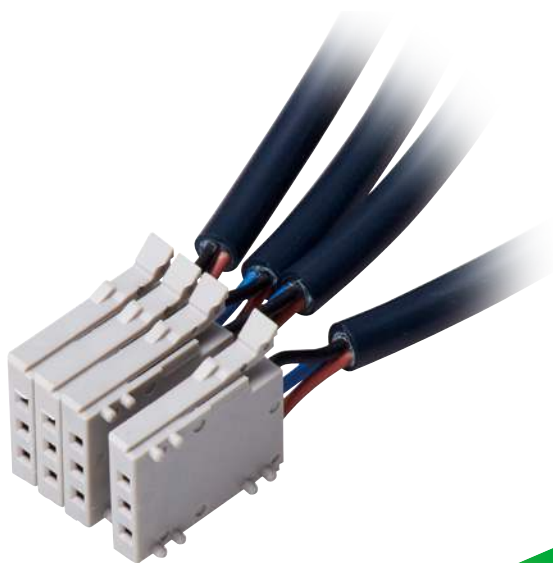


# 3M™ Mini Stack Connector

Miniature IDC Connector for Sensor Wire Connection

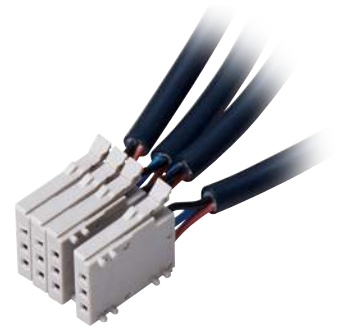


# 3M™ Mini Stack Connector

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

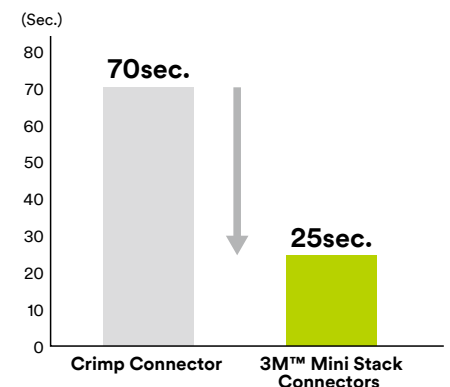
## 2 Time-saving: Reduces wiring time by approx. 60% compared to crimping connectors

\* 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		
<b>Total 12 steps</b>		<b>Total 3 steps</b>	

### Work Time

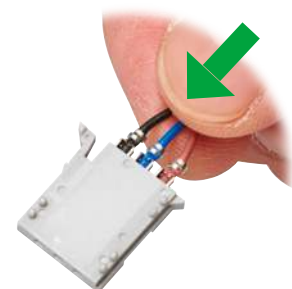
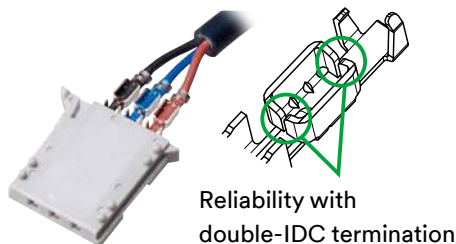


## 3 Compact with simple termination

Contact & housing are integrated, making handling easy

- No need to strip wires
- Connect wires simultaneously

Insert terminals into housing



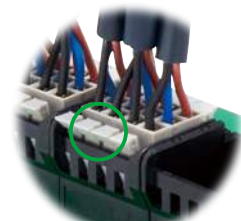
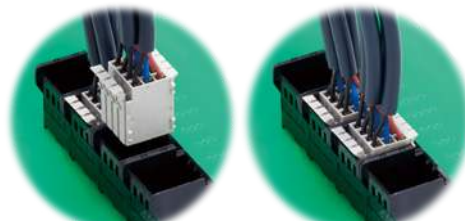
## 4 Compact with easy mating/unmating

