



 Product Catalog



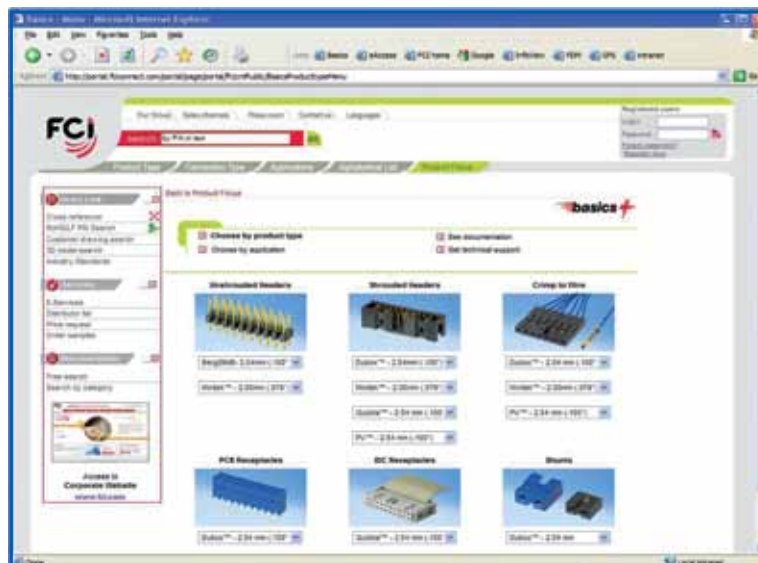
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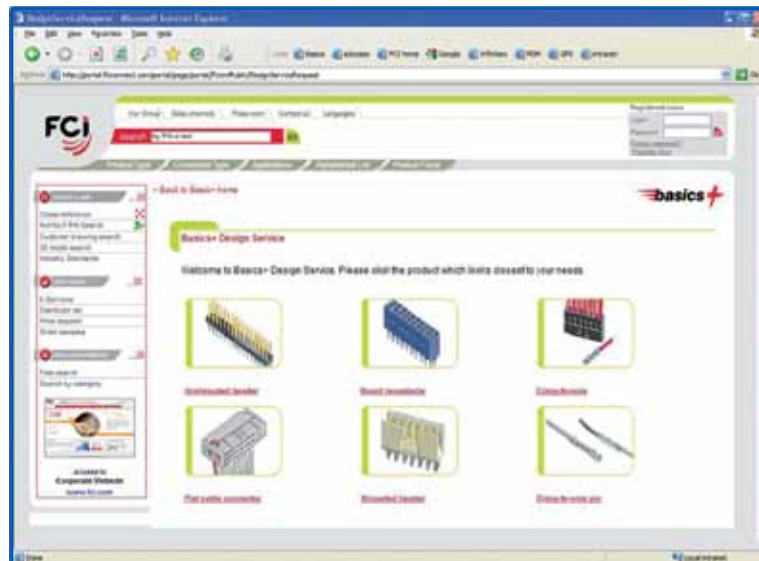
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**UNSHROUDED HEADERS**



<b>BergStik® Unshrouded Headers 2.54mm (.100")</b>	
Vertical - standard sizes	8
Vertical - surface mount	10
Vertical - continuous	12
Right angle - standard sizes	14
Stacking headers	16
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Right angle	52
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Stacking	56

**SHROUDED HEADERS**



<b>Dubox™ Shrouded Headers 2.54mm (.100)</b>	28
<b>PV™ Superior Performance Shrouded Headers 2.54mm (.100")</b>	34
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**BOARD-TO-BOARD RECEPTACLES**



<b>Dubox™ Board-to-Board Receptacles 2.54mm (.100")</b>	
Vertical	20
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**CRIMP-TO-WIRE TERMINALS AND HOUSINGS**



<b>Dubox™ Crimp-To-Wire 2.54mm (.100")</b>	
Contacts	30
Housings	32
<b>PV™ Superior Performance Crimp-To-Wire 2.54mm (.100")</b>	
Contacts	36
Housings	38
<b>Minitek™ Crimp-To-Wire 2.00mm (.079")</b>	
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**IDC RECEPTACLES**



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**SHUNTS**



<b>Dubox™ Shunts 2.54mm (.100")</b>	18
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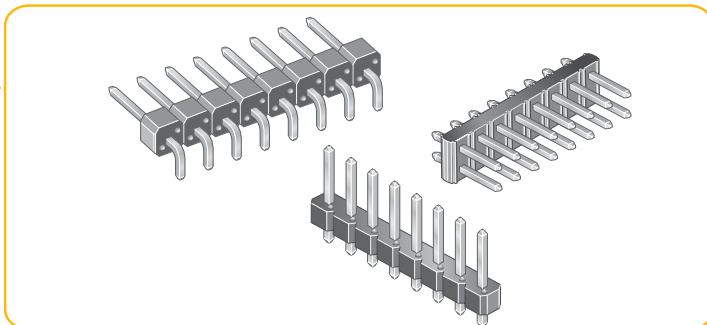
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Standard parts available for immediate shipment from participating distributors

Pin-in-Paste

Our new PiP range has been specifically designed to meet the requirements of this process, complete with paste stencil design  
Pages 54, 66



Minitek Active Latch

A latching crimp-to-wire system for demanding environments  
Pages 64, 72



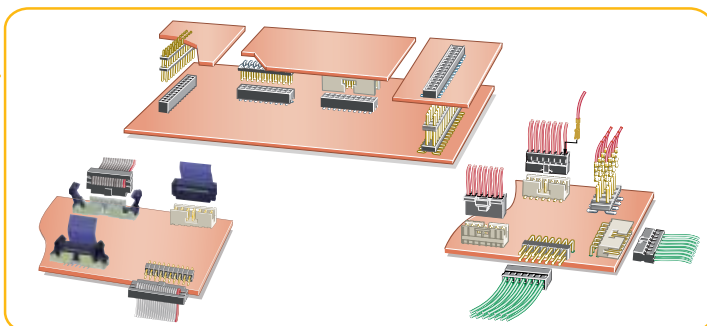
Minitek Eject Latch Header

This ribbon cable connector mates securely, but can be unmated with no difficulty.  
Pages 68, 74



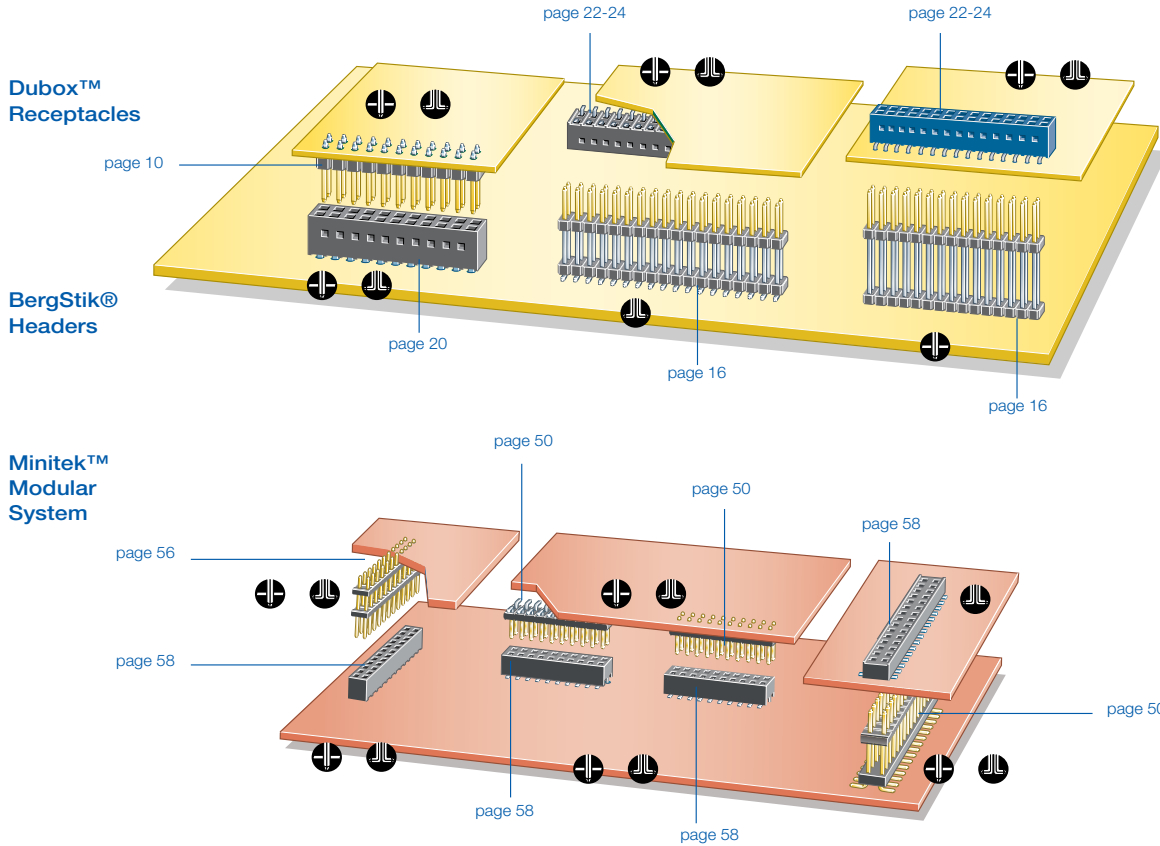
The Minitek 2mm Modular System

Now the most complete and versatile system available: intermateable, high temperature compatible, low coplanarity and space saving  
Pages 50 – 74

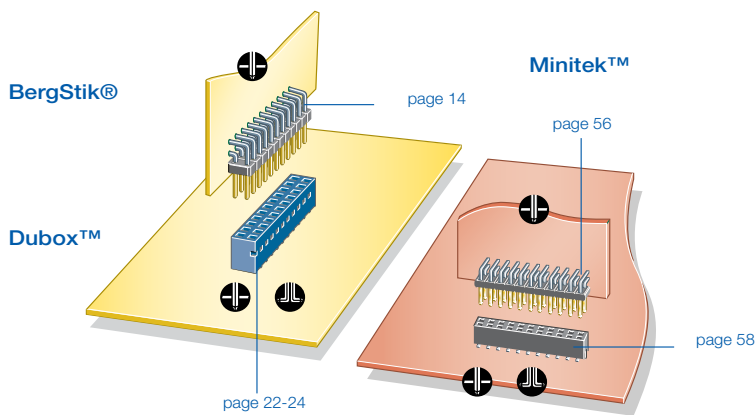


# BOARD-TO-BOARD SOLUTIONS

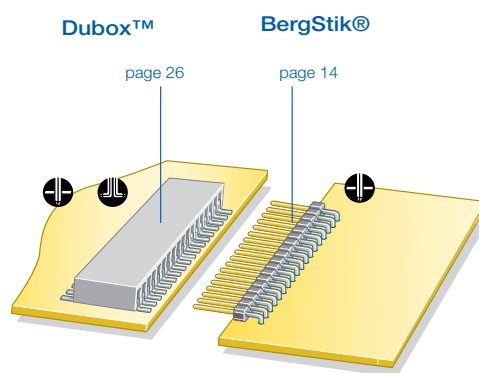
## PARALLEL



## PERPENDICULAR



## PLANAR



- = 2.54 mm
- = 2.00 mm
- = Through Mount
- = Surface Mount



2.54 mm (.100")

## TECHNICAL DATA

### PHYSICAL

- Housing: High temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT or tin over 1.27 μm (50 μ") nickel



### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 5000 MΩ min.
- Dielectric withstanding voltage: 1500 V

### MECHANICAL PERFORMANCE

- Pin retention to housing: 8.8 N min.
- Retentive leg insertion force: >44.48 N max.
- Retentive leg board retention: 2.22 N

### OPERATING TEMPERATURE RANGE

- -65°C to +125°C

### PACKAGING

- Standard: Bags
- Optional: Tubes or  
Tape-and-reel with pick-up cap

### REFERENCE INFORMATION

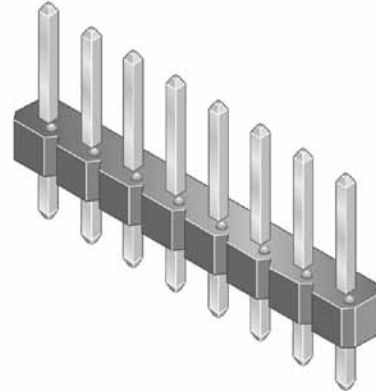
- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-114  
specifications subject to change without notice

### PROCESSING INFORMATION

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

### RoHs INFORMATION

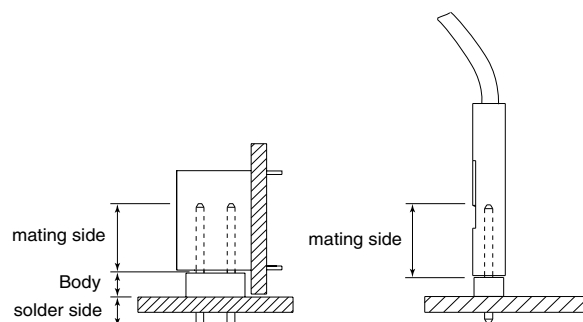
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

■ Dubox™ Crimp-to-wire contacts	30
■ Dubox™ Crimp-to-wire housings	32
■ Dubox™ Vertical receptacles	20
■ Dubox™ Low profile vertical receptacles	22, 24
■ Dubox™ Horizontal receptacles	26
■ Quickie™ IDC receptacles	46
■ PV™ Crimp-to-Wire Contacts	36
■ PV™ Crimp-to-Wire Housings	38

## TYPICAL APPLICATIONS





# BergStik® Unshrouded Header, Vertical, Standard Sizes

2.54 mm (.100")

## PART NUMBERS



1 = 0.76 μm (30μ") gold / GXT  
 2 = 0.38 μm (15μ") gold / GXT  
 4 = tin

01 to 36 = Single row  
 02 to 72 = Double row

### Single Row

Base PN	Post		Tail		OAL	
	mm	(inch)	mm	(inch)	mm	(inch)
68000	5.84	0.230	2.41	0.095	10.80	0.425
68001	5.84	0.230	3.05	0.120	11.43	0.450
68002	5.84	0.230	3.81	0.150	12.19	0.480
78511	8.08	0.318	3.05	0.120	13.67	0.538
68024	8.08	0.318	3.81	0.150	14.43	0.568

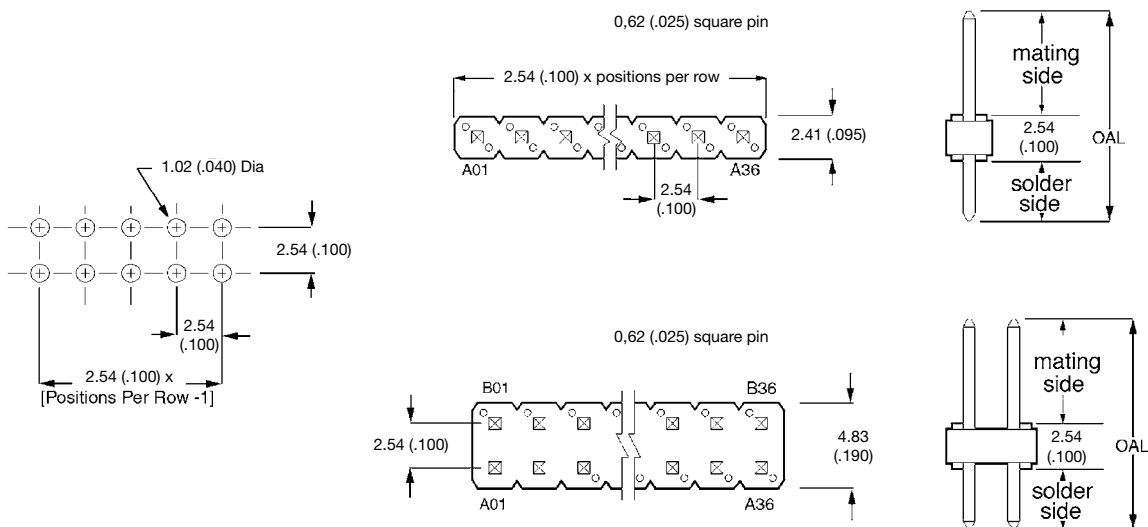
### Double Row

Base PN	Post		Tail		OAL	
	mm	(inch)	mm	(inch)	mm	(inch)
67996	5.84	0.230	2.41	0.095	10.80	0.425
67997	5.84	0.230	3.05	0.120	11.43	0.450
68602	5.84	0.230	3.81	0.150	12.19	0.480
68691	8.08	0.318	3.05	0.120	13.67	0.538
78233	8.08	0.318	3.81	0.150	14.43	0.568

68000 - 1XXHLF  
 68001 - 1XXHLF  
 68002 - 1XXHLF  
 XX = 04, 06, 08, 10, 12, 16, 20

67996 - 1XXHLF  
 67997 - 1XXHLF  
 68602 - 1XXHLF  
 XX = 04, 06, 08, 10, 12, 16, 20

## PRODUCT



Dimension : mm (inch)

## TECHNICAL DATA

### PHYSICAL

- Housing: High temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT or tin over 1.27 µm (50 µ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 5000 MΩ min.
- Dielectric withstanding voltage: 1500 V

### MECHANICAL PERFORMANCE

- Pin retention to housing: 9 N min.



### OPERATING TEMPERATURE RANGE

- -65°C to +125°C

### PACKAGING

- Standard: Bags
- Optional: Tubes or Tape-and-reel with pick-up cap (SMT pin style 01 only)

### REFERENCE INFORMATION

-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-114
- Tape and Reel packaging data: TA-840

### PROCESSING INFORMATION

- Compatible with wave, vapor-phase, and (for SMT) IR reflow soldering processes
- Recommended IR profile TA 842 for SMT

### RoHs INFORMATION

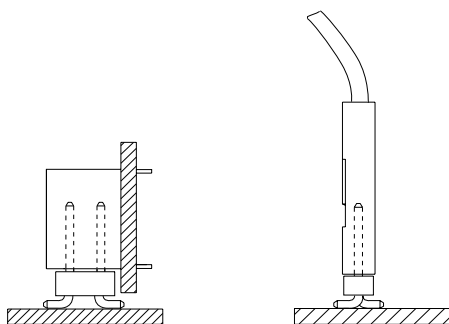
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

■ Dubox™ Crimp-to-wire contacts	30
■ Dubox™ Crimp-to-wire housings	32
■ Dubox™ Vertical receptacles	20
■ Dubox™ Low profile vertical receptacles	22, 24
■ Dubox™ Horizontal receptacles	26
■ Quickie™ IDC receptacles	46
■ PV™ Crimp-to-Wire Contacts	36
■ PV™ Crimp-to-Wire Housings	38

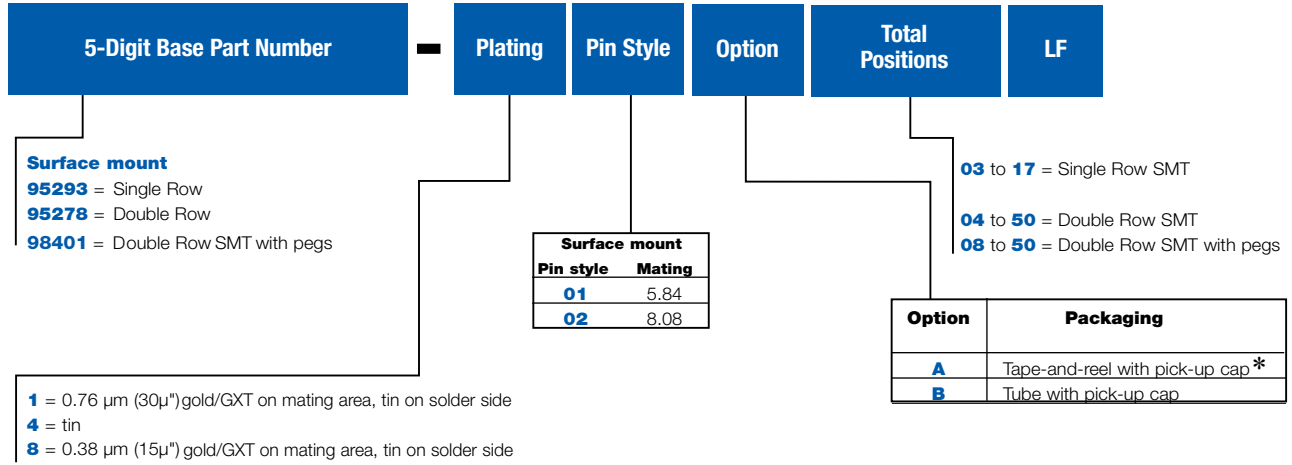
## TYPICAL APPLICATIONS



# BergStik® Unshrouded Header, Vertical, Surface Mount

2.54 mm (.100")

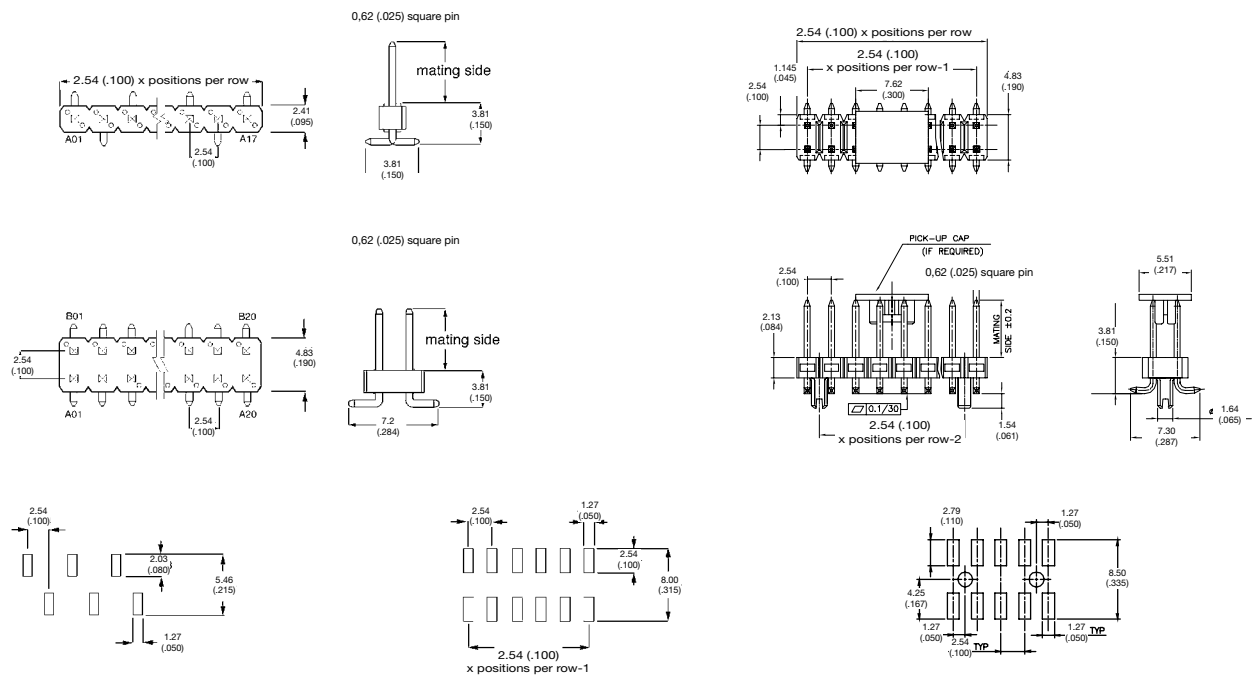
## PART NUMBERS



**95278 - 101 A XXLF**  
XX = 04, 06, 08, 10, 12, 16, 20

\*as available

## PRODUCT



Dimension : mm (inch)

Recommended PCB layouts

## FEATURES

- Continuously molded and reeled
- High temperature plastic
- Various lengths cut from 1 part number
- Benchtop machine cuts, polarizes, and applies retentive leg

## TECHNICAL DATA

### PHYSICAL

- Housing: High temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT or tin over 1.27  $\mu\text{m}$  (50  $\mu\text{in}$ ) nickel



### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 5000 M $\Omega$  min.
- Dielectric withstanding voltage: 1500 V

### MECHANICAL PERFORMANCE

- Pin retention to housing: 9 N min.

