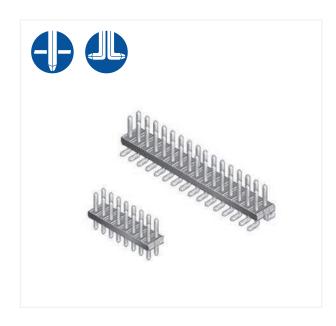




MINITEK® UNSHROUDED VERTICAL HEADERS



MATERIALS

- · Housing: High temperature, black thermoplastic
- Flammability rating: UL94V-0
- · Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- Current rating: 3A continuous
- Insulation resistance: 1 x 10⁵MΩ min.
- Contact resistance: $25m\Omega$ max.
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

ENVIRONMENTAL PERFORMANCE

• Operating temperature range: -55°C to +125°C

MECHANICAL PERFORMANCE

• Mating cycles (durability): 100

SPECIFICATIONS

- 🔊 File no. E66906
- **G** File no. LR46923
- Product drawing: 57102 or 57202
- Product specification: DPS-12-011 and GS-12-163
- Tape and reel packaging data: TA-884

APPROVALS AND CERTIFICATIONS

• This product is RoHS compatible according to the European Union Directive 2002/95/IEC

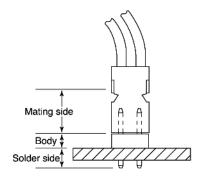
PACKAGING

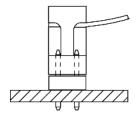
- Standard: TMT in tubes (04 to 06 pos. packed in box)
- · SMT in Tape-and-reel
- · Optional: SMT in tubes

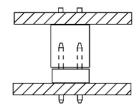
PROCESSING INFORMATION

Compatible with wave, vapor-phase, and IR reflow soldering processes

TYPICAL APPLICATIONS







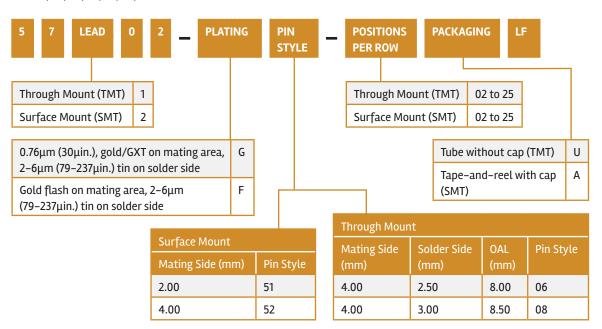
MINITEK® UNSHROUDED VERTICAL HEADERS

PART NUMBERS

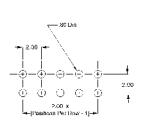
CORE RANGE

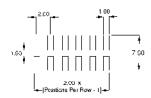


XX = 02, 03, 04, 05, 06, 08, 10



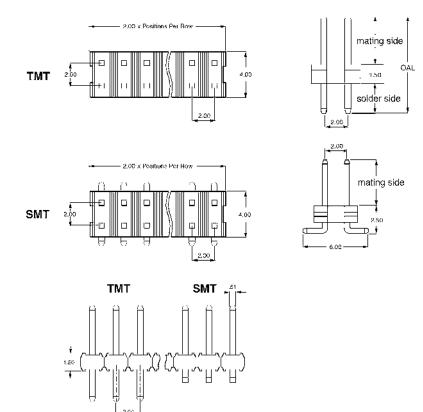
PRODUCT





Recommended PCB Layouts

Dimension in mm

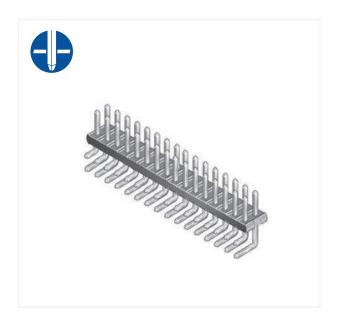


For more information, please contact: Communications@fci.com or visit us at www.fci.com

Disclaimer



MINITEK® UNSHROUDED RIGHT ANGLE HEADERS



- High temperature plastic
- Selective plating

MINITEK® UNSHROUDED RIGHT ANGLE HEADERS

TECHNICAL INFORMATION

MATERIALS

- · Housing: High temperature, black thermoplastic
- Flammability rating: UL94V-0
- · Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- · Current rating: 3A continuous
- Insulation resistance: $1 \times 10^5 M\Omega$ min.
- Contact resistance: 25Ωm max.
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