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

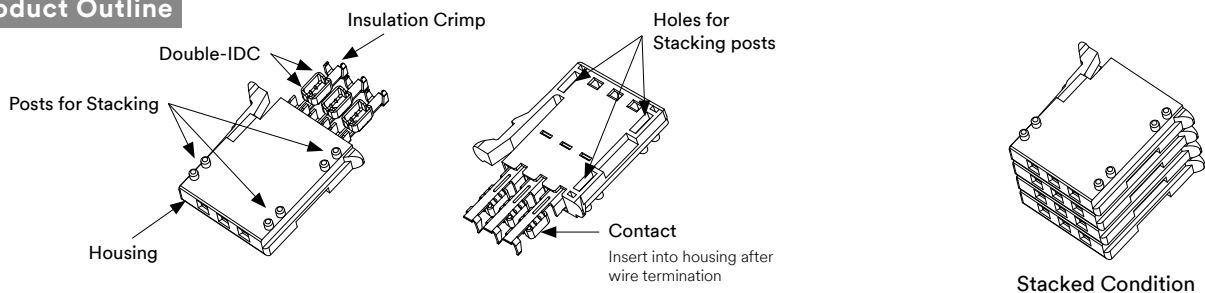
Wire Accommodation	See product table
--------------------	-------------------

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

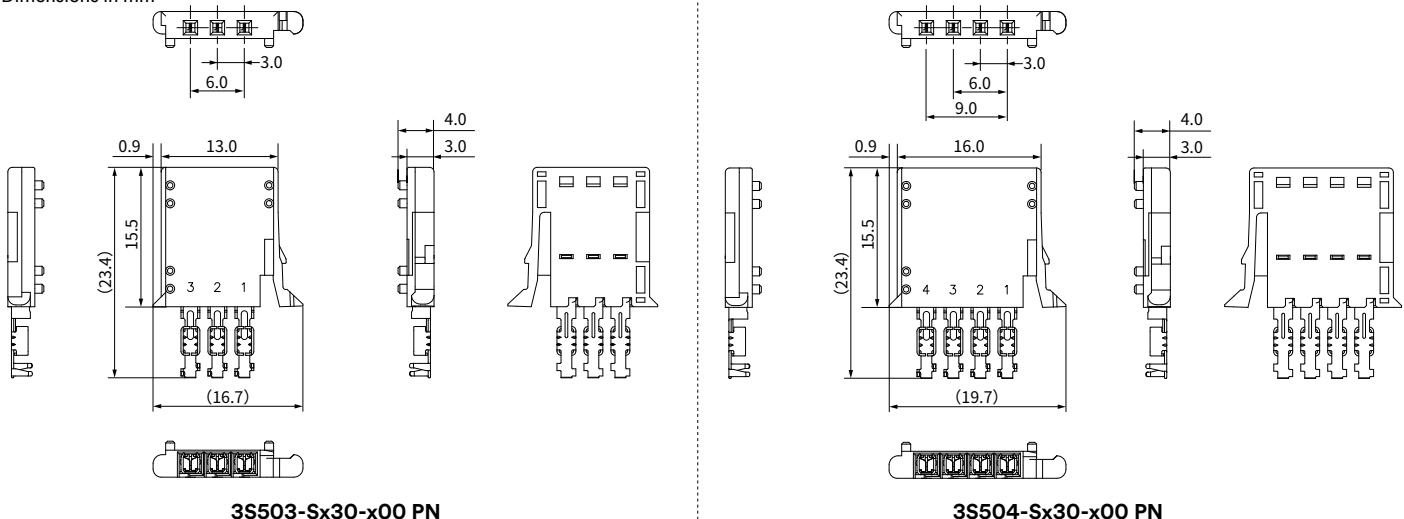
Positions	Wire Accommodation			Body Color	Product Number
	AWG No.	Nominal conductor cross-sectional area mm <sup>2</sup> (mil <sup>2</sup> )	Wire OD mm (mil)		
3	24-22	0.2 - 0.3 (310 - 465)	0.6 to 1.5 (23.6 to 59.1)	Black	3S503-S330-B00 PN
	30-25	0.05 - 0.19 (78 - 295)		Gray	3S503-S530-G00 PN
4	24-22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



