

3M Science.
Applied to Life.™

3M™ Mini-Clamp, Link and Power Clamp Connectors

Time-saving, reliable and field-installable wiring solutions

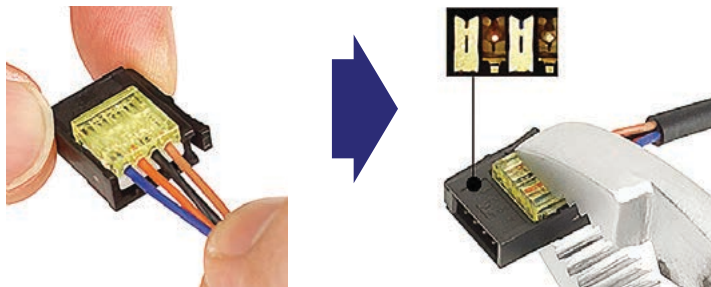


3M™ Mini-Clamp Connectors

Mini-Clamp is a "de facto" industry standard for sensor, LED, switch and various small device connections for industrial equipment and manufacturing facility applications. Mini-Clamp Connectors with IDC technology do not require peeling of the cable jacket or special tools. They can be used with AWG20-28 wires and 2 mm pitch contact, enabling space savings and higher wiring density.

Simple termination process for fast, reliable installation and maintenance

- Helps minimize risk of conductor damage with no wire stripping.
- Stable termination quality with IDC increases reliability of sensor wiring.
- Supports wires 28 to 20AWG.

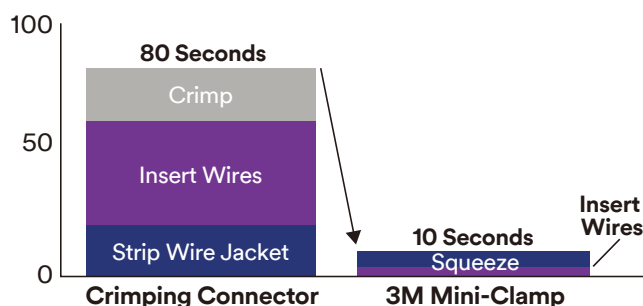


Insert wires with insulation

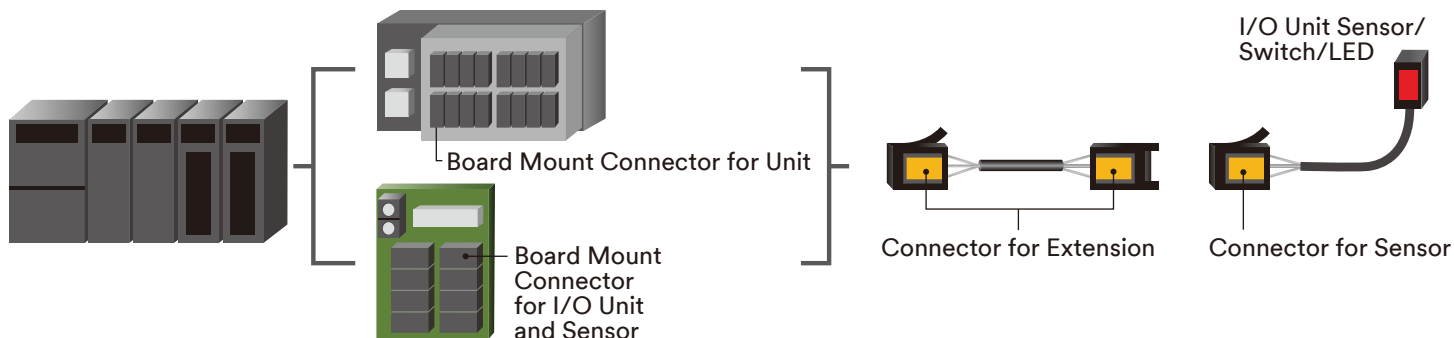
Squeeze with pliers

Optimize network layout with field-installability

- Easily connect to pig-tail wired sensors.
- Field termination allows for optimal cable lengths to save space and wire efficiently.



Application Example



Product Portfolio

(Table includes wiremount connectors only. Ask 3M for availability of boardmount and other options.)

