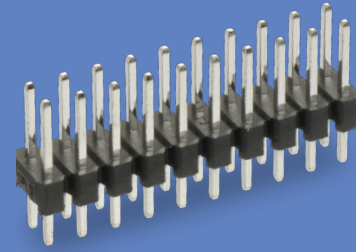
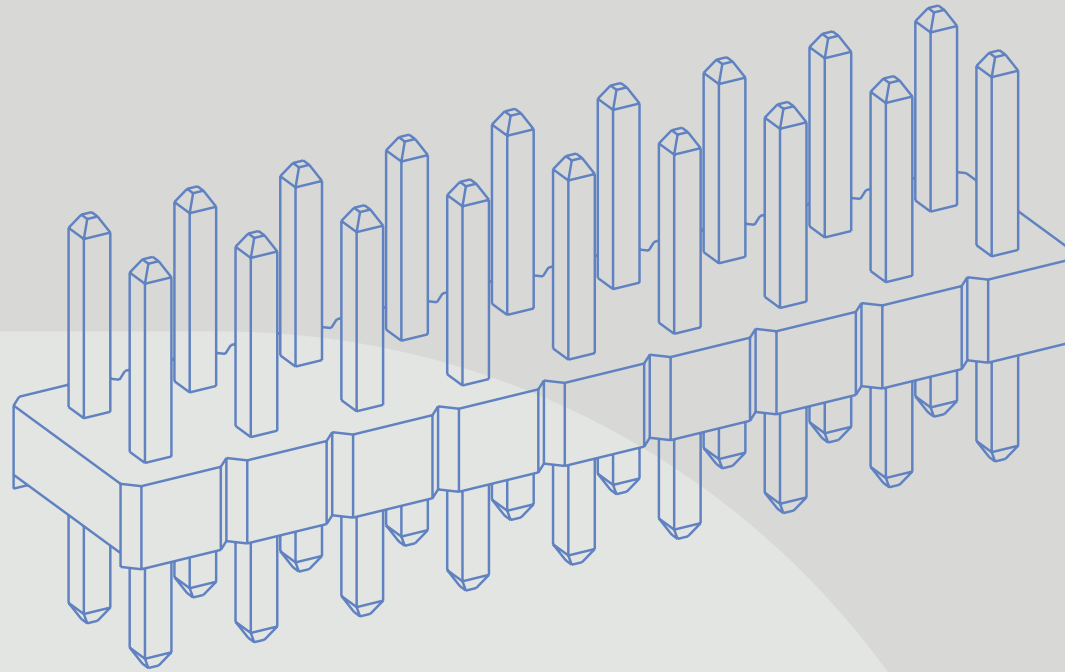


# HARWIN

CONNECT TECHNOLOGY  
WITH CONFIDENCE



DEPENDABLE  
CONNECTIVITY  
ACROSS THE BOARD

## INDESS

# PIN HEADER / SOCKET CONNECTORS

2.54MM (.1") AND 2.00MM (.079") PITCH

**BBi**  
RANGE

**HARWIN**

**INDESS**

# BBi CONNECTORS FROM HARWIN.

## Dependable performance and variety

Reliable all-purpose connectivity with cost-effective simplicity.  
Stocked in depth across the global distribution network.  
Compatible with industry-standard designs.

The 2.54mm pitch connector has been a cornerstone of modern electronics for over 60 years. The 2.00mm pitch connectors were added shortly afterwards in the drive for miniaturization – same design, but over 20% smaller.

These connectors are the ultimate in basic and functional design. Males consist of square pins held in place by a plastic carrier strip. Female twin-beam connectors are enclosed in a rectangular protective housing.

Throughboard and Gull-wing SMT terminations, vertical and horizontal orientations, single and double row in both ranges. Contact counts from 2 to 100 are available.

Cable contacts are supplied in reeled carrier format, ideal for automated crimping. Loose contacts are also available, with hand crimp tools for low volume production or prototype builds.