## 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

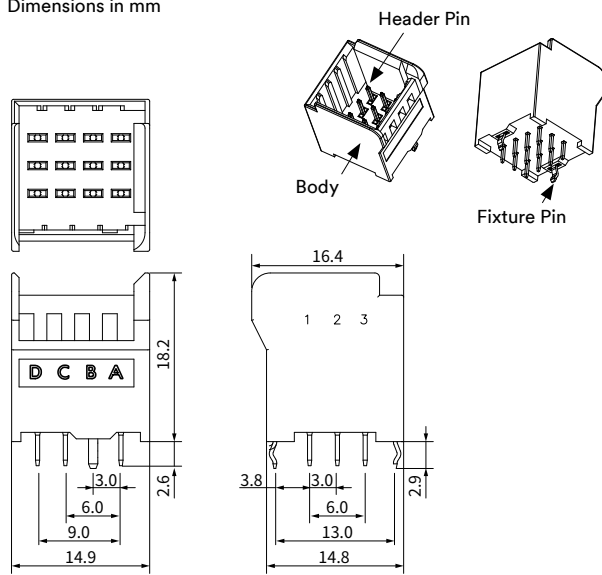
Material & Plating	Item	Material	Remarks
	Body	PBT resin	UL94V-0
	Header pin	Copper alloy	Wiping area: Gold plating over nickel plating Solder tails: Tin plating over nickel plating
	Fixture pin	Copper alloy	Tin plating over nickel plating

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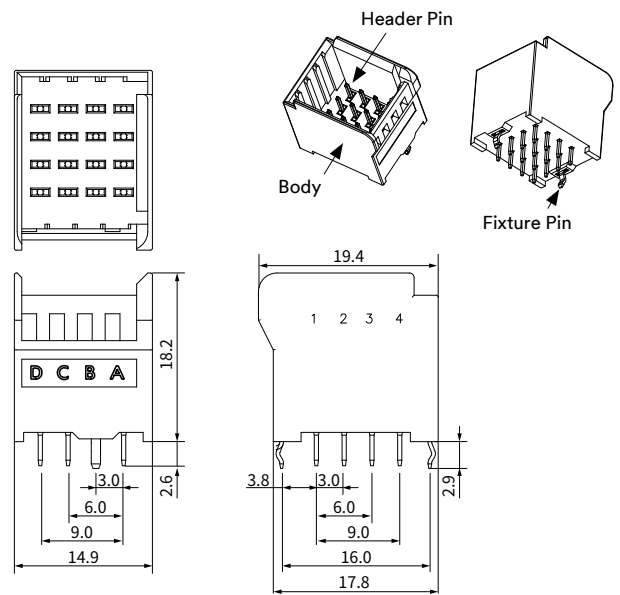
Ratings	Item	Rating
	Voltage	AC/DC 32V Max.
	Current	2.0A MAX.
	Temperature	-20 to 85 degree C

