

QUICK REFERENCE GUIDE

High Performance Interconnect (HPI) Connectors

TE Connectivity's (TE) wire-to-board High Performance Interconnect (HPI) connector system is available in 1.0mm, 1.25mm, 1.5mm, 2.0mm, and 2.5mm centerline pitch. This connector system offers vertical and horizontal (right angle) connector mounting for versatility, and the square-peg technology enables product compatibility with industry standard products. HPI products can be used anywhere a signal or low power needs to be routed through a device. If your application has more than one printed circuit board then HPI product is an option to connect the PCBs.

FEATURES

- 1.0mm 2.5mm centerline
- Vertical and horizontal PCB mount
- Through hole (DIP) & surface mount termination (SMT)
- Polarized
- Partially and fully shrouded
- Square termination posts
- Latching and gold plating options available
- Reach up to 3A

BENEFITS

- · Provides design flexibility
- Cost effective wire-to-board
- Ensures proper compatibility of both the header and the housing
- Prevents stubbing contacts
- Enables inter-changeability with industry standard designs

APPLICATIONS

- · Business and retail equipment
- Consumer devices
- Industrial
- Automotive
- Medical
- Appliance

High Performance Interconnect (HPI) Connectors

Quick Reference Guide

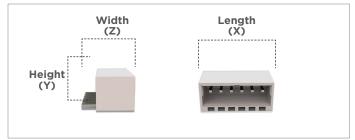
Components: How to Read Product Selector Dimensions

Understanding HPI connector's PCB footprint will help you quickly determine if the HPI product line is the correct wire-to-board solution to meet your design objectives. The part selector matrix helps you understand the PCB footprint. Note that only PCB headers have a PCB footprint, but the mating housing will also consume valuable space within a device, which is why we highlight both poducts' dimensions. The length (X) dimension is different for each position size, however, both the height (Y) and width

HOUSING DIMENSIONS



HEADER DIMENSIONS



(Z) are constant dimensions for each base PN. All the length dimensions are listed in the product selector table for a two position connector. The length of the connector is simply calculated. For example, If you decide that PN 1734595 is the connector that you need, then a two position connector's length is 4.3mm. However, if you need a three position connector, the length of the connector is 5.3mm, which is 4.3mm + 1.0mm. Each additional position size requires an increase of 1.0mm. For example if you need a nine position connector please refer to the following equations. (Please refer to customer drawings for tolerances.)

- 2 position length = 4.3mm
- 9 positions 2 positions = 7 positions
- 7 positions * 1.0mm per pin increase = 7.0mm
- 9 position length = 4.3mmm + 7.0mm = 11.3mm

Reading Dimensions in the Product Matrix

| PIN | Туре | | PCB Termination Angle Angle | | Position Range | Length (X) | Height (Y) | Width (Z) |
|----------------|------|-------|--------------------------------|----------|-------------------|----------------------------|---------------|--------------|
| 1734595 Header | | 28-32 | SMT | Vertical | 2 to 15 | 4.3 + 1.0 Per Pin Increase | 4.30 | 5.10 |

Connector Dimensions (mm)

Product Overview, Ratings, and Specifications

In order to better understand the product capabilities and limitations, it is advised that you refer to TE's specifications. The following table is intended to be used with the product selector matrix. The product selector matrix has a column on the far right that indicates Spec. Group, which aligns with the first column on the left in the graph below.