### OPERATING TEMPERATURE RANGE

- 65°C to +125°C

### PACKAGING

- Reel

### REFERENCE INFORMATION

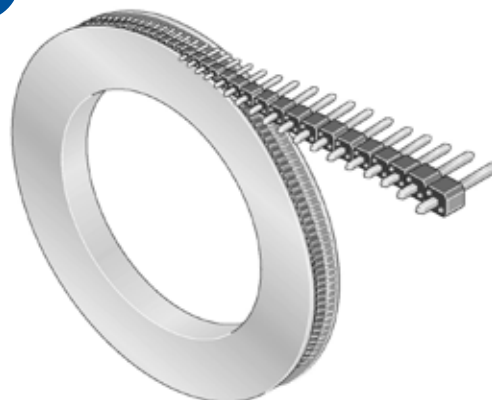
- File no. E66906
- File no. LR46923
- Product drawing: 54101 or 54102
- Product specification: BUS-12-059

### PROCESSING INFORMATION

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

### RoHs INFORMATION

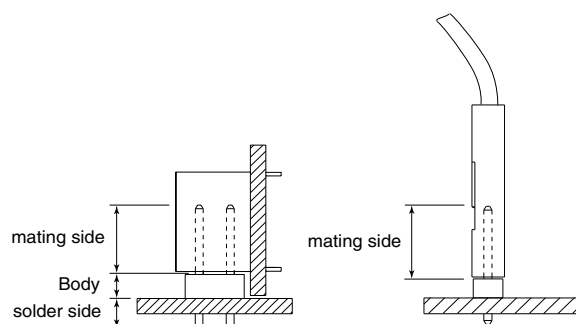
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

Dubox™ Crimp-to-wire contacts	30
Dubox™ Crimp-to-wire housings	32
Dubox™ Vertical receptacles	20
Dubox™ Low profile vertical receptacles	22, 24
Dubox™ Horizontal receptacles	26
Quickie™ IDC receptacles	46
PV™ Crimp-to-Wire Contacts	36
PV™ Crimp-to-Wire Housings	38

## TYPICAL APPLICATIONS



# BergStrip® Unshrouded Header, Continuous

2.54 mm (.100")

## PART NUMBERS



- 1 = 0.76µm (30µ") gold /GXT
- 2 = 0.38µm (15µ") gold / GXT
- 4 = tin

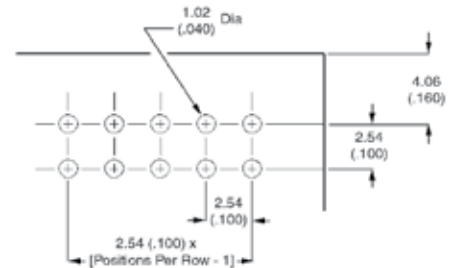
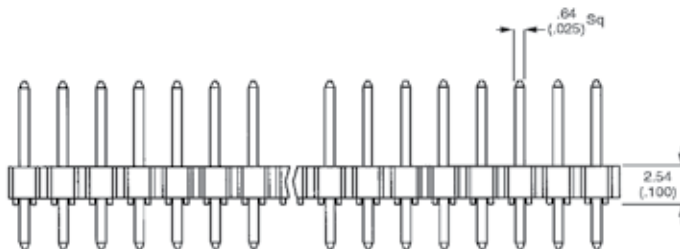
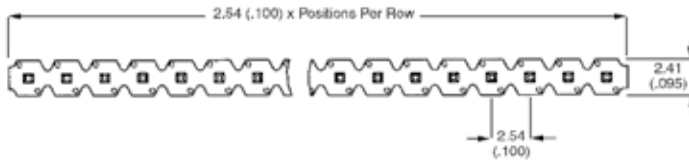
### Single Row

Base PN	mating side		solder side		OAL	
	mm	(in.)	mm	(in.)	mm	(in.)
<b>68000</b>	5.84	0.230	2.41	0.095	10.80	0.425
<b>68001</b>	5.84	0.230	3.05	0.120	11.43	0.450
<b>68002</b>	5.84	0.230	3.81	0.150	12.19	0.480

### Double Row

Base PN	mating side		solder side		OAL	
	mm	(in.)	mm	(in.)	mm	(in.)
<b>67996</b>	5.84	0.230	2.41	0.095	10.80	0.425
<b>67997</b>	5.84	0.230	3.05	0.120	11.43	0.450
<b>68602</b>	5.84	0.230	3.81	0.150	12.19	0.480

## PRODUCT



Recommended PCB layouts

Dimension : mm (inch)

2.54 mm (.100")

### FEATURES

- High temperature plastic
- Selective plating

### TECHNICAL DATA

#### PHYSICAL

- Housing: High temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT or tin over 1.27 μm (50 μ") nickel



#### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 5000 MΩ min.
- Dielectric withstanding voltage: 1500 V

#### MECHANICAL PERFORMANCE

- Pin retention to housing: 8.8 N min.
- Retentive leg insertion force: >44.48 N max.
- Retentive leg board retention: 2.22 N

#### OPERATING TEMPERATURE RANGE

- 65°C to +125°C

#### PACKAGING

- Bags

#### REFERENCE INFORMATION

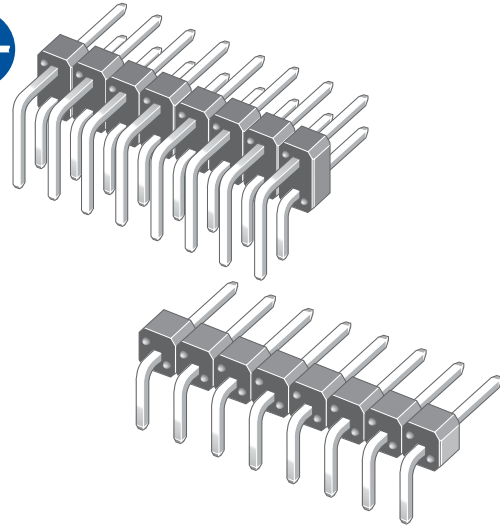
- File no. E66906
- File no. LR46923
- Product drawing: 55101 or 55102
- Product specification: BUS-12-114

#### PROCESSING INFORMATION

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

#### RoHs INFORMATION

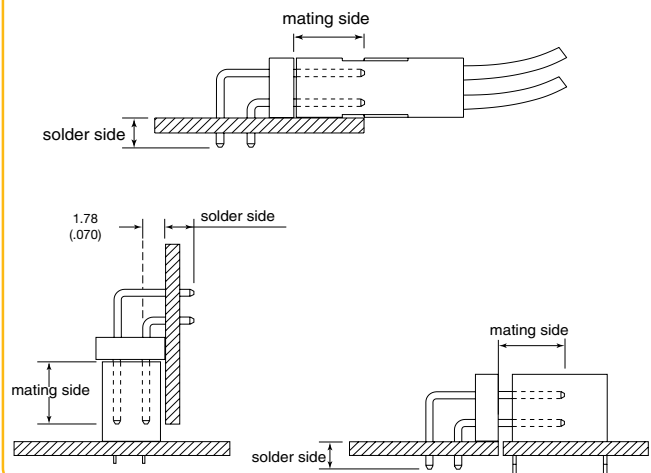
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



### MATING DATA

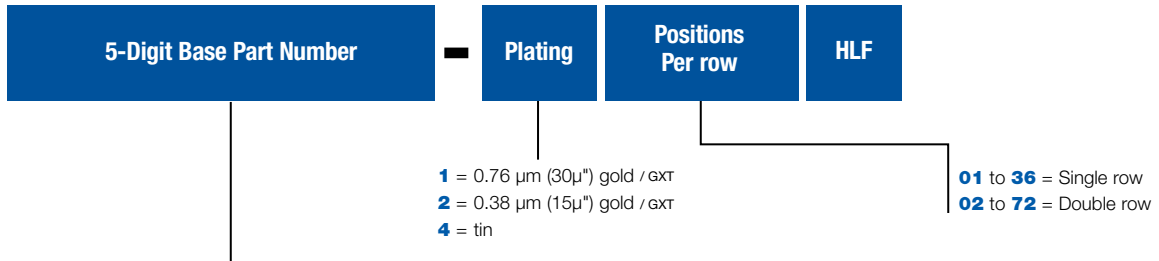
■ Dubox™ Crimp-to-wire contacts	30
■ Dubox™ Crimp-to-wire housings	32
■ Dubox™ Vertical receptacles	20
■ Dubox™ Low profile vertical receptacles	22, 24
■ Dubox™ Horizontal receptacles	26
■ Quickie™ IDC receptacles	46
■ PV™ Crimp-to-Wire Contacts	36
■ PV™ Crimp-to-Wire Housings	38

### TYPICAL APPLICATIONS



# BergStik® Unshrouded Header, Right Angle, Standard Sizes

## PART NUMBERS



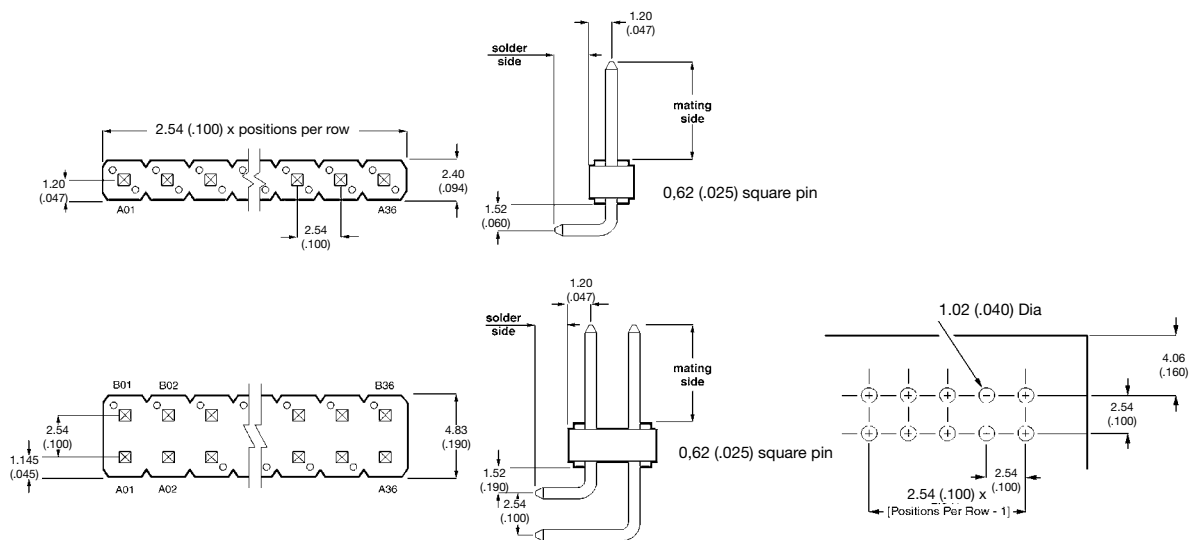
### Single Row

Base PN	mating side		solder side	
	mm	(in.)	mm	(in.)
<b>68015</b>	5.84	0.230	2.41	0.095
<b>68016</b>	5.84	0.230	3.05	0.120

### Double Row

Base PN	mating side		solder side	
	mm	(in.)	mm	(in.)
<b>68020</b>	5.84	0.230	2.41	0.095
<b>68021</b>	5.84	0.230	3.05	0.120

## PRODUCT



Dimension : mm (inch)

## FEATURES

- Wide variety of stack heights in 0.5 mm increments
- High temperature plastic
- Selective plating

## TECHNICAL DATA

### PHYSICAL

- Housing: High temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT or tin over 1.27 μm (50 μ") nickel



### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 5000 MΩ min.
- Dielectric withstanding voltage: 1500 V

### MECHANICAL PERFORMANCE

- Pin retention to housing: 9 N min.

### OPERATING TEMPERATURE RANGE

- 65°C to +125°C

### PACKAGING

- Bags

### REFERENCE INFORMATION

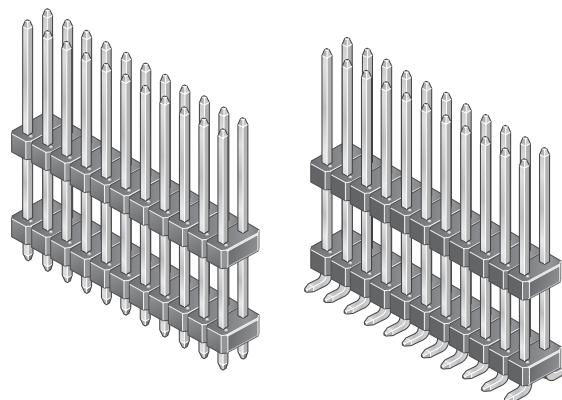
- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-114

### PROCESSING INFORMATION

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

### RoHs INFORMATION

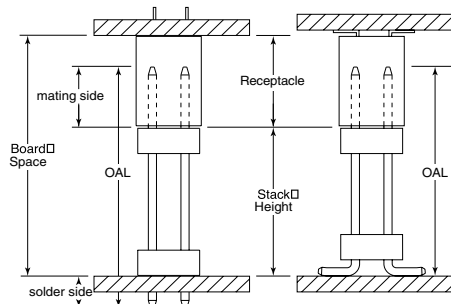
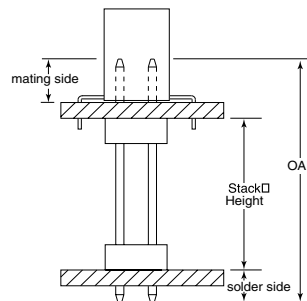
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

- Dubox™ Vertical receptacles 20
- Dubox™ Low profile vertical receptacles 22, 24

## TYPICAL APPLICATIONS





# BergStik® Unshrouded Header, Stacking

## PART NUMBERS

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

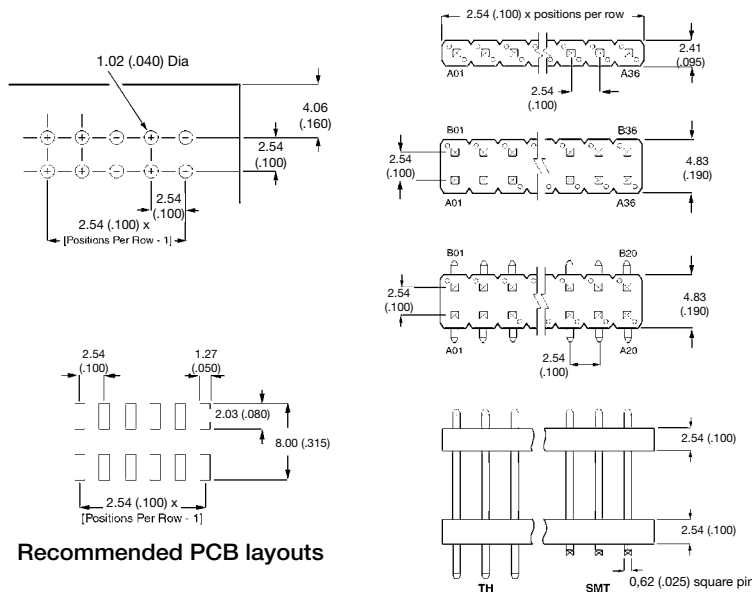
5	4	Lead	Solder Side Option	Row Option	Plating	Pin Style	Total Positions	Stack Height	LF
	<p><b>1</b> = Through Hole (TMT) <b>2</b> = Surface Mount (SMT)</p> <p><b>1</b> = 2.41 mm <b>2</b> = 3.05 mm <b>4</b> = SMT (double row only)</p>			<p><b>1</b> = Single Row (TMT only) <b>2</b> = Double Row</p>			<p><b>02</b> to <b>36</b> single row (TMT) <b>04</b> to <b>72</b> double row (TMT) <b>04</b> to <b>50</b> double row (SMT)</p>		
									<p><b>XX.XX</b> = mm Specify mm i.e. 08.50 = 8.50 mm in 0.50 mm increments <b>TMT</b> = 08.00 min. - 25.00 max. <b>SMT</b> = 09.50 min. - 26.00 max.</p>

Pin Styl	Overall length (TMT)	Overall length (SMT)
<b>01</b>	12.20 (.480)	10.42 (.410)
<b>02</b>	13.50 (.531)	11.72 (.461)
<b>03</b>	15.90 (.626)	14.12 (.556)
<b>04</b>	16.76 (.660)	14.98 (.590)
<b>05</b>	17.65 (.695)	15.87 (.525)
<b>06</b>	18.91 (.744)	17.13 (.674)
<b>07</b>	20.96 (.825)	19.18 (.755)
<b>08</b>	23.50 (.925)	21.72 (.855)
<b>09</b>	26.04 (1.025)	24.26 (.955)
<b>10</b>	28.58 (1.125)	26.80 (1.055)
<b>11</b>	31.12 (1.225)	29.34 (1.155)
<b>12</b>	33.66 (1.325)	31.88 (1.255)

**1** = 0.76 μm (30μ") gold/GXT on mating area, tin on solder side  
**8** = 0.38 μm (15μ") gold/GXT on mating area, tin on solder side

## PRODUCT



### The board spacing

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

Dimension : mm (inch)

## FEATURES

- Dual-beam contacts for added reliability
- Slotted cutout in low profile housing simplifies electrical testing
- Side-by-side and end-to-end stackable

## TECHNICAL DATA

### PHYSICAL

- Housing: thermoplastic  
69145 color black  
68786 and 63429 color white
- Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze
- Plating: Gold/GXT or tin over 1.27  $\mu\text{m}$  (50  $\mu\text{m}$ ) nickel



low profile only

### ELECTRICAL PERFORMANCE

- Current rating: 2.5 A max. per contact
  - Insulation resistance: 50,000  $\text{M}\Omega$  min.
  - Contact resistance: 15  $\text{M}\Omega$  max. initial, 20  $\text{M}\Omega$  max. after environmental tests
- Dielectric withstanding voltage: 800 V

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 50-Gold, 25-Tin.
- Insertion force: 450 gf max. per gold contact  
500 gf max. per tin-lead contact
- Withdrawal force: 30 gf min. per gold contact  
30 gf min. per tin-lead contact.

### OPERATING TEMPERATURE RANGE

- -65°C to +125°C

### PACKAGING

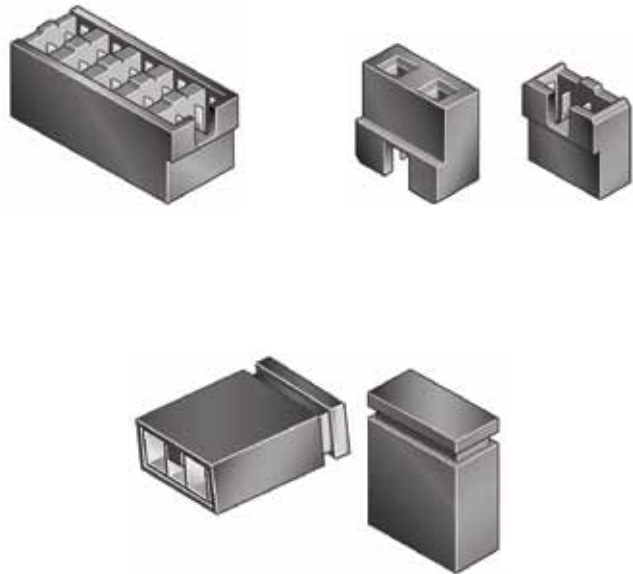
- Plastic bags

### REFERENCE INFORMATION

- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-071-gold  
BUS-12-070-tin

### RoHS INFORMATION

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



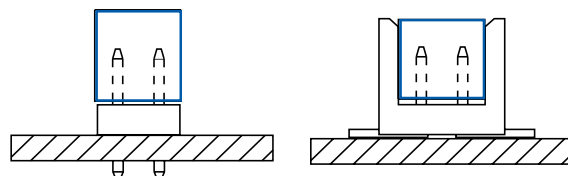
## MATING DATA

- Continuous unshrouded headers 12
- Unshrouded vertical headers 8, 10
- Unshrouded right angle headers 14, 16

## INSERTION DEPTH

- 4.85 mm (.191") min.  
[provides 3.81 mm (.015") wipe] - Low profile

## TYPICAL APPLICATIONS



# SHUNTS

## PART NUMBERS

### Low profile



2 = 0.76  $\mu$ m (30 $\mu$ " ) gold / ext  
3 = tin

### Standard



2 = 0.76  $\mu$ m (30 $\mu$ " ) gold / GXT  
3 = tin

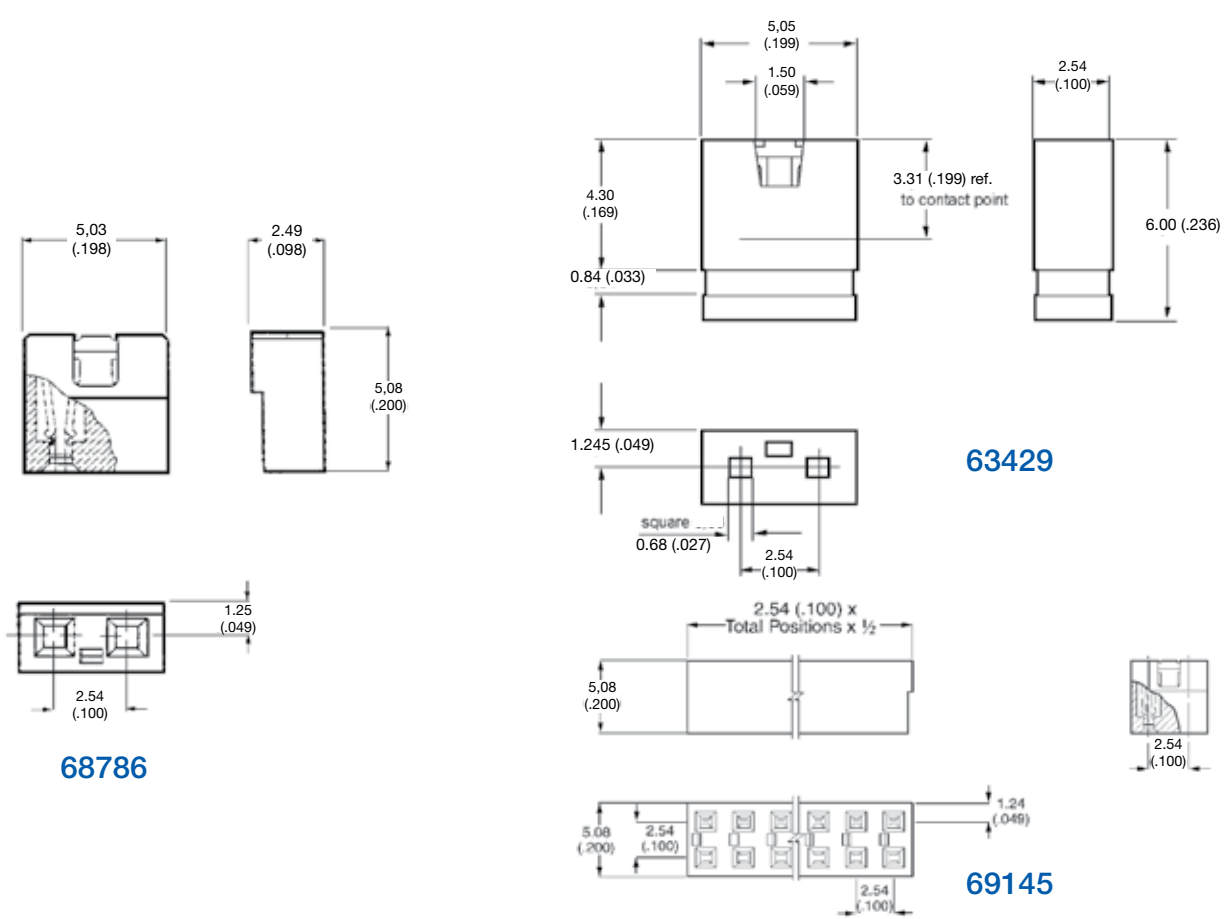
### Multi-position



2 = 0.76  $\mu$ m (30 $\mu$ " ) gold / ext | 4 to 20 positions  
3 = tin



## PRODUCT



Dimension : mm (inch)

## FEATURES

- The Dubox™ contact has a pre-stressed, dual beam design to enable low insertion force
- 4-wall contact design for signal protection

## TECHNICAL DATA

### PHYSICAL

- Housing: Glass filled thermoplastic polyester, blue
- Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze
- Plating: Gold/GXT or tin in accordance with IEC 603-81

### ELECTRICAL PERFORMANCE

- Current rating: 3 A dc max. per individual contact  
2 A dc max. per contact for fully energized connector
- Insulation resistance:  $1 \times 10^5 \text{ M}\Omega$  min.
- Contact resistance: 15  $\text{M}\Omega$  max. initial,  
20  $\text{M}\Omega$  max. after environmental tests
- Dielectric withstanding voltage: 1000 V rms

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 200
- Insertion force per gold contact: 1.50 N (150 gf) max.
- Withdrawal force per gold contact: 0.30 N (30 gf) min.

### OPERATING TEMPERATURE RANGE

- -65°C to +125°C



### PACKAGING

- Plastic boxes or tubes

### PROCESSING INFORMATION

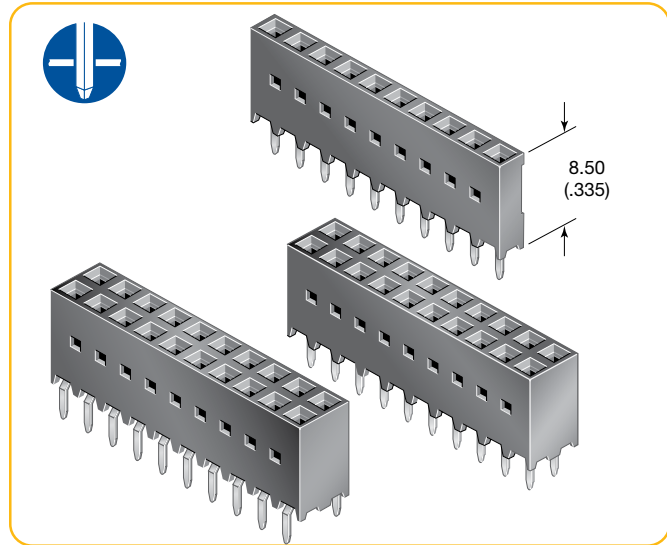
- Compatible with wave soldering processes

### REFERENCE INFORMATION

-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: HE 13/14 and IEC 603-8

### RoHs INFORMATION

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



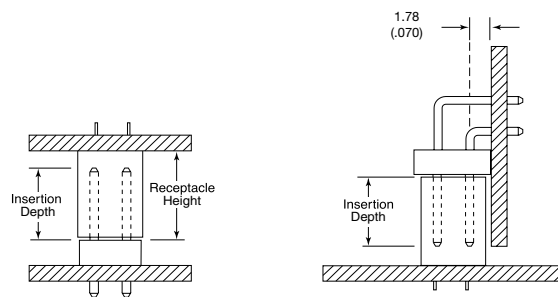
## MATING DATA

- BergStik® Unshrouded vertical headers 8, 10
- BergStik® Unshrouded right angle headers 14
- BergStik® Unshrouded stacking headers 16
- BergStik® continuous Unshrouded headers 12

## INSERTION DEPTH

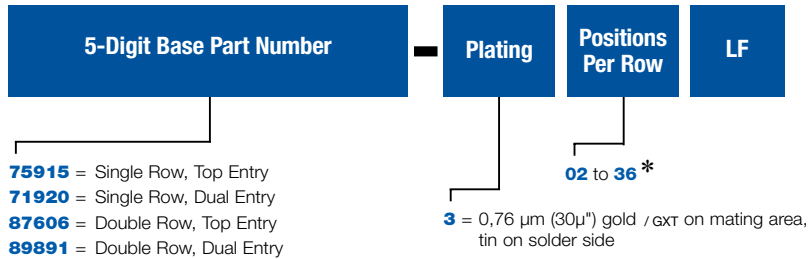
- Top Entry: 3.6 mm min. to 6.81 mm max.  
[provides .381 mm wipe]
- Bottom Entry: 7 mm min.  
[provides .381 mm wipe] plus board thickness

## TYPICAL APPLICATIONS



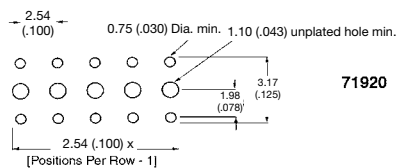
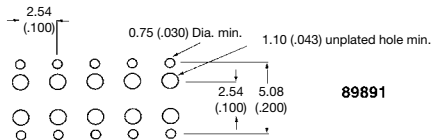
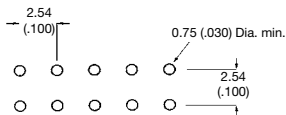
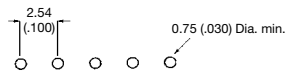
# Dubox™ Vertical Receptacles

## PART NUMBERS

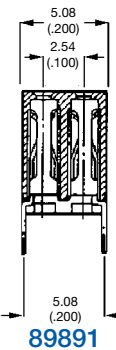
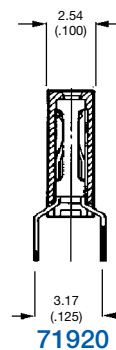
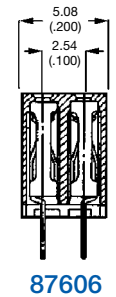
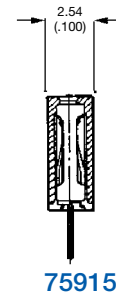
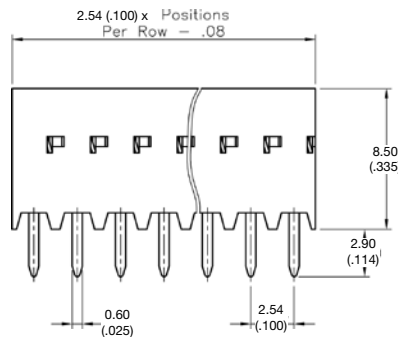


\*Other sizes available on request

## PRODUCT



### Recommended PCB layouts



Dimension : mm (inch)

2.54 mm (.100")

## FEATURES

- The Dubox™ contact has a pre-stressed, dual beam design to enable low insertion force
- 4-wall contact design for signal protection

## TECHNICAL DATA

### PHYSICAL

- Housing: Glass filled thermoplastic polyester, blue
- Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze
- Plating: Gold/GXT or tin over 1.27 μm (50 μ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 3 A dc max. per individual contact  
2 A dc max. per contact for fully energized connector
- Insulation resistance: 1x 10<sup>5</sup> MΩ min.
- Contact resistance: 15 MΩ max. initial,  
20 MΩ max. after environmental tests
- Dielectric withstanding voltage: 1000 V rms

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 200
- Insertion force per gold contact: 1.50 N (150 gf) max.
- Withdrawal force per gold contact: 0.30 N (30 gf) min.