3M™ Mini-Clamp Connector

Size of Conductor	Wire Jacketing Outside Diameter	Wiremount Plug y : # of positions (3,4,6,8)	Wiremount Socket x : 0=Standard, P=Panel Mount y: # of positions (3,4,6,8)	Common Socket Connector x : 0=Standard, P=Panel Mount	Cover Color	Related Accessories
						3M™ Water-Resistant Boot 37800-P000
AWG28-26 (0.08 - 0.14 mm ²)	Ø0.6 - 0.8 mm	3710y-4080-G00 FL	—	—	Purple	Dust Covers 37803-1000-00 37804-1000-00
	Ø0.8 - 1.0 mm	3710y-4101-G00 FL	—	—	Red	
	Ø0.6 - 0.8 mm	3710y-3080-000 FL	—	—	Purple	
AWG26-24 (0.14 - 0.3 mm ²)	Ø0.8 - 1.0 mm	3710y-3101-000 FL	3730y-3101-0x0 FL	37C04-3101-0x0 FL	Red	Crimping Tool 37900-10
	Ø1.0 - 1.2 mm	3710y-3122-000 FL	3730y-3122-0x0 FL	37C04-3122-0x0 FL	Yellow	
	Ø1.2 - 1.6 mm	3710y-3163-000 FL	3730y-3163-0x0 FL	37C04-3163-0x0 FL	Orange	
AWG22-20 (0.3 - 0.5 mm ²)	Ø1.0 - 1.2 mm	3710y-2124-000 FL	3730y-2124-0x0 FL	37C04-2124-0x0 FL	Green	
	Ø1.2 - 1.6 mm	3710y-2165-000 FL	3730y-2165-0x0 FL	37C04-2165-0x0 FL	Blue	
	Ø1.6 - 2.0mm	3710y-2206-000 FL	3730y-2206-0x0 FL	37C04-2206-0x0 FL	Grey	

3M™ Link Connector

Link Connectors offer single-action IDC termination for T-branch and splice of sensor and field networks. One Piece, IPX4 and Mini-Clamp branch types are also available.

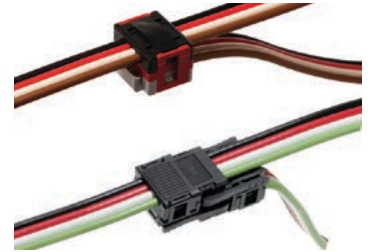
Enables branched networks and splicing into an existing network

- Provides networking efficiency by optimizing signal and power line routing to terminal.
- Allows installation of additional small devices without adding signal and power lines from controller.
- Supports wires 22 to 16AWG.

Just insert wires and squeeze with pliers



T branch by connector



3M™ Link Connectors, 381 and 382 Series (Detachable 2-piece type)



3M™ One Piece Branch Link Connector



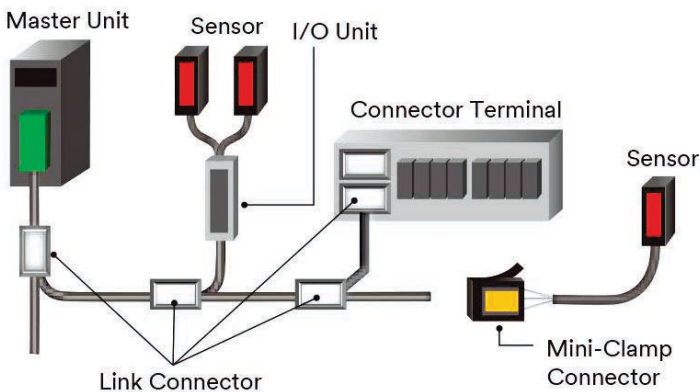
3M™ Splash-proof One Piece Branch (OPB) Link Connector



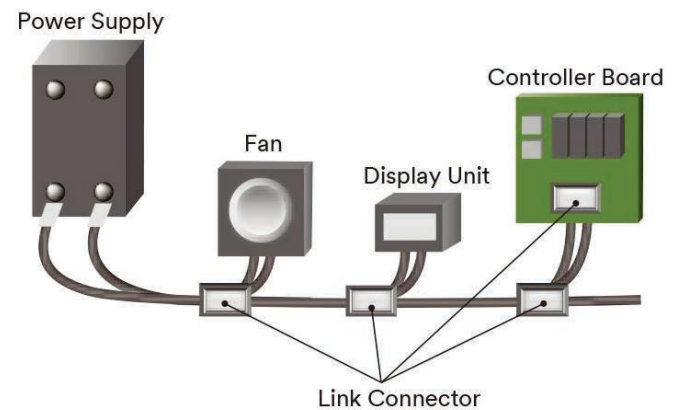
3M™ Branch Mini-Clamp Link Connector

Application Example

Serial Sensor Network



Power Supply



3M™ Power Clamp Connector

Power Clamp is a standard connector for field networking applications and protocols. The simple IDC installation process allows for labor savings and high connection reliability. It is compatible with CLPA's CC-Link open technology.

