reliable installation and maintenance in the field.

80% less wiring time

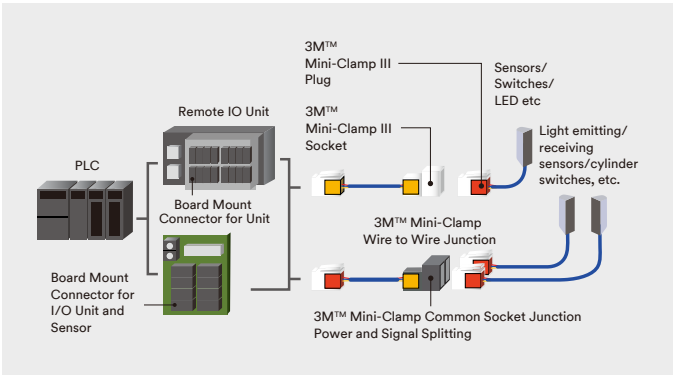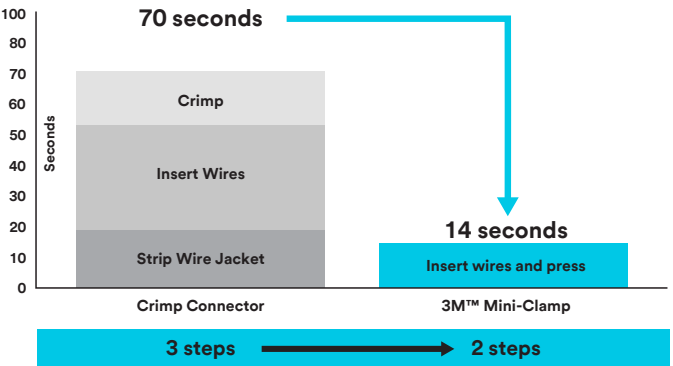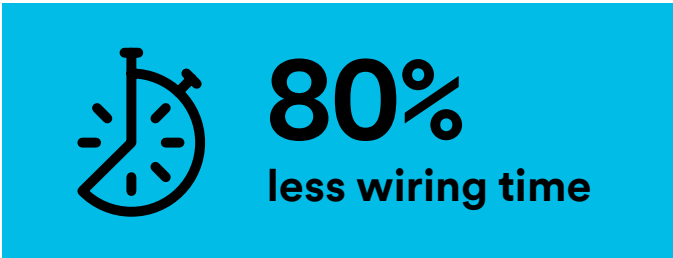## Easy, quick, reliable IDC termination.

Time and labor saving:

- No need to strip wires, no crimping required
- Terminate multiple wires simultaneously
- Reduces wiring time by approx. 80% compared to crimping connectors

70 seconds

Seconds	
Crimp	
Insert Wires	
Strip Wire Jacket	

14 seconds

Insert wires and press

Crimp Connector — 3M™ Mini-Clamp

3 steps → 2 steps

Insert wires

Press cover with pliers

3M™ Mini-Clamp III Plug

3M™ Mini-Clamp III Socket

Remote IO Unit

PLC

Board Mount Connector for Unit

Board Mount Connector for I/O Unit and Sensor

Sensors/ Switches/ LED etc

Light emitting/ receiving sensors/cylinder switches, etc.

3M™ Mini-Clamp Wire to Wire Junction

3M™ Mini-Clamp Common Socket Junction Power and Signal Splitting

3M™ Mini-Clamp Connector Series plug and socket product line-up

Contact your 3M representative for additional details on other connector configurations or visit 3M.com/factoryautomation

Positions	3M™ Mini-Clamp III Plug 37A Series	3M™ Mini-Clamp III Socket 37B Series		3M™Mini-Clamp Common Socket 37C Series	3M™ Mini-Clamp 371 Series	
		Free Hanging	Panel Mount	Free Hanging and Panel Mount	Free Hanging	Panel Mount
3	✓	✓	✓		✓	✓
4	✓	✓	✓	✓	✓	✓
6					✓	✓
8					✓	✓

For specific boardmount header information see pages 8-11

Note: The technician installation time savings is based on 3M lab evaluations and a limited sample size compared to standard hand crimping methods. Your results may vary.

3M™ Mini-Clamp III Plug 37A Series
37A0x-xxxx-W00 xx

- Quick and reliable Insulation Displacement Contact (IDC) termination without special tools
- No wire stripping – saves time, helps reduce risk of conductor damage and reduces waste
- Supports wire sizes 30-20 AWG
- Terminates 3 or 4 wires simultaneously in a single action
- Improved wire-holding mechanics provide stability during termination
- Easily connect to pig-tailed sensors and other devices
- Compact design with 2 mm pitch helps save space
- Transparent cover allows visual confirmation that wires are properly inserted
- UL and cUL recognized components, UL File No. E68080

