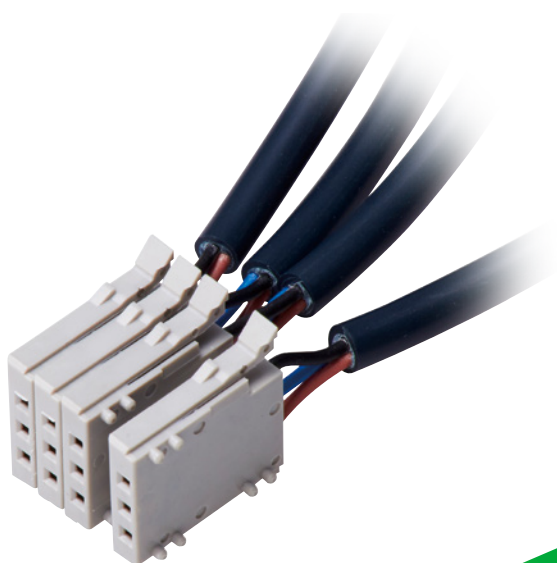


3M™ Mini Stack Connector

Miniature IDC Connector for Sensor Wire Connection

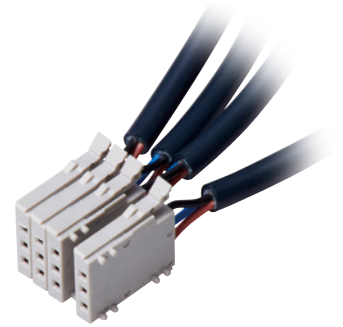


3M™ Mini Stack Connector

Easy termination, Easy handling

Enables board space savings & optimized networking

- As manufacturing equipment becomes increasingly automated, more electronic components, such as sensors, need to be integrated onto the control boards. This is driving a need for higher density connector options.
- The 3M™ Mini Stack Connector provides a reliable connection with a simple termination process while reducing the required board footprint.



1 Space-saving: Saves 30% more board space in comparison with 3M™ Mini-Clamp Connectors

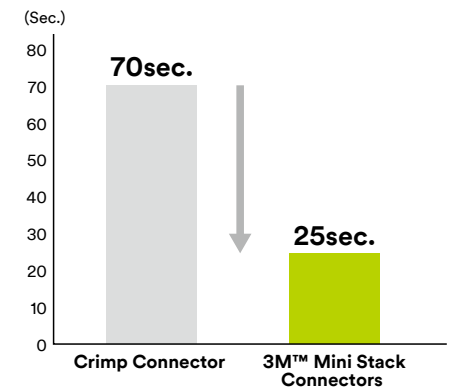
2 Time-saving: Reduces wiring time by approx. 60% compared to crimping connectors

* Compared to similar sized crimped connector with 3 pins (based on 3M evaluation)

Work Steps

Crimp Connector 3pins		3M™ Mini Stack Connector 3pins	
• Strip wire	x3	• Set connector into tool	x1
• Set terminal in tool	x3	• Set wires into tool and crimp terminals simultaneously	x1
• Set wire and crimp terminal	x3	• Insert terminated wires into housing simultaneously	x1
• Insert terminated wire into housing	x3		
Total 12 steps		Total 3 steps	

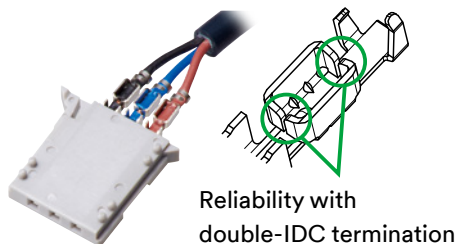
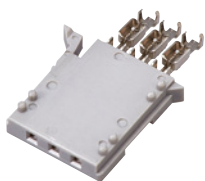
Work Time