## FEATURES

- Dependable and reliable, easy to use
- Compatible with industry standard equivalent connectors
- Quality cost-effective connections

## APPLICATIONS

- Embedded computing
- Factory automation
- Consumer electronics
- Metering and monitoring



VIEW M20 (2.54MM, .1") **HERE**



VIEW M22 (2.00MM, .079") **HERE**

SPECIFICATIONS

MATERIALS	ELECTRICAL	MECHANICAL	ENVIRONMENTAL
<p>Housings: <b>Standard or High Temperature Plastic, UL94V-0</b></p>	<p>Current per contact: <b>3A max (M20 connectors)</b> <b>2A max (M22 connectors)</b></p>	<p>Durability: <b>300 mating cycles (Gold, Gold + Tin)</b> <b>50 mating cycles (Tin)</b></p>	<p>Operating temperature: <b>-25°C to +105°C min (PCB)</b> <b>-25°C to +85°C (cable)</b></p>
<p>Contacts: <b>Copper Alloy</b></p>	<p>Maximum voltage: <b>500V AC min</b></p>	<p>Insertion force (per contact): <b>2.0N max (M20 connectors)</b> <b>2.9N max (M22 connectors)</b> <b>14.5N max total (Jumper Sockets)</b></p>	
<p>Contact Finish: <b>Gold, Tin, or selective Gold + Tin</b></p>	<p>Insulation resistance: <b>500MΩ min</b></p>	<p>Withdrawal force (per contact): <b>0.2N min (Connectors)</b> <b>1N min total (Jumper Sockets)</b></p>	<p>Compliance: <b>RoHS Compliant</b> <b>REACH / CMRT statements</b></p>
		<p>Pitch: <b>2.54mm / .01" (M20 connectors)</b> <b>2.00mm / .079" (M22 connectors)</b></p>	

Specifications are subject to change.



VIEW M20 (2.54MM, .1") [HERE](#)

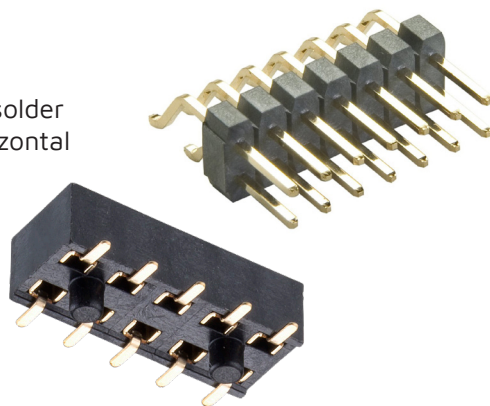


VIEW M22 (2.00MM, .079") [HERE](#)

## PRODUCT CATEGORIES

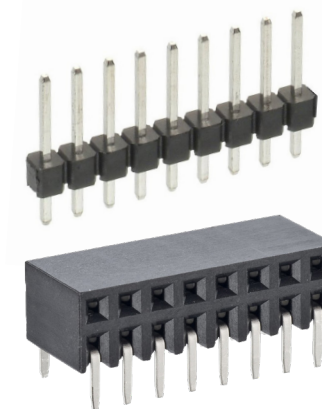
### M20 SMT Connectors

Gull-wing terminations for easy solder joint inspection. Vertical and horizontal orientation for male and female connectors. Single and double row designs.



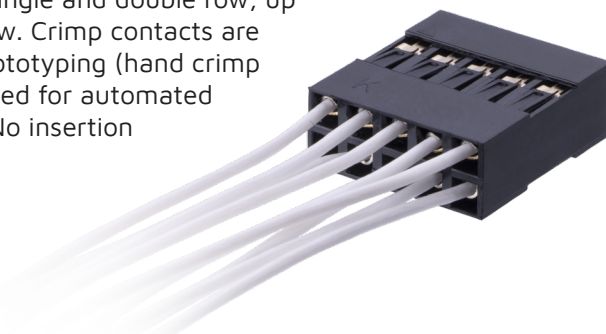
### M20 Throughboard Connectors

Use male pin headers with jumper sockets for on-board hardware programming. Vertical and horizontal for male and female connectors. Single and double row designs. Jackscrews are supplied assembled to the housings.



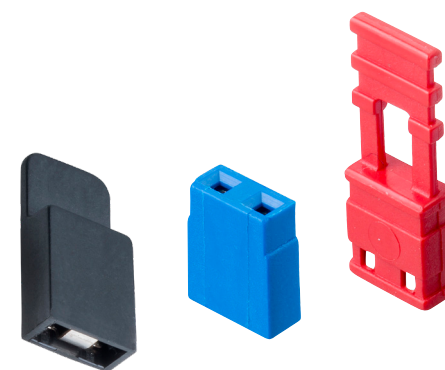
### M20 Cable Connectors

Female housings in single and double row, up to 12 contacts per row. Crimp contacts are supplied loose for prototyping (hand crimp tool available) or reeled for automated volume production. No insertion tooling required.



### M20 Jumper Sockets

Use with pin headers for on-board hardware programming. Available closed or open-ended, or with handles for added convenience. Choice of colors.