Ordering Information

37Axx-xxxx-W00xx

- Plating IDC area
  FL: Nickel
  MB:Tin
- Wire accomodation: See product table
- Number of positions
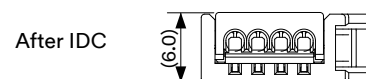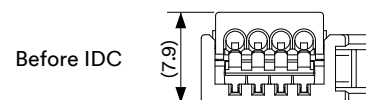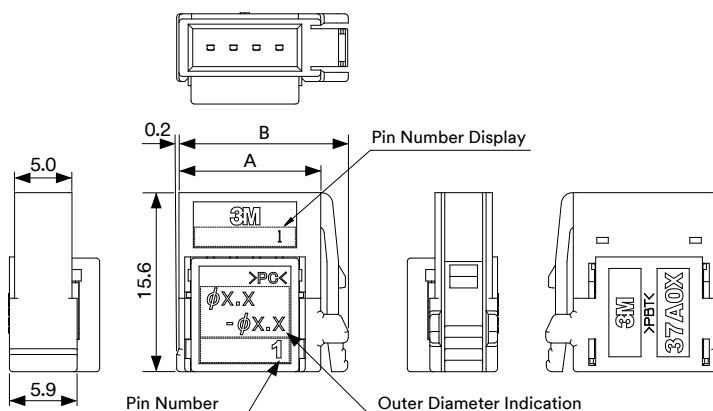 03: 3 positions
  04: 4 positions

Product specifications

Material & Plating	Item	Material	Remarks
	Body	PBT resin	UL94V-0 (White)
	Bottom Cover	Nylon	UL94V-0 (White)
	Top Cover	PC	UL94V-2 (Red/Yellow/Gray)
	Contact	Copper Alloy	Under plating: Nickel overall Wiping area: Gold IDC area: Nickel (Red cover product), Tin (Yellow and Gray cover products)

Ratings	Item	Rating
	Voltage	AC/DC 32V Max.
	Current	2.0A MAX.
	Temperature	-20 to 85 degree C

Product table

| Cover Color	Product Number		Wire Accommodation		
	3 Positions	4 Positions	AWG No.	Nominal ConductorCross-Sectional Area (mm²)	Wire Outer Diameter (mm)
Red	37A03-E121-W00 FL	37A04-E121-W00 FL	30 - 27	0.05 - 0.11	0.6 - 1.2
			26 - 24	0.12 - 0.20	0.6 - 0.8
Yellow	37A03-D162-W00 MB	37A04-D162-W00 MB	26 - 20	0.12 - 0.50	0.8 - 1.6
Gray	37A03-C206-W00 MB	37A04-C206-W00 MB	24 - 20	0.20 - 0.50	1.6 - 2.0

Dimensions (mm)

Before IDC (7.9)

After IDC (6.0)

Positions	Product Number	A	B
3	37A03-xxxx-W00 xx	10.4	12.8
4	37A04-xxxx-W00 xx	12.4	14.8

0.2 B A Pin Number Display
5.0
3M
1
15.6
>PC<
φX.X
-φX.X
1
5.9
Pin Number   Outer Diameter Indication

3M >PBT< 37A0X

Tolerances except as noted

Dimension	.0	.00
Tolerance	.00	±.13

3M™ Mini-Clamp III Socket 37B Series free hanging and panel mount
37B0x-xxxx-W00 MB

- Quick and reliable Insulation Displacement Contact (IDC) termination without special tools
- No wire stripping – saves time, helps reduce risk of conductor damage and reduces waste
- Supports wire sizes 26-20 AWG
- Terminates 3 or 4 wires simultaneously in a single action
- For wire-to-wire or panel mount in a wide range of applications
- Optional latches for panel mount applications
- Improved wire-holding mechanics provide stability during termination
- Transparent cover allows visual confirmation that wires are properly inserted
- UL and cUL recognized components, UL File No. E68080
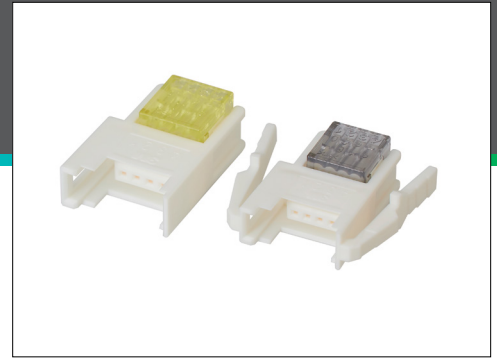
Ordering Information

37Bxx-xxxx-W00xx

- Plating IDC area
  - FL: Nickel
  - MB: Tin
- Wire accomodation: See product table
- Number of positions
  - 03: 3 positions
  - 04: 4 positions

Product specifications: 3M™ Mini-Clamp III Socket 37B Series free hanging and panel mount

Material & Plating	Item	Material	Remarks
	Body	PBT resin	UL94V-0 (White)
	Bottom Cover	Nylon	UL94V-0 (White)
	Top Cover	PC	UL94V-2 (Yellow/Gray)
	Contact	Copper Alloy	Under plating: Nickel overall Wiping area: Gold IDC area: Tin