### OPERATING TEMPERATURE RANGE

- -65°C to +125°C



### PACKAGING

- Plastic boxes or tubes

### PROCESSING INFORMATION

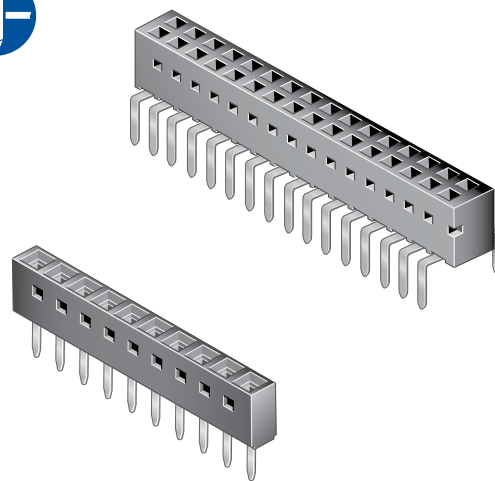
- Compatible with wave soldering processes

### REFERENCE INFORMATION

-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-055

### RoHs INFORMATION

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



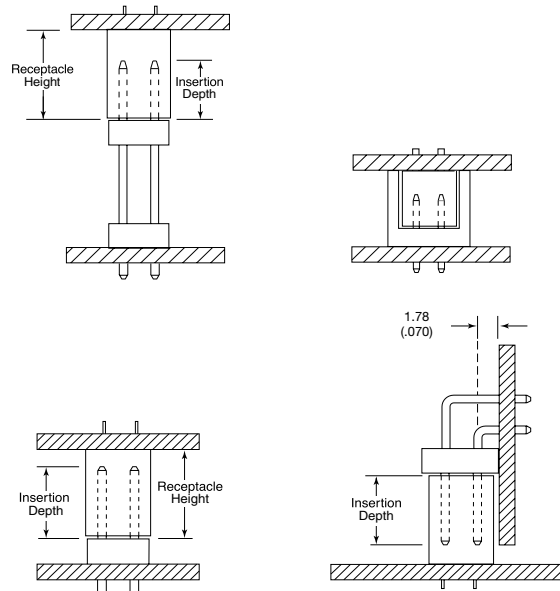
## MATING DATA

- BergStik® Unshrouded vertical headers 8, 10
- BergStik® Unshrouded right angle headers 14,
- BergStik® Unshrouded stacking headers 16
- BergStik® continuous Unshrouded headers 12

## INSERTION DEPTH

- Top Entry: 3.6 mm min. to 6.7 mm max.  
[provides .381 mm wipe]
- Bottom Entry: 6 mm min.  
[provides .381 mm wipe] plus board thickness

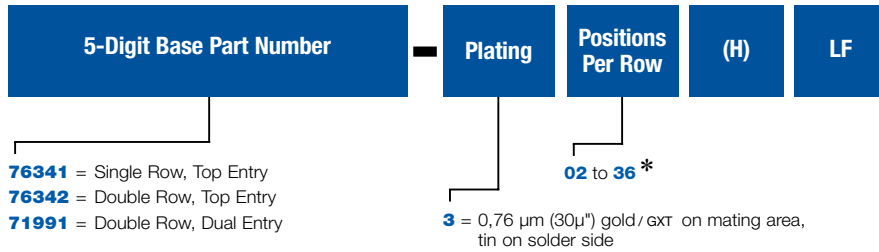
## TYPICAL APPLICATIONS



# Dubox™ Vertical Receptacles, Low Profile

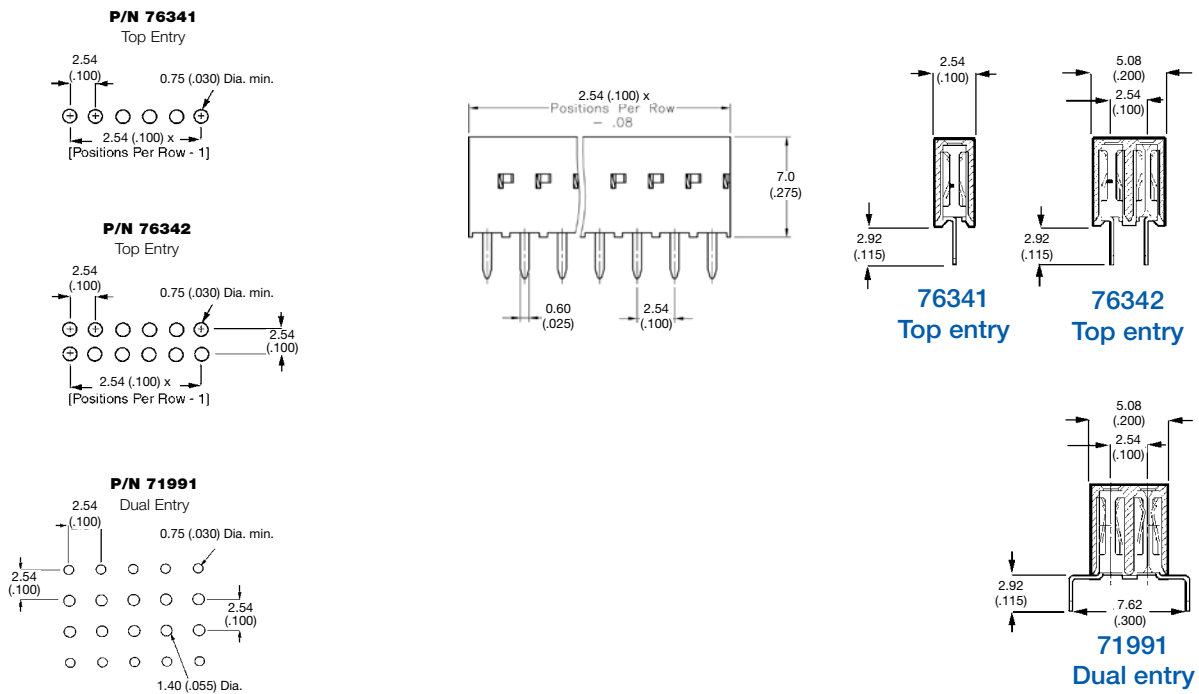
2.54 mm (.100")

## PART NUMBERS



\*Other sizes available on request

## PRODUCT



### Recommended PCB layouts

Dimension : mm (inch)

2.54 mm (.100")

## FEATURES

- The Dubox™ contact has a pre-stressed, dual beam design to enable low insertion force
- 4-wall contact design for signal protection

## TECHNICAL DATA

### PHYSICAL

- Housing: High temperature body, grey
- Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze
- Plating: Gold/GXT or tin over 1.27 µm (50 µ") nickel



### ELECTRICAL PERFORMANCE

- Current rating: 3 A dc max. per individual contact  
2 A dc max. per contact for fully energized connector
- Insulation resistance: 1x 10<sup>5</sup> MΩ min.
- Contact resistance: 15 MΩ max. initial,  
20 MΩ max. after environmental tests
- Dielectric withstanding voltage: 1000 V rms

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 200
- Insertion force per gold contact: 1.50 N (150 gf) max.
- Withdrawal force per gold contact: 0.30 N (30 gf) min.

### OPERATING TEMPERATURE RANGE

- -65°C to +125°C

### PACKAGING

- Plastic boxes or tubes
- Tape and reel as available

### PROCESSING INFORMATION

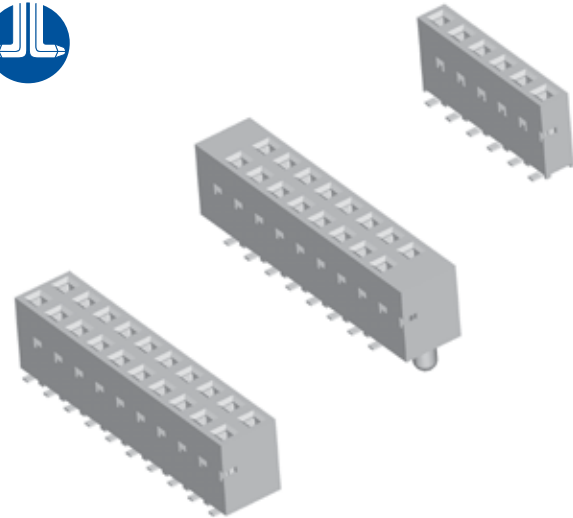
- Compatible with vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-055

### RoHs INFORMATION

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



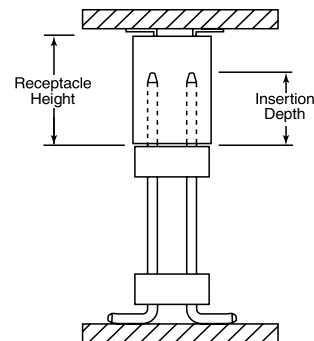
## MATING DATA

- BergStik® Unshrouded vertical headers 8, 10
- BergStik® Unshrouded right angle headers 14
- BergStik® Unshrouded stacking headers 16
- BergStik® continuous Unshrouded headers 12

## INSERTION DEPTH

- Top Entry: 3.6 mm min. to 6.7 mm max.  
[provides .381 mm wipe]
- Bottom Entry: 6 mm min.  
[provides .381 mm wipe] plus board thickness

## TYPICAL APPLICATIONS





# Dubox™ Vertical Receptacles, Low Profile

## PART NUMBERS

5-Digit Base Part Number	Plating	Positions Per Row	Option	LF
<b>91601</b> = Single Row, Dual Entry <b>91614</b> = Single Row with external Locating Pegs, Dual Entry <b>89898</b> = Double Row, Dual Entry <b>91615</b> = Double Row with External Locating Pegs, Dual Entry <b>91618</b> = Double Row with Internal Locating Pegs, Dual Entry			- = standard-tubes A = Tape-and-Reel packaging with pick-up cap *  02 to 25 Single Row 02 to 25 Double Row  3 = 0,76 µm (30µ") gold/GXT on mating area, tin on solder side	

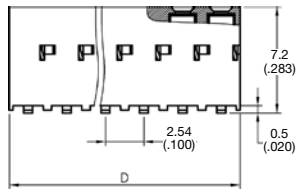
**89898 - 3XXALF** **CORE RANGE**

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

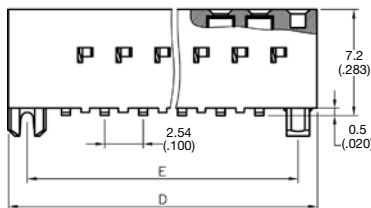
\* as available

## PRODUCT

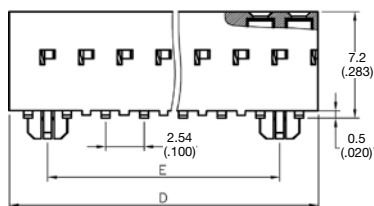
### Standard



### External Locating Pegs

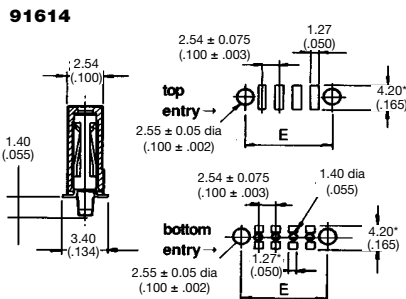
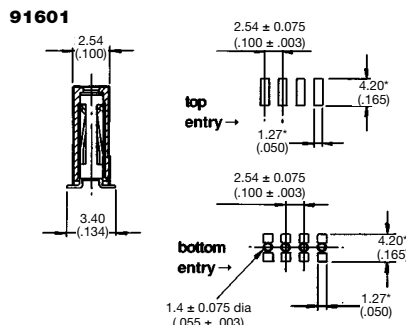


### Internal Locating Pegs



Dimension : mm (inch)

### Single Row + Pad lay-outs

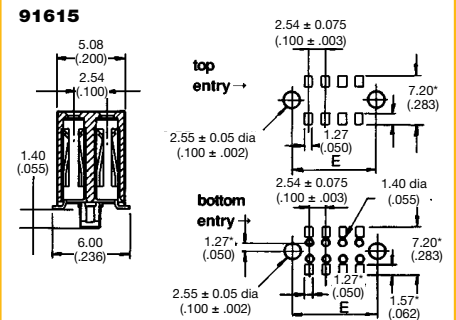
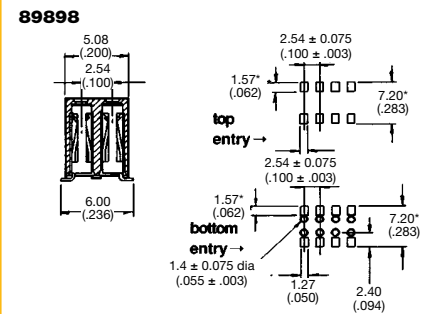


\*Note: available as of 3 position versions

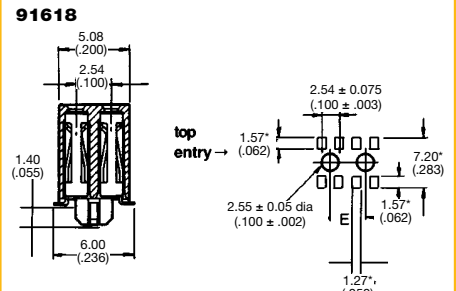
not available in single row

**Note:**  
All dimensions marked with \* are minimum dimensions

### Double Row + Pad lay-outs



\*Note: available as of 3 position versions



\*Note: available as of 6 number of positions

## FEATURES

- The Dubox™ contact has a pre-stressed, dual beam design to enable low insertion force
- Floating solder tails self-center on circuit pads and assure coplanarity
- 4-wall contact design for signal protection

## TECHNICAL DATA

### PHYSICAL

- Housing: Blue thermoplastic - Through hole  
High temp. grey thermoplastic - Surface mount
- Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze
- Plating: Gold/GXT or tin over 1.27 µm (50 µ") nickel



### ELECTRICAL PERFORMANCE

- Current rating: 3 A dc max. per individual contact  
2 A dc max. per contact for fully energized connector
- Insulation resistance:  $1 \times 10^5$  MΩ min.
- Contact resistance: 15 MΩ max. initial,  
20 MΩ max. after environmental tests
- Dielectric withstanding voltage: 1000 V rms

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 200
- Insertion force per gold contact: 1.50 N (150 gf) max.
- Withdrawal force per gold contact: 0.30 N (30 gf) min.

### OPERATING TEMPERATURE RANGE

- -65°C to +125°C

### PACKAGING

- Standard: Tubes
- Optional: Tape-and-reel

### PROCESSING INFORMATION

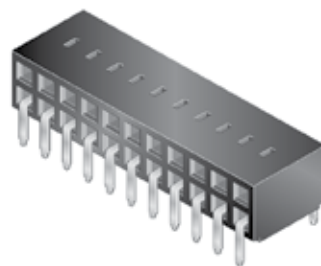
- Series 89882, 89883: compatible with wave soldering processes
- Series 71607, 71609: compatible with vapor-phase and IR reflow soldering processes

### REFERENCE INFORMATION

- File no. E66906
- File no. LR46923
- Product drawing: 71607, 71609, 89882, 89883
- Product specification: HE 13/14 and IEC 603-8
- Application specification: TA-842 for SMT
- Tape and Reel packaging data : TA-856

### RoHs INFORMATION

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



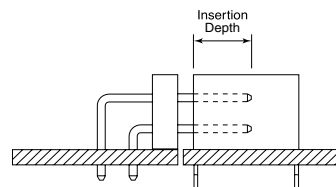
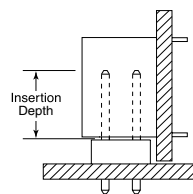
## MATING DATA

- BergStik® Unshrouded vertical headers 8, 10
- BergStik® Unshrouded right angle headers 14
- BergStik® continuous Unshrouded headers 12

## INSERTION DEPTH

- 3.6 mm min. to 7.50 mm max.  
[provides .381 mm wipe]

## TYPICAL APPLICATIONS



# Dubox™ Horizontal Receptacles

## PART NUMBERS

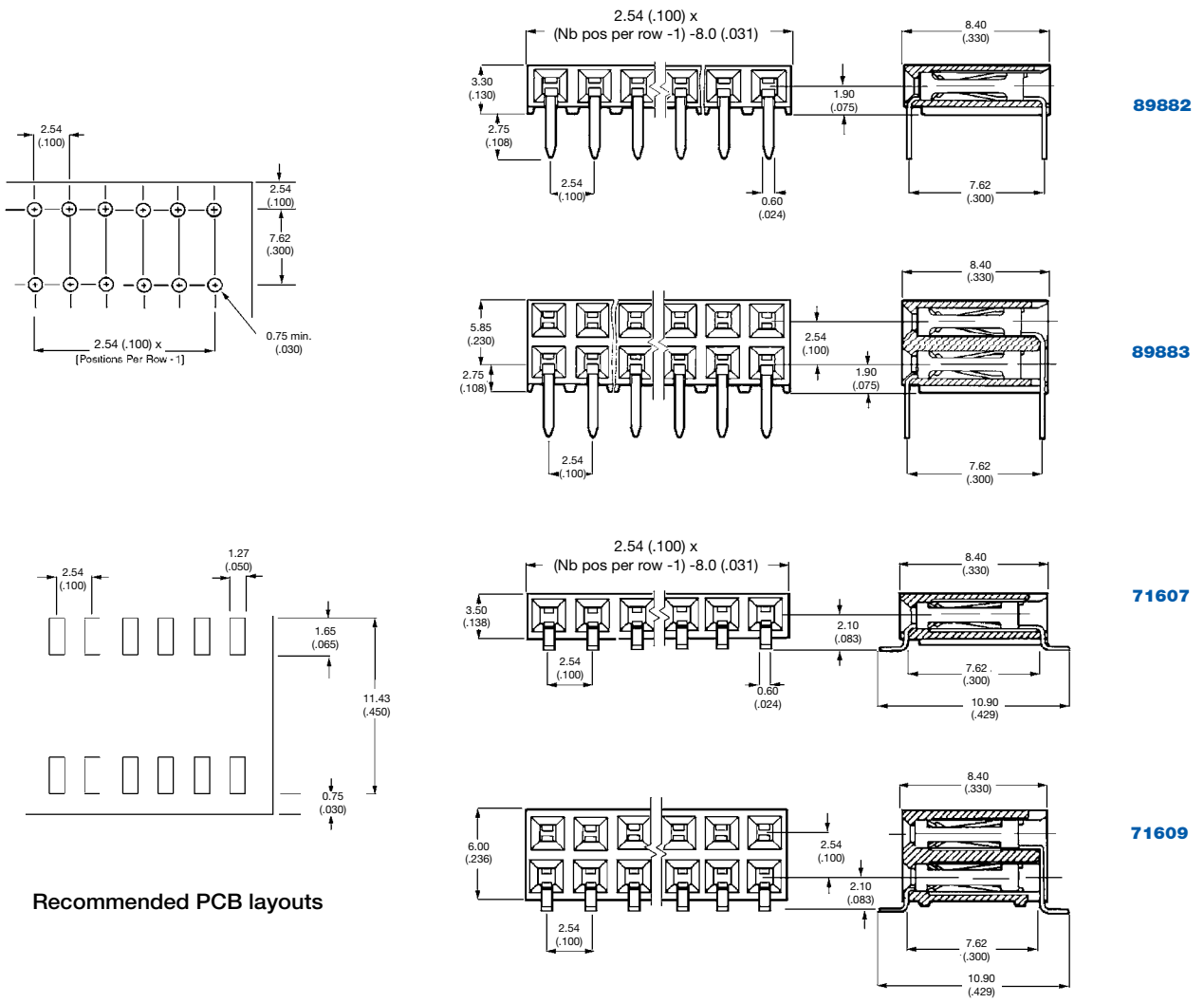


- 89882** = Through Hole (TMT), Single Row
- 89883** = Through Hole (TMT), Double Row
- 71607** = Surface Mount (SMT), Single Row
- 71609** = Surface Mount (SMT), Double Row

- 02 to 36** (TMT)
- 02 to 25** (SMT)

**3** = 0,76 µm (30µ") gold/GXT on mating area, tin on solder side

## PRODUCT



Recommended PCB layouts

Dimension : mm (inch)

## FEATURES

- For use with Dubox™ crimp-to-wire housings
- Stackable end-to-end
- Passive latching, anti-reverse and anti-miss-match when used with Dubox™ crimp-to-wire housings
- Selective plating

## TECHNICAL DATA

### PHYSICAL

- Housing: Glass filled thermoplastic polyester
- Housing color for series 76382, 76383: blue
- Housing color for series 76384, 76385: black
- Flammability rating: UL 94 V-0
- Contact: copper Alloy
- Plating: Gold/GXT or tin over 1.27 μm (50μ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 1 x 10<sup>5</sup> MΩ min.
- Dielectric withstanding voltage: 1000 V rms

### MECHANICAL PERFORMANCE

- Contact retention to housing: 20 N min.

### OPERATING TEMPERATURE RANGE

- -40°C to +125°C



### PACKAGING

- 1x2 to 1x6 and 2x2 to 2x6: plastic bags
- Other in tube

### PROCESSING INFORMATION

- Compatible with wave soldering processes

### REFERENCE INFORMATION

-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Application specification: TA-531

### RoHs INFORMATION

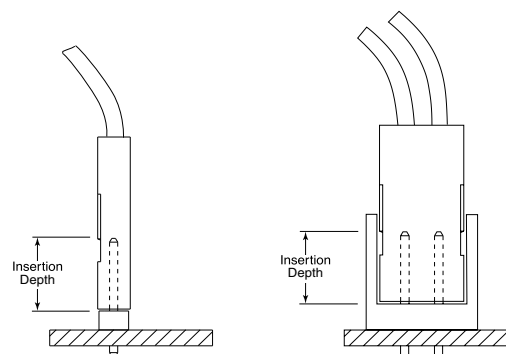
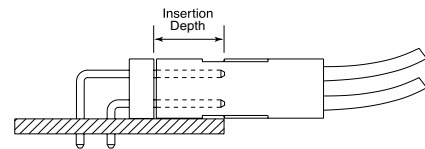
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

- Dubox™ Crimp-to-wire contacts 30
- Dubox™ Crimp-to-wire housings 32

## TYPICAL APPLICATIONS



# Dubox™ Shrouded Headers

## PART NUMBERS



- 76384** = Single row, straight
- 76382** = Single row, right angle
- 76385** = Double row, straight
- 76383** = Double row, right angle

02 up to 18

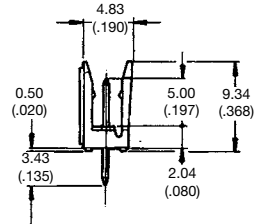
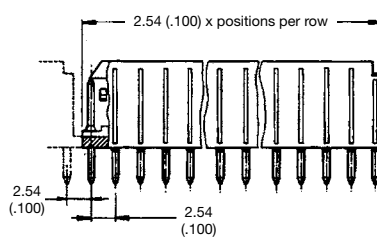
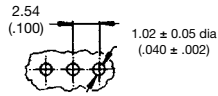
**3** = 0.76 μm (30μ") gold/GXT on mating area, tin on solder side  
**4** = tin

**76384** - **3XXLF** **CORE RANGE**  
**76385** - **3XXLF**

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

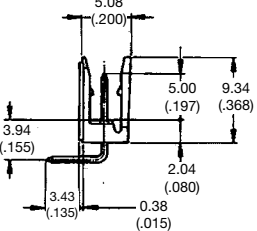
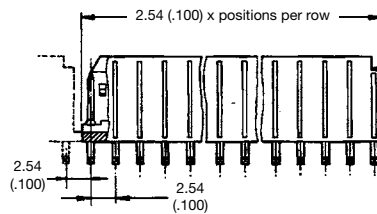
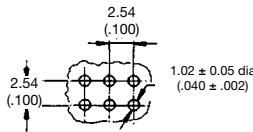
## PRODUCT

Recommended PCB layouts

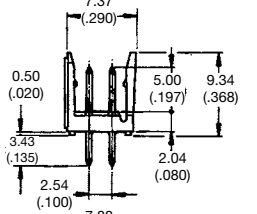
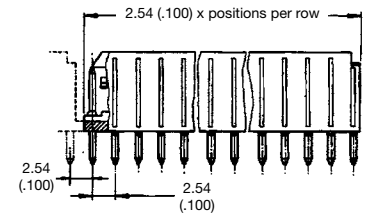


**76384**

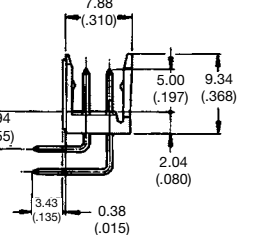
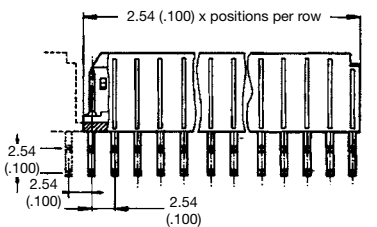
Recommended PCB layouts



**76382**



**76385**



**76383**

Dimension : mm (inch)

## FEATURES

- The Dubox™ contact has a pre-stressed, dual beam design to enable low insertion force.
- Mates with very short pins (5 mm)
- Universal crimp barrel accomodates wires from AWG 22-30
- Selective plating

## TECHNICAL DATA

### PHYSICAL

- Contact: phosphor bronze
- Plating: 0.76 µm (30µ") Gold/GXT over 1.27 µm (50 µ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Contact resistance after environmental test: 15Ω m max. – Contact
- Dielectric withstanding voltage: 1000 V rms

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 200 – Gold
- Insertion force gold finish contact: 1.3 N
- Withdrawal force (min) gold finish contact: 0.3 N.
- contact retention force to housing: 15 N per contact.



