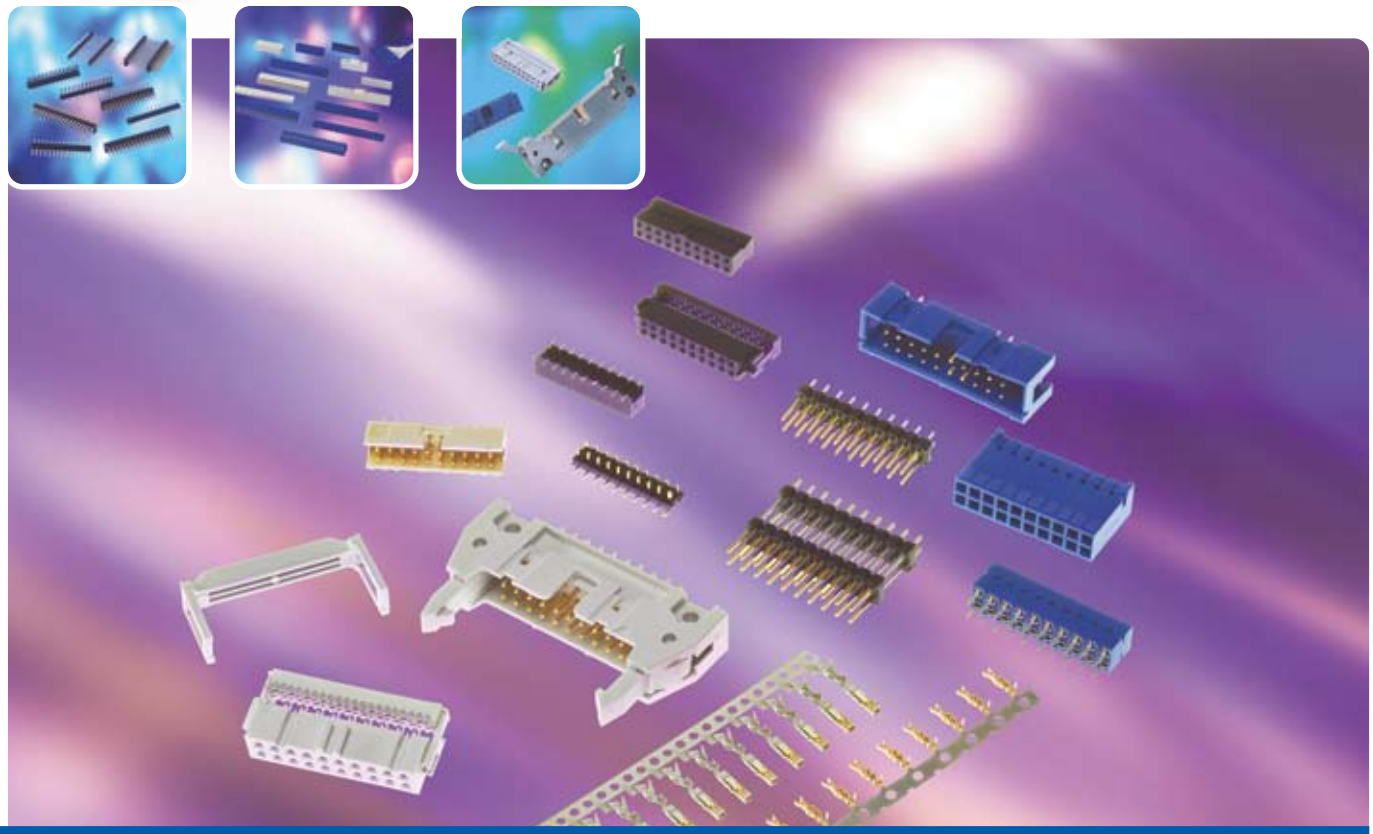
NEW
SHORT LEAD TIMES
www.fci.com/basicsleadtimes