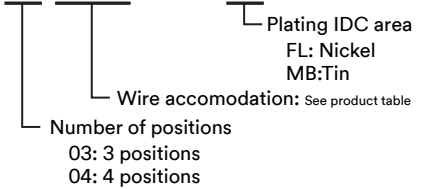| Ratings	Item	Rating
	Voltage	AC/DC 32V Max.
	Current	3.0A Max.
	Temperature	Current 1A: -20 to 85 degree C / Current 2A: -20 to 75 degree C / Current 3A: -20 to 60 degree C

3M™ Mini-Clamp III Socket 37B Series free hanging
37B0x-xxxx-W00 MB

- Quick and reliable Insulation Displacement Contact (IDC) termination without special tools
- No wire stripping – saves time, helps reduce risk of conductor damage and reduces waste
- Supports wire sizes 26-20 AWG
- Terminates 3 or 4 wires simultaneously in a single action
- Improved wire-holding mechanics provide stability during termination
- Easily connect to pig-tail wired sensors and other devices
- Compact design with 2 mm pitch helps save space
- Semi-transparent cover allows visual confirmation that wires are properly inserted
- UL and cUL recognized components, UL File No. E68080
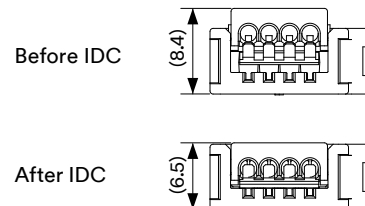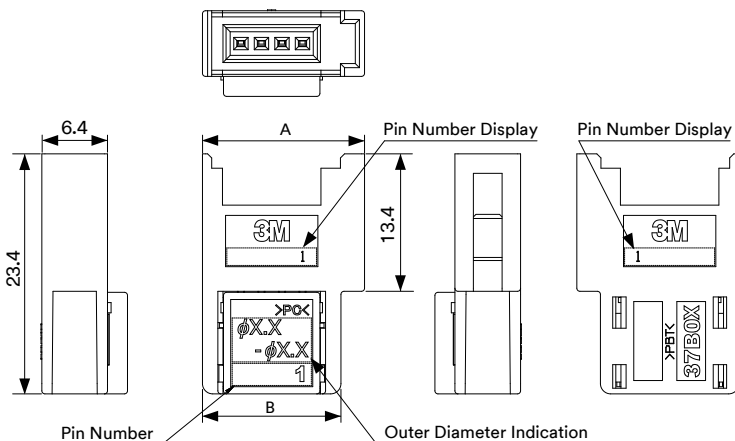
Ordering Information

37Bxx-xxxx-W00xx

Plating IDC area
FL: Nickel
MB: Tin

Wire accomodation: See product table

Number of positions
03: 3 positions
04: 4 positions

Product specifications

Material & Plating	Item	Material	Remarks
	Body	PBT resin	UL94V-0 (White)
	Bottom Cover	Nylon	UL94V-0 (White)
	Top Cover	PC	UL94V-2 (Yellow/Gray)
	Contact	Copper Alloy	Under plating: Nickel overall Wiping area: Gold IDC area: Tin

Ratings	Item	Rating
	Voltage	AC/DC 32V Max.
	Current	3.0A Max.
	Temperature	Current 1A: -20 to 85 degree C / Current 2A: -20 to 75 degree C / Current 3A: -20 to 60 degree C

Product table

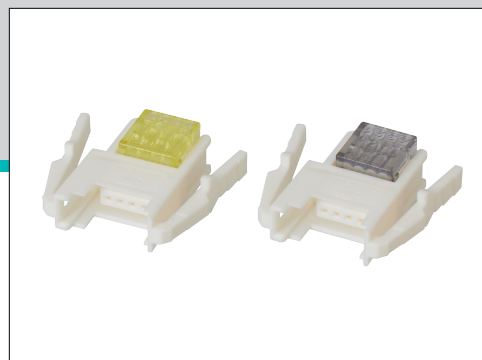| Cover Color	Product Number		Wire Accommodation		
	3 Positions	4 Positions	AWG No.	Nominal ConductorCross-Sectional Area (mm²)	Wire Outer Diameter (mm)
Yellow	37B03-D162-W00 MB	37B04-D162-W00 MB	26 - 20	0.12 - 0.50	0.8 - 1.6
Gray	37B03-C206-W00 MB	37B04-C206-W00 MB	24 - 20	0.20 - 0.50	1.4 - 2.0

Dimensions (mm)

Before IDC (8.4)

After IDC (6.5)

6.4

23.4

A

13.4

3M

1

ϕX.X
- ϕX.X

B

Pin Number Display

3M

1

Pin Number Display

PBT
37B0X

Pin Number

Outer Diameter Indication

Positions	Product Number	A	B
3	37AB3-xxxx-W00 xx MB	13.8	11.5
4	37AB4-xxxx-W00 xx MB	15.8	13.5

Tolerances except as noted

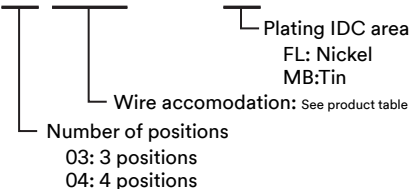| Dimension	.0	.00
Tolerance	±0.3	±.13

3M™ Mini-Clamp III Socket 37B Series panel mount
37B0x-xxxx-WP0 MB

- Quick and reliable Insulation Displacement Contact (IDC) termination without special tools
- No wire stripping – saves time, helps reduce risk of conductor damage and reduces waste
- Supports wire sizes 26-20 AWG
- Terminates 3 or 4 wires simultaneously in a single action
- Improved wire-holding mechanics provide stability during termination

