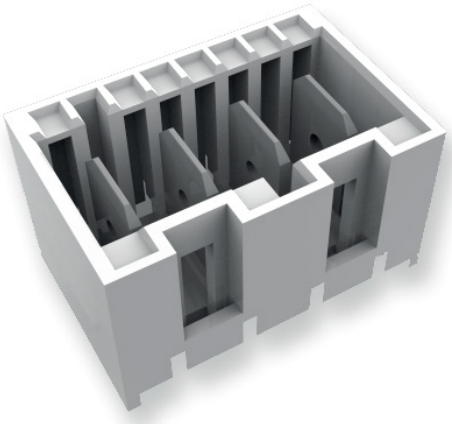

# PCB CONNECTOR THAT MEETS RAST 5 STANDARD

## PCB CONNECTOR THAT MEETS RAST 5 STANDARD WITH VERTICAL THROUGH HOLE TECHNOLOGY, AVAILABLE WITH TIN OR SILVER PLATING, EXTERNAL LOCKING

RAST 5 PCB connectors are designed for flexibility, reliability, and high performance. With a wide range of options, these connectors meet essential industrial and appliance safety standards, including UL94-V0 and IEC 60335-1 (GWT 750°C). They are also certified by UL, VDE, and CQC. Ideal for wire-to-board connections and control units in major appliances and other applications, these connectors feature a 5mm pitch and support 2 to 9 positions. Available in three different footprint layouts, they offer an optimized, versatile solution for a variety of design requirements.

### ELECTRICAL

- Rated Current: 10A for Tin plated version; 16A for Silver plated version
- Rated Voltage: 250V AC
- Insulation Resistance: 5000M Ω
- Dielectric Strength: 3000V/m
- Current Rating (A): 20
- Voltage Rating (VAC): 250, 400, 600

### MECHANICAL

- Positions: 3-17
- Configurations: Wire-To-Board

### MATERIAL

- Housing: Meets Thermoplastic UL 94 V0 and IEC 60335-1
- Contact: Copper Alloy, Tin or Silver plating over Nickel
- Operating Temperature (°C): -40 to +120

### STANDARDS & SPECIFICATIONS

- According to RAST 5 Specification
- Product Specification: 108-106080
- UL94 Rating: V-0 & v-2

### KEY FEATURES

- Designed to the RAST 5 Standard
- Tin / Silver plating
- 2-8 positions
- Available in multiple colors
- 3 footprint layouts
- Thousands of confi gurations of keying & latching & polarization
- UL/VDE/CQC approval
- Meets UL 94 V0 & GWT 750°C w/o flame

### APPLICATIONS

Refrigerator

Front-loading washing machine

Dishwasher

Microwave oven

## PRODUCT OFFERING

### Part Number Ordering: Example for X-1971845-Y

**-3**

Substitute dash number listed for “Y”, therefore a -3 signifi es PN 1971845-3.

**1- -3**

Substitue fi rst number for “X” and second number listed for “Y”, therefore a 1- -3 signifi es PN 1-1971845-3.

* **Follow same numbering scheme throughout for other part numbers listed.**

### EXTERNAL LOCKING - FULLY LOADED

| TIN PLATED | | | | | | | |
|---|---|---|---|---|---|---|---|
| **No. of Pos.** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| X-1971845-Y | -2 | -3 | -4 | -5 | -6 | -7 | -8 |
| | 1- -2 | 1- -3 | 1- -4 | 1- -5 | 1- -6 | 1- -7 | 1- -8 |
| | 2- -2 | 2- -3 | 2- -4 | 2- -5 | 2- -6 | 2- -7 | 2- -8 |
| | 3- -2 | 3- -3 | 3- -4 | 3- -5 | 3- -6 | 3- -7 | 3- -8 |
| | 4- -2 | 4- -3 | 4- -4 | 4- -5 | 4- -6 | 4- -7 | 4- -8 |
| | 5- -2 | 5- -3 | 5- -4 | 5- -5 | 5- -6 | 5- -7 | 5- -8 |
| | 6- -2 | 6- -3 | 6- -4 | 6- -5 | 6- -6 | 6- -7 | |
| | 7- -2 | 7- -3 | 7- -4 | 7- -5 | 7- -6 | 7- -7 | |
| | 8- -2 | 8- -3 | 8- -4 | 8- -5 | 8- -6 | | |
| | 9- -2 | 9- -3 | 9- -4 | 9- -5 | 9- -6 | | |
| X-1971895-Y | -2 | -3 | -4 | | | | |
| | 1- -2 | | 1- -4 | | | | |
| | 2- -2 | | 2- -4 | | | | |
| | 3- -2 | | 3- -4 | | | | |
| | | | 4- -4 | | | | |