### OPERATING TEMPERATURE RANGE

- -65°C to +125°C

### PACKAGING

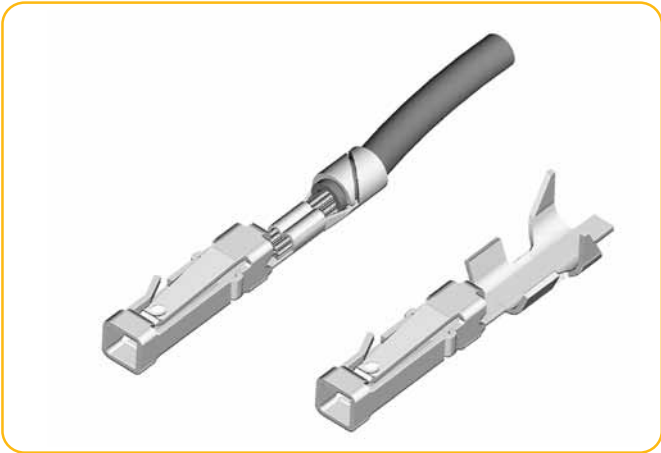
- 1 Reels
- Boxes - Loose piece

### REFERENCE INFORMATION

-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-055
- Application specification: TA-317, TA-340

### RoHS INFORMATION

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



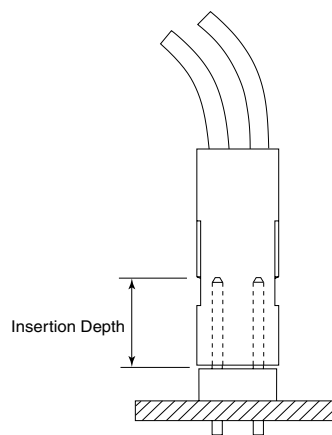
## MATING DATA

- BergStik® unshrouded straight headers 8, 10
- BergStik® unshrouded right angle headers 14
- Dubox™ shrouded vert./ra. headers 28
- BergStik® continuous unshrouded headers 12

## INSERTION DEPTH

- Discrete Wire: 3.6 mm min. to 5.6 mm max. [provides .381 mm wipe]
- Crimp-to-Wire Housing: 5.1 mm min. to 6.2 mm max. [provides .381 mm wipe in housing]

## TYPICAL APPLICATIONS



# Dubox™ Crimp-to-Wire Contacts

## PART NUMBERS

### Part numbers / Contacts on Reel

Wire size	insulation O.D.	Selective Gold Plated	Tin plated	Packaging
<b>22-30</b>	0.90 - 1.50 (.035 - .059)	<b>76347-301LF</b>	<b>76347-401LF</b>	15.000/reel
<b>22-30</b>	0.90 - 1.50 (.035 - .059)	<b>76347-302 LF•</b>	<b>76347-402LF•</b>	15.000/reel
<b>22-30</b>	0.90 - 1.50 (.035 - .059)	<b>76347-303 LF</b>	<b>76347-403LF</b>	500/reel
<b>20-22</b>	1.10 - 1.60 (.043 - .062)	<b>76347-311LF</b>	<b>76347-411LF</b>	15.000/reel
<b>20-22</b>	1.10 - 1.60 (.043 - .062)	<b>76347-312 LF•</b>	<b>76347-412LF•</b>	15.000/reel

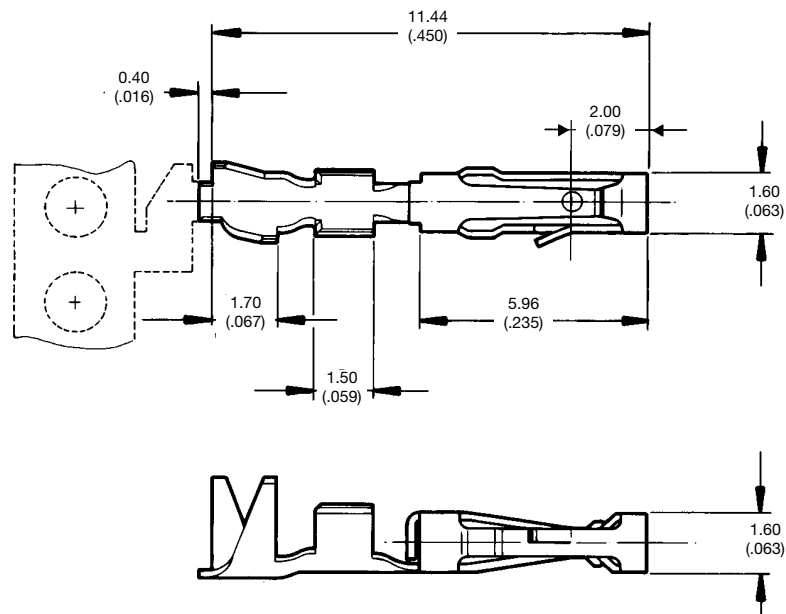
### Part numbers / Contacts loose Piece

Wire size	insulation O.D.	Selective Gold Plated	Tin plated	Packaging
<b>22-30</b>	0.90 - 1.50 (.035 - .059)	<b>76357-301LF</b>	<b>76357-401LF</b>	1000/box

Notes: • = reeled for application machine with left-to-right feeding



## PRODUCT



**Contacts to be used with housing** = 65239-xxx / 65240-xxx

**Wire strip length** = 3.00 ± 0.25 (.118 ± .010)

**Mating pin size** = 0.62 (.024) square

**Mating pin recommended length** = 5.00 (.197) min.

Dimension : mm (inch)

2.54 mm (.100")

## FEATURES

- For use with Dubox™ crimp-to-wire contacts
- Stackable end-to-end
- Passive latching, anti-reverse and anti-miss-match when used with Dubox™ shrouded headers
- Contacts removable for easy repairability

## TECHNICAL DATA

### PHYSICAL

- Housing: Glass filled thermoplastic polyester
- Housing color blue
- Flammability rating: UL 94 V-0

### ELECTRICAL PERFORMANCE

- Insulation resistance:  $1 \times 10^5 \text{ M}\Omega$  min.
- Dielectric withstanding voltage: 1000 V rms

### OPERATING TEMPERATURE RANGE

- -65°C to +125°C



### PACKAGING

- Bulk

### PROCESSING INFORMATION

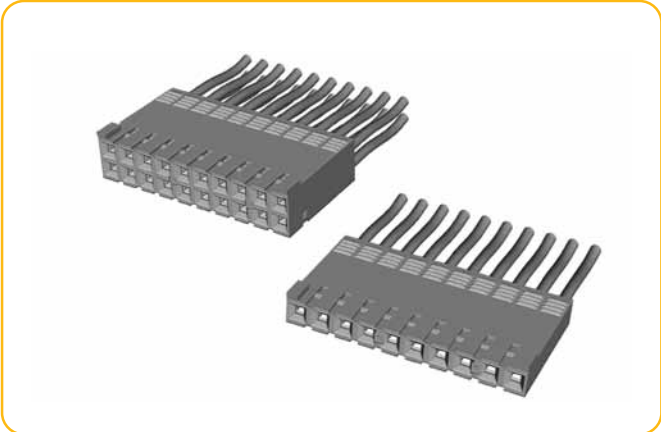
- Compatible with wave soldering processes

### REFERENCE INFORMATION

-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Application specification: TA-317, TA-340

### RoHS INFORMATION

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



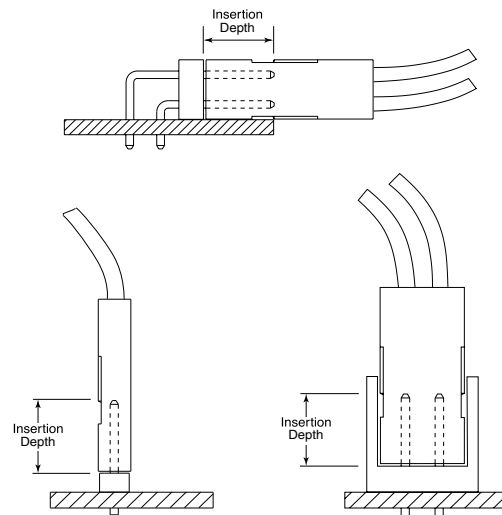
## MATING DATA

- BergStik® unshrouded straight headers 8, 10
- BergStik® unshrouded right angle headers 14
- Dubox™ shrouded vert./ra. headers 28

## INSERTION DEPTH

- 3.6 mm min. to 6.0 mm max.

## TYPICAL APPLICATIONS

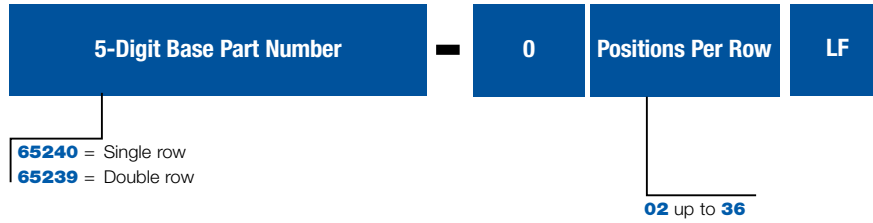




# Dubox™ Crimp-to-Wire Housings

2.54 mm (.100")

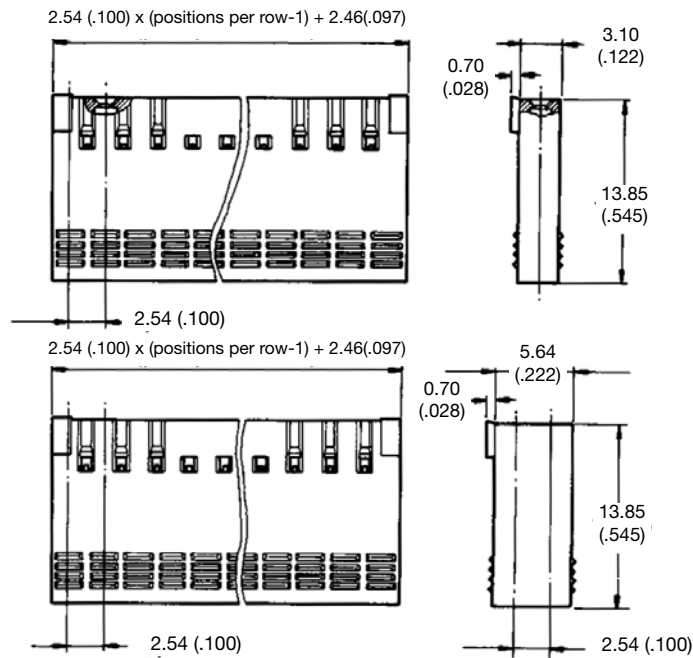
## PART NUMBERS



**65239 - 0XXLF** **CORE RANGE**  
XX = 02, 03, 04, 05, 06, 08, 10

**65240 - 0XXLF**  
XX = 04, 06, 08, 10, 12, 16, 20

## PRODUCT



- ▲ Pin size: 0.62 (.024) square
- ▲ Recommended pin length: 5.00 (.197) min.

Dimension : mm (inch)

## FEATURES

- Housing uses our high reliability contact
- High temperature headers
- Passive latching system

## TECHNICAL DATA

### PHYSICAL

- Housing: Black thermoplastic
- Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze
- Plating: Gold/GXT or tin-lead over 1.27 µm (50 µ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 1x 10<sup>5</sup> MΩ min.
- Dielectric withstanding voltage: 1000 V rms

### MECHANICAL PERFORMANCE

- Contact retention to housing: 17.76 N min.

### OPERATING TEMPERATURE RANGE

- -40°C to +125°C



### PACKAGING

- Bags

### PROCESSING INFORMATION

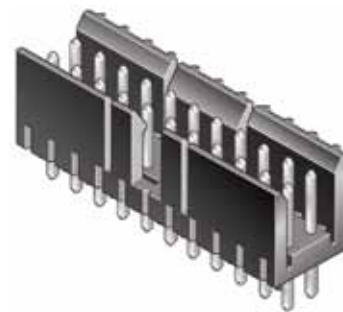
- Compatible with wave soldering processes

### REFERENCE INFORMATION

-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-067, BUS-12-075
- Application specification: TA-531

### RoHs INFORMATION

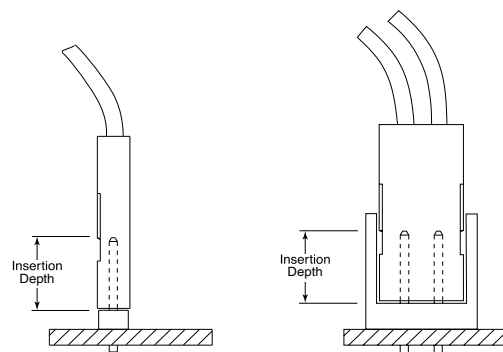
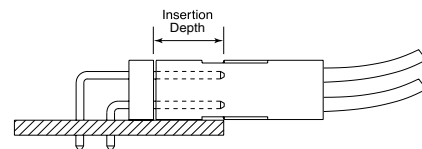
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

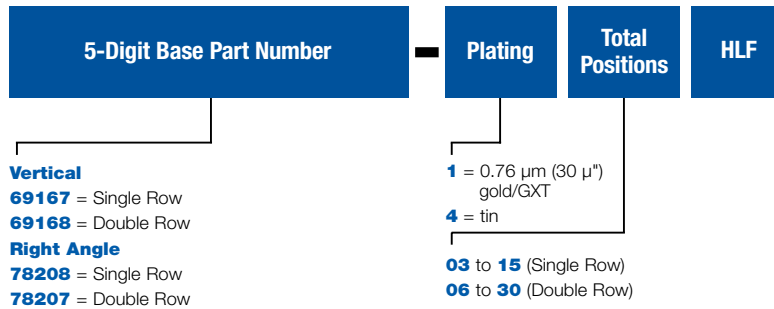
- PV™ Crimp-to-wire contacts 36
- PV™ Crimp-to-wire housings 38

## TYPICAL APPLICATIONS

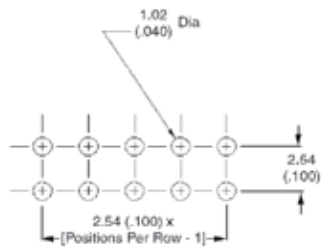


# PV™ Shrouded Headers

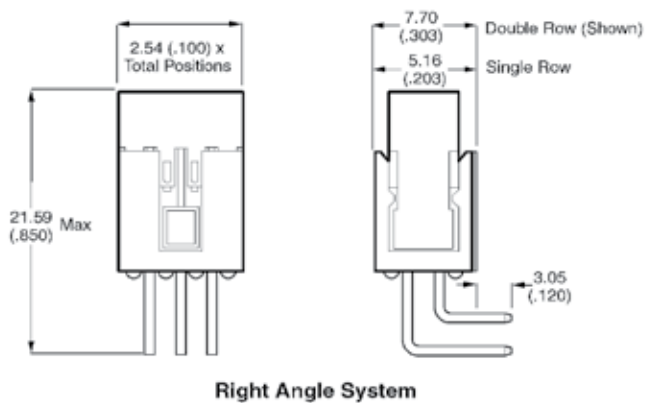
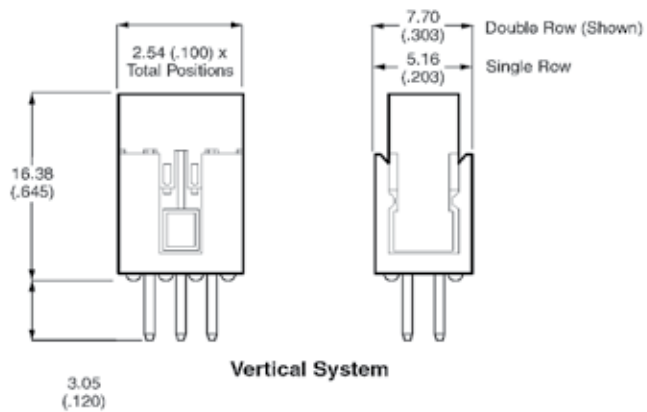
## PART NUMBERS



## PRODUCT



Recommended PCB layouts



Dimension : mm (inch)

2.54 mm (.100")

## FEATURES

- High reliability contacts for shock and vibration applications
- Three spring thickness options meet application specific insertion, withdrawal, and normal force requirements
- Leaf spring design provides constant retention force after repeated cycles

## TECHNICAL DATA

### PHYSICAL

- Contact: Brass body with beryllium-copper spring
- Pin: Brass
- Plating: Gold/GXT or tin over 1.27 µm (50 µ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous depending on wire size
- Insulation resistance: 5000 mΩ min.
- Contact resistance after environmental test: 15Ω m max. – Contact
- Dielectric withstanding voltage: 1000 V rms

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 1000 - Gold
- Insertion force per gold contact:
  - 2.35 N (240 gf) - Standard spring
  - 4.41 N (450 gf) - High spring
  - 10.79 N (1100 gf) - Ultra high spring

### OPERATING TEMPERATURE RANGE

- 65°C to +125°C

### PACKAGING

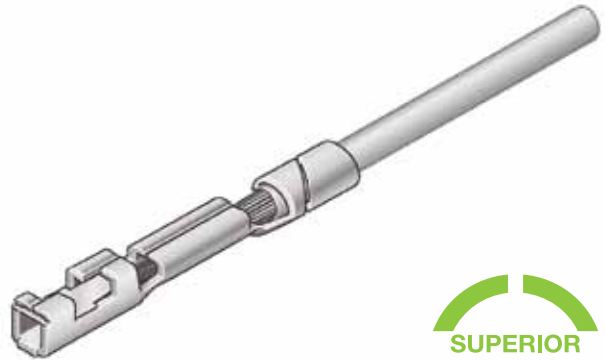
- 1 Reels
- Boxes - Loose piece

### REFERENCE INFORMATION

- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-067 Contact
- Application specification: TA-75, TA-146 - Contact, TA-295, TA-228 and TA-302

### RoHs INFORMATION

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



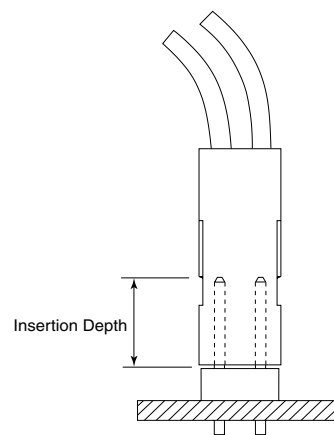
## MATING DATA

- Continuous unshrouded headers 12
- Unshrouded vertical headers 8, 10
- Unshrouded right angle headers 14

## INSERTION DEPTH

- Discrete Wire: 3.5 mm min. to 5.3 mm max. [provides .381 mm wipe]
- Crimp-to-Wire Housing: 4.2 mm min. to 5.3 mm max. [provides .381 mm (.015") wipe in housing]

## TYPICAL APPLICATIONS



# PV™ Crimp-to-Wire Contacts

## PART NUMBERS



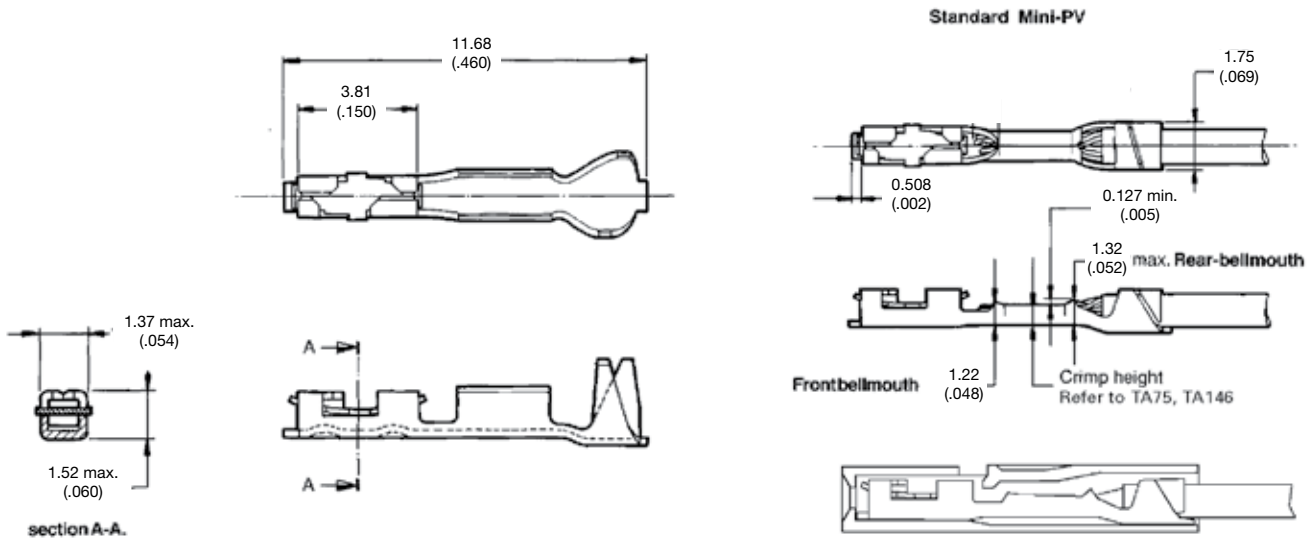
### HOW TO SELECT THE RIGHT CONTACT

- Step 1** Select Application
- Step 2** Select Spring Force
- Step 3** Select Wire Size

Application	Spring Force
<b>Housing</b>	
<b>40-72</b> Contacts Per Housing	Standard
<b>10-50</b> Contacts Per Housing	High
<b>2-20</b> Contacts Per Housing	Ultra High
<b>Discrete Contact</b>	Ultra High

Wire Size (AWG)	Application Spring Force	Part Number
<b>18, 20</b> or two <b>22</b> or two <b>24</b>	Standard	48276-002LF
	High	48047-002LF
	Ultra High	47566-002LF
<b>22, 24, 26</b> or two <b>26</b> or two <b>28</b>	Standard	47457-002LF
	High	47439-002LF
	Ultra High	47565-002LF
<b>28, 30, 32</b> or two <b>30</b> or two <b>32</b>	Standard	48048-002LF
	High	47437-002LF
	Ultra High	47564-002LF

## PRODUCT



Dimension : mm (inch)

## FEATURES

- Lowest profile housing in the industry
- Designed for use with our high reliability PV™ Contact

## TECHNICAL DATA

### PHYSICAL

- Housing: Black thermoplastic
- Flammability rating: UL 94 V-0

### ELECTRICAL PERFORMANCE

- Insulation resistance:  $1 \times 10^5$  M $\Omega$  min.
- Dielectric withstanding voltage: 1000 V rms

### MECHANICAL PERFORMANCE

- Contact retention to housing: 17.76 N min.

### OPERATING TEMPERATURE RANGE

- 40°C to +125°C

### PACKAGING

- Bags

### PROCESSING INFORMATION

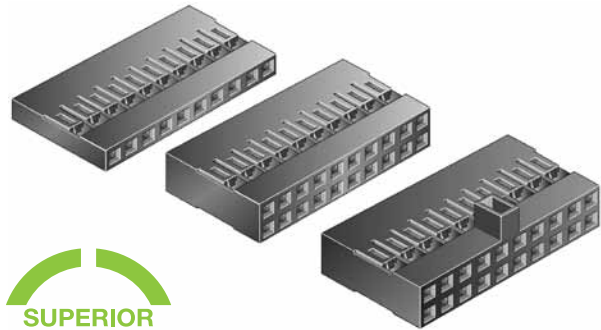
- Compatible with wave soldering processes

### REFERENCE INFORMATION

- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-067
- Application specification: TA-531

### RoHs INFORMATION

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



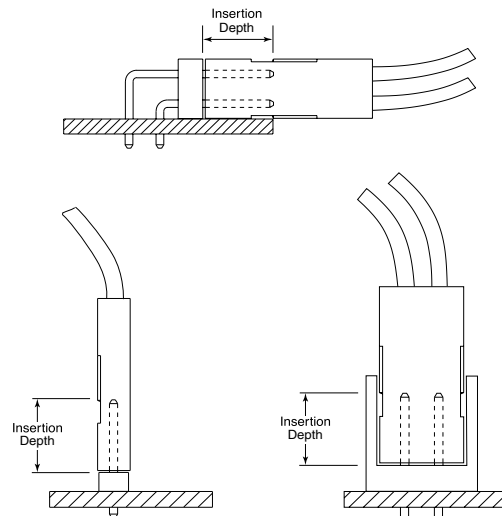
## MATING DATA

- |                                 |       |
|---------------------------------|-------|
| Continuous unshrouded headers   | 12    |
| Unshrouded vertical headers     | 8, 10 |
| Unshrouded right angle headers  | 14    |
| see previous page for terminals | 36    |

## INSERTION DEPTH

- 4.2 mm (.165") min. to 5.3 mm (.210") max.  
[provides .381 mm (.015") wipe in housing].

## TYPICAL APPLICATIONS



# PV™ Crimp-to-Wire Housing

## PART NUMBERS



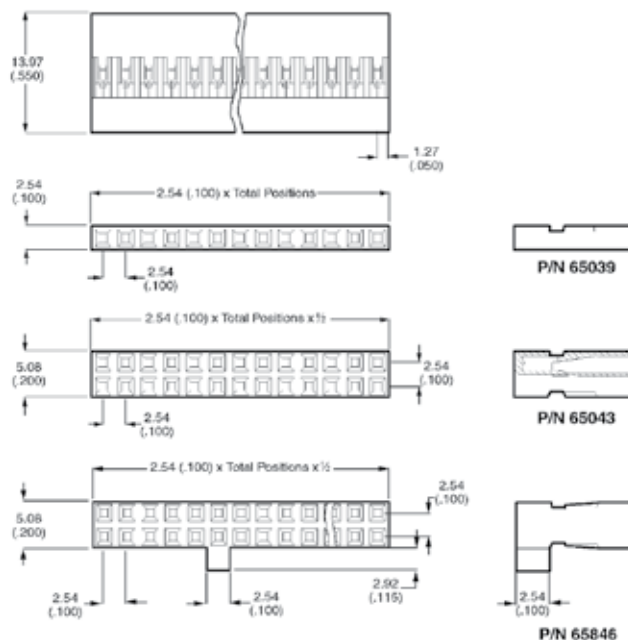
- 65039** = Single Row
- 65043** = Double Row
- 65846** = Double Row with Center Key

Total Positions	Single Row		Total Positions	Double Row	
	65039	78211		65043	65846
2	-035		4	-035	
3	-034	-003	6	-034	
4	-033	-004	8	-033	
5	-032	-005	10	-032	
6	-031	-006	12	-031	-017
7	-030	-007	14	-030	
8	-029	-008	16	-029	
9	-028	-009	18	-028	
10	-027	-010	20	-027	
11	-026	-011	22	-026	-018
12	-025	-012	24	-025	
13	-024	-013	26	-024	-019
14	-023	-014	28	-023	-020
15	-022	-015	30	-022	
16	-021		32	-021	-021
17	-020		34	-020	-022
18	-019		36	-019	-023
			38	-018	

Total Positions	Single Row		Total Positions	Double Row	
	65039	78211		65043	65846
19	-018		40	-017	-024
20	-017		42	-016	-025
21	-016		44	-015	-004
22	-015		46	-014	-026
23	-014		48	-013	-027
24	-013		50	-012	
25	-012		52	-011	-028
26	-011		54	-010	
27	-010		56	-009	-029
28	-009		58	-008	-030
29	-008		60	-007	-013
30	-007		62	-006	-031
31	-006		64	-005	-009
32	-005		66	-004	-032
33	-004		68	-003	-033
34	-003		70	-002	-034
35	-002		72	-001	-035
36	-001				

## PRODUCT



Dimension : mm (inch)

## FEATURES

- Recessed pins assure proper alignment and eliminate damage during mating
- End windows for latching with IDC receptacle

## TECHNICAL DATA

### PHYSICAL

- Housing: Glass filled, thermoplastic polyester, blue
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50μ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance:  $1 \times 10^5$  MΩ min.
- Dielectric withstanding voltage: 500 V rms min.

### MECHANICAL PERFORMANCE

- Pin retention to housing: 20 N min.