- Easily connect to pig-tail wired sensors and other devices
- Compact design with 2 mm pitch helps save space
- Semi-transparent cover allows visual confirmation that wires are properly inserted
- Latches are available for reliable and verifiable panel mounting
- UL and cUL recognized components, UL File No. E68080

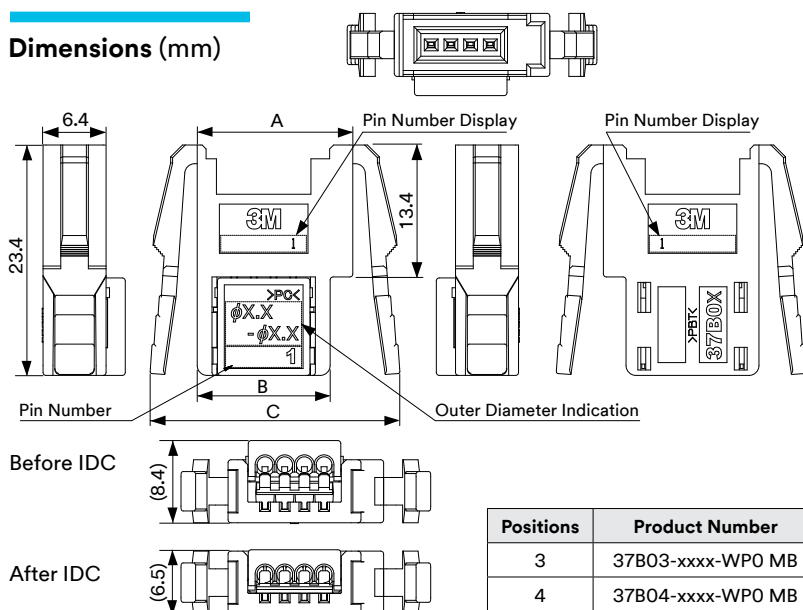### Ordering Information

37B xx-xxxx-W00xx

- Plating IDC area
  FL: Nickel
  MB: Tin
- Wire accomodation: See product table
- Number of positions
  03: 3 positions
  04: 4 positions

Product table

Cover Color	Product Number		Wire Accommodation		
	3 Positions	4 Positions	AWG No.	Nominal ConductorCross-Sectional Area (mm^2)	Wire Outer Diameter (mm)
Yellow	37B03-D162-W00 MB	37B04-D162-W00 MB	26 - 20	0.12 - 0.50	0.8 - 1.6
Gray	37B03-C206-W00 MB	37B04-C206-W00 MB	24 - 20	0.20 - 0.50	1.4 - 2.0

Product specifications

	Item	Material	Remarks
Material & Plating	Body	PBT resin	UL94V-0 (White)
	Bottom Cover	Nylon	UL94V-0 (White)
	Top Cover	PC	UL94V-2 (Yellow/Gray)
	Contact	Copper Alloy	Under plating: Nickel overall Wiping area: Gold IDC area: Tin

	Item	Rating
Ratings	Voltage	AC/DC 32V Max.
	Current	3.0A Max.
	Temperature	Current 1A: -20 to 85 degree C / Current 2A: -20 to 75 degree C / Current 3A: -20 to 60 degree C

Dimensions (mm)
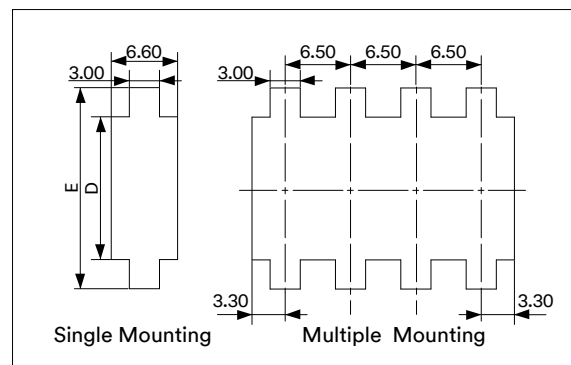
Pin Number Display

Pin Number Display

3M

3M

Pin Number

Before IDC

After IDC

Outer Diameter Indication

Single Mounting   Multiple Mounting

Tolerances except as noted

Dimension	.0	.00
Tolerance	±0.3	±0.13

Panel Thickness (mm)	
1.0/1.2	1.4/1.6

Positions	Product Number	A	B	C	D	E	E
3	37B03-xxxx-WP0 MB	13.8	11.5	(23.4)	14.20	20.00	20.40
4	37B04-xxxx-WP0 MB	15.8	13.5	(25.4)	16.20	22.00	22.40