## Product Outline and Dimensions

Dimensions in mm



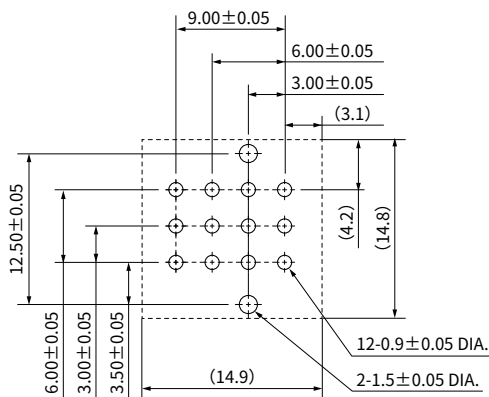
**3S612-62S3-B00 PP**



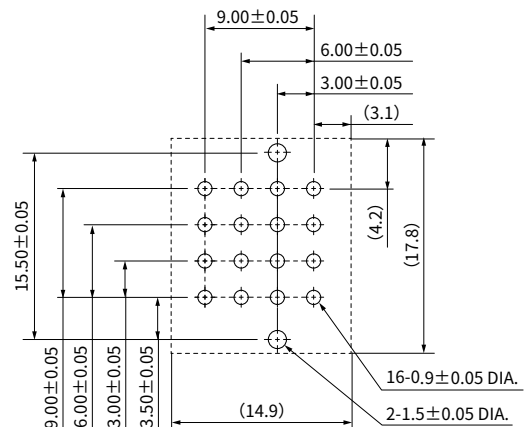
**3S616-62S4-B00 PP**

## 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

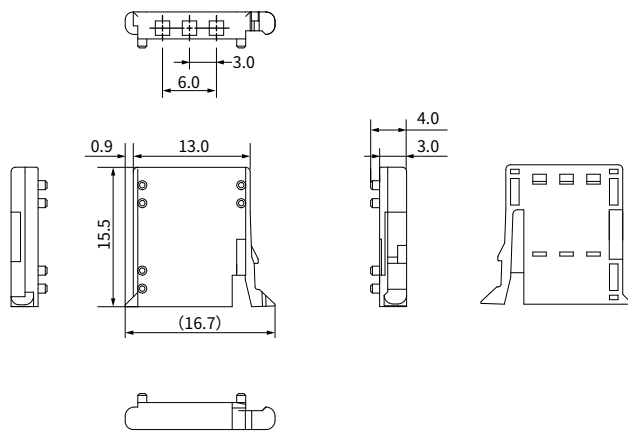


Material & Plating	Item	Material	Remarks
	Body	PBT resin	UL94V-0

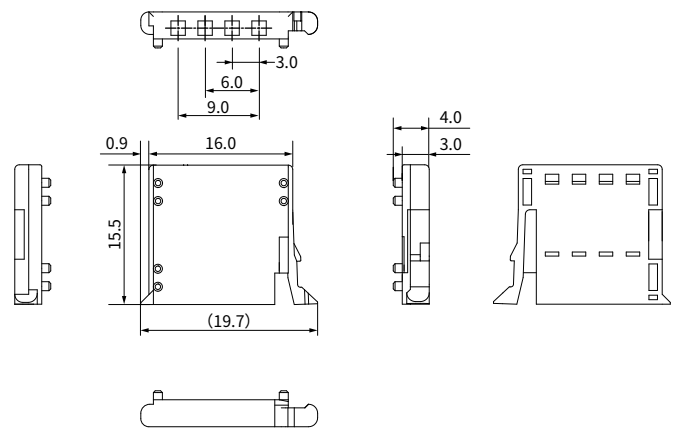
Ratings	Item	Rating
	Temperature	-20 to 85 degree C