### OPERATING TEMPERATURE RANGE

- -65°C to +105°C



### PACKAGING

- Tubes

### PROCESSING INFORMATION

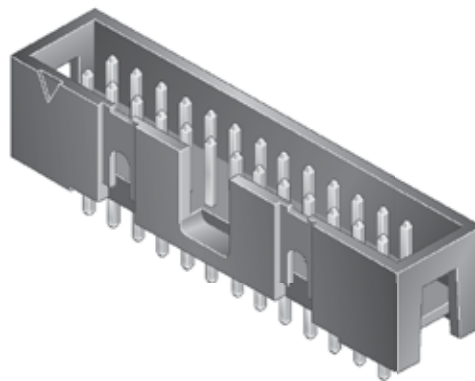
- Compatible with wave soldering processes

### REFERENCE INFORMATION

-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-082

### RoHs INFORMATION

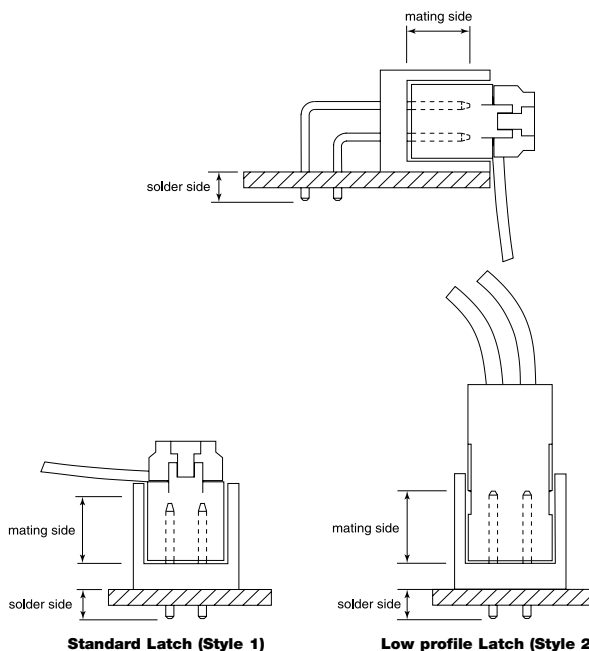
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

- Quickie™ IDC receptacles 46

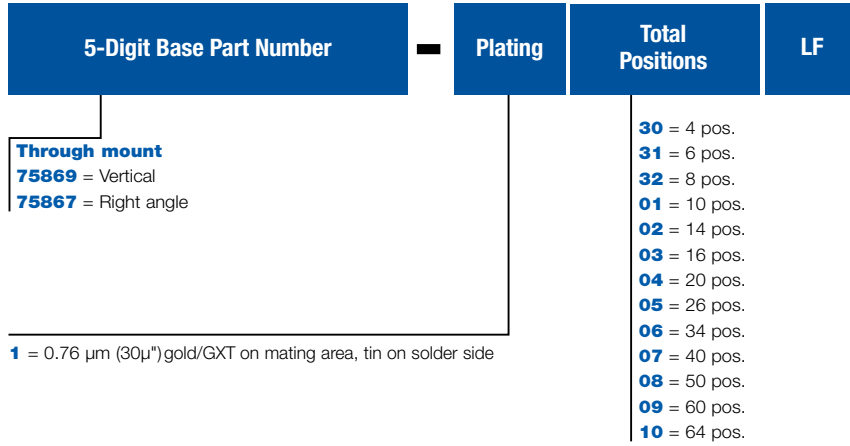
## TYPICAL APPLICATIONS





# Quickie™ Shrouded Headers, Low Profile

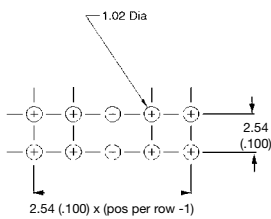
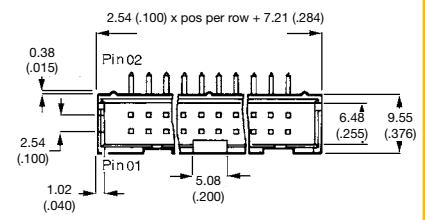
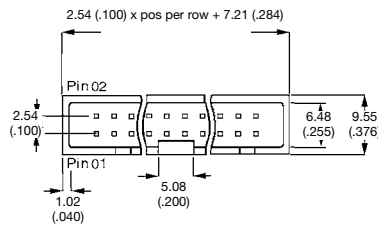
## PART NUMBERS



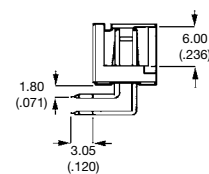
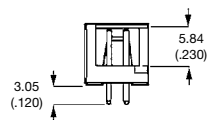
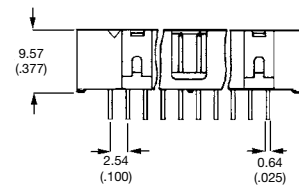
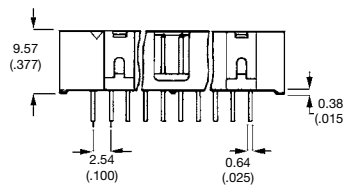
## PRODUCT

**Vertical**

**Right Angle**



**Recommended PCB layouts**



Dimension : mm (inch)

2.54 mm (.100")

## FEATURES

- High temperature housing
- Compatible with IR reflow soldering processes
- Tape-and-Reel packaging for automatic pick-and-place

## TECHNICAL DATA

### PHYSICAL

- Housing: Glass filled, high temperature thermoplastic polyester, black
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50μ") nickel



### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 1x 10<sup>5</sup> MΩ min.
- Dielectric withstanding voltage: 500 V rms min.

### MECHANICAL PERFORMANCE

- Pin retention to housing: 20 N min.

### OPERATING TEMPERATURE RANGE

- 65°C to +125°C

### PACKAGING

- SMT: Tape-and-reel with pick-up cap
- PiP, right angle: Tube without pick-up cap
- PiP, straight: Tape and reel

### PROCESSING INFORMATION

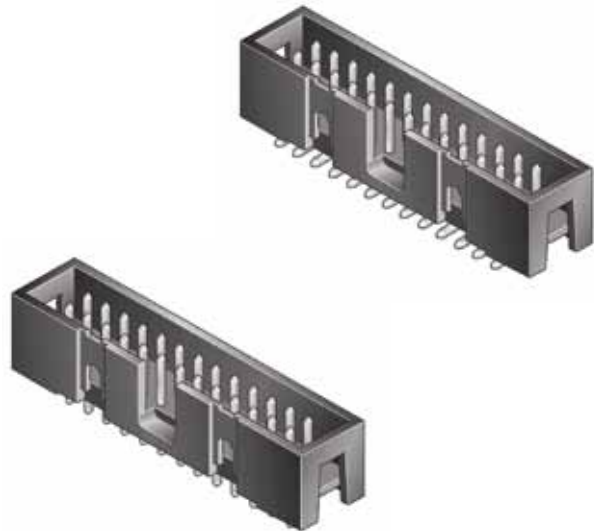
- Compatible with wave, vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-055

### RoHs INFORMATION

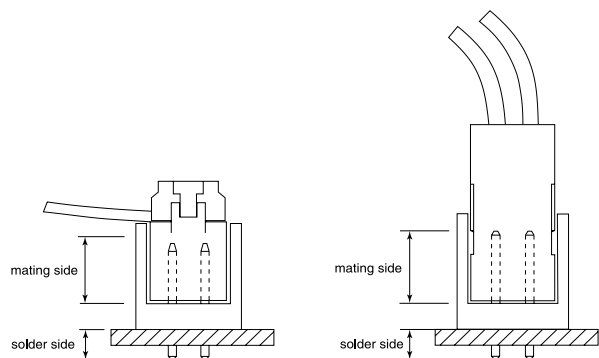
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

- Quickie™ IDC receptacles 46

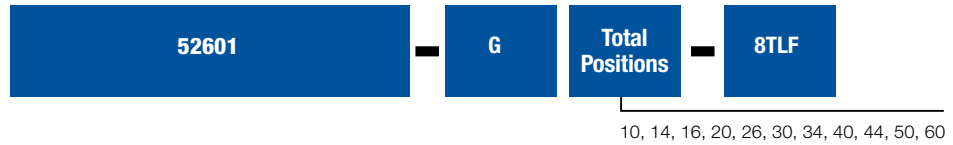
## TYPICAL APPLICATIONS



# Quickie™ Shrouded Headers, Low Profile, SMT, Pin-in-Paste

## PART NUMBERS

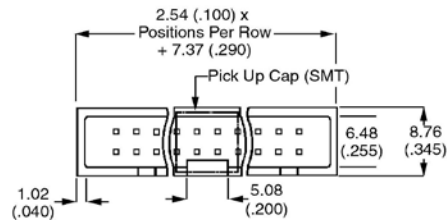
SMT (Surface Mount)



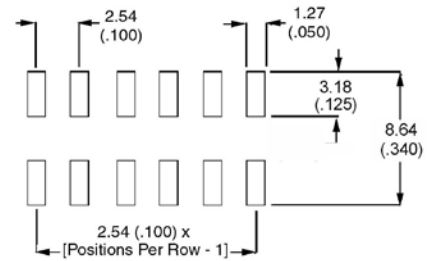
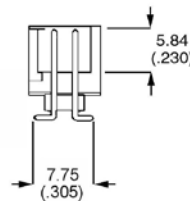
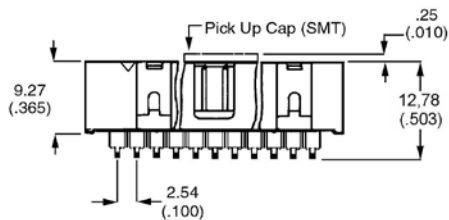
PiP (Pin-in-Paste)



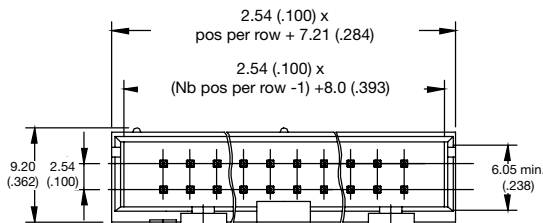
## PRODUCT



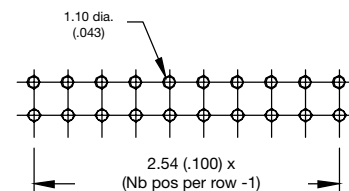
**52601**



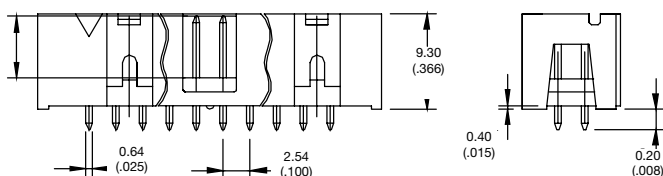
Recommended PCB layouts



**10056844**



Recommended PCB layouts



Dimension : mm (inch)

## FEATURES

- ▶ Selective plating
- ▶ Recessed pins assure proper alignment and eliminate damage during mating

## TECHNICAL DATA

### PHYSICAL

- ▶ Housing: Glass filled, high temperature thermoplastic polyester, grey
- ▶ Flammability rating: UL 94 V-0
- ▶ Pin: Phosphor-bronze
- ▶ Plating: Gold/GXT over 1.27 μm (50μ") nickel



### ELECTRICAL PERFORMANCE

- ▶ Current rating: 3 A continuous
- ▶ Insulation resistance: 1x 10<sup>5</sup> MΩ min.
- ▶ Dielectric withstanding voltage: 500 V rms min.

### MECHANICAL PERFORMANCE

- ▶ Pin retention to housing: 20 N min.

### OPERATING TEMPERATURE RANGE

- ▶ -65°C to +105°C

### PACKAGING

- ▶ Tubes

### PROCESSING INFORMATION

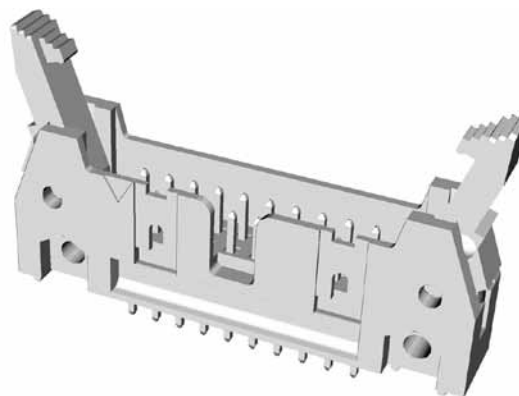
- ▶ Compatible with wave soldering processes

### REFERENCE INFORMATION

- ▶ File no. E66906
- ▶ File no. LR46923
- ▶ Product drawing: By 5-digit base part number
- ▶ Product specification: BUS-12-082

### RoHs INFORMATION

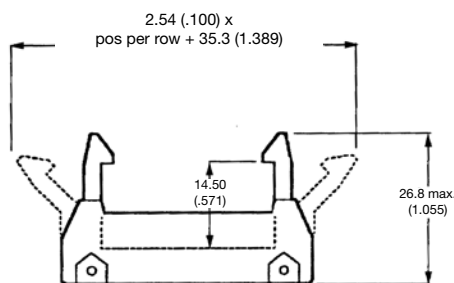
- ▶ This product is RoHs compatible according to the European Union Directive 2002/95/IEC



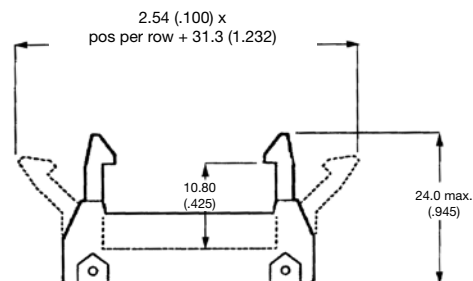
## MATING DATA

- ▶ Quickie™ IDC receptacles 46

## TYPICAL APPLICATIONS



Standard Latch (Style 1)



Low profile Latch (Style 2)

# Quickie™ Shrouded Headers, Eject Latch

## PART NUMBERS



**Through mount**

**71918** = Vertical

**71922** = Right angle

**Plating** = 0.76 μm (30μ") gold/GXT on mating area, tin on solder side

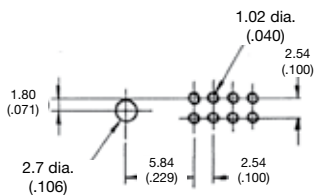
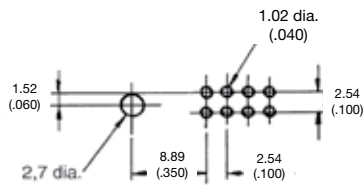
- 1** = Standard (mates with IDC Receptacle with Strain Relief)
- 2** = Low Profile (mates with IDC Receptacle without Strain Relief)

**06, 08, 10, 14, 16, 18, 20, 26, 30, 34, 40, 44, 50, 60, 64**

<b>71918</b>	-	<b>1XXLF</b>	
<b>71922</b>	-	<b>1XXLF</b>	

XX = 06, 08, 10, 16, 20

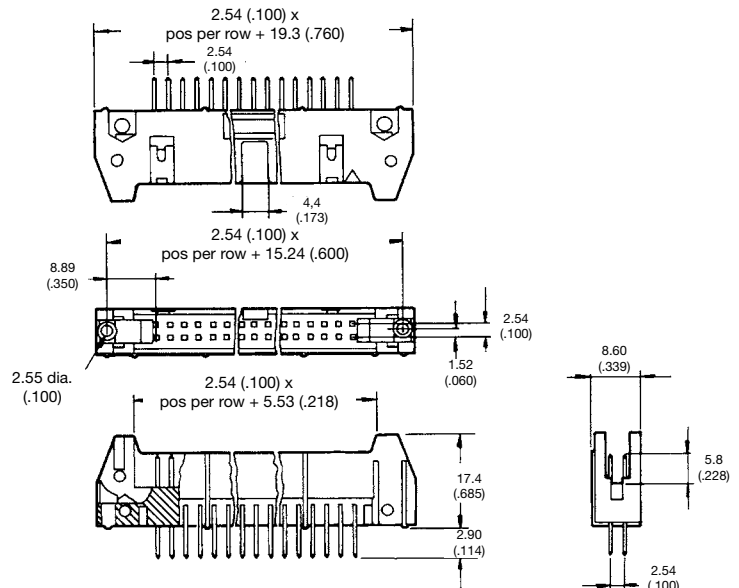
## PRODUCT



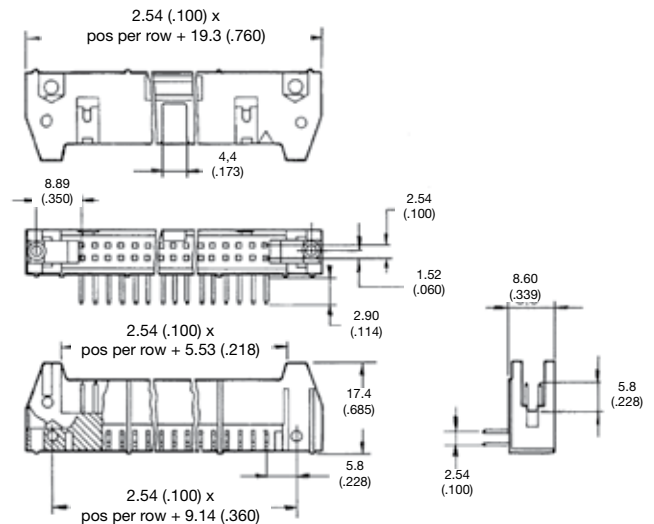
Recommended PCB layouts

Dimension : mm (inch)

**Vertical**



**Right Angle**



## TECHNICAL DATA

### PHYSICAL

- Housing: Grey thermoplastic  
Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze
- Plating: 0.76 µm (30µ") Gold/GXT over 1.27 µm (50 µ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 1 A continuous
- Insulation resistance: 1x 10<sup>5</sup> MΩ min.
- Contact resistance: 15 mΩ max.
- Dielectric withstanding voltage: 1000 V min. rms (sea level)

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 100

### OPERATING TEMPERATURE RANGE

- -65°C to +105°C



### PACKAGING

- Tubes

### PROCESSING INFORMATION

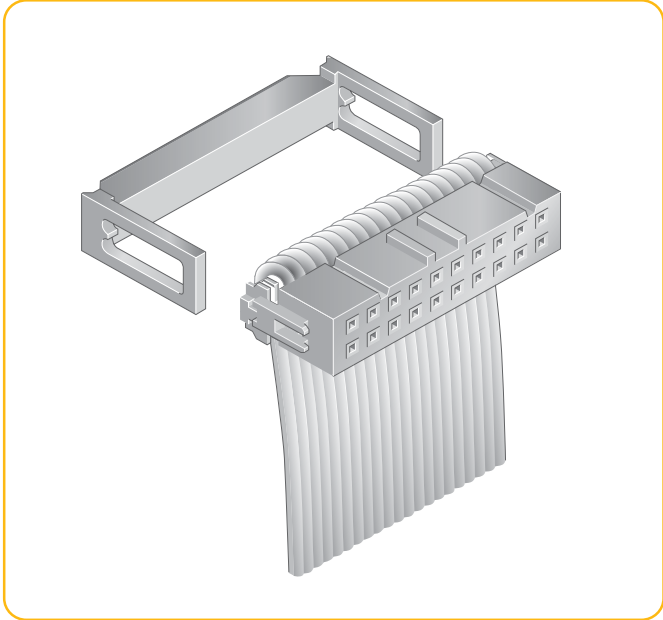
- Compatible with wave soldering processes

### REFERENCE INFORMATION

-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-095

### RoHs INFORMATION

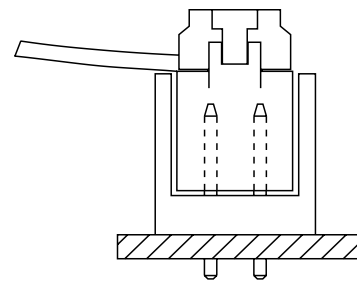
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

- BergStik® unshrouded vertical headers 8, 12
- Quickie® shrouded low profile headers 40, 42
- Quickie® shrouded eject latch headers 44

## TYPICAL APPLICATIONS

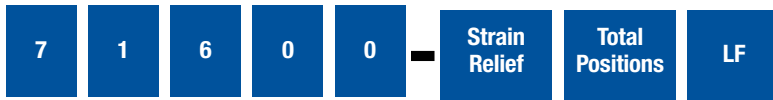


Low profile Latch (Style 2)

# Quickie™ IDC Receptacle

2.54 mm (.100")

## PART NUMBERS



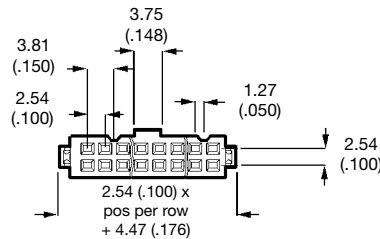
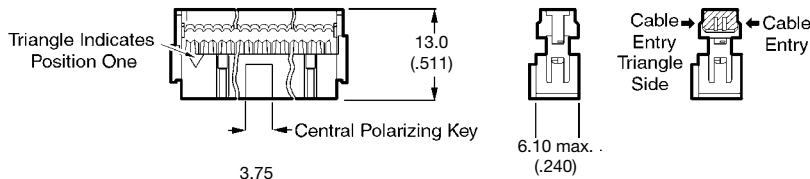
Note: 4 position available without strain relief only

04, 06, 08, 10, 14, 16, 20, 26, 34, 40, 50, 60, 64

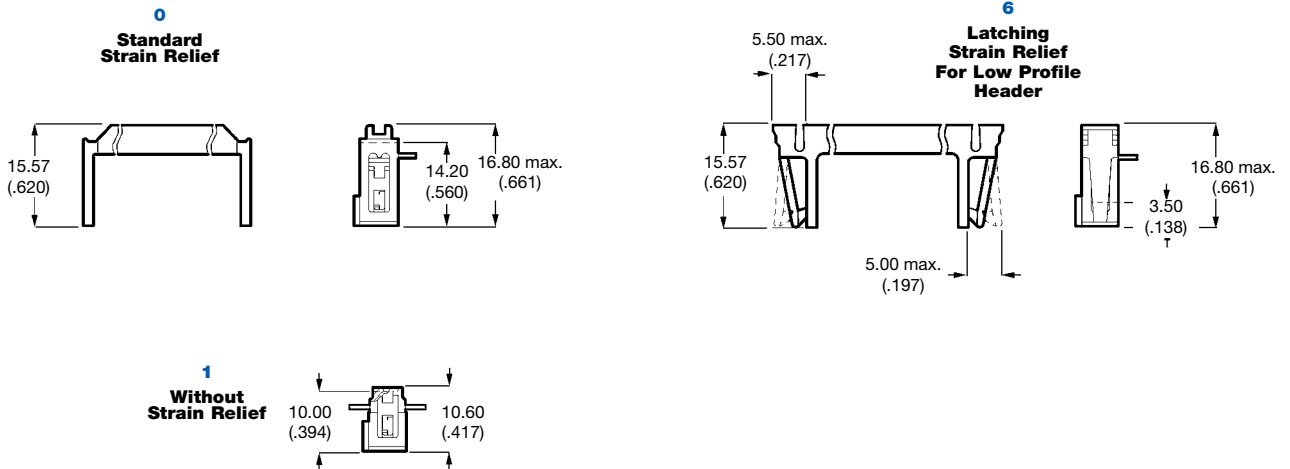
- 0 = Standard (Mates with Shrouded Eject Latch Header Latch 1)
- 1 = None (Mates with Shrouded Eject Latch Header Latch 2)
- 6 = Latching (Mates with Low Profile Headers)

71600 - 0XXLF **CORE RANGE**  
 XX = 04, 06, 08, 10, 16, 20

## PRODUCT



**Cable specification:**  
 Wire size: AWG 28 stranded  
 AWG 30 solid  
 Pitch: 1.27 mm (.050")



Dimension : mm (inch)

## FEATURES

- Ideal for daisy chain applications
- Single piece design provides one of the lowest applied costs in the industry

## TECHNICAL DATA

### PHYSICAL

- Housing: Blue thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Tin over 1.27 μm (50μ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 1 A continuous
- Insulation resistance:  $1 \times 10^5$  MΩ min.
- Contact resistance: 15 mΩ max.
- Dielectric withstanding voltage: 1000 V min. rms (sea level)

### OPERATING TEMPERATURE RANGE

- -65°C to +125°C



### PACKAGING

- Tubes

### PROCESSING INFORMATION

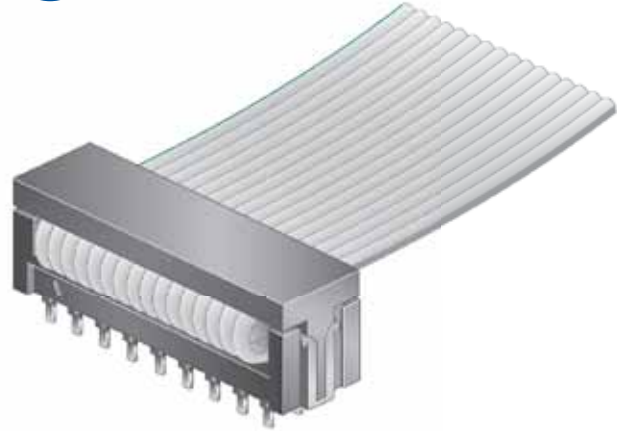
- Compatible with wave and vapor phase soldering processes — Low temperature

### REFERENCE INFORMATION

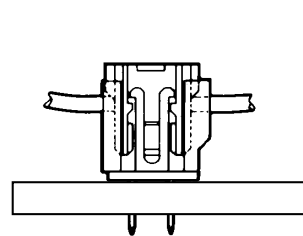
-  File no. E66906
-  File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-095

### RoHs INFORMATION

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



## TYPICAL APPLICATIONS





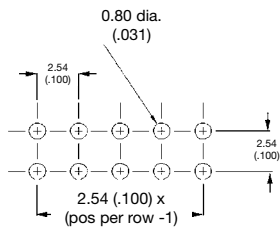
# Quickie™ IDC PCB Connector

## PART NUMBERS

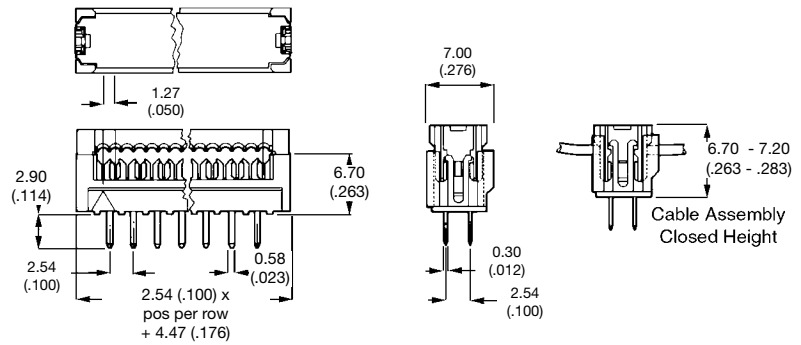


- |                     |                     |                     |
|---------------------|---------------------|---------------------|
| <b>06</b> = 6 pos.  | <b>18</b> = 18 pos. | <b>34</b> = 34 pos. |
| <b>08</b> = 8 pos.  | <b>20</b> = 20 pos. | <b>40</b> = 40 pos. |
| <b>10</b> = 10 pos. | <b>24</b> = 24 pos. | <b>50</b> = 50 pos. |
| <b>14</b> = 14 pos. | <b>26</b> = 26 pos. | <b>60</b> = 60 pos. |
| <b>16</b> = 16 pos. | <b>30</b> = 30 pos. | <b>64</b> = 64 pos. |

## PRODUCT



Recommended PCB layouts



Dimension : mm (inch)

## TECHNICAL DATA

### PHYSICAL

- Housing: High-temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50μ") nickel



### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 1x 10<sup>5</sup> MΩ min.
- Contact resistance: 25 mΩ max.
- Dielectric withstanding voltage: 650 V
- Voltage rating: 200 V.