Product Catalog

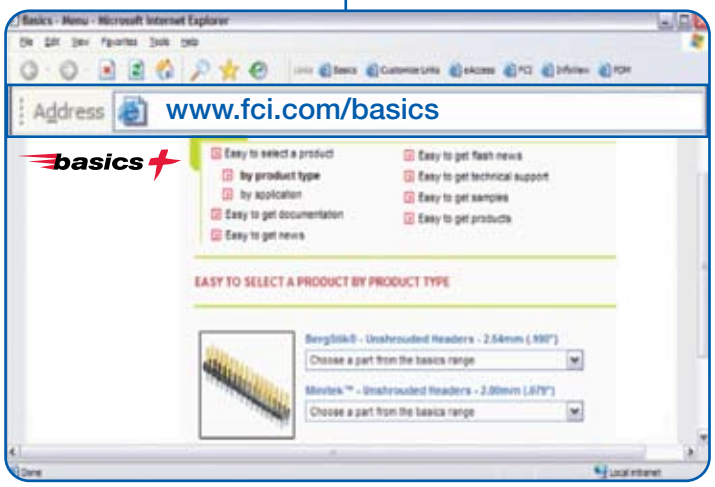
basics+

FCI: SETTING THE STANDARD FOR CONNECTORS

With operations in 30 countries and sales of 1.3 billion euros in 2007, FCI is a leading manufacturer of connectors.
Our 14,200 employees are committed to providing customers with high-quality, innovative products for a wide range of consumer and industrial applications.

basics+ MO

SELECT YOUR STANDARD PART FROM THIS CATALOG OR THE BASICS+ MICROSITE



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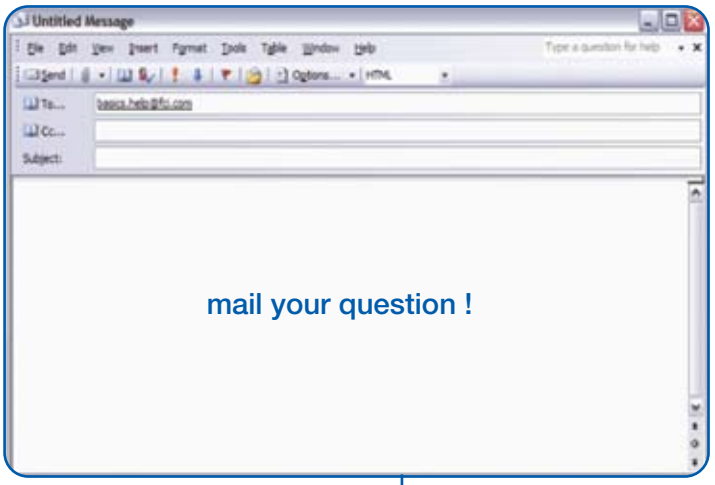

GET THE TECHNICAL HELP YOU NEED FROM BASICS.HELP@FCI.COM

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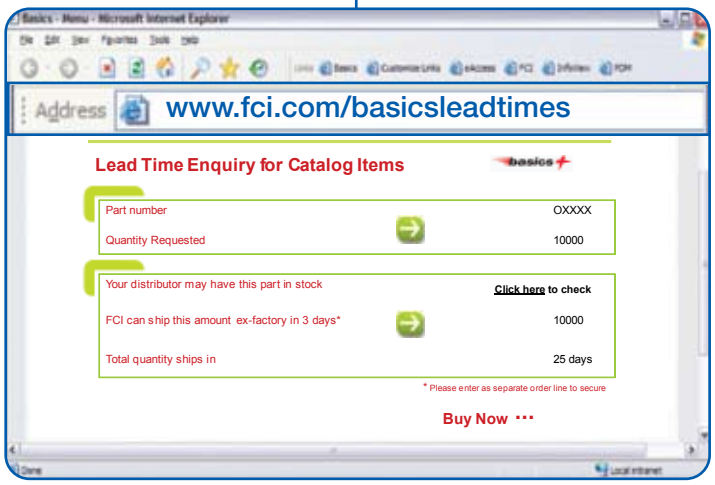
CATALOG PARTS NORMALLY AVAILABLE
FOR SHIPMENT IN 3 DAYS. CHECK ONLINE !