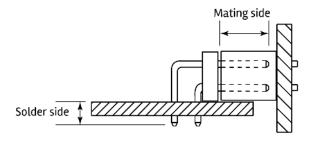
ENVIRONMENTAL

• Operating temperature range: -55°C to +125°C

MECHANICAL PERFORMANCE

• Mating cycles (durability): 100

TYPICAL APPLICATIONS



hstanding voltage: 650V • Tubes (041

Compatible with wave, vapor-phase, and IR reflow soldering processes

SPECIFICATIONS

- 👊 File no. E66906
- **G** File no. LR46923
- · Product drawing: 98423
- Product specification: DPS-12-011 and GS-12-163

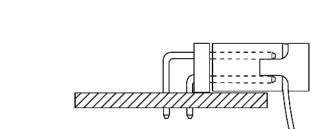
APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

• Tubes (04 to 06 pos. packed in box)

PROCESSING INFORMATION

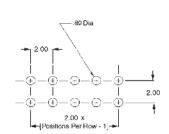


MINITEK® UNSHROUDED RIGHT ANGLE HEADERS

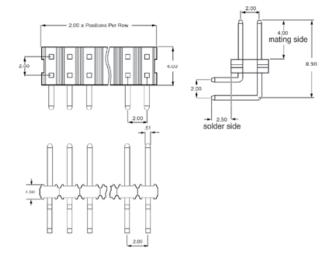
PART NUMBERS



PRODUCT



Recommended PCB Layouts







MINITEK® UNSHROUDED HEADERS, PIN-IN-PASTE





MATERIALS

- · Housing: High temperature, black thermoplastic
- Flammability rating: UL94V-0
- · Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- Current rating: 3A continuous
- Insulation resistance: $1 \times 10^5 M\Omega$ min
- Contact resistance: 25Ωm max.
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

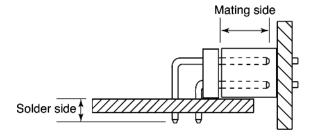
ENVIRONMENTAL

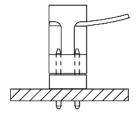
• Operating temperature range: -55°C to +125°C

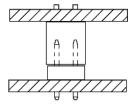
MECHANICAL PERFORMANCE

• Mating cycles (durability): 100

TYPICAL APPLICATIONS







SPECIFICATIONS

- 51 File no. E66906
- **G** File no. LR46923
- · Product drawing: By 8-digit base part number
- Product specification: DPS-12-011 and GS-12-163
- Application specification: TA-895
- Reflow profile: TA-842

PACKAGING

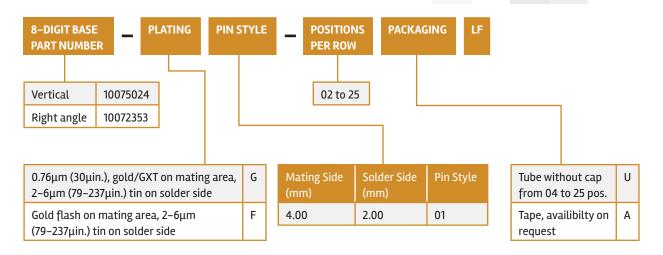
- Tubes (04 to 06 pos. packed in box)
- Tape-on-reel with pick up cap

PROCESSING INFORMATION

Compatible with wave, vapor-phase, and IR reflow soldering processes

MINITEK® UNSHROUDED HEADERS, PIN-IN-PASTE

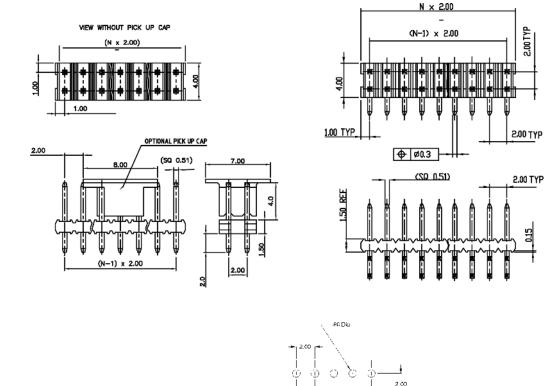
PART NUMBERS



10072353 Right angle

PRODUCT





Recommended PCB Layouts

2.00 x -- [Positions Per Row - 1]--

MINITEK® UNSHROUDED STACKING HEADERS



- Wide variety of stack heights in 0.13mm increments
- Custom sizes to meet your specific design requirements