| Spec Group | Centerline (mm) | PCB Termination Style | Product Specification | Application Specification | Qualification Reports | Rated Current Amps (Max.) | Rated Voltage (Max.) | Rated Voltage (Volts) | Operating Temp. | | | | | | | | | | | | | | | | | | | | | | |
|---------------|--------------------|-----------------------------|--------------------------|------------------------------|--------------------------|---------------------------------|----------------------------|-----------------------------|--------------------|-----------|--------------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|-----|-------|-------------|
| Α | 100 | SMT | 108-57264 | 114-57020 | 501-57283 | 1.00 | 50 | AC/DC | -55 to 105°C | | | | | | | | | | | | | | | | | | | | | | |
| В | 1.00 | SIM I | 108-115169 | 114-115031 | 501-115186 | 1.00 | 50 | AC | -40 to 85°C | | | | | | | | | | | | | | | | | | | | | | |
| С | | | 108-57225 | 114-57016 | 501-57229 | 1.00 | 100 | AC | -40 to 85°C | | | | | | | | | | | | | | | | | | | | | | |
| D | 1.25 | CMT 0 DID | 108-57499 | 114-57016 | 501-57573 | 1.00 | 125 | AC/DC | -25 to 85°C | | | | | | | | | | | | | | | | | | | | | | |
| E | 1.25 | SMT & DIP | 108-57273 | 114-57016 | 501-57299 | 1.00 | 100 | AC | -40 to 85°C | | | | | | | | | | | | | | | | | | | | | | |
| F | | | 108-115184 | 501-115199 | 501-115199 | 1.00 | 50 | AC | -40 to 105°C | | | | | | | | | | | | | | | | | | | | | | |
| G | | SMT | 108-57631 | 114-57018 | 501-57736 | 3.00 | 250 | AC | -55 to 105°C | | | | | | | | | | | | | | | | | | | | | | |
| Н | 1.50 | | SMT | SMT | 108-115183 | 501-115198 | 501-115198 | 3.00 | 50 | AC | -40 to 105°C | | | | | | | | | | | | | | | | | | | | |
| H2 | | | 108-115188 | 108-115188 | 501-115203 | 3.00 | 50 | AC | -40 to 105°C | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | 108-51087 | 114-57011 | 501-51084 | 3.00 | 250 | AC/DC | -25 to 85°C | | | | | | | | | | | | | | | | | | | | | | |
| J | 2.00 | SMT & DIP | SMT & DIP | SMT & DIP | SMT & DIP | SMT & DIP | SMT & DIP | CMT 0 DID | CMT 0 DID | CMT 0 DID | CMT 0 DID | CMT 0 DID | CMT 0 DID | CMT 0 DID | CMT 0 DID | CMT 9 DID | CMT 0 DID | CMT 9 DID | CMT 9 DID | CMT 0 DID | CMT 9 DID | CMT 9 DID | CMT 0 DID | CMT 0 DID | 108-57100 | 114-57011 | 501-57058 | 3.00 | 250 | AC/DC | -25 to 85°C |
| K | 2.00 | | | | | | | 108-57499 | 114-57011 | 501-57573 | 1.00 | 125 | AC/DC | -25 to 85°C | | | | | | | | | | | | | | | | | |
| L | | | 108-57217 | 114-57013 | 501-57218 | 3.00 | 100 | DC | -25 to 85°C | | | | | | | | | | | | | | | | | | | | | | |
| М | 2.50 | CMT & DID | 108-57099 | 114-57004 | 501-57057 | 3.00 | 250 | AC/DC | -25 to 85°C | | | | | | | | | | | | | | | | | | | | | | |
| N | 2.50 | SMT & DIP | 108-57175 | 114-57012 | 501-57195 | 3.00 | 250 | AC/DC | -40 to 105°C | | | | | | | | | | | | | | | | | | | | | | |

Connector Dimensions (mm)

High Performance Interconnect (HPI) Connectors

Quick Reference Guide

Product Matrix: How to select a HPI connector part number

The charts on this page highlight the relationship between the key product features, including AWG, PCB termination style, mount angle, position range, and dimensions to the product base number. Once you determine the correct base number, please refer to TE's website.