6

3M™ Mini-Clamp Common Socket 37C Series
37C04-xxxx-0×0 FL

- Quick and reliable Insulation Displacement Contact (IDC) termination without special tools
- Accepts up to two 3M Mini-Clamp Plugs for efficient space and wire savings
- Supports power and signal branching on sensor wiring, helping simplify network design
- Four position connector provides splitting for up to 8 positions
- Supports wire sizes 26-20 AWG
- Semi-transparent cover allows visual confirmation that wires are properly inserted
- Mating latches help ensure reliable interconnection even in demanding applications
- Available in a standard version or with side latches for panel mount installations

Ordering Information

37C04-xxxx-0×0 FL

- Series No.
- Compatible Wire
  - 2xxx: 20-22 AWG
  - 3xxx: 24-26 AWG
- Connector Type
  - O: Original (no latches)
  - P: Panel mount type (latches)
- Plating IDC Area

Product specifications

Material & Plating	Item	Material	Remarks
	Body	PBT resin	UL94V-0 (Black)
	Bottom Cover	Nylon	UL94V-0 (Black)
	Top Cover	PC	UL94V-2 (Gray, Blue, Green, Orange, Yellow, Red)
	Contact	Copper Alloy	Under plating: Nickel overall Wiping area: Gold IDC area: Tin

Ratings	Item	Rating
	Voltage	AC/DC 32V Max.
	Current	3.0A Max.
	Temperature	Current 1A: -20 to 85 degree C / Current 2A: -20 to 75 degree C / Current 3A: -20 to 60 degree C

3M™ Mini-Clamp Common Sockets

3M Mini-Clamp Common Sockets connected to 3M Mini-Clamp III Plugs

3M™ Mini-Clamp Common Sockets

Color coded cover according to wire size

Only two colors shown here, review Tech Data Sheet for full range of colors and wire sizes supported

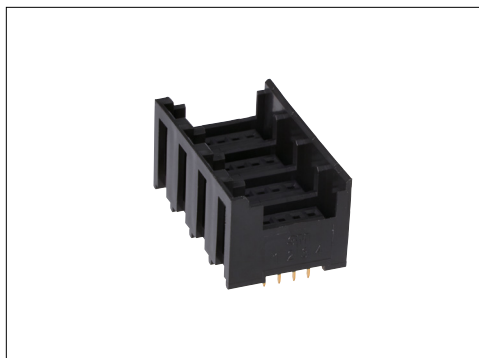# 3M™ Mini-Clamp Socket Straight 372 Series
1 row, 2 rows and 4 rows
372xx-62×3-00x PL

- Mates with all 3M™ Mini-Clamp Wiremount Connector Plugs
- Compact design and straight thru-hole solder tails save board space
- Fixture pins help secure socket to the board
- Stacked mounting in the direction of the pitch between rows enables mounting at an equal pitch of 6.5 mm
- UL and cUL recognized components, UL File No. E68080

1 row and 2 rows

4 rows

Product specifications: 3M™ Mini-Clamp Socket Straight 372 Series 1 row, 2 rows and 4 rows

Material & Plating	Item	Material	Remarks
	Body	Nylon	UL94V-0 (Black)
	Contact	Copper Alloy	Under plating: Nickel overall Wiping area: Gold Soldertails: Gold Flash

PCB Accommodation	Thickness: 1.0 to 1.6mm, see recommend hole pattern

Ratings	Item	Rating
	Voltage	AC/DC 32V Max.
	Current	3.0A Max.
	Temperature	Current 1A: -20 to 85 degree C / Current 2A: -20 to 75 degree C / Current 3A: -20 to 60 degree C

3M™ Mini-Clamp Socket Straight 372 Series
1 row, 2 rows
372xx-62×3-00x PL

- Enables high-density mounting to the board
- Stacked mounting in the direction of the pitch between rows enables mounting at an equal pitch of 6.5 mm
- Fixture pins help secure socket to the board
- Contacts are located inside the body to prevent electric shock and short circuits
- UL and cUL recognized components, UL File No. E68080