MATERIALS

- · Housing: High temperature, black thermoplastic
- Flammability rating: UL94V-0
- · Pin: Phosphor-bronze
- Plating: Gold over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- · Current rating: 2A continuous
- Insulation resistance: $1 \times 10^5 M\Omega$ min.
- Contact resistance: 25Ωm max.
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

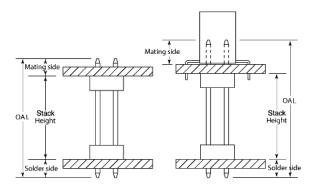
ENVIRONMENTAL

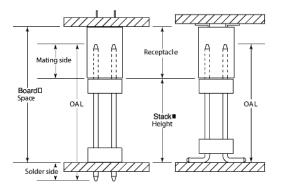
• Operating temperature range: -55°C to +125°C

MECHANICAL PERFORMANCE

• Mating cycles (durability): 100

TYPICAL APPLICATIONS





SPECIFICATIONS

- 👊 File no. E66906
- **G** File no. LR46923
- Product drawing: 59112, 59132, or 59202
- Product specification: DPS-12-011

APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

· Standard: In bags

PROCESSING INFORMATION

Compatible with wave, vapor-phase, and IR reflow soldering processes

MINITEK® UNSHROUDED STACKING HEADERS

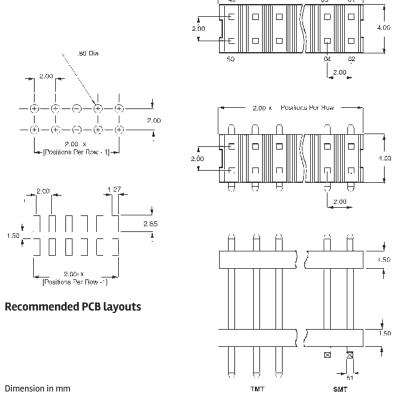
PART NUMBERS

Compile your own part number using custom dimensions (Please allow for initial setup on our system)



2.00 x Positions Per Row

PRODUCT



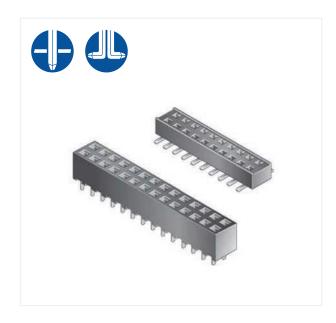
The board spacing

is the stack height of this header, plus the height of the receptacle (see application drawings on opposite page)





MINITEK® VERTICAL RECEPTACLES



- Two housing heights: 2.30mm, 4.50mm
- Dual-beam contact design for highly reliable electrical performances

MATERIALS

- · Housing: High temperature, black thermoplastic
- Flammability rating: UL94V-0
- · Contact: Phosphor-bronze
 - · Beryllium-copper-63453
- Plating: Gold over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- · Current rating: 2A continuous
- Insulation resistance: $1 \times 10^5 M\Omega$ min.
- · Contact resistance:
 - -20mΩ
 - ·25mΩ 63453
- · Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

ENVIRONMENTAL

• Operating temperature range: -55°C to +125°C

MECHANICAL PERFORMANCE

- · Mating cycles (durability):
 - . 25
 - ·100 63453
- · Contact retention to housing:
 - ·2.20 N (227gf) min.
 - ·4.90 N (500gf) min. 63453
- · Insertion force per contact:
 - ·1.80 N (184gf) max.
 - -1.95 N (200gf) 63453
- · Withdrawal force per contact:
 - · 0.20 N (20gf) min.

SPECIFICATIONS

- 👊 File no. E66906
- 🏻 File no. LR46923
- · Product drawing: By 5-digit base part number
- Product specification:
 - · GS-12-008
 - · DPS-12-011 for 63453

APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

- · Standard:
 - TMT in tubes
 - · SMT in tape-and-reel
- · Optional: Tubes (SMT)

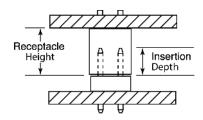
PROCESSING INFORMATION

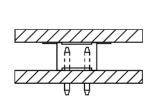
Compatible with wave, vapor-phase, and IR reflow soldering processes

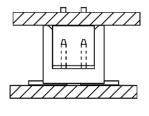
INSERTION DEPTH

- 4.50mm height: 3.00mm min. to 4.30mm max. [provides .381mm wipe]
- 2.30mm height top entry: 1.30mm min. to 2.20mm max. [provides .381mm wipe]
- 2.30mm height bottom entry: 1.40mm min. to 2.20mm max. [provides .381mm wipe] plus board thickness