1.00mm HPI Connector

| Base PN | Product Type | AWG | PCB Termination Style | Mount Angle | Position Range | Length (X) | Height (Y) | Width (Z) | Mating Base PN | Product Spec. Group |
|------------|----------------------|---------|-----------------------------|----------------|-------------------|----------------------------|---------------|--------------|----------------------|---------------------------|
| 1734597-1 | Contact | 28 - 32 | N/A | N/A | N/A | N/A | N/A | N/A | 1470364 | А |
| 1470364 | Housing | 28 - 32 | N/A | N/A | 2 to 15 | 5.0 + 1.0 Per Pin Increase | 2.80 | 5.00 | 1734595; 1734709 | А |
| 1734595 | Header | 28 - 32 | SMT | Vertical | 2 to 15 | 4.3 + 1.0 Per Pin Increase | 4.30 | 5.10 | 1470364 | А |
| 1734709 | Header | 28 - 32 | SMT | Right Angle | 2 to 15 | 4.3 + 1.0 Per Pin Increase | 2.90 | 4.95 | 1470364 | А |
| 2367199 | Contact (Locking) | 28 - 32 | N/A | N/A | N/A | N/A | N/A | N/A | 2367198 | В |
| 2367198 | Housing (Locking) | 00 70 | N/A | N/A | 3 to 15 | 6.0 + 1.0 Per Pin Increase | 2.8 | 5 | 2367196; 2367197 | В |
| 2367196 | Header (Locking) | 28 - 32 | SMT | Right Angle | 3 to 15 | 5.0 + 1.0 Per Pin Increase | 2.9 | 4.3 | 2367198 | В |
| 2367197 | Header (Locking) | 28 - 32 | SMT | Vertical | 3 to 15 | 5.0 + 1.0 Per Pin Increase | 4.3 | 2.9 | 2367198 | В |

Connector Dimensions (mm)

The hand tool for terminal PN 1734597-1 is 2119536-1.

1.25mm HPI Connector

| Base PN | Product Type | AWG | PCB Termination Style | Mount Angle | Position Range | Length (X) | Height (Y) | Width (Z) | Mating Base PN | Product Spec. Group |
|------------|----------------------|---------|-----------------------------|----------------|-------------------|--|---------------|---|-------------------------|---------------------------|
| 1734193-1 | Contact | 28 - 32 | N/A | N/A | N/A | N/A N/A N/A 440146-x | | 440146-x | С | |
| 440146 | Housing | 28 - 32 | N/A | N/A | 2 to 15 | 4.25 + 1.25 Per Pin Increase 3.15 3.95 1734261-x 1734829-x | | 1734260-x; 1734261-x; 1734829-x; 1734598-x | С | |
| 1734260 | Header | 28 - 32 | SMT | Vertical | 2 to 15 | 7.79 + 1.25 Per Pin Increase | 4.75 | 4.25 | 440146-x | D |
| 1734261 | Header | 28 - 32 | SMT | Right Angle | 2 to 15 | 7.79 + 1.25 Per Pin Increase | 3.45 | 4.70 | 440146-x | Е |
| 1734829 | Header | 28 - 32 | DIP | Right Angle | 2 to 15 | 4.25 + 1.25 Per Pin Increase | 3.20 | 4.70 | 440146-x | Е |
| 1734598 | Header | 28 - 32 | DIP | Vertical | 2 to 15 | 4.25 + 1.25 Per Pin Increase | 4.70 | 3.20 | 440146-x | Е |
| 2390147 | Contact (Locking) | 26-30 | N/A | N/A | N/A | N/A | N/A | N/A | 2390144-x | F |
| 2390144 | Housing (Locking) | 26-30 | N/A | N/A | 2 to 15 | 3.75 + 1.25 Per Pin Increase | 4.15 | 5.70 | 2390138-x; 2390136-x | F |
| 2390138 | Header (Locking) | 26-30 | SMT | Vertical | 2 to 15 | 5.75 + 1.25 Per Pin Increase | 4.25 | 4.05 | 2390144-x | F |
| 2390136 | Header (Locking) | 26-30 | SMT | Right Angle | 2 to 15 | 5.75 + 1.25 Per Pin Increase | 4.25 | 4.05 | 2390144-x | F |

Connector Dimensions (mm)

The hand tool for terminal PN 1734193-1 is 2119537-1.