Splicing adapter with fast, reliable installation

- Smaller connector size than most standard screw-type alternatives.
- Supports 250 Volts, 10A max (1 line), 7A max (all lines).
- Supports 20 to 18AWG wire.
- Compatible with CC-Link Communication Interconnect Standard.



Just insert wires with insulation



Squeeze with a pair of standard pliers

Application Example



Wiring with 3M Power Clamp Connectors

Spliced connector network enables unit modularity

Product Portfolio (Table includes wiremount connectors only. Ask 3M for availability of boardmount and other options.)




3M™ Link Connector

Size of Conductor	Cable Style	Dielectric Outside Diameter	Detachable 2-Piece Type		Branch Mini-Clamp Type
			2 position	4 position	
22AWG (0.3 mm ²)	Round	Ø1.1 - 1.4 mm	38102-W022-W00 FL	38104-H022-K00 FL	—
20AWG (0.5 mm ²)	Round	Ø1.8 - 2.1 mm	38102-F020-H00 FL	38104-F020-H00 FL	—
	Round	Ø2.1 - 2.4 mm	—	38104-E020-G00 FL	—
	Flat	Ø2.54 mm	—	38104-0020-100 FL	38A04-0020-100 FL
18AWG (0.75 mm ²)	Round	Ø1.8 - 2.1 mm	—	38104-F018-F00 FL	—
	Round	Ø2.1 - 2.4 mm	—	38104-E018-E00 FL	—
	Flat	Ø2.54 mm	38102-0018-000 FL	38104-0018-000 FL	38A04-0018-000 FL
16AWG (1.25 mm ²)	Flat	Ø2.54 mm	38102-0016-200 FL	—	38A04-0016-200 FL

One Piece Branch (OPB) Type					
Main Line Cable	Branch Line Cable	Standard	Splash-proof (IPX4)	3M™ 4-wire Cable, 18AWG/0.75 mm² 79100-075-4F1 3M™ OPB Splash-proof Cable Cap 38700-C01 3M™ IDC Termination Tool for OPB 38900-10	
18AWG (0.75 mm ²)	18AWG (0.75 mm ²)/Flat	38704-FF880	38704-FF880-PA-C		
20-16AWG (0.5-1.25 mm ²)/Flat	20-16AWG (0.5-1.25 mm ²)/Flat Thinner gauges/Discrete	Custom option	Custom option		

Note 1: Don't mate to PCB connector. **Note 2:** Ask 3M for splice type. **Note 3:** Splash-proof end cap is available for sale. Need to use IDC Termination Tool 38900-10 for Splash-proof type.

3M™ Power Clamp Connectors

# Positions	Size of Conductor	Wire Jacketing Outside Diameter	Wiremount Socket	Wiremount Plug x: 0=Standard, P=Panel Mount	Related Products
					Termination Resistor 35T05-6M00-B0M GF Branch Connector: Type H: 35720-L200-A00 AK Type Y: 35715-L010-A00 AK
5	20AWG (0.5 mm ²)	Ø1.6 - 2.0 mm	35505-6200-A00 GF	35805-6200-Ax0 GF	
	18AWG (0.75 mm ²)	Ø1.6 - 2.0 mm	35505-6080-A00 GF	35805-6080-Ax0 GF	
		Ø2.0 - 2.3 mm	35505-6180-A00 GF	35805-6180-Ax0 GF	
	Bar Terminal Diameter	Ø1.05 - 1.15 mm	35A05-60S0-A00 GF	35805-60S0-Ax0 GF	
4 (CC-Link)	20AWG (0.5 mm ²)	Ø2.2 - 3.0 mm	35505-6000-B0M GF	35805-6000-BxM GF	
	Bar Terminal Diameter	Ø1.05 - 1.15 mm	35A05-60S0-B0M GF	35805-60S0-BxM GF	

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