TYPICAL APPLICATIONS







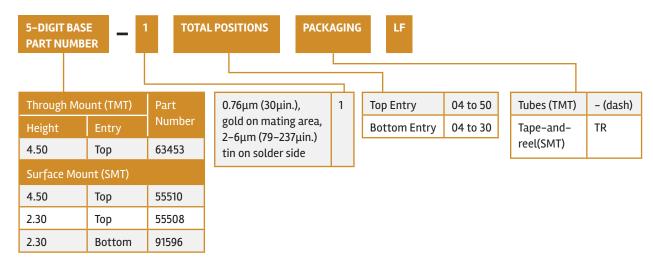
MINITEK® VERTICAL RECEPTACLES

PART NUMBERS

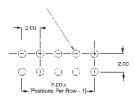
CORE RANGE



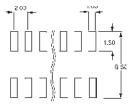
XX = 04, 06, 08, 10, 12, 16, 20



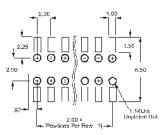
PRODUCT



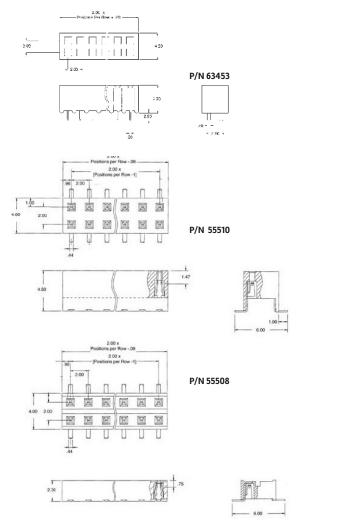
Top Entry



Bottom Entry



Recommended PCB layouts





MINITEK® SHUNTS



FEATURES & BENEFITS

• Early entry, dual-beam contacts provide long wiping action for reliable electrical contact



MATERIALS

- · Housing: High temperature, black thermoplastic
- Flammability rating: UL94V-0
- · Contact: Phosphor-bronze
- Plating: Gold or tin over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- · Current rating: 1A continuous
- Insulation resistance: 1 x 10⁵MΩ min.
- Contact resistance: $25m\Omega$
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

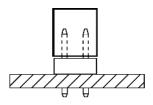
ENVIRONMENTAL

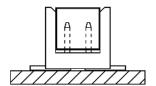
• Operating temperature range: -55°C to +125°C

MECHANICAL PERFORMANCE

- Mating cycles (durability): 50
- Insertion force per contact: 6.41 N (650gf) max.
- Withdrawal force per contact: 0.49 N (50gf) min.

TYPICAL APPLICATIONS





SPECIFICATIONS

- 👊 File no. E66906
- **9** File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: DPS-12-012

APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

Bags

PROCESSING INFORMATION

Compatible with wave, vapor-phase, and IR reflow soldering processes

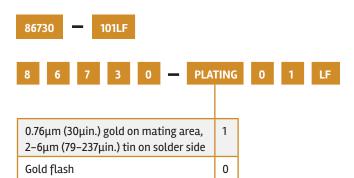
INSERTION DEPTH

• 2.24mm min. [provides .381mm wipe]

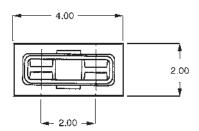


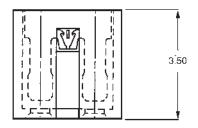
PART NUMBERS

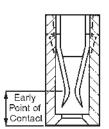
CORE RANGE

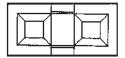


PRODUCTS













MINITEK® SHROUDED VERTICAL HEADERS



- 4-wall design prevents mis-mating
- · Selective plating
- Co-planarity 0.1 (SMT)



MATERIALS

- · Housing: High temperature, cream-coloured thermoplastic
- Flammability rating: UL94V-0
- · Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- Current rating: 2A continuous
- Insulation resistance: 1 x 10⁵MΩ min.
- Contact resistance: $25m\Omega$ max.
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

ENVIRONMENTAL

• Operating temperature range: -40°C to +125°C

MECHANICAL PERFORMANCE

• Mating cycles (durability): 100

SPECIFICATIONS

- 51 File no. E66906
- **G** File no. LR46923
- Product drawing: 98414 or 98424
- Product specification: DPS-12-011 and GS-12-163
- · Tape and reel packaging data: TA-884

APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

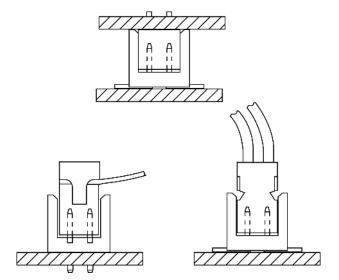
PACKAGING

- Standard:
 - TMT in tubes (04 to 06 pos. packed in box)
 - ·SMT in tape-and-reel
- · Optional: SMT in tubes (04 and 06 in box)

PROCESSING INFORMATION

Compatible with wave, vapor-phase, and IR reflow soldering processes

TYPICAL APPLICATIONS



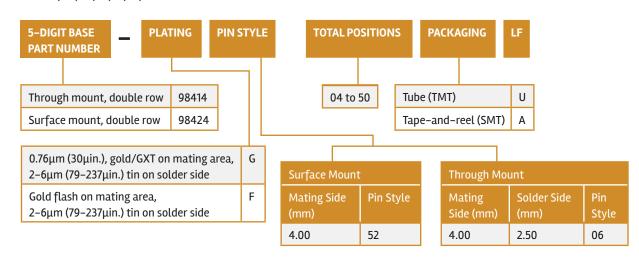


PART NUMBERS

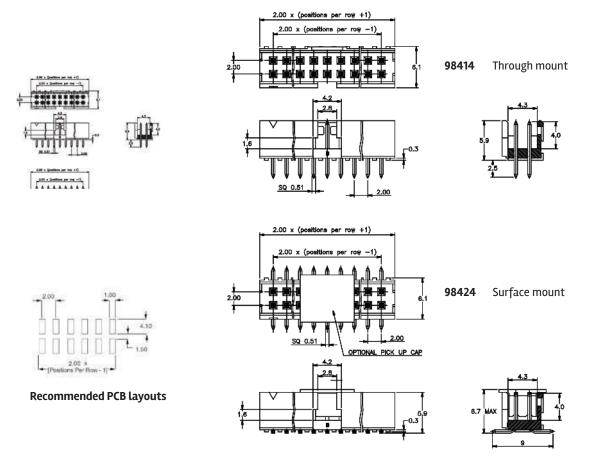
CORE RANGE



XX = 04, 06, 08, 10, 12, 16, 20



PRODUCT



MINITEK® SHROUDED RIGHT ANGLE HEADERS



- 4-wall design prevents mis-mating
- Selective plating

MINITEK® SHROUDED RIGHT ANGLE HEADERS

TECHNICAL INFORMATION

MATERIALS

- Housing: High temperature, cream-coloured thermoplastic
- Flammability rating: UL94V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- · Current rating: 2A continuous
- Insulation resistance: $1 \times 10^5 M\Omega$ min.
- Contact resistance: $25m\Omega$ max.
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

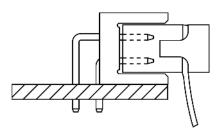
ENVIRONMENTAL

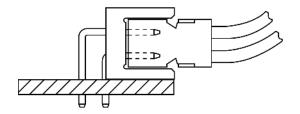
• Operating temperature range: -40°C to +125°C

MECHANICAL PERFORMANCE

• Mating cycles (durability): 100

TYPICAL APPLICATIONS





SPECIFICATIONS

- 🔊 File no. E66906
- **©** File no. LR46923
- · Product drawing: 98464
- Product specification: DPS-12-011 and GS-12-163

APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

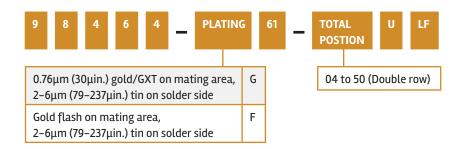
· Standard: Tubes (04 pos. packed in box)

PROCESSING INFORMATION

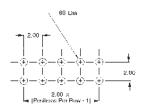
Compatible with wave, vapor-phase, and IR reflow soldering processes

MINITEK® SHROUDED RIGHT ANGLE HEADERS

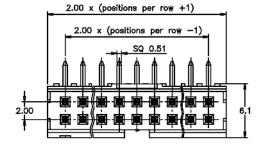
PART NUMBERS

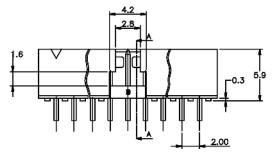


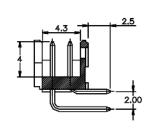
PRODUCTS



Recommended PCB layouts



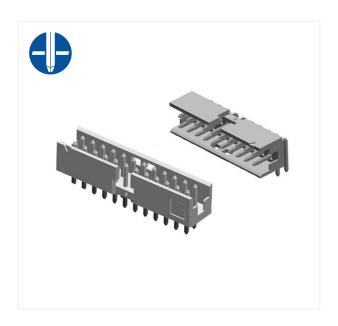








MINITEK® SHROUDED HEADERS, PIN-IN-PASTE



MATERIALS

- · Housing: High temperature, black thermoplastic
- Flammability rating: UL94V-0
- · Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- Current rating: 3A continuous
- Insulation resistance: $1 \times 10^5 M\Omega$ min.
- Contact resistance: $25m\Omega$ max.
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