1.50mm HPI Connector

| Base PN | Product Type | AWG | PCB Termination Style | Mount Angle | Position Range | Length (X) | Height (Y) | Width (Z) | Mating Base PN | Product Spec. Group |
|------------|----------------------|---------|-----------------------------|----------------|-------------------|------------------------------|---------------|--------------|-------------------------|---------------------------|
| 1775442-1 | Contact | 24 - 30 | N/A | N/A | N/A | N/A | N/A | N/A | 1775441-x | Е |
| 1775441 | Housing | 24 - 30 | N/A | N/A | 2 to 15 | 4.25 + 1.50 Per Pin Increase | 2.70 | 6.15 | 1775443-x; 1775444-x | Е |
| 1775443 | Header | 24 - 30 | SMT | Vertical | 2 to 15 | 4.50 + 1.50 Per Pin Increase | 5.00 | 6.00 | 1775441-x | E |
| 1775444 | Header | 24 - 30 | SMT | Right angle | 2 to 15 | 4.25 + 1.50 Per Pin Increase | 4.45 | 7.00 | 1775441-x | G |
| 2380403 | (Locking) | 24 - 30 | N/A | N/A | N/A | N/A | N/A | N/A | 2380312-9 | Н |
| 2380312 | Housing (Locking) | 24 - 30 | N/A | N/A | 2 to 15 | 4.10 + 1.50 Per Pin Increase | 3.0 | 5.7 | 2380320-x; 2381626-x | Н |
| 2380320 | Header (Locking) | 24 - 30 | SMT | Vertical | 2 to 15 | 4.30 + 1.50 Per Pin Increase | 4.45 | 5.75 | 2380312-x | Н |
| 2381626 | Header (Locking) | 24 - 30 | SMT | Right Angle | 2 to 15 | 5.90 + 1.50 Per Pin Increase | 4.40 | 5.00 | 2380312-x | Н |

Connector Dimensions (mm)

The hand tool for terminal PN 1775442-1 is 2119538-1.

1.50mm HPI Connector - Dual Row

| Base PN | Product Type | AWG | PCB Termination Style | Mount Angle | Position Range | Length (x) | Height (y) | Width (z) | Mating Base PN | Product Spec Group |
|---------|-----------------------|-------|-----------------------------|----------------|-------------------|---------------------------------|---------------|--------------|-----------------------------|--------------------------|
| 2380403 | Contact | 24-30 | N/A | N/A | N/A | N/A | N/A | N/A | x-2394528-x | H2 |
| 2394528 | Housing* (Locking) | 24-30 | 1-30 N/A | | 10-30 | 8.6 + 0.75 Per Pin Increase | 6.7 | 5.2 | x-2394520-x; x-2394521-x | H2 |
| 2394520 | Header* (Locking) | 24-30 | SMT | Vertical | 10-30 | 12.5 + 0.75 Per Pin Increase | 5.2 | 6.8 | x-2394528-x | H2 |
| 2394521 | Header* (Locking) | 24-30 | SMT | Right Angle | 10-30 | 10.8 + 0.75 Per Pin Increase | 8.5 | 7.8 | x-2394528-x | H2 |

Connector Dimensions (mm)