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 100.

### OPERATING TEMPERATURE RANGE

- -55°C to +125°C

### PACKAGING

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

### PROCESSING INFORMATION

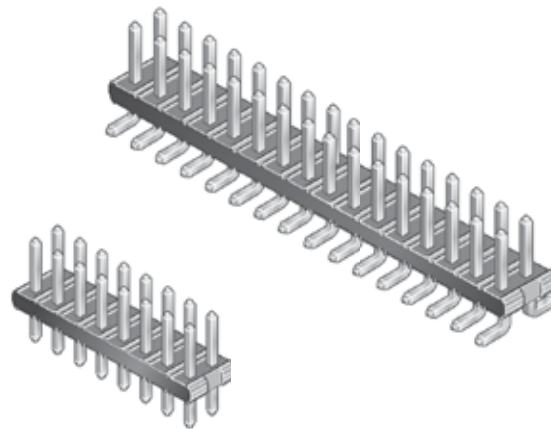
- Compatible with wave, vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

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

### RoHs INFORMATION

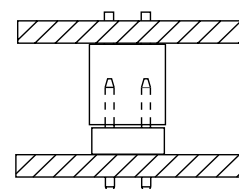
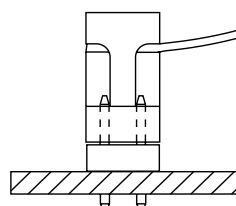
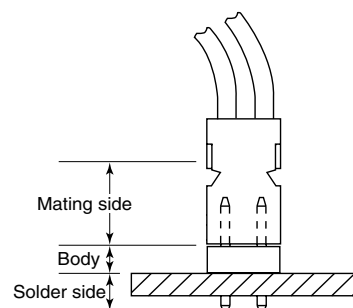
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

■ Minitek™ ctw contacts and housings	70
■ Minitek™ Vertical receptacles	58
■ Minitek™ Shunts	60
■ Minitek™ IDC receptacles	74

## TYPICAL APPLICATIONS



2.00 mm (.079")

# Minitek™ Unshrouded Vertical Headers

## PART NUMBERS



**1** = Through Mount (TMT)  
**2** = Surface Mount (SMT)

**G** = 0,76 μm (30μ") gold/GXT on mating area,  
 2-6 μm (79-237μ") Tin on solder side  
**F** = Gold flash on mating area,  
 2-6 μm (79-237μ") Tin on solder side

**02 to 25** (TMT)  
**02 to 25** (SMT)

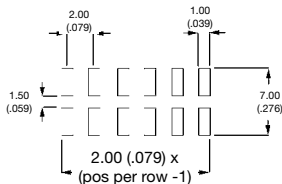
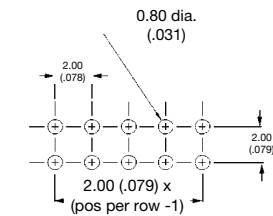
**U** = Tube without cap (TMT)  
**A** = Tape-and-reel with cap (SMT)

**57202 - G 52 - XXALF** **CORE RANGE**  
 XX = 02, 03, 04, 05, 06, 08, 10

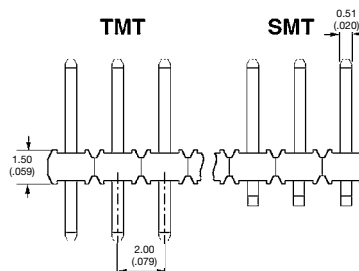
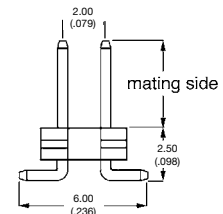
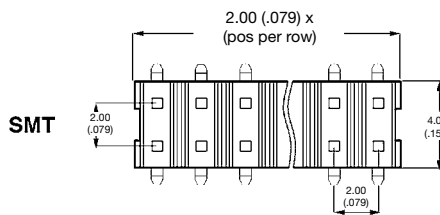
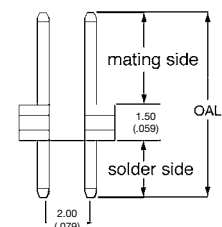
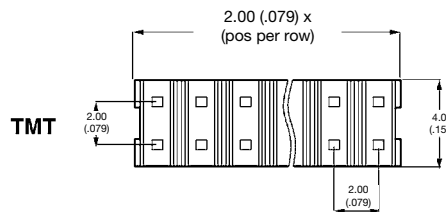
Pin Style	Surface Mount		Through Mount		
	Mating side		Mating Side	Solder Side	OAL
<b>51</b>	2.00	(.079)	<b>06</b>	4.00 (.157)	2.50 (.098) 8.00 (.315)
<b>52</b>	4.00	(.157)	<b>08</b>	4.00 (.157)	3.00 (.118) 8.50 (.335)

2.00 mm (.079")

## PRODUCT



Recommended PCB layouts



Dimension : mm (inch)

## FEATURES

- High temperature plastic
- Selective plating

## TECHNICAL DATA

### PHYSICAL

- Housing: High-temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50μ") nickel



### ELECTRICAL PERFORMANCE

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

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 100.

### OPERATING TEMPERATURE RANGE

- 55°C to +125°C

### PACKAGING

- Tubes (04 to 06 pos. packed in box)

### PROCESSING INFORMATION

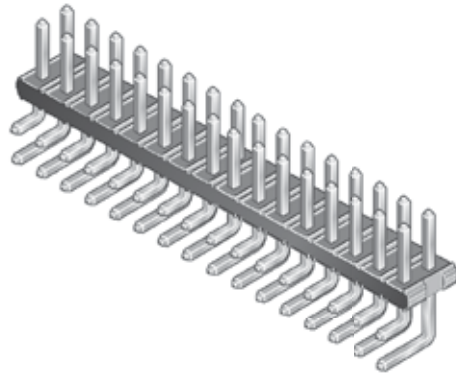
- Compatible with wave, vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

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

### RoHs INFORMATION

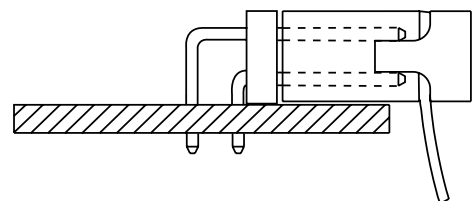
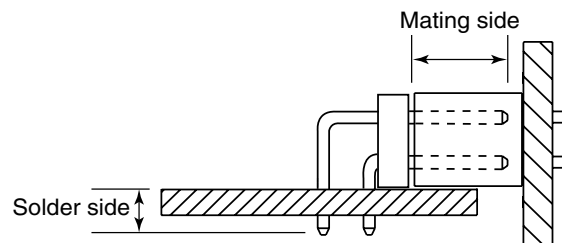
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

■ Minitek™ ctw contacts and housings	70
■ Minitek™ Vertical receptacles	58
■ Minitek™ Shunts	60
■ Minitek™ IDC receptacles	74

## TYPICAL APPLICATIONS



# Minitek™ Unshrouded Right Angle Headers

## PART NUMBERS

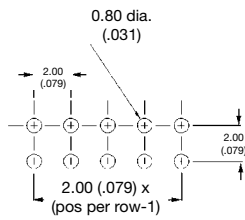


**G** = 0,76 μm (30μ") gold/GXT on mating area,  
2-6 μm (79-237μ") Tin on solder side  
**F** = Gold flash on mating area,  
2-6 μm (79-237μ") Tin on solder side

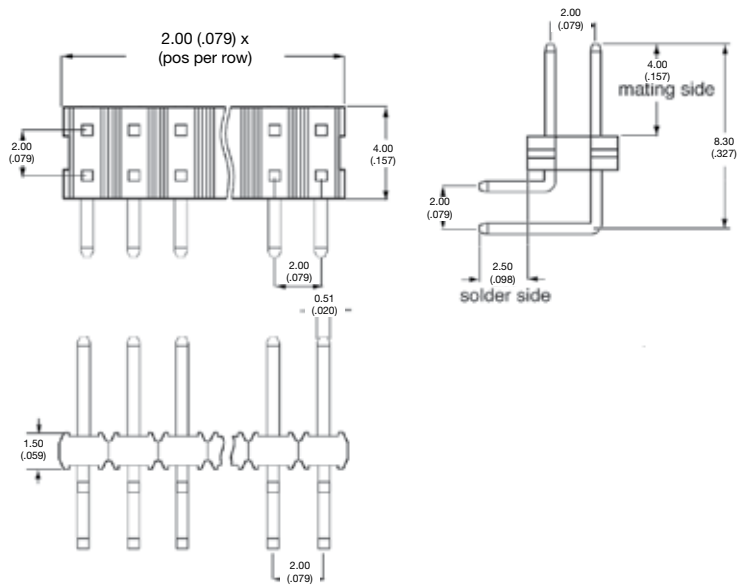
**02 to 25**

2.00 mm (.079")

## PRODUCT



Recommended PCB layouts



Dimension : mm (inch)

## TECHNICAL DATA

### PHYSICAL

- Housing: High-temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50μ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 1x 10<sup>5</sup> MΩ min.
- Contact resistance: 25 mΩ max.
- Dielectric withstanding voltage: 650 V
- Voltage rating: 200 V.



### MECHANICAL PERFORMANCE

- Mating cycles (durability): 100.

### OPERATING TEMPERATURE RANGE

- -55°C to +125°C

### PACKAGING

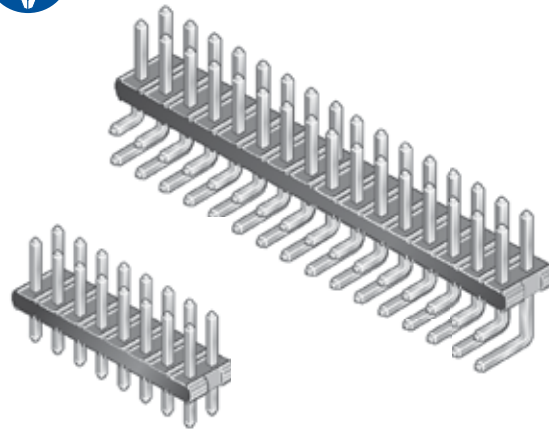
- Tubes (04 to 06 pos. packed in box)
- Tape on reel with pick up cap

### PROCESSING INFORMATION

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

### REFERENCE INFORMATION

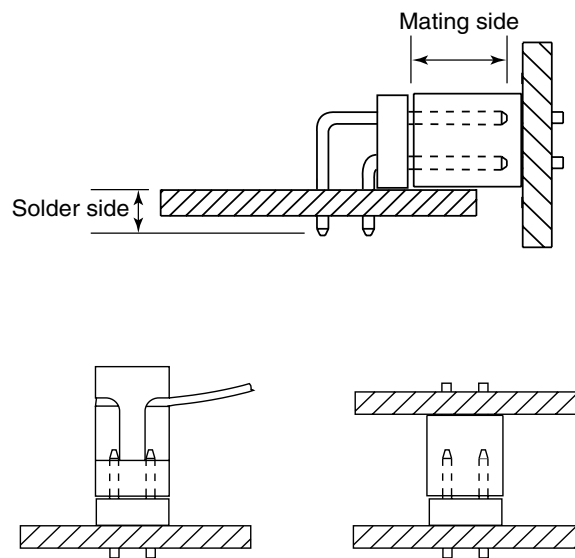
- File no. E66906
- File no. LR46923
- Product drawing: by 8-digit base part number
- Product specification: DPS-12-011 and GS-12-163
- Application specification: TA-895
- Reflow profile: TA-842



## MATING DATA

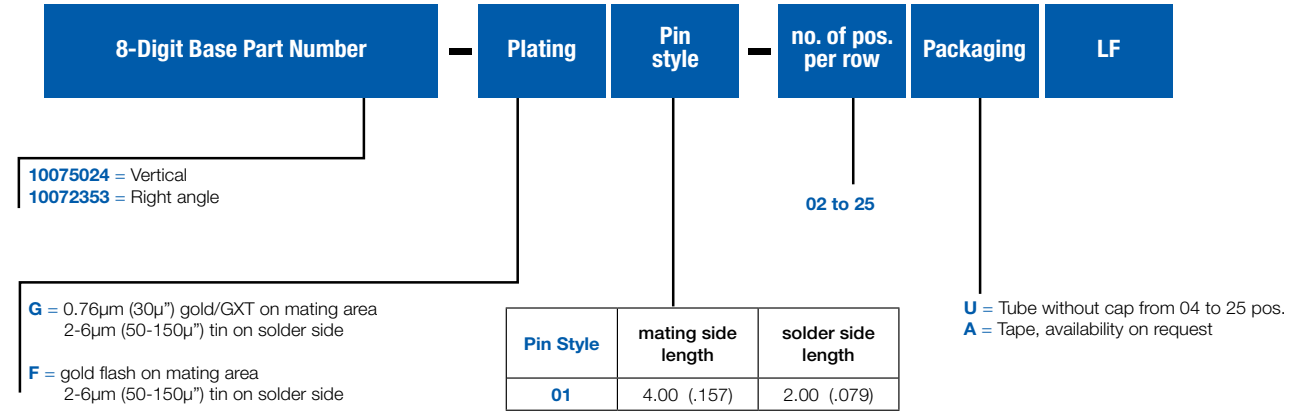
■ Minitek™ ctw contacts and housings	70
■ Minitek™ Vertical receptacles	58
■ Minitek™ Shunts	60
■ Minitek™ IDC receptacles	74

## TYPICAL APPLICATIONS



# Minitek™ Unshrouded Headers, Pin-in-Paste

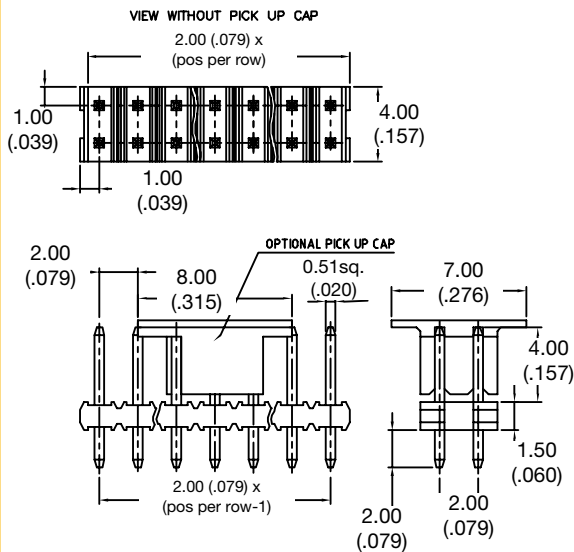
## PART NUMBERS



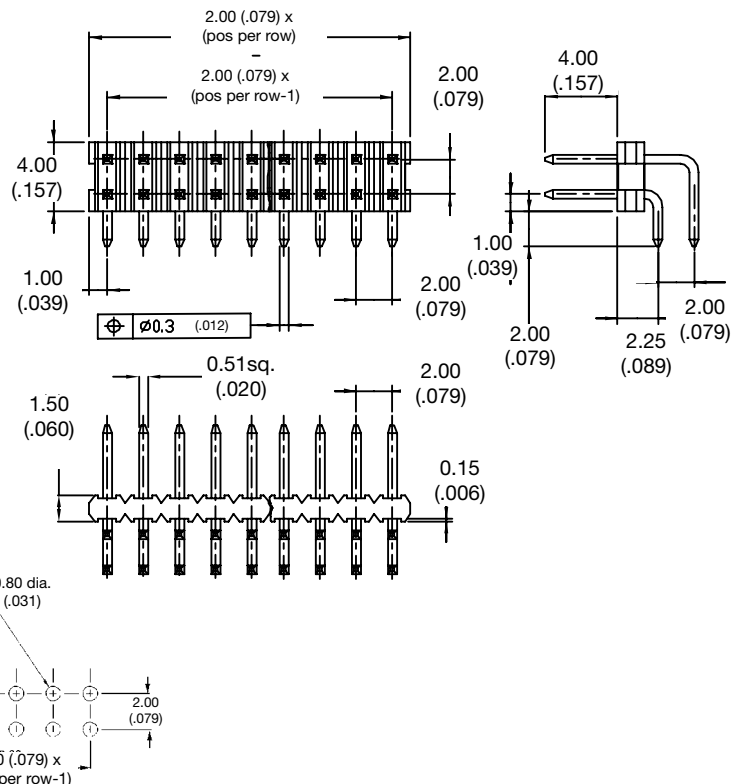
2.00 mm (.079")

## PRODUCT

### 10075024 Vertical



### 10072353 Right angle



Dimension : mm (inch)

Recommended PCB layouts

## FEATURES

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

## TECHNICAL DATA

### PHYSICAL

- Housing: High-temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over over 1.27 μm (50μ") nickel



### ELECTRICAL PERFORMANCE

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

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 100.

### OPERATING TEMPERATURE RANGE

- 55°C to +125°C

### PACKAGING

- Standard: in bags

### PROCESSING INFORMATION

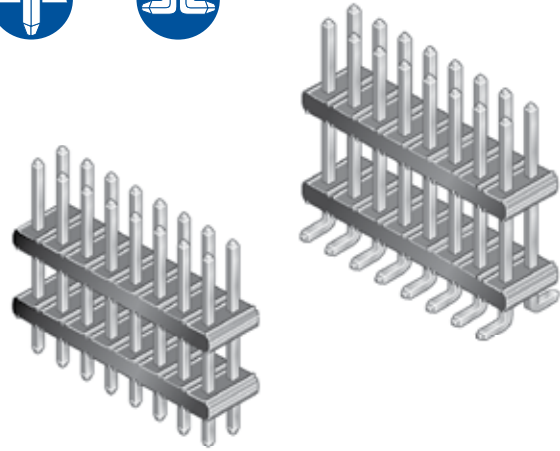
- Compatible with wave, vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

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

### RoHS INFORMATION

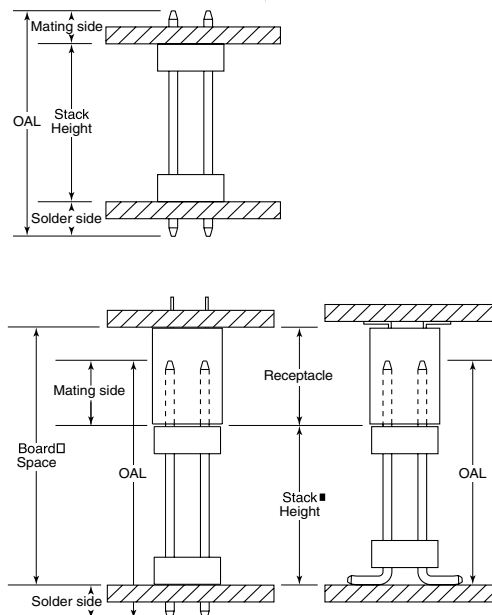
- This product is RoHS compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

Minitek™ ctw contacts and housings	70
Minitek™ Vertical receptacles	58
Minitek™ Shunts	60
Minitek™ IDC receptacles	74

## TYPICAL APPLICATIONS





# Minitek™ Unshrouded Stacking Headers

## PART NUMBERS

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



**1** = Through Mount (TMT)  
**2** = Surface Mount (SMT)

**1** = 2.50  
**3** = 3.00  
**0** = SMT

**T** = 0,76 µm (30µ")  
 gold/GXT on mating side,  
 tin on solder side

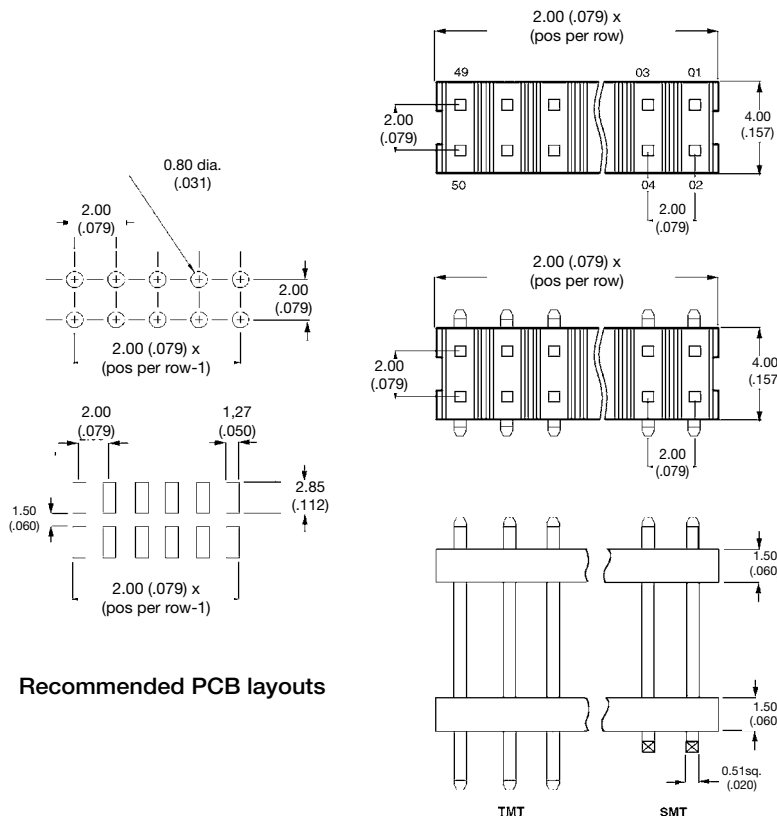
**02 to 25** (TMT)  
**02 to 25** (SMT)

**xxx** = mm  
 Specify mm  
 [e.g., 037 = 03.7 mm]  
 in 0.1 mm increments

Pin Style	Overall length (OAL)	
	(TMT)	(SMT)
<b>22</b>	8.20 (.323)	6.53 (.257)
<b>24</b>	9.55 (.376)	7.87 (.310)
<b>26</b>	10.19 (.401)	8.51 (.335)
<b>28</b>	11.79 (.464)	10.11 (.398)
<b>30</b>	13.54 (.533)	11.86 (.467)
<b>32</b>	14.10 (.555)	12.42 (.489)
<b>34</b>	15.60 (.614)	13.92 (.548)
<b>36</b>	17.09 (.673)	15.42 (.607)
<b>38</b>	19.08 (.751)	17.40 (.685)
<b>40</b>	21.08 (.830)	19.41 (.764)

2.00 mm (.079")

## PRODUCT



Recommended PCB layouts

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

Dimension : mm (inch)

## FEATURES

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

## TECHNICAL DATA

### PHYSICAL

- Housing: High-temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze Beryllium-copper – 63453
- Plating: Gold/GXT over 1.27 μm (50 μ") nickel



### ELECTRICAL PERFORMANCE

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

### MECHANICAL PERFORMANCE

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

### OPERATING TEMPERATURE RANGE

- 55°C to +125°C

### PACKAGING

- Standard: TMT in Tubes  
SMT in Tape-and-reel
- Optional: Tubes (SMT)

### PROCESSING INFORMATION

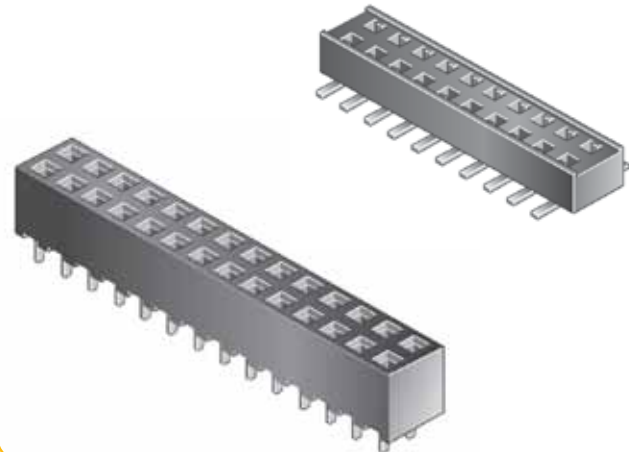
- Compatible with wave, vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

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

### RoHS INFORMATION

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



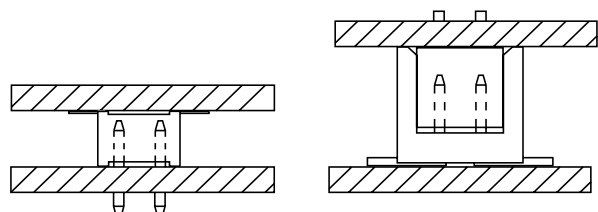
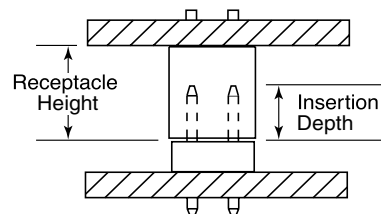
## MATING DATA

- Minitek™ Unshrouded headers: 50, 52, 56
- Minitek™ Shrouded headers: 62, 64

## INSERTION DEPTH

- 4.50 mm height: 3.00 mm min. to 4.30 mm max. [provides .381 mm wipe]
- 2.30 mm height – Top Entry: 1.30 mm min. to 2.20 mm max. [provides .381 mm wipe]
- 2.30 mm height – Bottom Entry: 1.40 mm min. to 2.20 mm max. [provides .381 mm wipe] plus board thickness