Ordering Information

372xx-62×3-00x PL

Applicable wiremount positions
3:3 positions
4:4 positions

Fixture pin location
A:2 Asymmetric Posts (Recommendation)
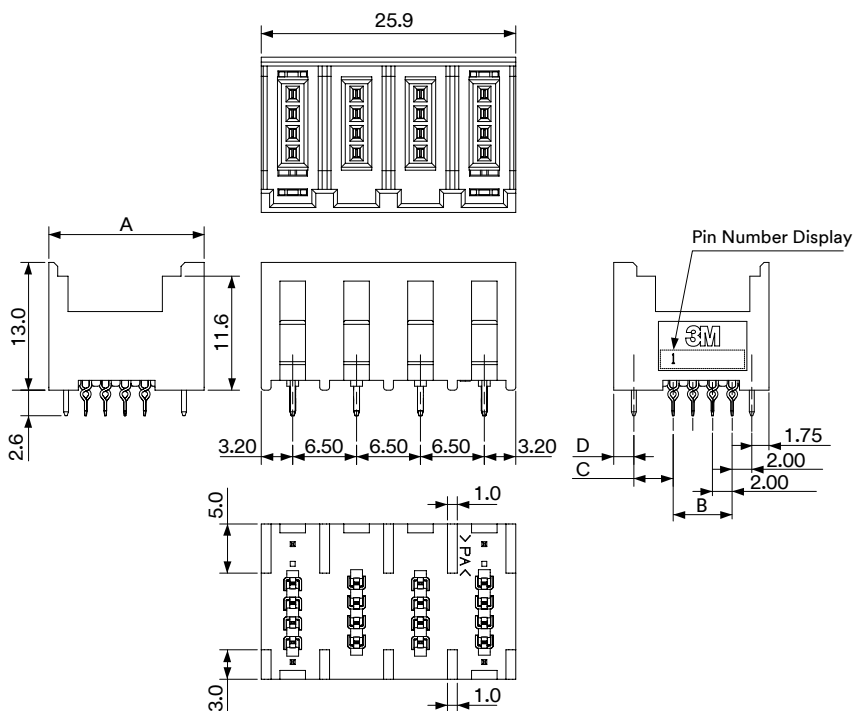B:2 Symmetrical Posts

Number of positions
03: 3 positions
04: 4 positions
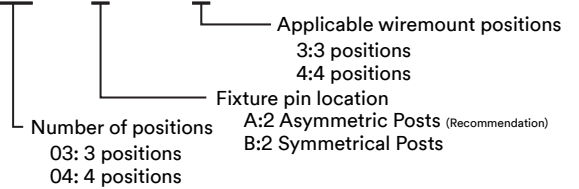
Product table

Number of poles	Product Number	A	B	C	D
3	37203-62A3-003 PL	13.8	4.00=2.00 × (3−1)	4.00	2.05
3	37203-62B3-003 PL	13.8	4.00=2.00 × (3−1)	2.00	4.05
4	37204-62A3-004 PL	15.8	6.00=2.00 × (4−1)	4.00	2.05
4	37204-62B3-004 PL	15.8	6.00=2.00 × (4−1)	2.00	4.05
6 (3 poles × 2 rows)	37206-62A3-003 PL	13.8	4.00=2.00 × (3−1)	4.00	2.05
8 (4 poles × 2 rows)	37208-62A3-004 PL	15.8	6.00=2.00 × (4−1)	4.00	2.05

Dimensions (mm)
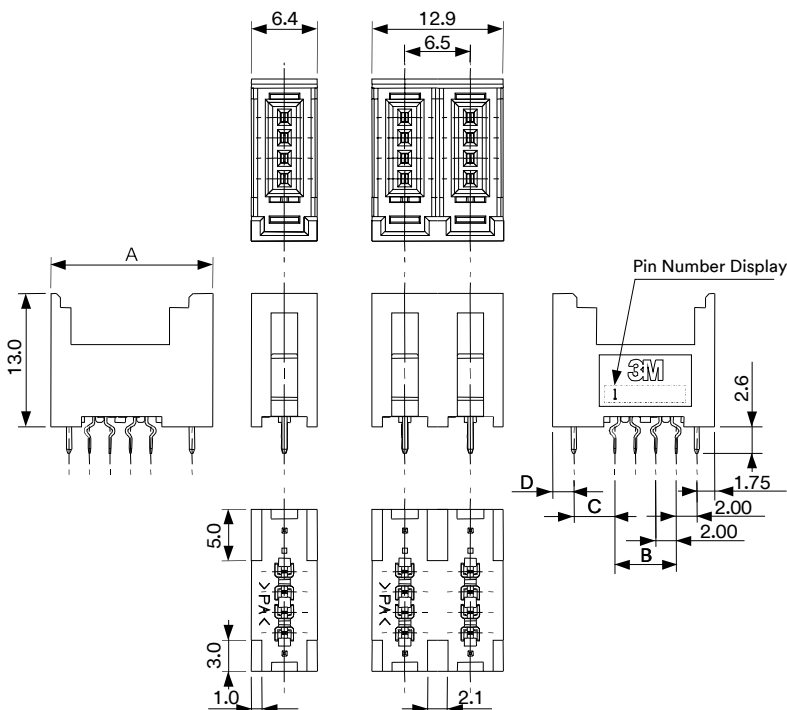
Hole Pattern
Dimensions (mm)
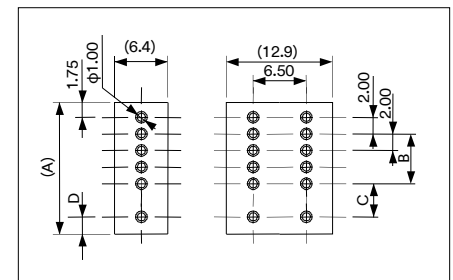
Tolerances except as noted: 1 row, 2 rows

Dimension	.0	.00
Tolerance	±0.3	±0.13

3M™ Mini-Clamp Socket Straight 372 Series
4 rows
372xx-62×3-00x PL

- Connect with up to 4 wiremount plugs in a single connector
- Stacked mounting in the direction of the pitch between rows enables mounting at an equal pitch of 6.5 mm
- Fixture pins help secure socket to the board
- Enables high-density plug to board connections in a small space
- Contacts are located inside the body to help avoid electric shock and short circuits
- UL and cUL recognized components, UL File No. E68080