2.00mm HPI Connector

| Base PN | Product Type | AWG | PCB Termination Style | Mount Angle | Position Range | Length (X) | Height Wi | | Mating Base PN | Product Spec. Group |
|------------|---------------------|---------|-----------------------------|----------------|-------------------|--------------------------------|----------------------------|------|--|---------------------------|
| 1735801-1 | Contact | 24 - 30 | N/A | N/A | N/A | N/A | N/A | N/A | 440129-x; 1735447-x | I |
| 440129 | Housing | 24 - 30 | N/A | N/A | 2 to 16 | 4.7 + 2.00 Per Pin Increase | 4.50 | 6.90 | 440054-x; 440055-x; 1775470-x; 1775469-x; | J |
| 440054 | Header | 24 - 30 | DIP | Vertical | 2 to 16 | 6.0 + 2.00 Per Pin Increase | 6.05 | 4.70 | 440129-x | J |
| 440055 | Header | 24 - 30 | DIP | Right Angle | 2 to 16 | 6.0 + 2.00 Per Pin Increase | 4.95 | 7.70 | 440129-x | J |
| 1775470 | Header | 24 - 30 | SMT | Vertical | 2 to 16 | 7.4 + 2.00 Per Pin Increase | 6.15 | 5.40 | 440129-x | J |
| 1775469 | Header | 24 - 30 | SMT | Right Angle | 2 to 16 | 7.4 + 2.00 Per Pin Increase | ncrease 5.50 7.60 440129-x | | J | |
| 1734827 | Header | 24 - 30 | SMT | Right Angle | 2 to 15 | 8.0 + 2.00 Per Pin Increase | 5.60 | 6.00 | 440129-x | Н |
| | | | | | | | | | | |
| 1735447 | Housing (Locking) | 24 - 30 | N/A | N/A | 3 to 16 | 7.92 + 2.00 Per Pin Increase | 6.55 | 9.40 | 1735446-x | G |
| 1735446 | Header (Locking) | 24 - 30 | DIP | Vertical | 3 to 16 | 8.0 + 2.00 Per Pin Increase | 6.07 | 5.20 | 1735447-x | G |
| | | | | | | | | | | |
| 1470106-1 | Contact | 22 - 28 | N/A | N/A | N/A | N/A | N/A | N/A | 1470107-x | J |
| 1470107* | Housing | 22 - 28 | N/A | N/A | 6 to 32 | 8.0 + 2.00 Per Pin Increase | 5.10 | 7.40 | 1470109-x; 1470108-x | J |
| 1470109* | Header | 22 - 28 | DIP | Vertical | 6 to 32 | 8.0 + 2.00 Per Pin Increase | 6.50 | 5.00 | 1470107-x | J |
| 1470108* | Header | 22 - 28 | DIP | Right Angle | 6 to 32 | 8.0 + 2.00 Per Pin Increase | 5.00 | 9.50 | 1470107-x | J |

* = Dual Row Connectors
Connector Dimensions (mm)
The hand tool for terminal PNs 440132-1 and 1735801-1 is 2119539-1.

2.50mm HPI Connector

| Base PN | Product Type | AWG | PCB Termination Style | Mount Angle | Position Range | Length (X) | Height (Y) | Width (Z) | Mating Base PN | Product Spec. Group |
|------------|-----------------|---------|-----------------------------|----------------|-------------------|-----------------------------|---------------|--------------|---|---------------------------|
| 440134-1 | Contact | 22 - 28 | N/A | N/A | N/A | N/A N/A N/A 440133 | | 440133-x | K | |
| 440133 | Housing | 22 - 28 | N/A | N/A | 2 to 15 | 7.1 + 2.50 Per Pin Increase | 4.20 | 7.15 | 440052-x, 440053-x; 1775317-x; 1775316-x | К |
| 440052 | Header | 22 - 28 | DIP | Vertical | 2 to 15 | 7.5 + 2.50 Per Pin Increase | 6.00 | 3.80 | 440133-x | K |
| 440053 | Header | 22 - 28 | DIP | Right Angle | 2 to 14 | 7.5 + 2.50 Per Pin Increase | 4.20 | 8.20 | 440133-x | K |
| 1775317 | Header | 22 - 28 | SMT | Vertical | 2 to 15 | 9.5 + 2.50 Per Pin Increase | 6.40 | 4.80 | 440133-x | K |
| 1775316 | Header | 22 - 28 | SMT | Right Angle | | 8.8 + 2.50 Per Pin Increase | 4.80 | 7.70 | 440133-x | K |
| | | | | | | | | | | |
| 1470223-1 | Contact | 22 - 28 | N/A | N/A | N/A | N/A | N/A | N/A | 1470222-x | L |
| 1470222 | Housing | 22 - 28 | N/A | N/A | 2 to 15 | 7.4 + 2.50 Per Pin Increase | 4.70 | 8.00 | 1470224-x | L |

Connector Dimensions (mm)

Header 22 - 28

There are no hand tools available for these terminals.