## PCB CONNECTOR THAT MEETS RAST 5 STANDARD

### EXTERNAL LOCKING - FULLY LOADED

| SILVER PLATED | | | | | | | |
|---|---|---|---|---|---|---|---|
| **No. of Pos.** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| X-1971846-Y | -2 | -3 | -4 | -5 | -6 | -7 | -8 |
| | 1- -2 | 1- -3 | 1- -4 | 1- -5 | 1- -6 | 1- -7 | 1- -8 |
| | 2- -2 | 2- -3 | 2- -4 | 2- -5 | 2- -6 | 2- -7 | 2- -8 |
| | 3- -2 | 3- -3 | 3- -4 | 3- -5 | 3- -6 | 3- -7 | 3- -8 |
| | 4- -2 | 4- -3 | 4- -4 | 4- -5 | 4- -6 | 4- -7 | 4- -8 |
| | 5- -2 | 5- -3 | 5- -4 | 5- -5 | 5- -6 | 5- -7 | 5- -8 |
| | 6- -2 | 6- -3 | 6- -4 | 6- -5 | 6- -6 | 6- -7 | |
| | 7- -2 | 7- -3 | 7- -4 | 7- -5 | 7- -6 | 7- -7 | |
| | 8- -2 | 8- -3 | 8- -4 | 8- -5 | 8- -6 | | |
| | 9- -2 | 9- -3 | 9- -4 | 9- -5 | 9- -6 | | |
| X-1971896-Y | -2 | -3 | -4 | | | | |
| | 1- -2 | | 1- -4 | | | | |
| | 2- -2 | | 2- -4 | | | | |
| | 3- -2 | | 3- -4 | | | | |
| | | | 4- -4 | | | | |

**LEARN MORE ▸**

## PCB CONNECTOR THAT MEETS RAST 5 STANDARD

| | Series | RAST 5 Tab Header | | | | | |
|---|---|---|---|---|---|---|---|
| | | DIN Style | | | | | |
| | Sub-type | Vertical Standard Fully | | Vertical Standard Fully/ Selectively | Vertical Opposite Fully | Vertical Standard Selectively | Vertical Opposite Selectively |
| | Base No | 521383 | 1971845 / 1971846 / 1971896 | 2390874 / 2390877 / 2392784 | 2232043 / 2232044 / 2232045 / 2232046 | 2232511 | 2322950 |
| Drawing No | CD | 521383 | 1971845 | 2390874 | 2232043 | 2232511 | 2322950 |
| | PD | 521383 | 1971845 | 2390874 | 2232043 | 2232511 | 2322950 |
| Counterparts | Mating Part | AMP multifitting mark II, AMP MONO-SHAPE, AMP Standard Timer | | | | | |
| Housing | Material Type | PA | PA | PA | PA | PA | PA |
| | UL-V0 | X | X | X | X | X | X |
| | UL-V2 | - | - | - | - | - | - |
| | GWEPT 750°C | - | X | X | X | X | X |
| Contact | Bulk Material | CuZn | CuZn | CuZn | CuZn | CuZn | CuZn |
| | Plating | Tin | Tin / Ag | Tin | Tin / Ag | Tin / Ag | Tin |
| Application | Qty of Pole | 2~9 | 2~8 | 2~5, 7 | 2~8 | 3~8 | 4~7 |
| | Wire Range | NA | | | | | |
| | Current rating (A) | 20A | | | | | |
| | Voltage Rating (V) | 250V AC | 400V AC (fully loaded) / 600V AC (selectively loaded) | | | | |
| Document | Product Spec | 108-2183 | 108-106080 | | | | |
| | Application spec | | | | | | |
| Document | VDE | 40017532 | 40037338 | | | | |
| | UL | E28476_ 20040922 | E28476_20121227 | | | | |