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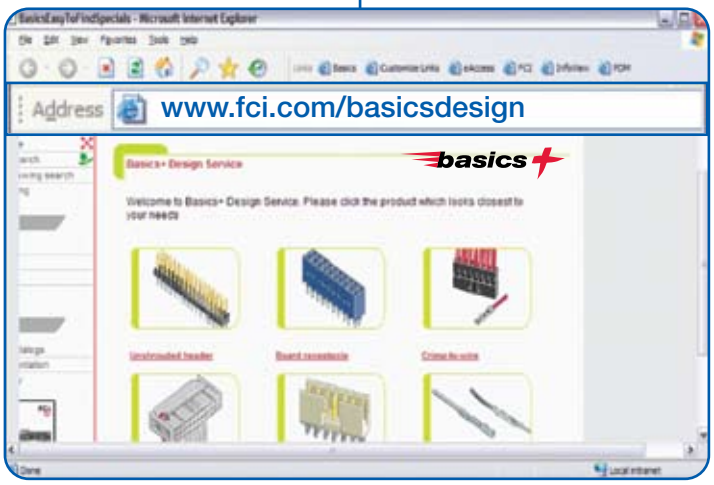

NEED SOME PRODUCTION GRADE PARTS
FOR YOUR PRE-SERIES?
PHONE OUR CUSTOMER SERVICE

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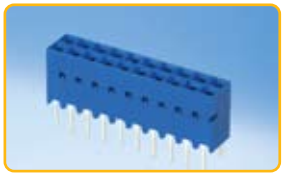

BOARD-TO-BOARD RECEPTACLES

Dubox™ Board-to-Board Receptacles 2.54mm (.100")

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Dubox™ Crimp-To-Wire 2.54mm (.100")

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PV™ Superior Performance Crimp-To-Wire 2.54mm (.100")

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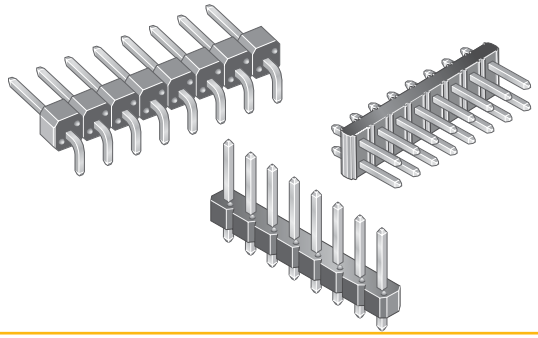
WHAT'S NEW ?

SUDDEN LEAD TIMES

Pick an item from anywhere in the catalog. Most parts available to ship from our factory to you in 3 days.
Check online at www.fci.com/basics leadtimes

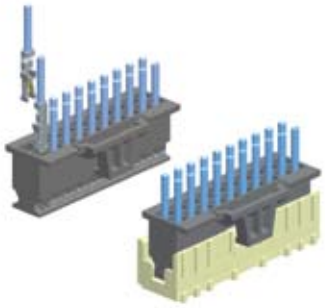
Pin-in-Paste

Our new PiP range has been specifically designed to meet the requirements of this process, complete with paste stencil design
Pages 56, 68



Minitek Active Latch

A latching crimp-to-wire system for demanding environments
Pages 64, 74

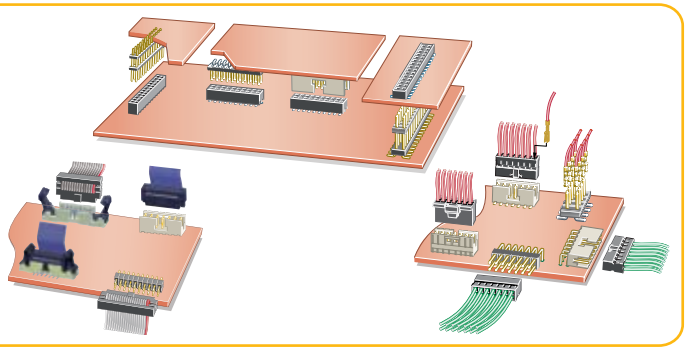


Minitek Eject Latch Header

This ribbon cable connector mates securely, but can be unmated with no difficulty.
Pages 70, 76