DIP

Applications

1470224



Business & Retail Equipment

- Copiers
- Printers
- Scanners
- Fax Machines
- Projectors
- Vending Machines
- ATMs



Vertical 2 to 15

Industrial Industry

- Appliances
- Industrial Controls
- GPS
- Thermostats
- HVAC
- Lighting



5.90

4.90

Consumer Devices

- PCs
- Ultrabook Devices
- Game Consoles

7.5 + 2.50 Per Pin Increase

- Set Top Boxes
- Stereo Equipment



1470222-x

Medical Industry

- Medical Monitors
- Imaging Systems
- Portable Stations
- Treatment Equipment

CABLE ASSEMBLIES

For convenience, a selection of double-ended cable assemblies is available. These cable assemblies are useful for prototyping or for small production runs. For additional sizes, lengths or connector styles, please reach out to the TE sales team or to customer care.

| PN | Description | Length | Positions | Housing PN | Contact PN | Wire Gauge | Wire Temp Rating | Wire Voltage Rating | Wire Color |
|-----------|--|--------|-----------|---------------|---------------|---------------|------------------------|---------------------------|---------------|
| 2405396-2 | 1mm 2P CABLE ASSEMBLY, 1470364-2 | 300 mm | 2 | 1470364-2 | 1734597-1 | 28 AWG | 105° C | 30V | Orange |
| 2405396-3 | 1mm 3P CABLE ASSEMBLY,1470364-3 | 300 mm | 3 | 1470364-3 | 1734597-1 | 28 AWG | 105° C | 30V | Orange |
| 2405396-4 | 1mm 5P CABLE ASSEMBLY, 1470364-5 | 300 mm | 5 | 1470364-5 | 1734597-1 | 28 AWG | 105° C | 30V | Orange |
| 2405396-1 | 1mm 8P CABLE ASSEMBLY,1470364-8 | 300 mm | 8 | 1470364-8 | 1734597-1 | 28 AWG | 105° C | 30V | Orange |
| 2405396-5 | 1mm 10P CABLE ASSEMBLY, 1-1470364-0 | 300 mm | 10 | 1-1470364-0 | 1734597-1 | 28 AWG | 105° C | 30V | Orange |
| 2405396-6 | 1mm 12P CABLE ASSEMBLY, 1-1470364-2 | 300 mm | 12 | 1-1470364-2 | 1734597-1 | 28 AWG | 105° C | 30V | Orange |
| 2405415-3 | 1mm Locking 3P CABLE ASSEMBLY, 2367198-3 | 300 mm | 3 | 2367198-3 | 2367199-1 | 28 AWG | 105° C | 30V | Orange |
| 2405415-4 | 1mm Locking 5P CABLE ASSEMBLY, 2367198-5 | 300 mm | 5 | 2367198-5 | 2367199-1 | 28 AWG | 105° C | 30V | Orange |
| 2405415-1 | 1mm Locking 8P CABLE ASSEMBLY, 2367198-8 | 300 mm | 8 | 2367198-8 | 2367199-1 | 28 AWG | 105° C | 30V | Orange |
| 2405415-5 | 1mm Locking 10P CABLE ASSEMBLY, 1-2367198-0 | 300 mm | 10 | 1-2367198-0 | 2367199-1 | 28 AWG | 105° C | 30V | Orange |
| 2405415-6 | 1mm Locking 12P CABLE ASSEMBLY, 1-2367198-2 | 300 mm | 12 | 1-2367198-2 | 2367199-1 | 28 AWG | 105° C | 30V | Orange |
| 2405416-2 | 1.25mm 2P CABLE ASSEMBLY, 440146-2 | 300 mm | 2 | 440146-2 | 440147-2 | 28 AWG | 80° C | 300V | Orange |
| 2405416-3 | 1.25mm 3P CABLE ASSEMBLY, 440146-3 | 300 mm | 3 | 440146-3 | 440147-2 | 28 AWG | 80° C | 300V | Orange |