## TYPICAL APPLICATIONS



# Minitek™ Vertical Receptacles

## PART NUMBERS

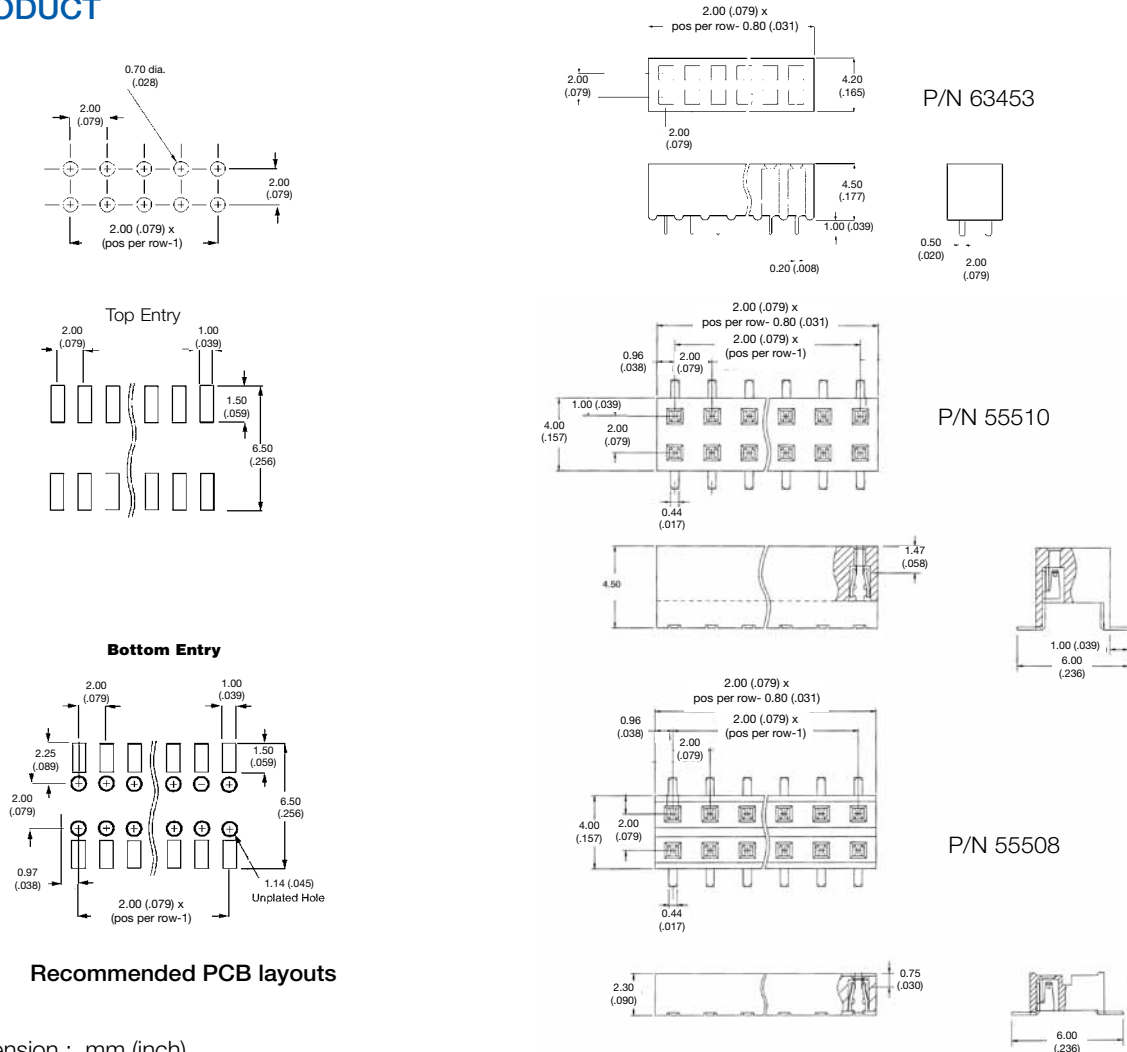
5-Digit Base Part Number			1	Total Positions	Packaging	LF											
<table border="1"> <thead> <tr> <th colspan="3">Through Mount (TMT)</th> </tr> <tr> <th>Height</th> <th></th> <th>Entry</th> </tr> </thead> <tbody> <tr> <td>63453</td> <td>4.50 (.177)</td> <td>Top</td> </tr> </tbody> </table>			Through Mount (TMT)			Height		Entry	63453	4.50 (.177)	Top	1	04 to 50 Top Entry 04 to 30 Bottom Entry		- (dash) = Tubes (TMT) TR = Tape-and-reel (SMT)		
Through Mount (TMT)																	
Height		Entry															
63453	4.50 (.177)	Top															
<table border="1"> <thead> <tr> <th colspan="3">Surface Mount (SMT)</th> </tr> <tr> <th>Height</th> <th></th> <th>Entry</th> </tr> </thead> <tbody> <tr> <td>55510</td> <td>4.50 (.177)</td> <td>Top</td> </tr> <tr> <td>55508</td> <td>2.30 (.090)</td> <td>Top</td> </tr> <tr> <td>91596</td> <td>2.30 (.090)</td> <td>Bottom</td> </tr> </tbody> </table>			Surface Mount (SMT)			Height		Entry	55510	4.50 (.177)	Top	55508	2.30 (.090)	Top	91596	2.30 (.090)	Bottom
Surface Mount (SMT)																	
Height		Entry															
55510	4.50 (.177)	Top															
55508	2.30 (.090)	Top															
91596	2.30 (.090)	Bottom															

1 = 0,76 μm (30μ") gold/GXT on mating area,  
2-6 μm (79-237μ") Tin on solder side

**55510 - 1XXTRLF** **CORE RANGE**  
XX = 04, 06, 08, 10, 12, 16, 20

2.00 mm (.079")

## PRODUCT



## FEATURES

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

## TECHNICAL DATA

### PHYSICAL

- Housing: Black thermoplastic
- Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze
- Plating: Gold/GXT or tin-lead over 1.27 µm (50 µ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 1 A continuous
- Insulation resistance:  $1 \times 10^5$  MΩ min.
- Contact resistance: 25 mΩ
- Dielectric withstanding voltage: 650 V
- Voltage rating: 200 V.

### MECHANICAL PERFORMANCE

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

### OPERATING TEMPERATURE RANGE

- 55°C to +125°C

### PACKAGING

- Bags

### PROCESSING INFORMATION

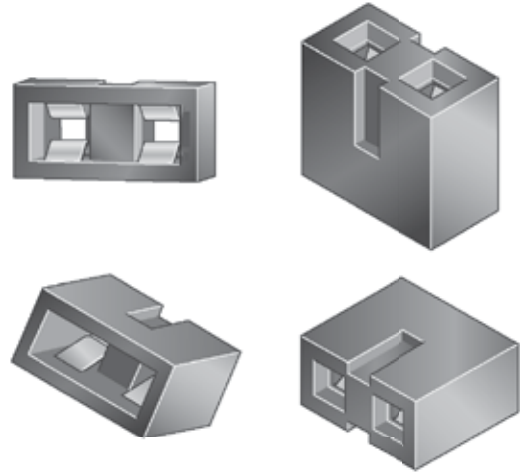
- Compatible with wave, vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

- File no. E66906
- File no. LR46923
- Product drawing: by 5-digit base part number
- Product specification: DPS-12-012

### RoHS INFORMATION

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



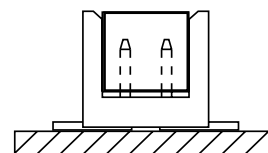
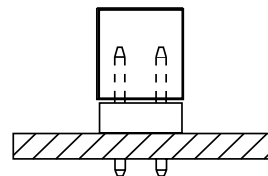
## MATING DATA

- Minitek™ Unshrouded headers: 50, 52, 56
- Minitek™ Shrouded headers: 62, 64

## INSERTION DEPTH

- 2.24 mm min. [provides .381 mm wipe]

## TYPICAL APPLICATIONS



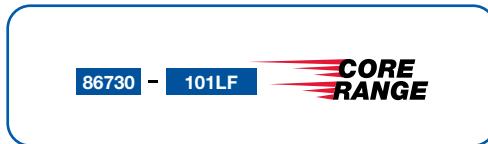
2.00 mm (.079")

# Minitek™ Shunts

## PART NUMBERS

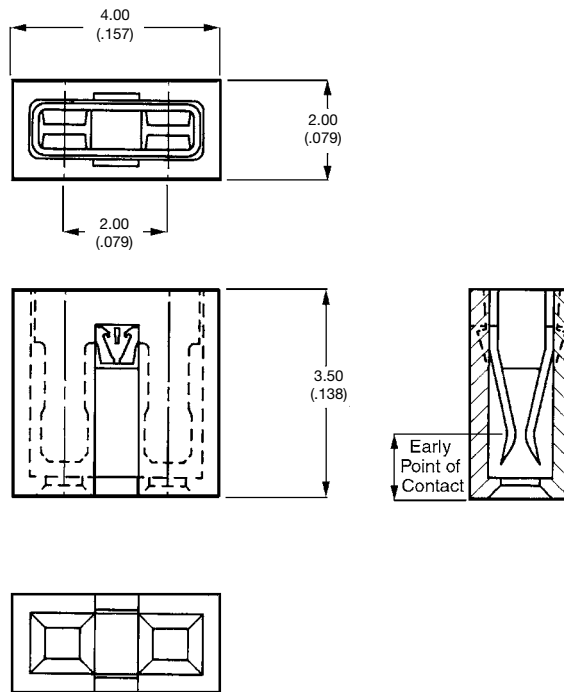


**1** = 0,76  $\mu\text{m}$  ( $30\mu\text{m}$ ) gold/GXT on mating area,  
2-6  $\mu\text{m}$  ( $79\text{-}237\mu\text{m}$ ) Tin on solder side  
**0** = Gold flash



2.00 mm (.079")

## PRODUCT



Dimension : mm (inch)

## FEATURES

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

## TECHNICAL DATA

### PHYSICAL

- Housing: High temperature, cream-colored thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50 μ") nickel



### ELECTRICAL PERFORMANCE

- Current rating: 2 A continuous
- Insulation resistance: 1 x 10<sup>5</sup> MΩ min.
- Contact resistance: 25 mΩ max.
- Dielectric withstanding voltage: 650 V
- Voltage rating: 200 V.

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 100

### OPERATING TEMPERATURE RANGE

- 40°C to +125°C

### 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

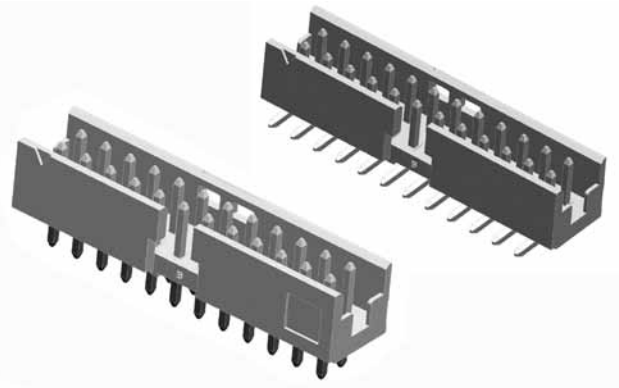
- Compatible with wave, vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

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

### RoHS INFORMATION

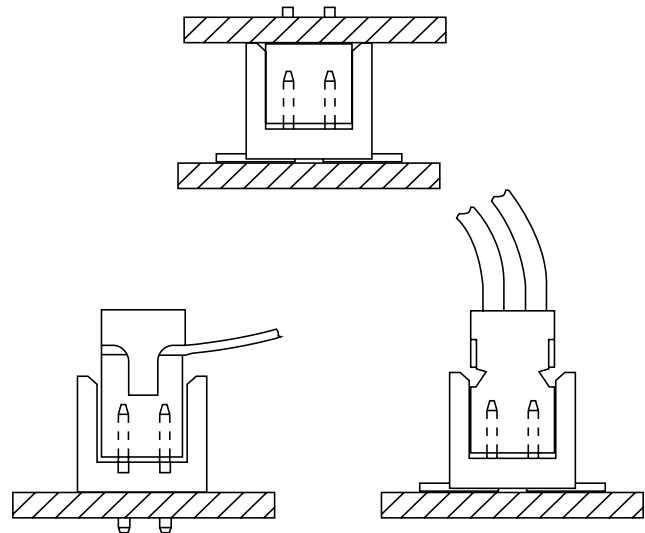
- This product is RoHS compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

▶ Minitek™ ctw contacts and housings	70
▶ Minitek™ Vertical receptacles	58
▶ Minitek™ Shunts	60
▶ Minitek™ IDC receptacles	74
▶ Minitek™ Active latch	72

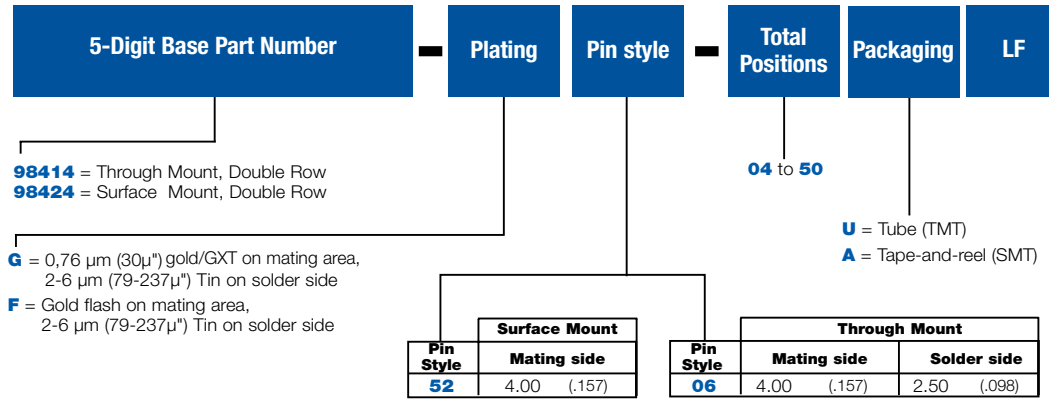
## TYPICAL APPLICATIONS



2.00 mm (.079")

# Minitek™ Shrouded Vertical Headers

## PART NUMBERS

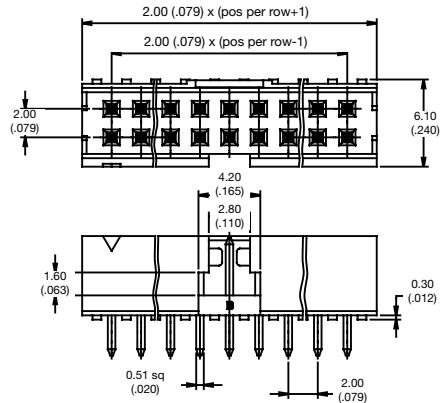
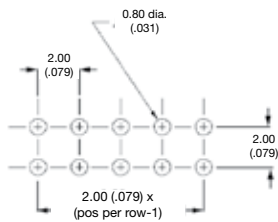


**98424 - G 52 - XX ALF**

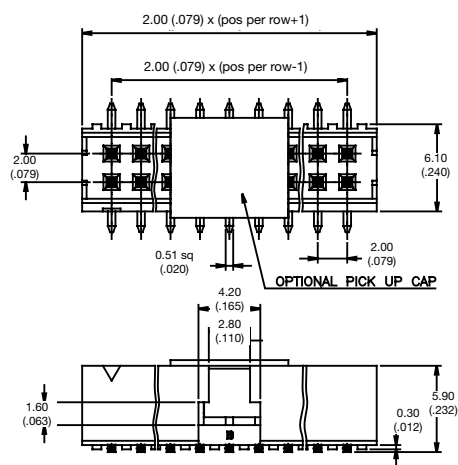
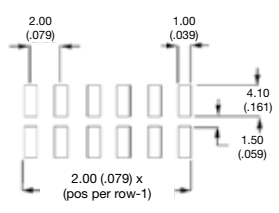
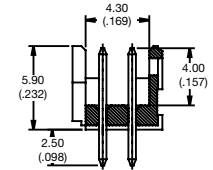
XX = 04, 06, 08, 10, 12, 16, 20

2.00 mm (.079")

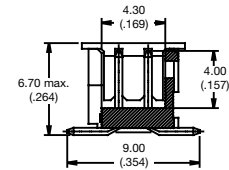
## PRODUCT



**98414** Through mount



**98424** Surface mount



Recommended PCB layouts

Dimension : mm (inch)

## FEATURES

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

## TECHNICAL DATA

### PHYSICAL

- Housing: High temperature, cream-colored thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50 μ") nickel



### ELECTRICAL PERFORMANCE

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

### MECHANICAL PERFORMANCE

- Mating cycles (durability): 100

### OPERATING TEMPERATURE RANGE

- 40°C to +125°C

### PACKAGING

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

### PROCESSING INFORMATION

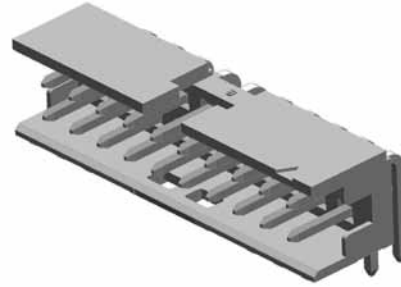
- Compatible with wave, vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

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

### RoHs INFORMATION

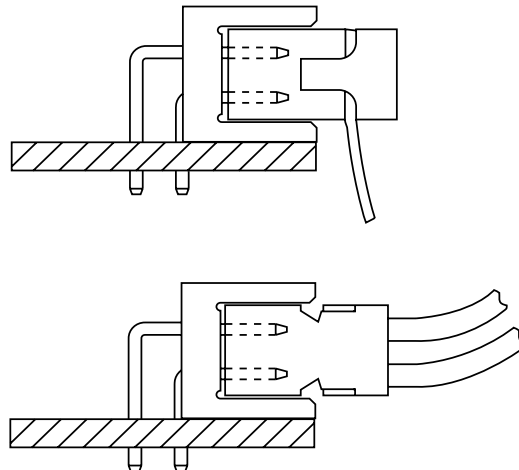
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

▶ Minitek™ ctw contacts and housings	70
▶ Minitek™ Vertical receptacles	58
▶ Minitek™ Shunts	60
▶ Minitek™ IDC receptacles	74
▶ Minitek™ Active latch	72

## TYPICAL APPLICATIONS



2.00 mm (.079")



# Minitek™ Shrouded Right Angle Headers

## PART NUMBERS

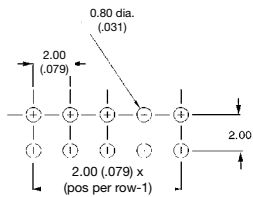


04 to 50 (Double Row)

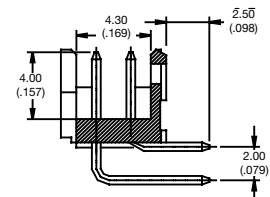
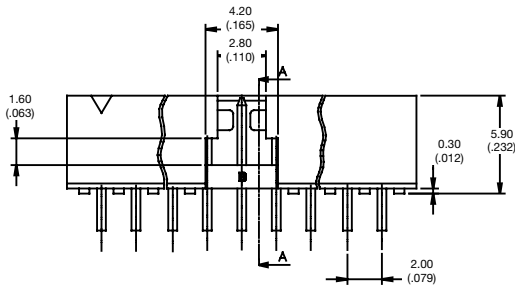
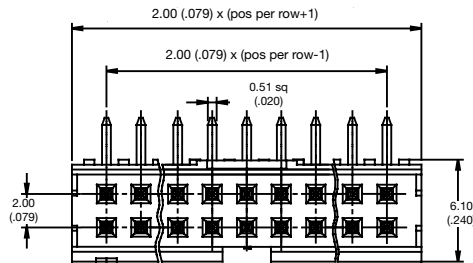
**G** = 0,76 μm (30μ") gold/GXT on mating area,  
2-6 μm (79-237μ") Tin on solder side  
**F** = Gold flash on mating area,  
2-6 μm (79-237μ") Tin on solder side

2.00 mm (.079")

## PRODUCT



Recommended PCB layouts



Dimension : mm (inch)

## TECHNICAL DATA

### PHYSICAL

- Housing: High-temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50μ") nickel

### ELECTRICAL PERFORMANCE

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



### MECHANICAL PERFORMANCE

- Mating cycles (durability): 100.

### OPERATING TEMPERATURE RANGE

- -55°C to +125°C

### PACKAGING

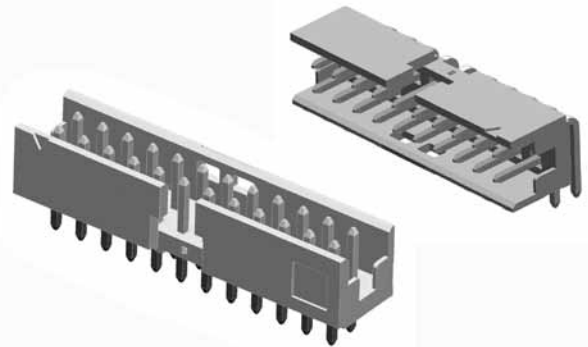
- Tubes (04 pos. packed in box)
- Tape on reel with pick up cap

### PROCESSING INFORMATION

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

### REFERENCE INFORMATION

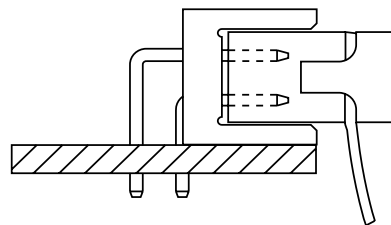
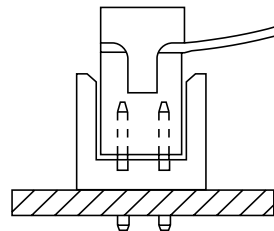
- File no. E66906
- File no. LR46923
- Product drawing: by 8-digit base part number
- Product specification: DPS-12-011 and GS-12-163
- Application specification: TA-895
- Reflow prprofile: TA-842



## MATING DATA

■ Minitek™ ctw contacts and housings	70
■ Minitek™ Vertical receptacles	58
■ Minitek™ Shunts	60
■ Minitek™ IDC receptacles	74
■ Minitek™ Active latch	72

## TYPICAL APPLICATIONS



# Minitek™ Shrouded Headers, Pin-in-Paste

## PART NUMBERS



10075025 = Vertical  
10072354 = Right angle

04 to 50

**G** = 0.76µm (30µ") gold/GXT on mating area  
2-6µm (50-150µ") tin on solder side

**F** = gold flash on mating area  
2-6µm (50-150µ") tin on solder side

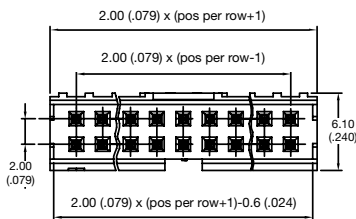
Pin Style	mating side length	solder side length
01	4.00 (.157)	2.00 (.079)

**U** = Tube without cap from 04 to 25 pos.  
**A** = Tape, availability on request

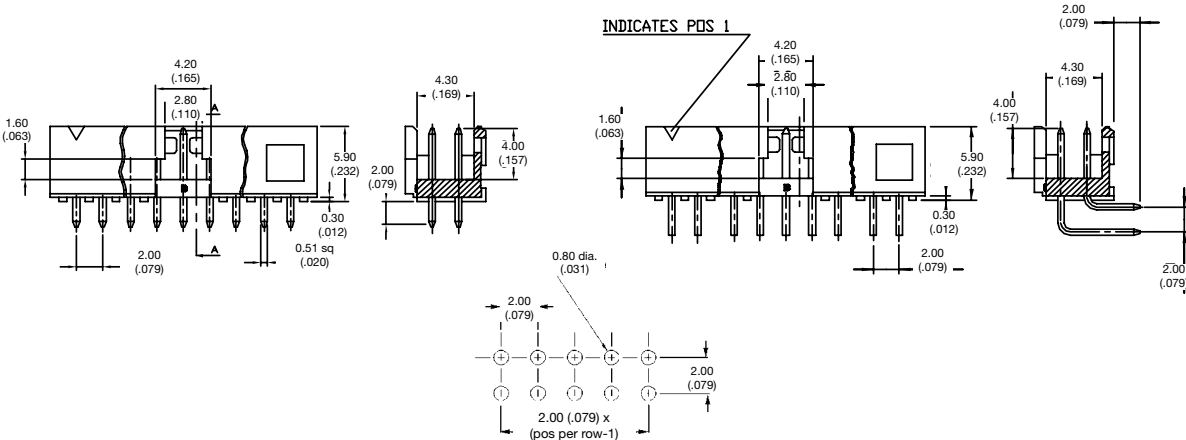
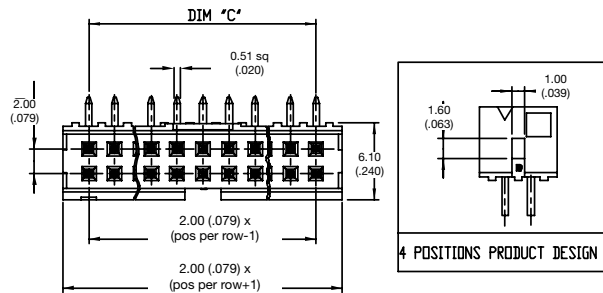
2.00 mm (.079")

## PRODUCT

**10075025** Vertical



**10072354** Right angle



Dimension : mm (inch)

Recommended PCB layouts

## FEATURES

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

## TECHNICAL DATA

### PHYSICAL

- Housing: Body, cream-colored LCP, Latch black PA
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50 μ") nickel

### ELECTRICAL PERFORMANCE

- Current rating: 2 A continuous
- Insulation resistance: 1 x 10<sup>5</sup> MΩ min.
- Contact resistance: 25 mΩ max.
- Dielectric withstanding voltage: 650 V
- Voltage rating: 200 V.

### MECHANICAL PERFORMANCE

- Latching retention force: 30 N min.