## PCB CONNECTOR THAT MEETS RAST 5 STANDARD

| | Series | RAST 5 Tab Header | | | | |
|---|---|---|---|---|---|---|
| | | DIN Style | | | | |
| | Sub-type | Vertical Shrouded Standard/ Opposite Fully | Vertical Shrouded Standard/ opposite Selectively | R/A Standard Selectively | R/A Standard - Reverse Fully | R/A Standard Fully/Selectively |
| | Base No | 521385 | 1969738 | 521386 | 1955660 | 1969352 |
| Drawing No | CD | 1969740 | 1969738 | 521386 | 1955660 | 1969352 |
| | PD | 1969740 | 1969738 | 521386 | 1955660 | 1969352 |
| Counterparts | Mating Part | | | | | |
| Housing | Material Type | PA | PA | PA | PA | PA |
| | UL-V0 | X | X | X | - | - |
| | UL-V2 | - | - | - | X | X |
| | GWEPT 750°C | X | X | - | X | X |
| Contact | Bulk Material | CuZn | CuZn | CuZn | CuZn | CuZn |
| | Plating | Tin / Ag | Tin / Ag | Tin | Tin | Tin |
| Application | Qty of Pole | 2~7 | 3~4 | 3~5 | 2~7 | 2~8 |
| | Wire Range | NA | | | | |
| | Current rating (A) | 20A | | | | |
| | Voltage Rating (V) | 400V AC (fully loaded) / 600V AC (selectively loaded) | | 250V AC | | |
| Document | Product Spec | 108-106080 | | 108-2183 | | |
| | Application spec | | | | | |
| Document | VDE | 40037338 | | - | 40017532 | - |
| | UL | E28476_20121227 | | E28476_20040922 | | |

## PCB CONNECTOR THAT MEETS RAST 5 STANDARD

| | Series | RAST 5 Tab Header | | | | | |
|---|---|---|---|---|---|---|---|
| | | Positive Lock Style | | | | | |
| | Sub-type | Vertical Standard Selectively | Vertical Standard/ Opposite Fully | Vertical Opposite Fully | Vertical Opposite Selectively | Vertical Shrouded Standard w inner wall Fully | Vertical Shrouded Opposite w inner wall Fully |
| | Base No | 2232611 | 2232647 | 2372858 | 2385644 | 2371464 | 2371673 |
| Drawing No | CD | 2232611 | 2232647 | 2372858 | 2385644 | 2371466 | 2371673 |
| | PD | 2232611 | 2232647 | 2372858 | 2385644 | 2371466 | 2371673 |
| Counter-parts | Mating Part | Positive Lock RAST 5 Connector System | | | | | |
| Housing | Material Type | PA | PA | PA | PA | PA | PA |
| | UL-V0 | X | X | X | X | X | X |
| | UL-V2 | - | - | - | - | - | - |
| | GWEPT 750°C | X | X | X | X | X | X |
| Contact | Bulk Material | CuZn | CuZn | CuZn | CuZn | CuZn | CuZn |
| | Plating | Tin / Ag | Tin / Ag | Tin | Tin | Tin | Tin |
| Application | Qty of Pole | 3~8 | 2~8 | 2~5 | 5 | 2~4 | 2~5 |
| | Wire Range | NA | | | | | |
| | Current rating (A) | 20A | | | | | |
| | Voltage Rating (V) | 400V AC (fully loaded) / 600V AC (selectively loaded) | | | | | |
| Document | Product Spec | 108-106080 | | | | | |
| | Application spec | | | | | | |
| Document | VDE | 40037338 | | | | | |
| | UL | E28476_20121227 | | | | | |

## PCB CONNECTOR THAT MEETS RAST 5 STANDARD

| | Series | RAST 5 Tab Header | | | | | |
|---|---|---|---|---|---|---|---|
| | | Positive Lock Style | | | | | |
| | Sub-type | Vertical Shrounded Standard w Feet Fully | Vertical Shrounded Opposite w Feet Fully | Vertical Shrouded Standard Fully | Vertical Shrouded Opposite Fully | R/A Standard Fully | R/A Standard - GWT Fully |
| | Base No | 2405963 | 2405966 | 2292457 / 2390868 | 2337101 / 2390869 | 521384 | 1969234 |
| Drawing No | CD | 2405963 | 2405966 | 2292457 | 2337101 | 521384 | 1969234 |
| | PD | 2405963 | 2405966 | 2292457 | 2337101 | 521384 | 1969234 |
| Counter-parts | Mating Part | | | | | | |
| Housing | Material Type | PA | PA | PA | PA | PA | PA |
| | UL-V0 | X | X | X | X | X | - |
| | UL-V2 | - | - | - | - | - | X |
| | GWEPT 750°C | X | X | X | X | - | X |
| Contact | Bulk Material | CuZn | CuZn | CuZn | CuZn | CuZn | CuZn |
| | Plating | Tin | Tin | Tin | Tin | Tin | Tin |
| Application | Qty of Pole | 2~4 | 2 | 2 ~ 5 | 2 | 2~9 | 2 |
| | Wire Range | NA | | | | | |
| | Current rating (A) | 20A | | | | | |
| | Voltage Rating (V) | 400V AC (fully loaded) / 600V AC (selectively loaded) | | | | | |
| Document | Product Spec | 108-106080 | | | | 108-2183 | |
| | Application spec | | | | | | |
| Document | VDE | 40037338 | | | | 40017532 | |
| | UL | E28476_20121227 | | | | E28476_20040922 | |

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