ENVIRONMENTAL

• Operating temperature range: -55°C to +125°C

MECHANICAL PERFORMANCE

· Latching retention force: 30 N min.

SPECIFICATIONS

- 👊 File no. E66906
- **G** File no. LR46923
- · Product drawing: 8-digit part number
- · Product specification: DPS-12-011 and GS-12-163
- Application specification: TA-895
- Reflow prpfile: TA-842

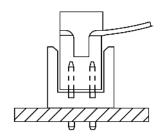
PACKAGING

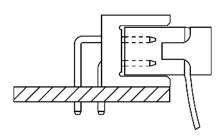
- Tubes (04 pos. packed in box)
- · Tape-on-reel with pick up cap

PROCESSING INFORMATION

Compatible with wave, vapor-phase, and IR reflow soldering processes

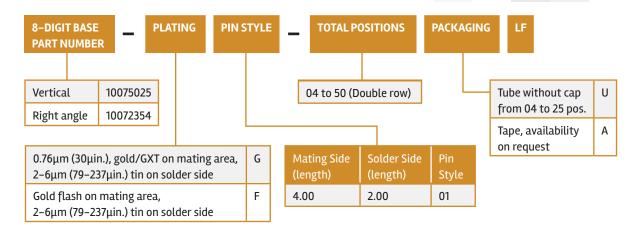
TYPICAL APPLICATIONS



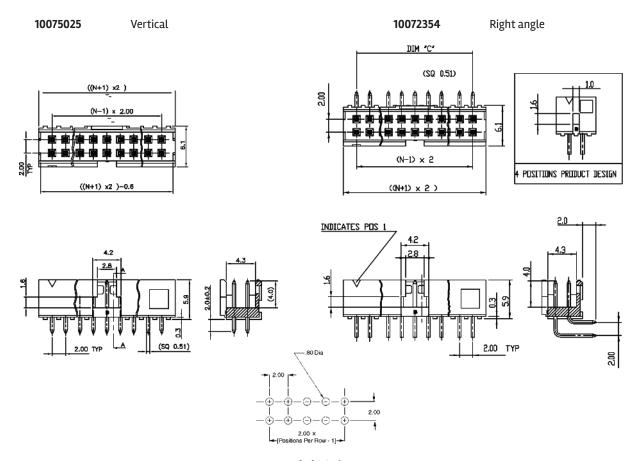


MINITEK® SHROUDED HEADERS, PIN-IN-PASTE

PART NUMBERS



PRODUCT



Recommended PCB layouts

MINITEK® SHROUDED HEADERS EJECT LATCH



- Secure latching of cable connector
- · Easy ejection when required
- Works with IDC connectors with or without strain relief
- · Low profile

MINITEK® SHROUDED HEADERS, EJECT LATCH

TECHNICAL INFORMATION

MATERIALS

- Housing: Body, cream-colored LCP, Latch black PA
- Flammability rating: UL94V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- · Current rating: 2A continuous
- Insulation resistance: $1 \times 10^5 M\Omega$ min.
- Contact resistance: $25m\Omega$ max.
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

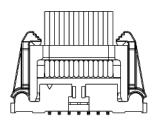
ENVIRONMENTAL

• Operating temperature range: -40°C to +125°C

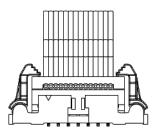
MECHANICAL PERFORMANCE

• Latching retention force: 30 N min.