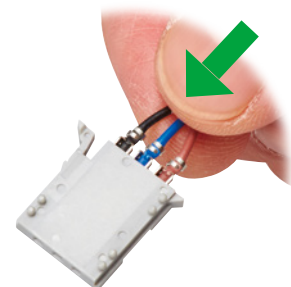
3 Compact with simple termination

Contact & housing are integrated, making handling easy

- No need to strip wires
- Connect wires simultaneously

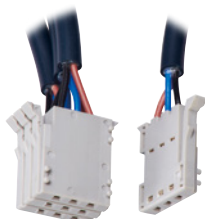


Insert terminals into housing



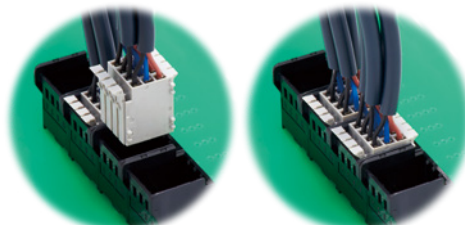
4 Compact with easy mating/unmating

Stack 4 connectors into a single block

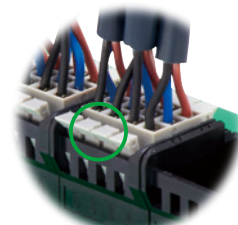


Easily mated even in hard-to-reach or see spaces

Block style simplifies mating



Ability to easily unplug



3M™ Mini Stack Connector

Wiremount Socket

3S50x-Sx30-x00 PN

- Provides excellent wire connections in a compact form
- No pre-treatment of wire needed with IDC technology
- Terminates 3 or 4 wires in single action
- Integrated terminals and housing make handling easy
- Wide range of wire compatibility (AWG#22-30) with highly reliable double IDC termination
- Handling stacked connectors as a block offers easy mating and unmating



Material & Plating	Item	Material	Remarks
	Housing	PBT resin	UL94V-0
	Contact	Copper alloy	Wiping area: Gold plating over nickel plating IDC: Nickel plating

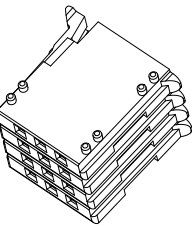
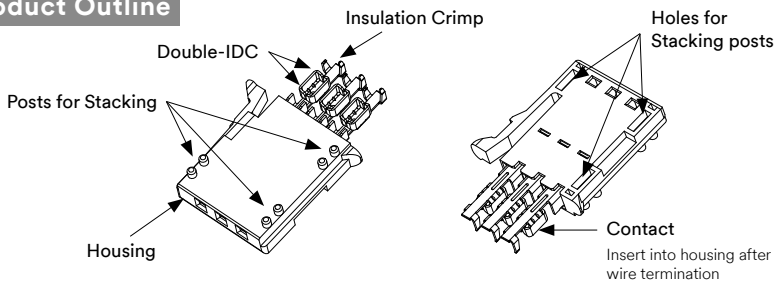
Wire Accommodation	See product table
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Ratings	Item	Rating
	Voltage	AC/DC 32V Max.
	Current	2.0A MAX. (AWG22-26)
		1.5A MAX. (AWG27-28)
		1.0A MAX. (AWG29-30)
	Temperature	-20 to 85 degree C

Product Table

Positions	Wire Accommodation			Body Color	Product Number
	AWG No.	Nominal conductor cross-sectional area mm ² (mil ²)	Wire OD mm (mil)		
3	24-22	0.2 - 0.3 (310 – 465)	0.6 to 1.5 (23.6 to 59.1)	Black	3S503-S330-B00 PN
	30-25	0.05 - 0.19 (78 – 295)		Gray	3S503-S530-G00 PN
4	24-22	0.2 - 0.3 (310 – 465)	0.6 to 1.5 (23.6 to 59.1)	Black	3S504-S330-B00 PN
	30-25	0.05 - 0.19 (78 -295)		Gray	3S504-S530-G00 PN