## Dimensions

Dimensions in mm

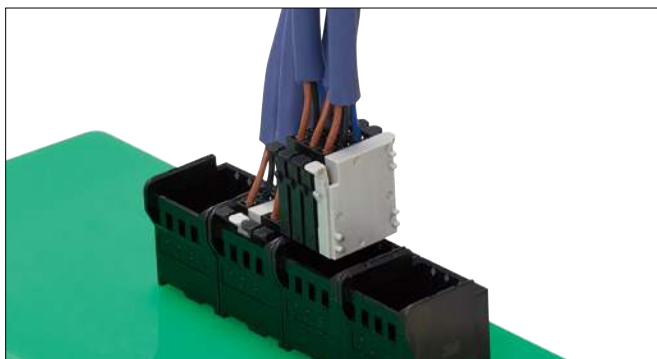


**3SD03-S01**



**3SD04-S01**

## Application Example

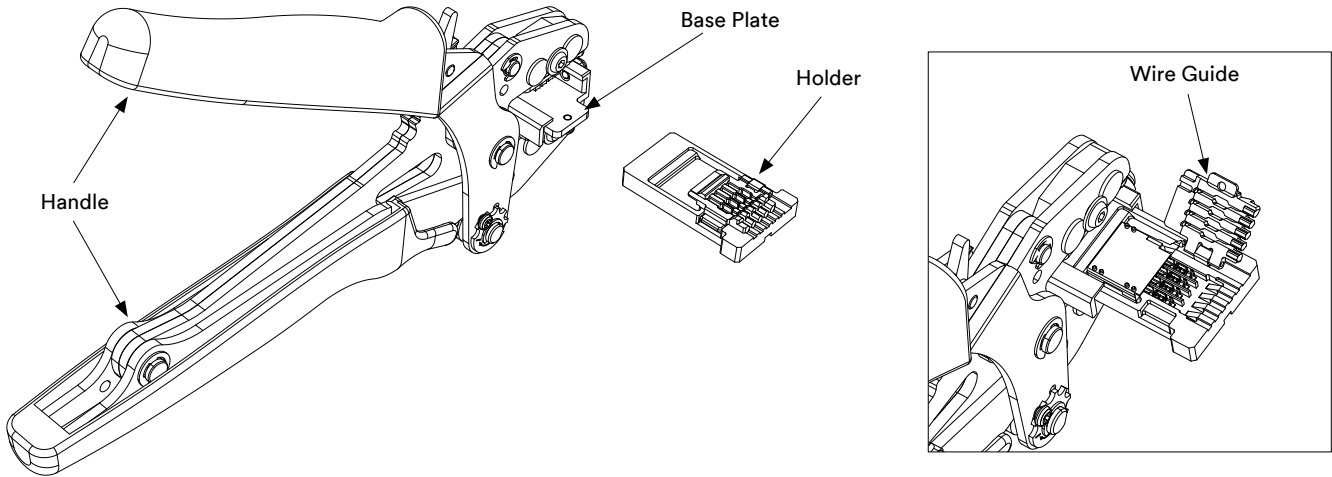


# 3M™ Mini Stack Connector Hand Tool 3S900-1x



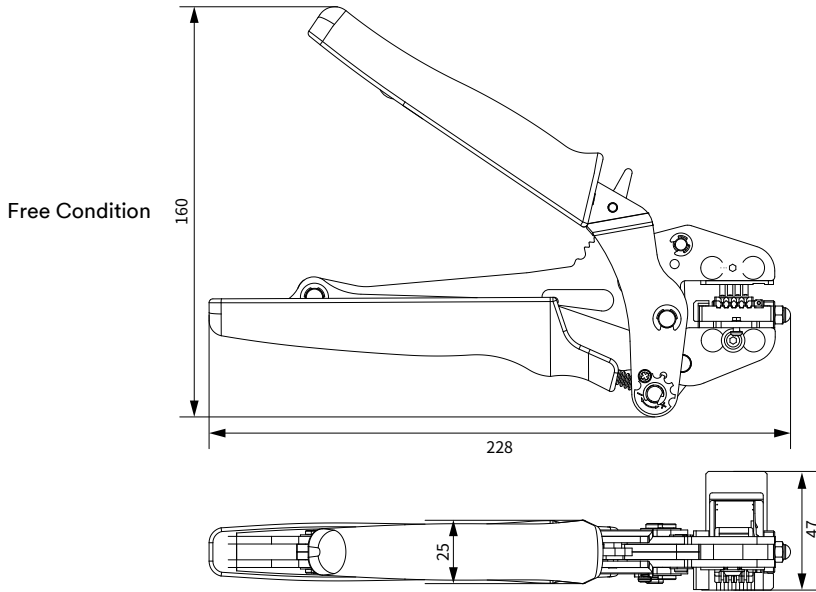
Product Number	Wire OD Accommodation mm (mil)
3S900-13	0.6 to 1.0 (24 to 39)
3S900-16	over 1.0 to 1.5 (39 to 59)

## Product Outline



## Dimensions

Dimensions in mm



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