TYPICAL APPLICATIONS



With strain relief standard latch



Without strain relief low profile latch

SPECIFICATIONS

- 👊 File no. E66906
- **G** File no. LR46923
- Product drawing: 8-digit part number
- Product specification: GS-12-469

APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

· Standard: Tubes

PROCESSING INFORMATION

Compatible with wave, vapor-phase, and IR reflow soldering processes

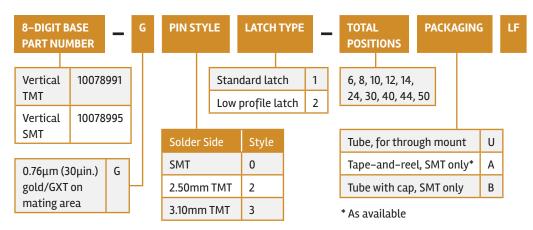


PART NUMBERS

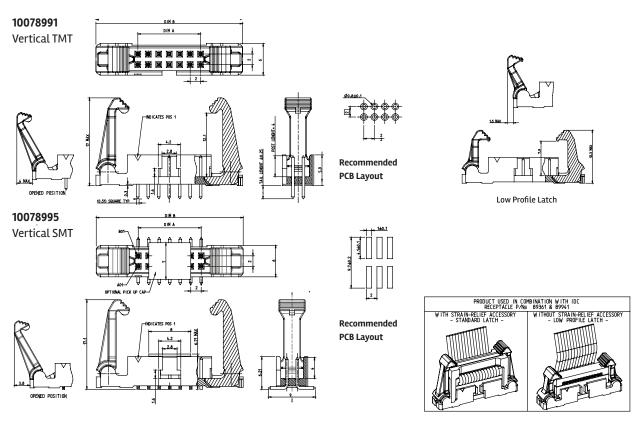
CORE RANGE



XX = 06, 08, 10, 12



PRODUCT







MINITEK® CRIMP-TO-WIRE HOUSINGS AND CONTACTS



- Dual-beam contact design for highly reliable electrical performance
- Latching key assures proper alignment and friction retention

MINITEK® CRIMP-TO-WIRE HOUSING AND CONTACTS

TECHNICAL INFORMATION

MATERIALS

- Housing: Black thermoplastic
- Flammability rating: UL94V-0
- · Contact: Phosphor-bronze
- Plating: Gold or tin over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- Current rating: 2A continuous
- Insulation resistance: 1 x 10⁵MΩ min.
- Contact resistance: 20mΩ max.
- Dielectric withstanding voltage: 650V
- · Voltage rating: 200V

ENVIRONMENTAL

• Operating temperature range: -40°C to +125°C

MECHANICAL PERFORMANCE

- Mating cycles (durability): 100
- · Contact retention to housing: 7.83 N (800gf) min.
- Mating force per contact: 1.77 N (180gf) max.
- Unmating force per contact: 0.20 N (20gf) min.

SPECIFICATIONS

- 51 File no. E66906
- **G** File no. LR46923
- · Product drawing:
- · 77138 or 77139 Contact
- · 69307, 90311 Housing
- · Product specification: 110-036
- Application specification: 100-006, TA-959

APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

- · Reels Contacts
- · Bags Housings

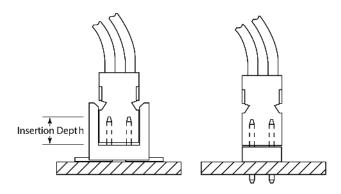
PROCESSING INFORMATION

Compatible with wave, vapor-phase, and IR reflow soldering processes

INSERTION DEPTH

- 2.40mm min. to 3.30mm max. [provides .381mm wipe]
- 3.63mm min. to 4.00mm max.
 [provides .381mm wipe in housing]

TYPICAL APPLICATIONS



MINITEK® CRIMP-TO-WIRE HOUSING AND CONTACTS

PART NUMBERS

CORE RANGE

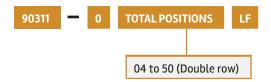


XX = 04, 06, 08, 10, 12, 16, 20

CONTACTS

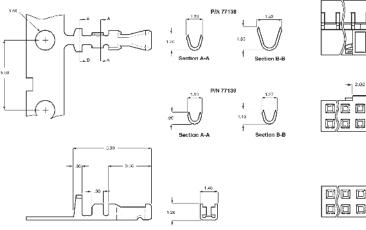


HOUSINGS



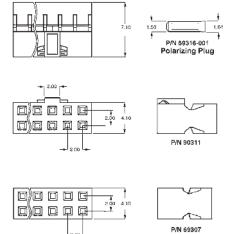
PRODUCT

CONTACTS



Dimension in mm

HOUSINGS



MINITEK® CRIMP-TO-WIRE ACTIVE LATCH HOUSINGS



- Latching rentention 15/25 N (depending on size) due to latch alone
- Latches with audible click
- · Mates with standard Minitek®headers
- · Latch can be released and parts unmated



MATERIALS

- Housing: Polyamide, black
- Flammability rating: UL94V-0

ELECTRICAL PERFORMANCE

- Insulation resistance: $1 \times 10^5 M\Omega$ min.
- Dielectric withstanding voltage: 500V

ENVIRONMENTAL

• Operating temperature range: -55°C to +125°C

MECHANICAL PERFORMANCE

- Latching retention force: 15 N min. (for 2x3 and 2x4 pos.)
- Latching retention force: 25 N min. (for 2x5 and 2x25 pos.)