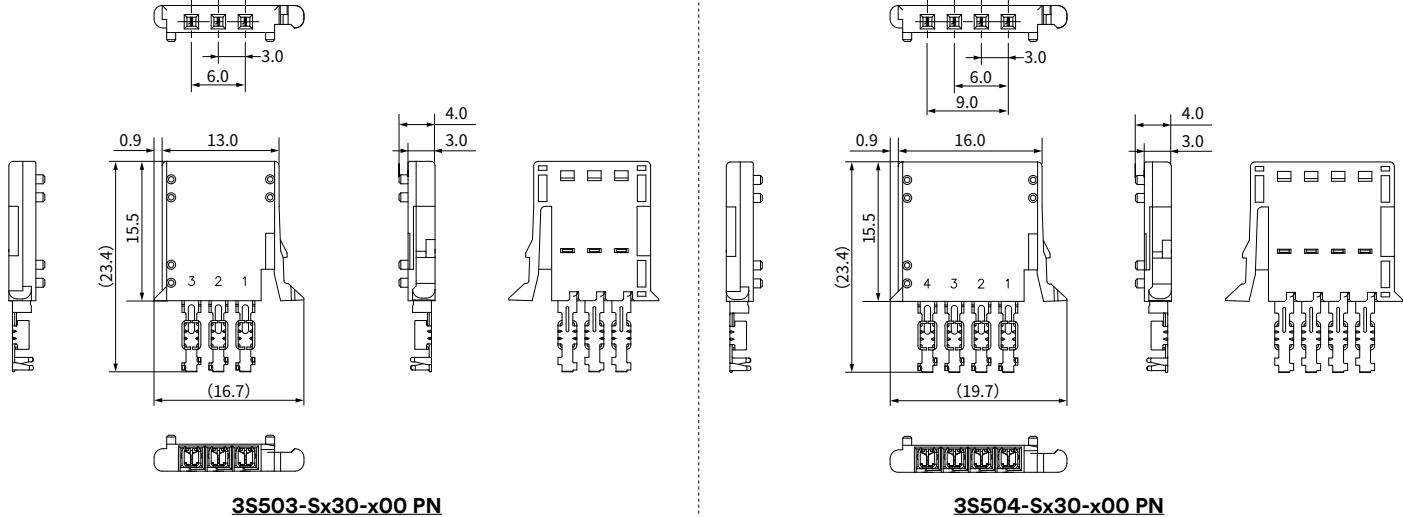
Product Outline



Stacked Condition

Dimensions

Dimensions in mm

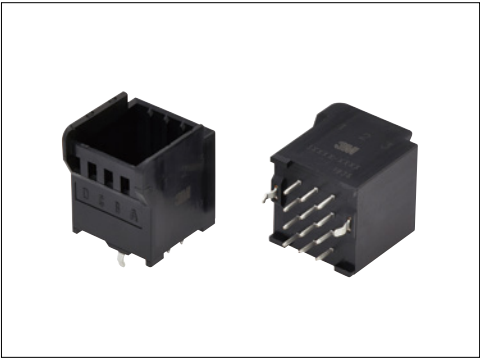


3M™ Mini Stack Connector

Boardmount Header

3S6xx-62Sx-B00 PP

- Saves 30% more board space in comparison with 3M™ Mini-Clamp connectors
- Mates with 4 stacked connectors in one action
- Wiremount connector can be unplugged by gripping the center latch
- Fixed tabs prevent lifting and secure fixation of the board during soldering



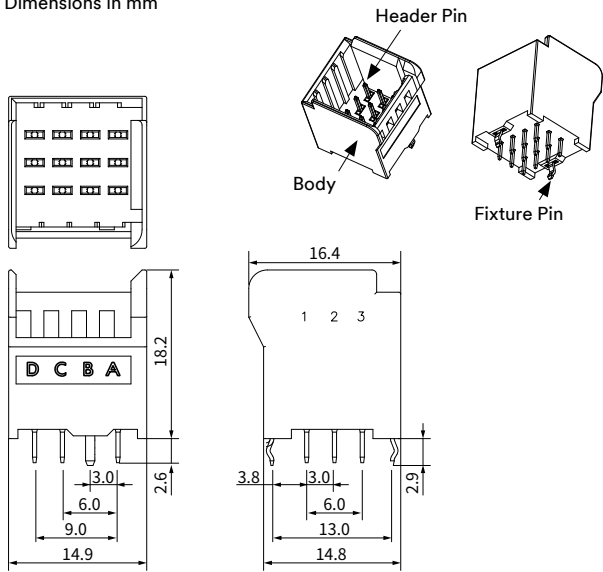
Material & Plating	Item	Material	Remarks
	Body	PBT resin	UL94V-0
	Header pin	Copper alloy	Wiping area: Gold plating over nickel plating Solder tails: Tin plating over nickel plating
	Fixture pin	Copper alloy	Tin plating over nickel plating

PCB Accommodation	Thickness: 1.0 to 1.6mm (39 to 63mil), see recommended hole pattern
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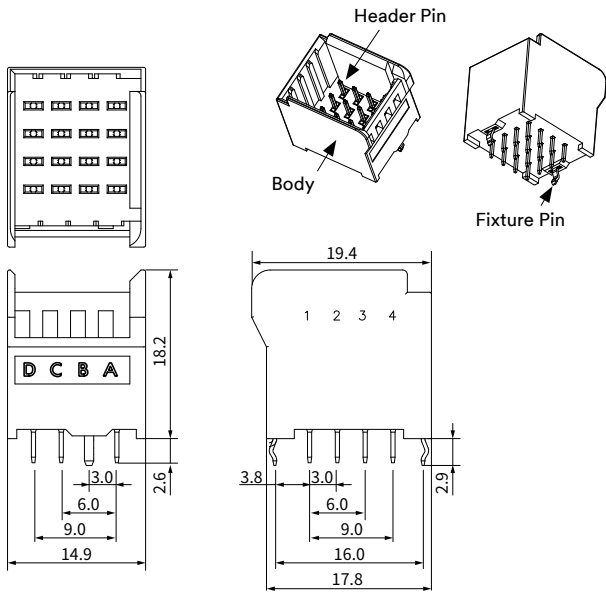
Ratings	Item	Rating
	Voltage	AC/DC 32V Max.
	Current	2.0A MAX.
	Temperature	-20 to 85 degree C