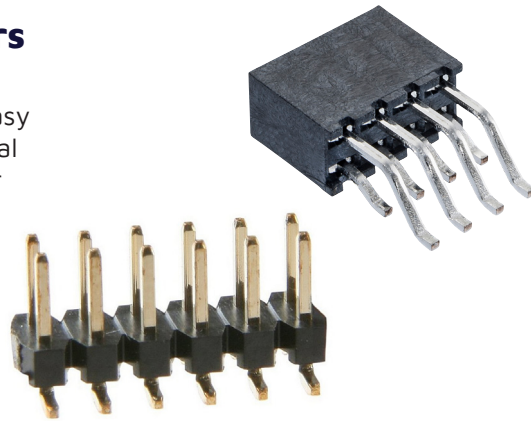


Specifications are subject to change.

PRODUCT CATEGORIES

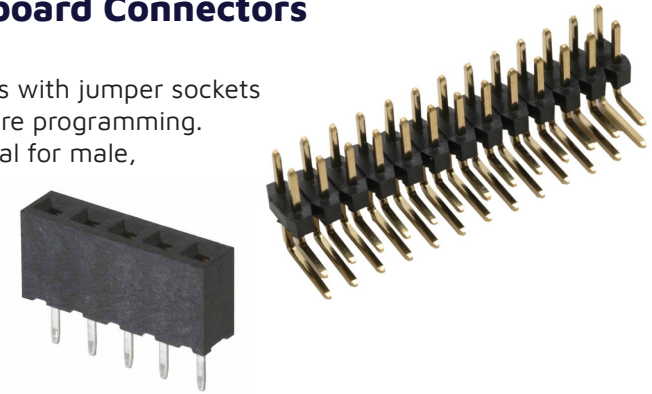
**M22 SMT Connectors**

Gull-wing terminations for easy solder joint inspection. Vertical and horizontal orientation for male and female connectors. Single and double row designs.



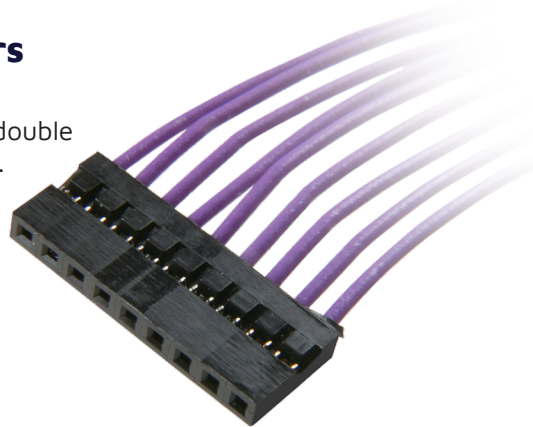
**M22 Throughboard Connectors**

Use male pin headers with jumper sockets for on-board hardware programming. Vertical and horizontal for male, vertical for female connectors. Single and double row designs.



**M22 Cable Connectors**

Female housings in single and double row, up to 20 contacts per row. Crimp contacts are supplied loose for prototyping (hand crimp tool available) or reeled for automated volume production. No insertion tooling required.



**M22 Jumper Sockets**

Use with pin headers for on-board hardware programming. Available open-ended, with a choice of colors.



Specifications are subject to change.





## DOWNLOADS

### Technical Documents

M20 Component Specification



M20 Jumper Sockets Component Specification



M22 Component Specification



M22 Jumper Sockets Component Specification



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### Product Training

Product Training Module (PTM)



M20 Hand Crimp Tool Instruction Sheet



M22 Hand Crimp Tool Instruction Sheet



### Test Reports

**HT063** – M20-782 General  
(Electrical, Mechanical and Environmental)



Specifications are subject to change.



VIEW M20 (2.54MM, .1") **HERE**



VIEW M22 (2.00MM, .079") **HERE**

# HARWIN

CONNECT TECHNOLOGY  
WITH CONFIDENCE



HIGH RELIABILITY  
WITH SUPREME  
PERFORMANCE



DEPENDABLE  
CONNECTIVITY  
ACROSS THE BOARD



INNOVATIVE  
DESIGNS FOR  
EASY ASSEMBLY

**HRI**  
RANGE

**BBi**  
RANGE

**EZi**  
RANGE

FOR FURTHER INFORMATION PLEASE CONTACT:

**Europe, Middle East & Africa**  
E: [technical@harwin.com](mailto:technical@harwin.com)

**Americas**  
E: [technical-us@harwin.com](mailto:technical-us@harwin.com)

**Asia Pacific**  
E: [technical-asia@harwin.com](mailto:technical-asia@harwin.com)

// [WWW.HARWIN.COM](http://WWW.HARWIN.COM)