SPECIFICATIONS

- 🔊 File no. E66906
- **6** File no. LR46923
- Product drawing: By 8-digit part number
- Product specification: GS-12-415

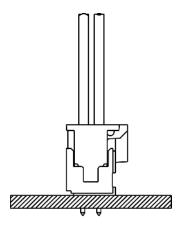
APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

· Standard: Plastic bags

TYPICAL APPLICATIONS



MINITEK® CRIMP-TO-WIRE ACTIVE LATCH HOUSINGS

PART NUMBERS

CORE RANGE

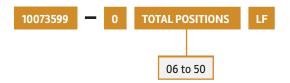


XX = 04, 08, 10, 12, 16, 20

CONTACTS

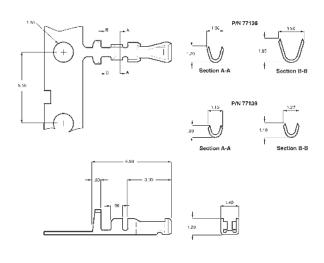


HOUSINGS

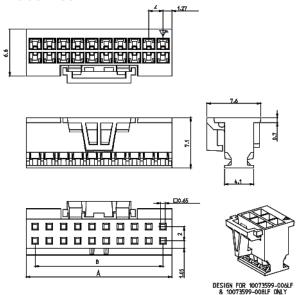


PRODUCT

CONTACTS



HOUSINGS







MINITEK® IDC RECEPTACLE



- Early entry, single-beam contacts provide long wiping action for reliable electrical contact
- Center key polarization and friction latch options

MATERIALS

- Housing: Black thermoplastic
- Flammability rating: UL94V-0
- · Contact: Phosphor-bronze
- Plating: Gold over 1.27μm (50μin.) nickel

ELECTRICAL PERFORMANCE

- Current rating: 1A continuous
- Insulation resistance: $1 \times 10^5 M\Omega$ min.
- Contact resistance: $30m\Omega$ max.
- Dielectric withstanding voltage: 650V

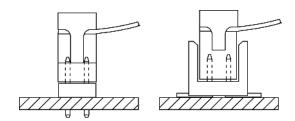
ENVIRONMENTAL

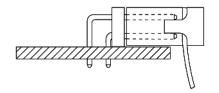
• Operating temperature range: -40°C to +105°C

MECHANICAL PERFORMANCE

• Mating cycles (durability): 100

TYPICAL APPLICATIONS





SPECIFICATIONS

- 🔊 File no. E66906
- **G** File no. LR46923
- Product drawing: 89947 or 89361
- Product specification: BUS-12-115

APPROVALS AND CERTIFICATIONS

 This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

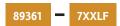
Tubes

INSERTION DEPTH

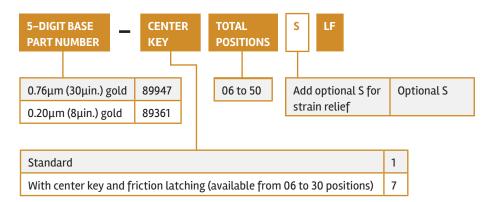
• 2.55mm min. to 4.57mm max. [provides .381mm wipe]

PART NUMBERS

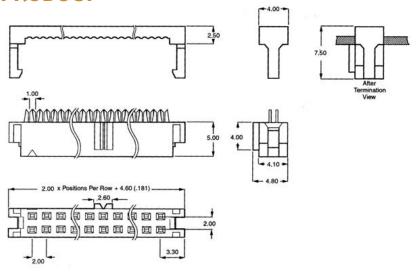
CORE RANGE



XX = 06, 08, 10, 12, 16, 20



PRODUCT





MORE OPTIONS

If you need someting more than the standard parts in this catalog, Basics+ has many more options to help you in your design process. Here are just some examples.

• Locating pins on SMT headers



• Press-fit pins



• Crimp-to-wire pin



• Pin-in-paste headers



• Polarized (missing) positions



• Add-on latches for headers



Printed housings



• Kinked legs



• Wide body headers



• Additional plating options