Product Outline and Dimensions

Dimensions in mm



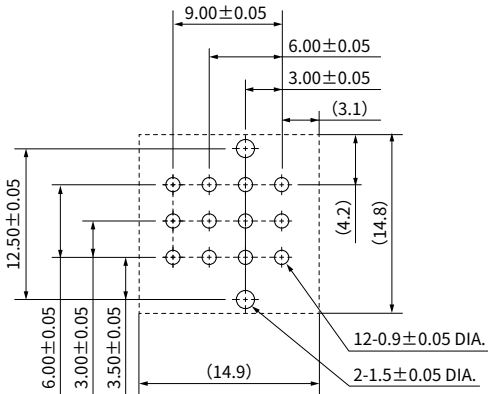
3S612-62S3-B00 PP



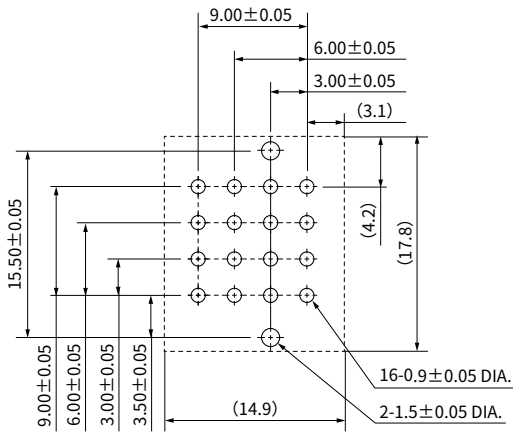
3S616-62S4-B00 PP

Recommended Hole Pattern

Dimensions in mm



3S612-62S3-B00 PP



3S616-62S4-B00 PP

3M™ Mini Stack Connector Dust Cover 3SD0x-S01

- For use when there are less than four sockets. Creates a four-socket block to plug into the header.
- Prevents debris from getting inside boardmount headers

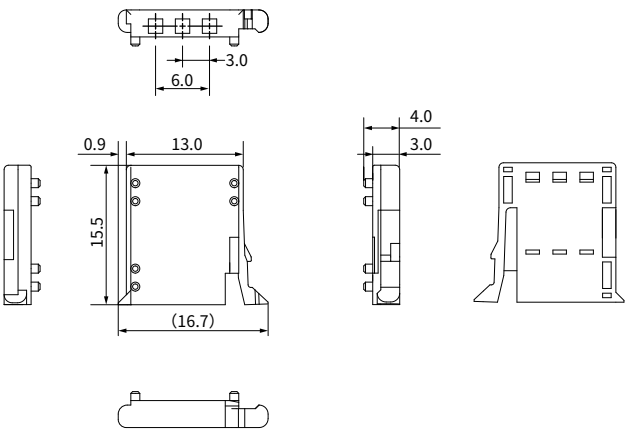


Material & Plating	Item	Material	Remarks
	Body	PBT resin	UL94V-0

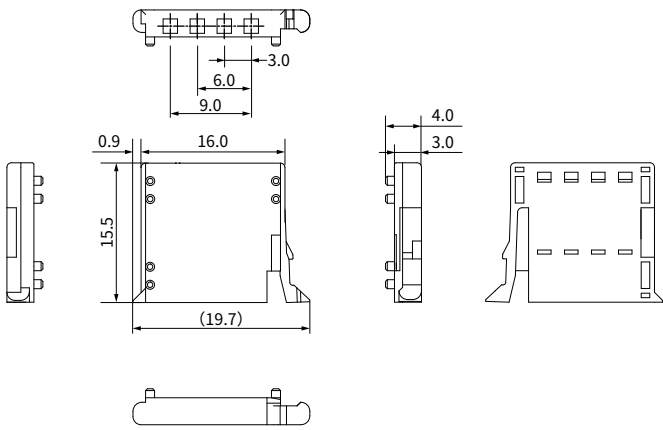
Ratings	Item	Rating
	Temperature	-20 to 85 degree C