Ordering Information

372xx-62×3-00x PL

Applicable wiremount positions
  3:3 positions
  4:4 positions
Fixture pin location
  A:2 Asymmetric Posts (Recommendation)
  B:2 Symmetrical Posts
Number of positions
  12: 3 positions x 4 rows
  16: 4 positions x 4 rows

Product table

Number of poles	Product Number	A	B	C	D
12	37212-62A3-003 PL	13.8	4.00=2.00 × (3−1)	4.00	2.05
12	37212-62B3-003 PL	13.8	4.00=2.00 × (3−1)	2.00	4.05
16	37216-62A3-004 PL	15.8	6.00=2.00 × (4−1)	4.00	2.05
16	37216-62B3-004 PL	15.8	6.00=2.00 × (4−1)	2.00	4.05

*For fixed pin types, please check the latest drawings issued by our company.

Dimensions (mm)

Pin Number Display

25.9

13.0   11.6   A

2.6

3.20   6.50   6.50   6.50   3.20

5.0   1.0

3.0   1.0

D C   1.75   2.00   2.00   B

Hole Pattern
Dimensions (mm)

1.75   φ1.00   (25.9)   6.50   6.50   6.50   2.00   2.00

(A)   D   B   C
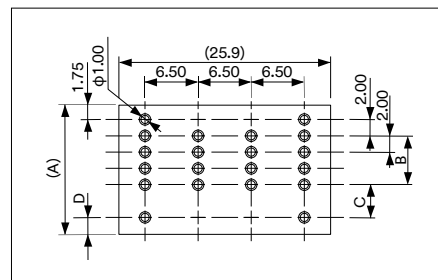
Tolerances except as noted: 4 rows

Dimension	.0	.00
Tolerance	±0.3	±0.13

3M™ Mini-Clamp Socket Right Angle
372 Series
372xx-1xE0-00x PL

- SMT socket mates with all 3M™ Mini-Clamp Wiremount Plugs
- Compact design saves board space
- Solder tab design helps secure solder joints
- UL and cUL recognized components, UL File No. E68080

Ordering Information

372xx-1xE0-00x PL

Applicable wiremount positions
3: 3 positions
4: 4 positions

Locating posts
2: None
B: 2 Posts

Number of positions
03: 3 positions
04: 4 positions

Product specifications

Material & Plating	Item	Material	Remarks
	Body	Nylon	UL94V-0 (Black)
	Contact	Copper Alloy	Under plating: Nickel overall Wiping area: Gold Soldertails: Gold Flash

Ratings	Item	Rating
	Voltage	AC/DC 32V Max.
	Current	3.0A Max.
	Temperature	Current 1A: -20 to 85 degree C / Current 2A: -20 to 75 degree C / Current 3A: -20 to 60 degree C

Product table

Positions	Locating Posts	Product Number	A	B	C	D	E	F	G	H	J
3	None	37203-12E0-003 PL	5.75	13.8	4.00	4.00	-	-	-	-	-
4	None	37204-12E0-004 PL	6.75	15.8	6.00	6.00	-	-	-	-	-
3	2	37203-1BE0-003 PL	5.75	13.8	4.00	4.00	4.65	11.6	0.7	0.9 Dia.	1.2 Dia.
4	2	37204-1BE0-004 PL	6.75	15.8	6.00	6.00	5.65	13.6	0.7	0.9 Dia.	1.2 Dia.

Dimensions (mm)
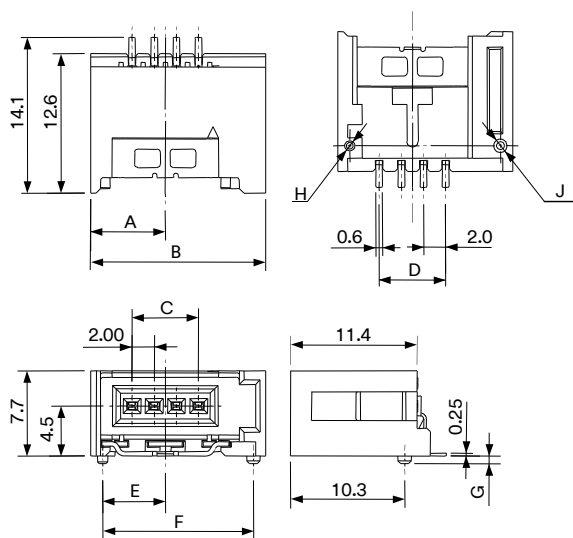
Hole Pattern
Dimensions (mm)