| 2405416-4 | 1.25mm 5P CABLE ASSEMBLY, 440146-5 | 300 mm | 5 | 440146-5 | 440147-2 | 28 AWG | 80° C | 300V | Orange |
| 2405416-1 | 1.25mm 8P CABLE ASSEMBLY ,440146-8 | 300 mm | 8 | 440146-8 | 1734193-1 | 28 AWG | 80° C | 300V | Orange |
| 2405416-5 | 1.25mm 10P CABLE ASSEMBLY, 1-440146-0 | 300 mm | 10 | 1-440146-0 | 440147-2 | 28 AWG | 80° C | 300V | Orange |
| 2405416-6 | 1.25mm 12P CABLE ASSEMBLY, 1-440146-2 | 300 mm | 12 | 1-440146-2 | 440147-2 | 28 AWG | 80° C | 300V | Orange |
| 2405417-2 | 1.5mm 2P CABLE ASSEMBLY, 1775441-2 | 300 mm | 2 | 1775441-2 | 1775442-1 | 28 AWG | 80° C | 300V | Orange |
| 2405417-3 | 1.5mm 3P CABLE ASSEMBLY, 1775441-3 | 300 mm | 3 | 1775441-3 | 1775442-1 | 28 AWG | 80° C | 300V | Orange |
| 2405417-4 | 1.5mm 5P CABLE ASSEMBLY, 1775441-5 | 300 mm | 5 | 1775441-5 | 1775442-1 | 28 AWG | 80° C | 300V | Orange |
| 2405417-1 | 1.5mm 8P CABLE ASSEMBLY, 1775441-8 | 300 mm | 8 | 1775441-8 | 1775442-1 | 28 AWG | 80° C | 300V | Orange |
| 2405417-5 | 1.5mm 10P CABLE ASSEMBLY, 1-1775441-0 | 300 mm | 10 | 1-1775441-0 | 1775442-1 | 28 AWG | 80° C | 300V | Orange |
| 2405417-6 | 1.5mm 12P CABLE ASSEMBLY, 1-1775441-2 | 300 mm | 12 | 1-1775441-2 | 1775442-1 | 28 AWG | 80° C | 300V | Orange |
| 2405418-2 | 2mm 2P CABLE ASSEMBLY, 440129-2 | 300 mm | 2 | 440129-2 | 1735801-1 | 26 AWG | 80° C | 300V | Orange |
| 2405418-3 | 2mm 3P CABLE ASSEMBLY, 440129-3 | 300 mm | 3 | 440129-3 | 1735801-1 | 26 AWG | 80° C | 300V | Orange |
| 2405418-4 | 2mm 5P CABLE ASSEMBLY, 440129-5 | 300 mm | 5 | 440129-5 | 1735801-1 | 26 AWG | 80° C | 300V | Orange |
| 2405418-1 | 2mm 8P CABLE ASSEMBLY, 440129-8 | 300 mm | 8 | 440129-8 | 1735801-1 | 26 AWG | 80° C | 300V | Orange |
| 2405418-5 | 2mm 10P CABLE ASSEMBLY, 1-440129-0 | 300 mm | 10 | 1-440129-0 | 1735801-1 | 26 AWG | 80° C | 300V | Orange |
| 2405418-6 | 2mm 12P CABLE ASSEMBLY, 1-440129-2 | 300 mm | 12 | 1-440129-2 | 1735801-1 | 26 AWG | 80° C | 300V | Orange |
| 2405419-2 | 2.5mm 2P CABLE ASSEMBLY, 440133-2 | 300 mm | 2 | 440133-2 | 440134-1 | 24 AWG | 80° C | 300V | Orange |
| 2405419-3 | 2.5mm 3P CABLE ASSEMBLY, 440133-3 | 300 mm | 3 | 440133-3 | 440134-1 | 24 AWG | 80° C | 300V | Orange |
| 2405419-4 | 2.5mm 5P CABLE ASSEMBLY, 440133-5 | 300 mm | 5 | 440133-5 | 440134-1 | 24 AWG | 80° C | 300V | Orange |
| 2405419-1 | 2.5mm 8P CABLE ASSEMBLY, 440133-8 | 300 mm | 8 | 440133-8 | 440134-1 | 24 AWG | 80° C | 300V | Orange |
| 2405419-5 | 2.5mm 10P CABLE ASSEMBLY, 1-440133-0 | 300 mm | 10 | 1-440133-0 | 440134-1 | 24 AWG | 80° C | 300V | Orange |
| 2405419-6 | 2.5mm 12P CABLE ASSEMBLY, 1-440133-2 | 300 mm | 12 | 1-440133-2 | 440134-1 | 24 AWG | 80° C | 300V | Orange |