Dimensions

Dimensions in mm

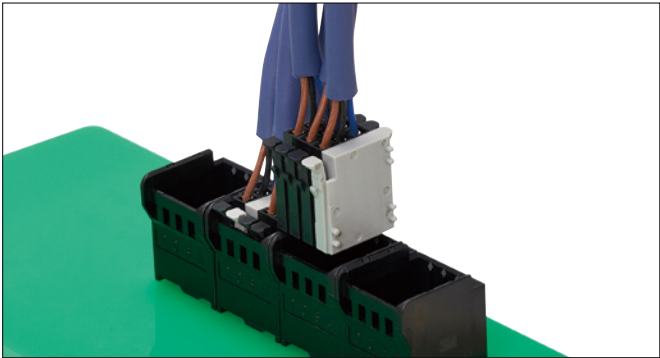


3SD03-S01



3SD04-S01

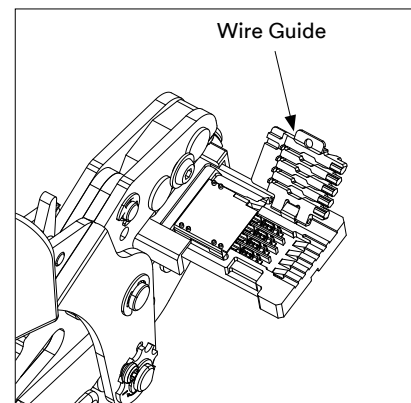
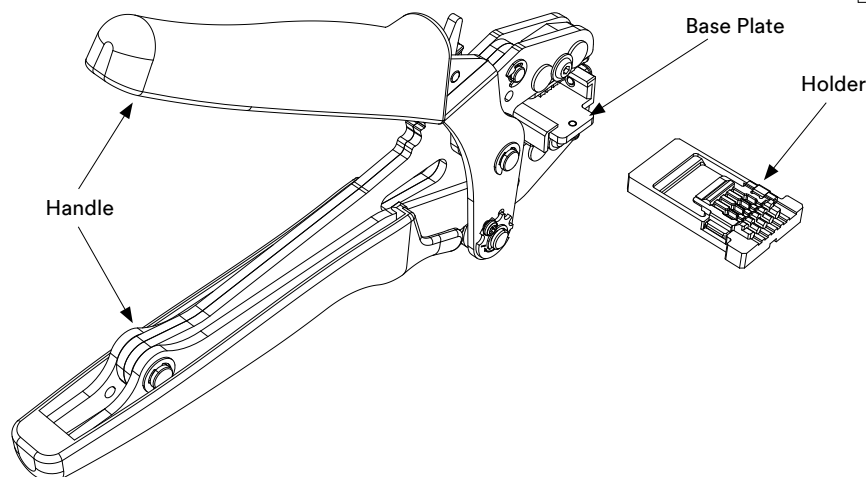
Application Example



3M™ Mini Stack Connector Hand Tool 3S900-1x

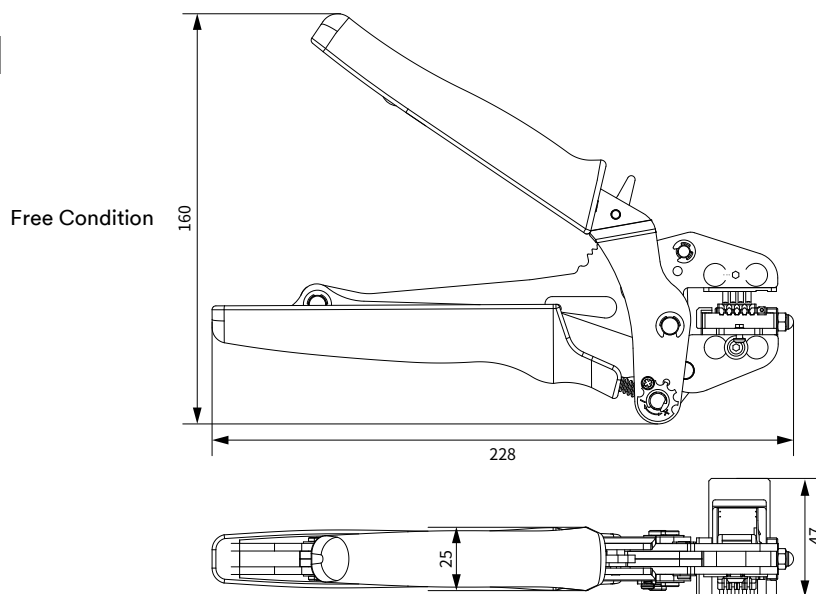
Product Number	Wire OD Accommodation mm (mil)
3S900-13	0.6 to 1.0 (24 to 39)
3S900-16	over 1.0 to 1.5 (39 to 59)

Product Outline



Dimensions

Dimensions in mm



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