Recommended board pattern (3 poles)
37203-1BE0-003

Recommended board pattern (4 poles)
37204-1BE0-004
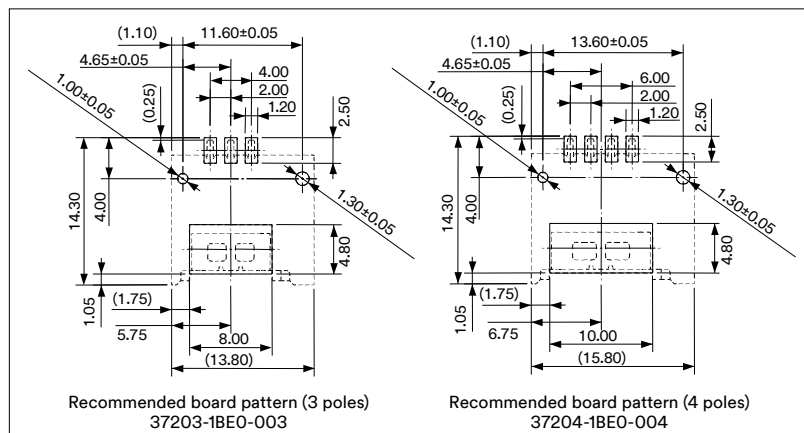
Tolerances except as noted

Dimension	.0	.00
Tolerance	±0.3	±0.13

3M™ Mini-Clamp IDC Assembly Hand Tool
37900-10

- Specially designed for 3M Mini-Clamp Wiremount Connectors
- Delivers ideal clamp force for 3M IDC connector assembly
- Ergonomical handles

Product table

Applicable Connectors	3M™ Mini-Clamp Wiremount Plug	37103-xxxx-x00 FL, 37104-xxxx-x00 FL
	3M™ Mini-Clamp Wiremount Socket	37303-xxxx-0×0 FL, 37304-xxxx-0×0 FL
	3M™ Mini-Clamp III Wiremount Plug	37A03-xxxx-W00 xx, 37A04-xxxx-W00 xx
	3M™ Mini-Clamp III Wiremount Socket	37B03-xxxx-Wx0 MB, 37B04-xxxx-Wx0 MB

Dimensions (mm)

155

17.5

>10 at open position

100

4.7±0.3
at closed position
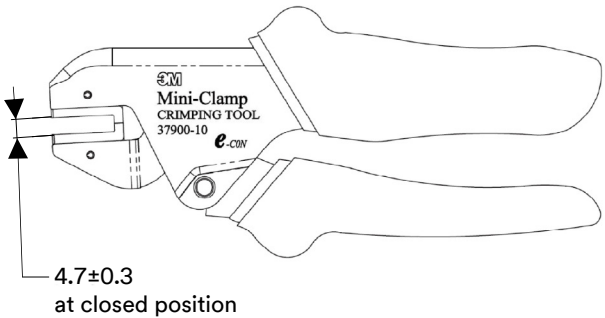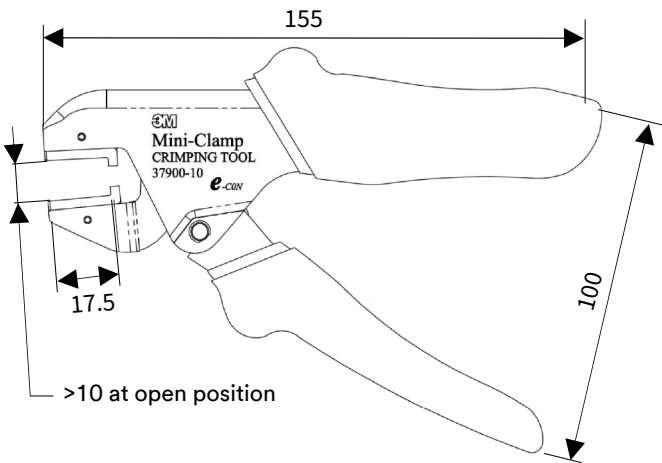
3M™ Mini-Clamp Connector Dust Cover
378xx-1000-00

- Helps prevent debris from getting inside boardmount socket
- Ideal socket protection for different environments
- Compatible with 3M Mini-Clamp and 3M Mini-Clamp III Sockets
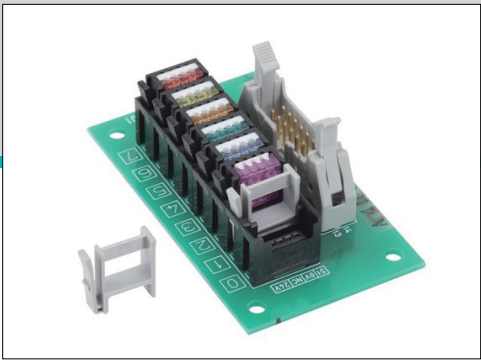
Ordering Information

378xx-1000-00

└ Number of positions
03: 3 positions
04: 4 positions

Product specifications

Material & Plating	Item	Material	Remarks
	Body	PBT	UL94V-0 (Gray)

Ratings	Item	Rating
	Temperature Range	-20 to 85 degree C

Product table

	Product Number	A	B
3 Poles	37803-1000-00	9.5	13.5
4 Poles	37804-1000-00	11.5	15.5

Dimensions (mm)

Socket side pin number indication

3M

>PBT<
3780X

B

5.0

15.6

A

Tolerances except as noted

Dimension	.0	.00
Tolerance	±0.3	±0.13

3M

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