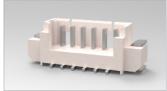
Components: A Complete Solution

A typical crimp type wire-to-board interconnect solution requires four components. First a raw discrete wire, which is stripped, and then a crimp type contact is crimped onto the wire. The contact and wire are then inserted into an unloaded receptacle housing, which is mated with a header that is terminated to a PCB either through hole (DIP) or SMT style.









Raw Discrete Wire (Stripped)

Crimp Contact

Receptacle Housing

PCB Header

HPI Attributes

PCB MOUNT ORIENTATION

Depends on the direction that the housing mates with the PCB header.

Right Angle The housing is mated parallel to the PCB.



Vertical
The housing is mated perpendicular to the PCB.

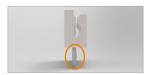


TERMINATION METHOD TO PCB

Depends on how the PCB header is applied to a PCB.

Through Hole (DIP)

Attached to PCB by inserting PCB tines into the pre-drilled holes in the PCB and then soldered on the bottom side of the board.



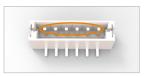
Surface Mount (SMT) Attached to the PCB by soldering

process where PCB tines are soldered to the top of a PCB.



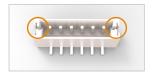
SQUARE TERMINATION POSTS

This design is an industry standard that allows TE's products to be interchanged with other industry standard products.



Polarized

Ensures that PCB headers and cable side receptacle housings properly mate.



High Performance Interconnect (HPI) Connectors

Quick Reference Guide

Frequently Asked Questions

The charts on this page highlight the relationship between the key product features, including AWG, PCB termination style, mount angle, position range, and dimensions to the product base number. Once you determine the correct base number, please refer to TE's website

Question 1

What gauge wire (AWG) will you be using?

Answer '

TE's HPI product accepts 22-32 AWG discrete wire. Remember that the higher the AWG measurement number, the smaller the discrete wire. For example, 32 AWG is smaller than 22 AWG will likely have less current carrying capacity.

Question 2

Are you transferring signal or lower power throughout your device?

Answer 2

HPI products are simple interconnect solutions that can be used to transfer signal or lower power in multiple applications across many industries.

Question 3

Does your application have a fan, motor, switch, display, light or any other simple device?

Answer 3

HPI product may be the ideal solution to control these type of ancillary items.

TE TECHNICAL SUPPORT CENTER

USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico: +52 (0) 55-1106-0800 Latin/S. America: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015

Question 4

Does your application require a locking feature to strengthen the mating connection between the plug assembly and receptacle?

Answer 4

If your application requires a secure mating retention feature, TE's 1.0mm and 2.0mm HPI product line offers an external locking feature to improve the reliability of the interconnect system.

Question 5

What are the technical requirements of your application?

Answer 5

It is imperative that you ask your customer the current and voltage requirements of their application. Current, which is expressed in amps, is usually the driving factor when selecting a small pitch wire-to-board product. Other information that you should consider include operating temperature, PCB real estate, profile height limitations, material restrictions, etc.

Question 6

What tooling is available to apply TE's wire-to-board products?

Answer 6

TE's tooling divisions offers a wide range of hand tools, semi-automatic, and automatic tools. Please visit https://www.te.com/usa-en/products/application-tooling.html to determine the application tooling that meets your needs.

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