### OPERATING TEMPERATURE RANGE

- 40°C to +125°C



### PACKAGING

- Standard: Tubes

### PROCESSING INFORMATION

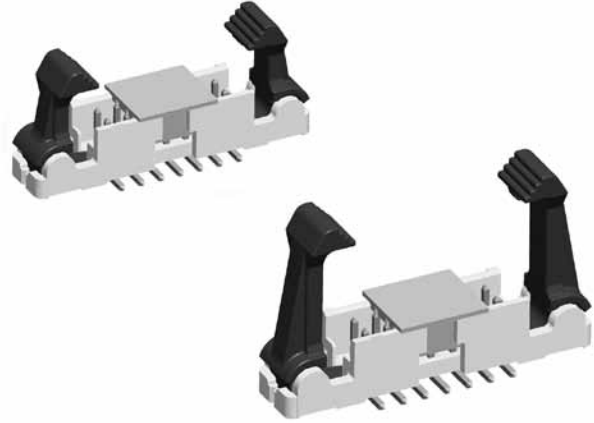
- Compatible with wave, vapor-phase, and IR reflow soldering processes

### REFERENCE INFORMATION

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

### RoHS INFORMATION

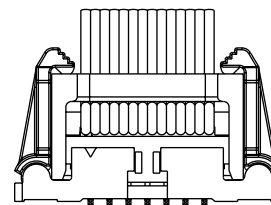
- This product is RoHS compatible according to the European Union Directive 2002/95/IEC



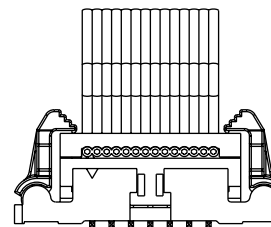
## MATING DATA

- Minitek™ IDC receptacles 74

## TYPICAL APPLICATIONS



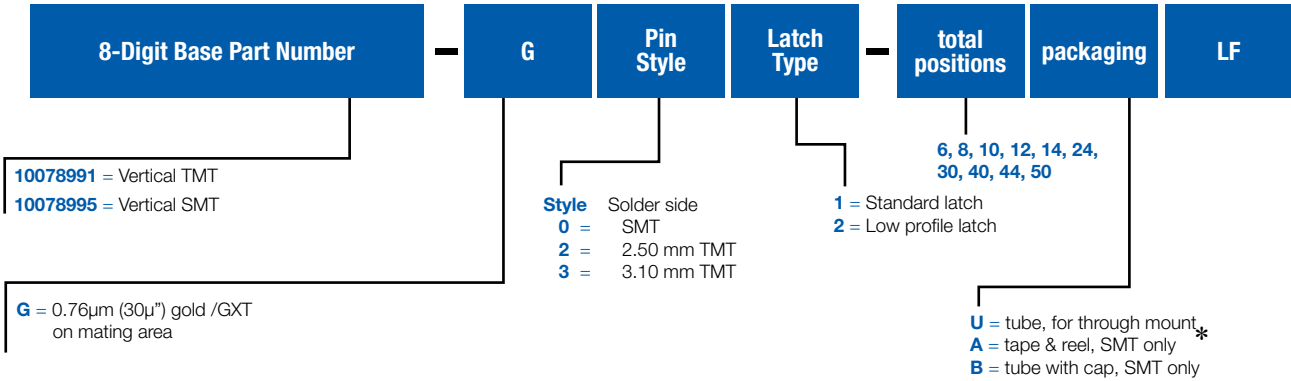
with strain relief  
standard latch



without strain relief  
low profile latch

# Minitek™ Shrouded Eject Latch Headers

## PART NUMBERS



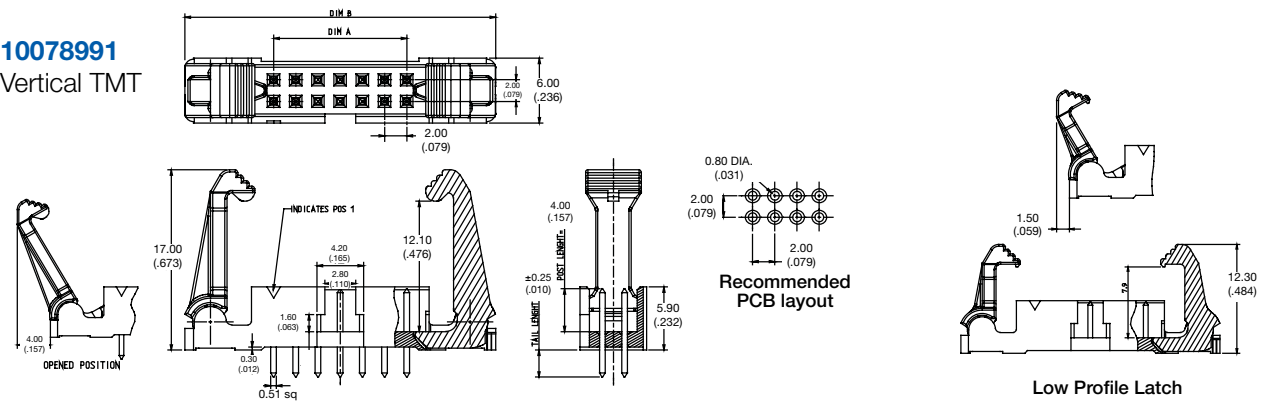
10078991	- G	22	- XX	U	LF	
10078995	- G	02	- XX	U	LF	
XX = 06, 08, 10, 12,						

\*as available

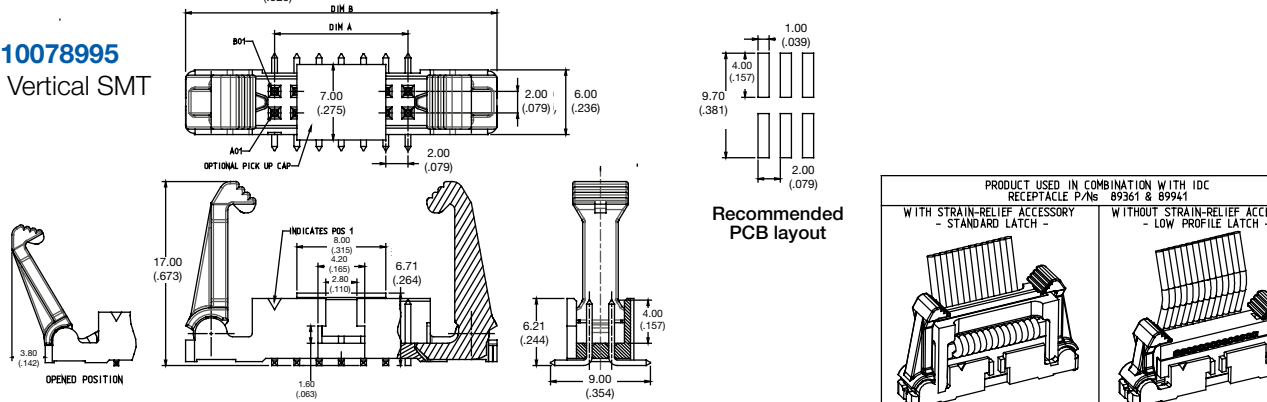
2.00 mm (.079")

## PRODUCT

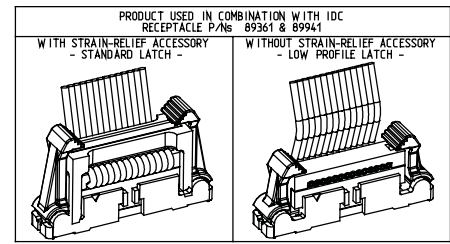
**10078991**  
Vertical TMT



**10078995**  
Vertical SMT



Dimension : mm (inch)



2.00 mm (.079")

## FEATURES

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

## TECHNICAL DATA

### PHYSICAL

- Housing: Black thermoplastic
- Flammability rating: UL 94 V-0
- Contact: Phosphor-bronze
- Plating: Gold/GXT over 1.27 μm (50 μ") nickel



### ELECTRICAL PERFORMANCE

- Current rating: 2 A continuous
- Insulation resistance: 1x 10<sup>5</sup> MΩ min.
- Contact resistance: 20 mΩ
- Dielectric withstanding voltage: 650 V
- Voltage rating: 200 V.

### MECHANICAL PERFORMANCE

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

### OPERATING TEMPERATURE RANGE

- -40°C to +125°C

### PACKAGING

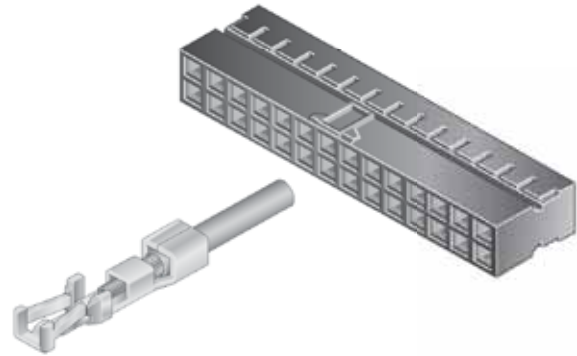
- Reels – Contacts
- Bags – Housings

### REFERENCE INFORMATION

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

### RoHS INFORMATION

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



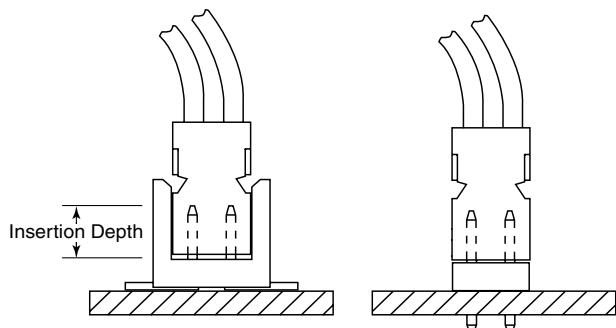
## MATING DATA

- Minitek™ Unshrouded headers 50, 52, 56
- Minitek™ Shrouded headers 62, 64

## INSERTION DEPTH

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

## TYPICAL APPLICATIONS



# Minitek™ Crimp-to-wire Housings and Contacts

## PART NUMBERS

### Contacts



26 AWG to 30 AWG

1 = 0,76 µm (30µ") gold/GXT on mating area,  
0 = Gold flash

### Housings



04 to 50 (Double Row)

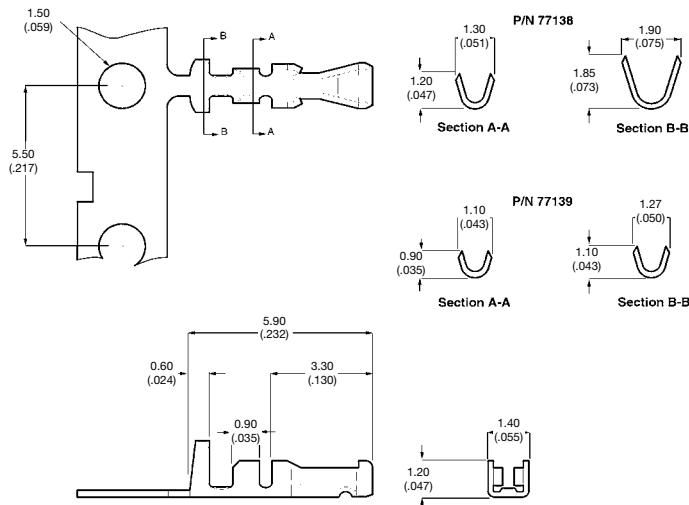
77138	101LF	<b>CORE RANGE</b>
10087010	0XXLF	

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

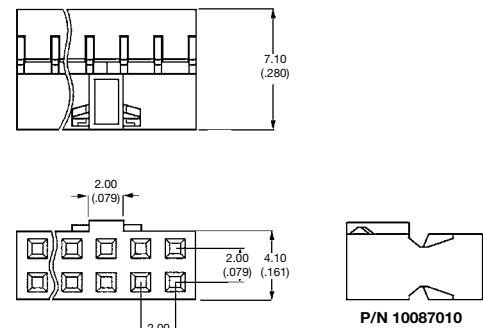
2.00 mm (.079")

## PRODUCT

### Contacts



### Housings



Dimension : mm (inch)

## FEATURES

- ▶ Latching retention 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

## TECHNICAL DATA

### PHYSICAL

- ▶ Housing: Polyamide, black
- ▶ Flammability rating: UL 94 V-0

### ELECTRICAL PERFORMANCE

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

### MECHANICAL PERFORMANCE

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



### OPERATING TEMPERATURE RANGE

- ▶ -55°C to +125°C

### PACKAGING

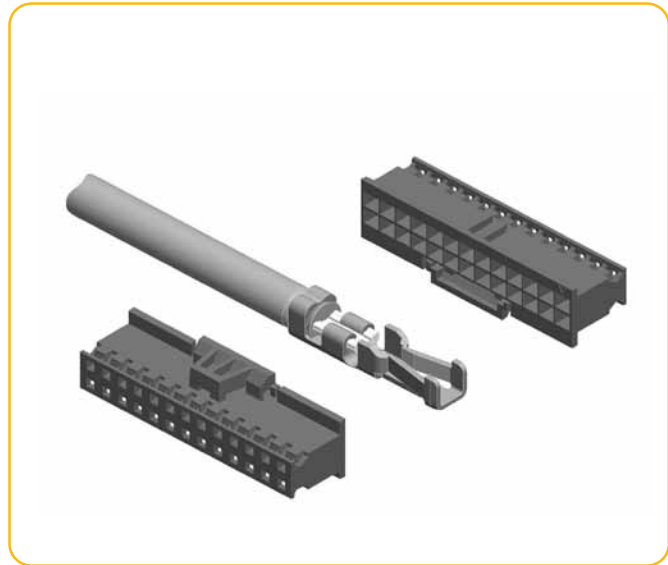
- ▶ Standard: Plastic bags

### REFERENCE INFORMATION

- ▶  File no. E66906
- ▶  File no. LR46923
- ▶ Product drawing: 8-digit part number
- ▶ Product specification: GS-12-415

### RoHS INFORMATION

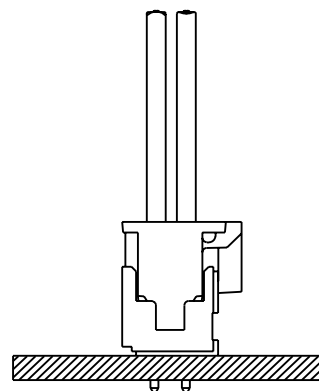
- ▶ This product is RoHs compatible according to the European Union Directive 2002/95/IEC



## MATING DATA

- |                             |            |
|-----------------------------|------------|
| ▶ Minitek™ Shrouded headers | 62, 64, 66 |
| ▶ Minitek™ CTW contacts     | 70, 72     |

## TYPICAL APPLICATIONS



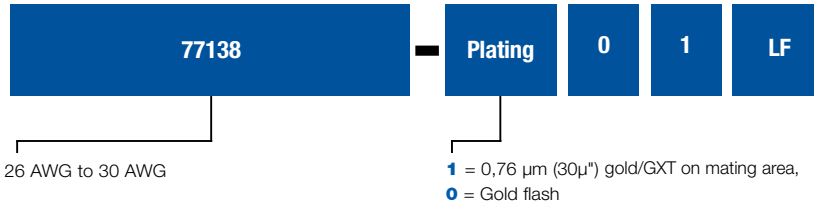
2.00 mm (.079")



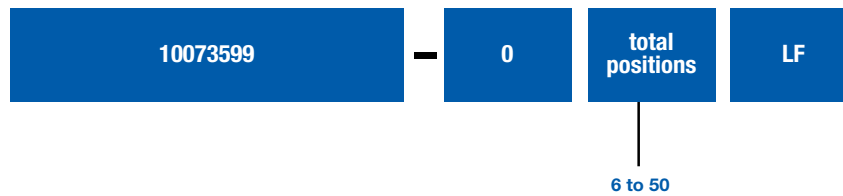
# Minitek™ Crimp-to-wire Housings, Active latch


## PART NUMBERS

### Contacts



### Housings



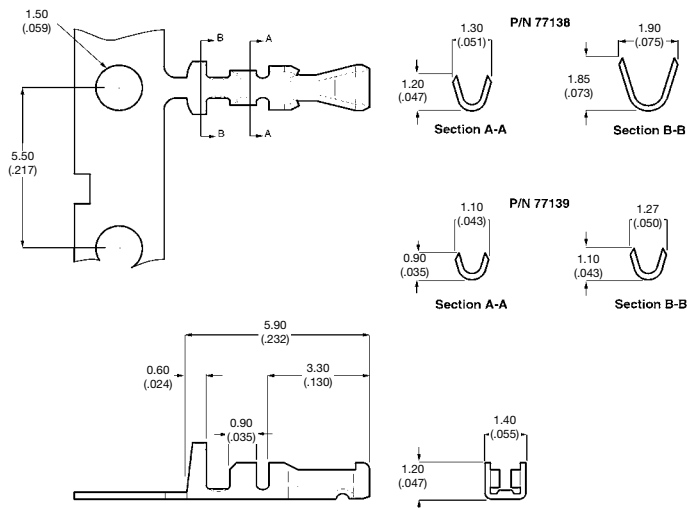
77138	-	101LF	
10073599	-	0XXLF	

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

2.00 mm (.079")

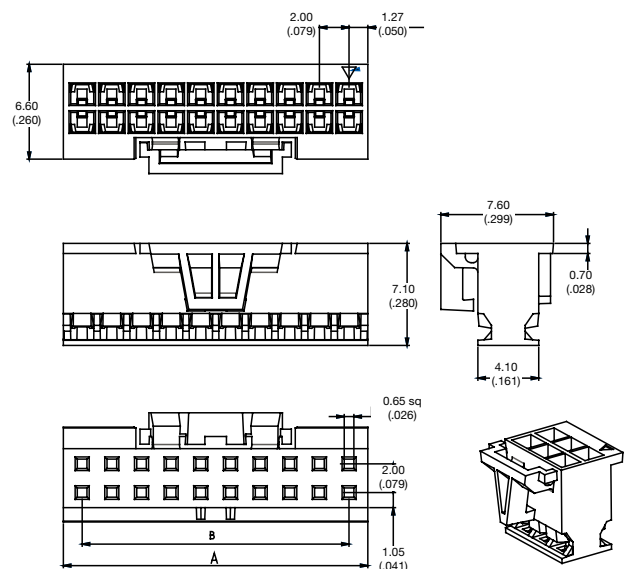
## PRODUCT

### Contacts



Dimension : mm (inch)

### Housings



DESIGN FOR 10073599-006LF & 10073599-008LF ONLY

## FEATURES

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

## TECHNICAL DATA

### PHYSICAL

- ▶ Housing: Black thermoplastic
- ▶ Flammability rating: UL 94 V-0
- ▶ Contact: Phosphor-bronze
- ▶ Plating: Gold/GXT over 1.27  $\mu\text{m}$  (50  $\mu\text{m}$ ) nickel



### ELECTRICAL PERFORMANCE

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

### MECHANICAL PERFORMANCE

- ▶ Mating cycles (durability): 100

### OPERATING TEMPERATURE RANGE

- ▶ -40°C to +105°C

### PACKAGING

- ▶ Tubes

### REFERENCE INFORMATION

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

### RoHs INFORMATION

- ▶ This product is RoHs compatible according to the European Union Directive 2002/95/IEC



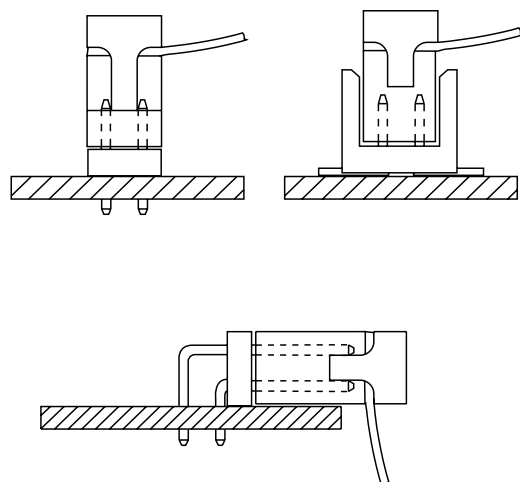
## MATING DATA

- ▶ Minitek™ Unshrouded headers 50, 52, 56
- ▶ Minitek™ Shrouded headers 62, 64

## INSERTION DEPTH

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

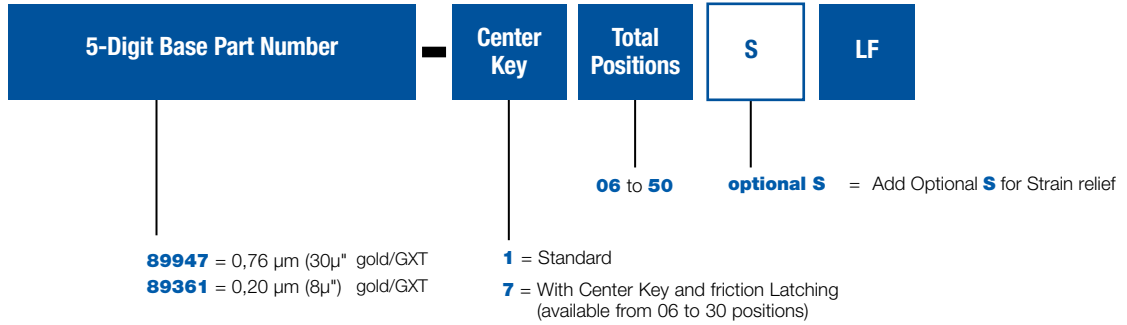
## TYPICAL APPLICATIONS



2.00 mm (.079")

# Minitek™ IDC Receptacle

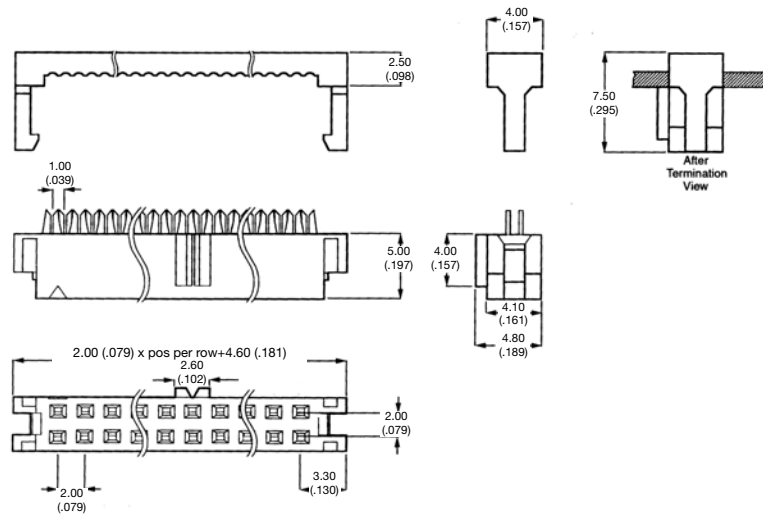
## PART NUMBERS



**89361 - 7XXLF** **CORE RANGE**  
 XX = 04, 06, 08, 10, 12, 16, 20

2.00 mm (.079")

## PRODUCT



Dimension : mm (inch)

If you need something 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.

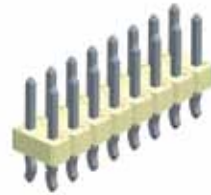
### ▀ Polarized (missing) positions

These are highly specific, so please contact us with your requirement



### ▀ Kinked legs

See drawing 69190 and 69192 at [www.fciconnect.com](http://www.fciconnect.com)



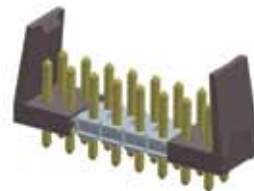
### ▀ Press-fit pins

See drawing 94674 at [www.fciconnect.com](http://www.fciconnect.com)



### ▀ Add-on latches for headers

Please contact us with your requirement

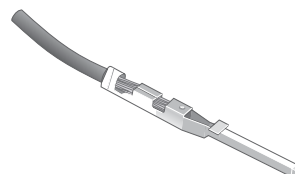


### ▀ Wide body headers



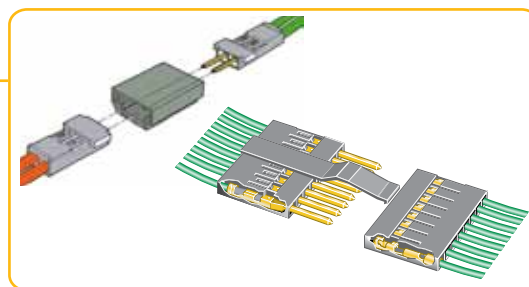
### ▀ Crimp-to-wire pin

See drawing 47791 and 75653 at [www.fciconnect.com](http://www.fciconnect.com)



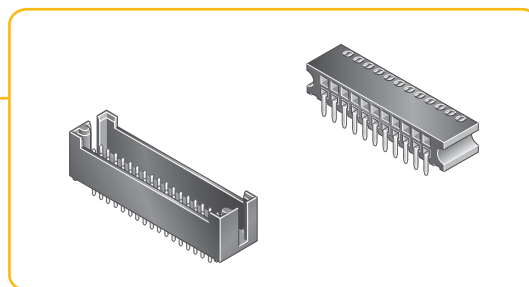
■ **Flying latch**

See drawing 67009,  
68105 and 68106 at  
[www.fciconnect.com](http://www.fciconnect.com)



■ **Guide pin header / receptacles**

See drawing 64991  
and 66527 at  
[www.fciconnect.com](http://www.fciconnect.com)



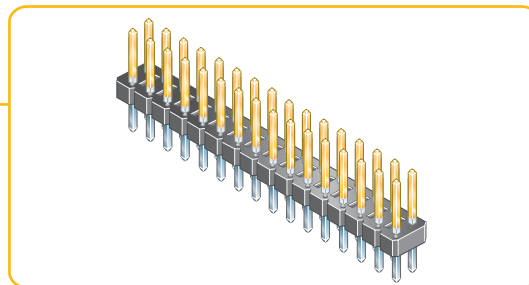
■ **Printed housings**

Please contact us with  
your requirement



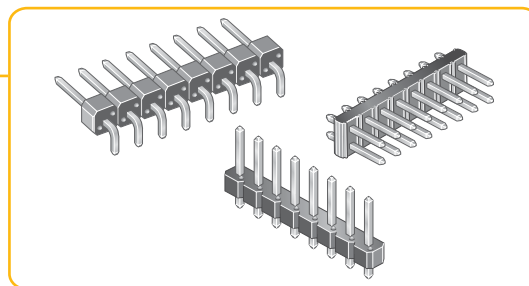
■ **Additional plating options**

Please contact us with  
your requirement



■ **Pin-in-paste headers**

See drawing 10076801,  
10082201 and 10082202 at  
[www.fciconnect.com](http://www.fciconnect.com)



Visit: [www.fciconnect.com/basicsdesign](http://www.fciconnect.com/basicsdesign) to specify your design need

## Application Equipment



## DUBOX™ CRIMP-TO-WIRE CONTACTS

Contact Description	Wire size	Hand Tool	Mini-Applicator (right to left feeding)	Mini-Applicator (left to right feeding)	Repair Tool
Dubox	AWG 20-22	RCY21235	RCY20027	RCY20017	HT 272
Dubox	AWG 22-24	RCY21234	RCY20008	RCY20029	HT 272
Dubox	AWG 26-30	RCY21234	RCY20008	RCY20029	HT 272
Small insulation Dubox	AWG 28-32	-	RCY20028		HT 272

## PV™ CRIMP-TO-WIRE CONTACTS

Contact Description	Wire size	Hand Tool	Mini-Applicator	Repair Tool
Standard Mini-PV	AWG 18-20	HT-0073	133867-104	HT-0080
Standard Mini-PV	AWG 22-26	HT-0095	133867-105	HT-0080
Standard Mini-PV	AWG 28-32	HT-0095	133867-106	HT-0080
Standard Mini-PV	AWG 34-36	HT-0112	133867-108	HT-0080
Small Insulation PV	AWG 22-26	HT-207	-	HT-0080
Small Insulation PV	AWG 28-32	HT-217	-	HT-0080

## MINITEK™ CRIMP-TO-WIRE CONTACTS

Contact Description	Wire size	Hand Tool	Mini-Applicator	Repair Tool
Minitek	AWG 26-30	HT 151	155250-101	HT-0080
Minitek	AWG 32-36	HT 152	155250-102	HT-0080

### BergStik® AND Bergstrip®

- ▀ Manual cutting tool: HT 320

### Quickie® IDC

- ▀ Manual flat cable cutter: HT 209
- ▀ Quickie assembly hand tool: HT 210
- ▀ Hand Press: QP-104
- ▀ Many other variations of manual, semi- automatic and automatic tools available upon request.

### Minitek® IDC

- ▀ Manual flat cable cutter: HT 209
- ▀ Hand Press: QP-104

## Where to get your tooling

These toolings and more detailed advice, pricing, availability etc. are available through your distributor or from the following suppliers:

#### ▀ Americas

Phone: 1-800-843-6911  
E-mail: [doug.sheaffer@fciconnect.com](mailto:doug.sheaffer@fciconnect.com)

#### ▀ Europe

Föhrenbach Application Tooling N.V.  
Phone: +32 3 216 19 98  
Email : [application.tooling@foehrenbach.be](mailto:application.tooling@foehrenbach.be)

#### ▀ Asia

Phone: +65 549 6666  
E-mail: [fcising\\_sales@fciconnect.com](mailto:fcising_sales@fciconnect.com)

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A large rectangular area with rounded corners, outlined in blue, containing 25 horizontal lines for writing notes.

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