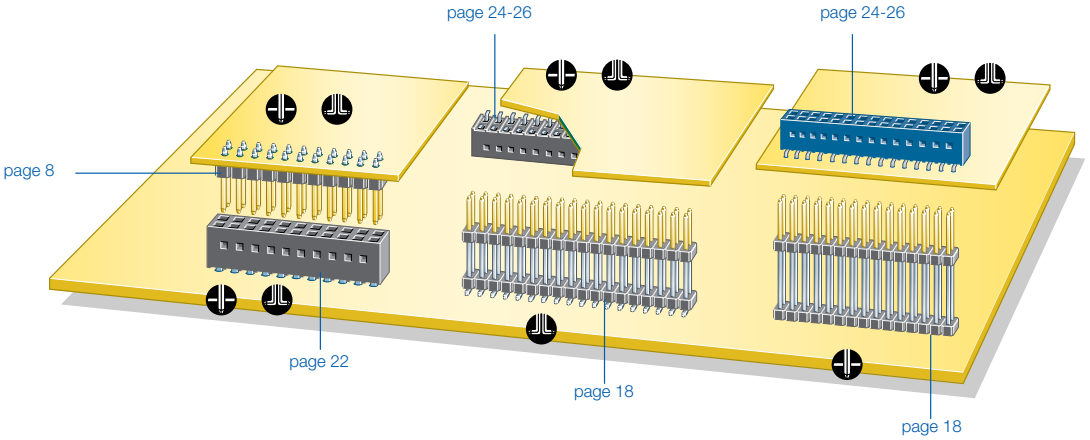
The Minitek 2mm Modular System

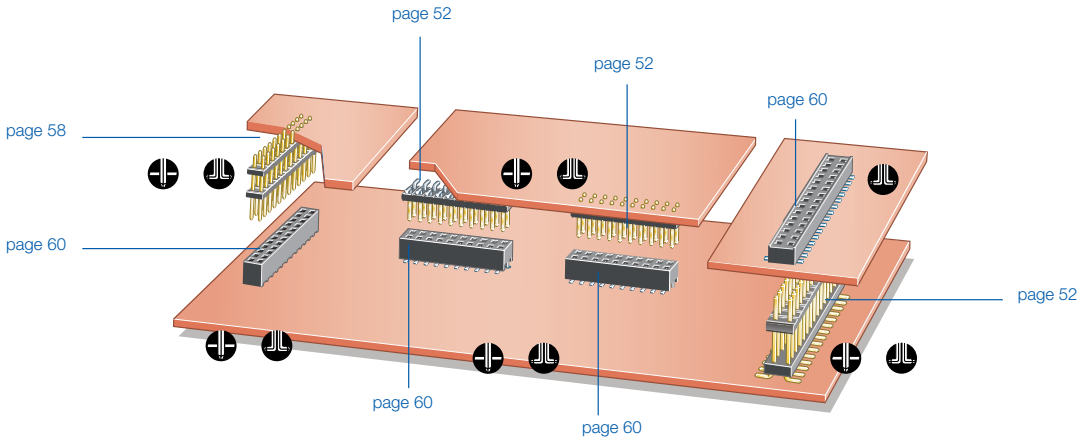
Now the most complete and versatile system available: intermateable, high temperature compatible, low coplanarity and space saving
Pages 52 – 76



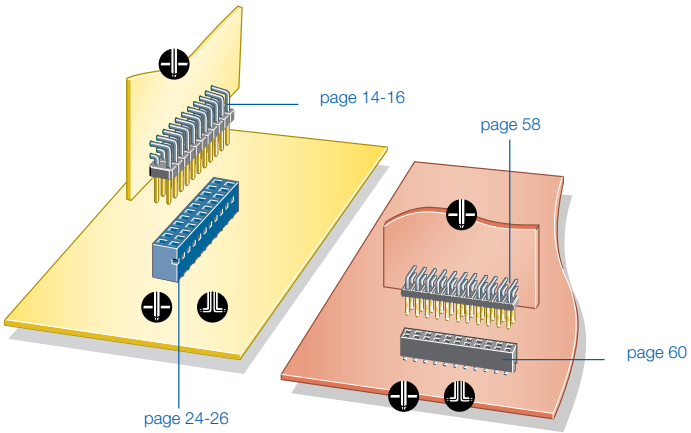
BOARD-TO-BOARD SOLUTIONS

PARALLEL

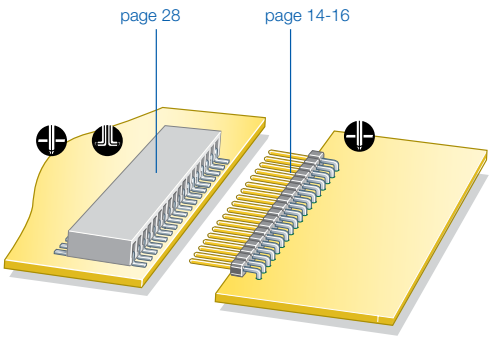




PERPENDICULAR



PLANAR



= 2.54 mm

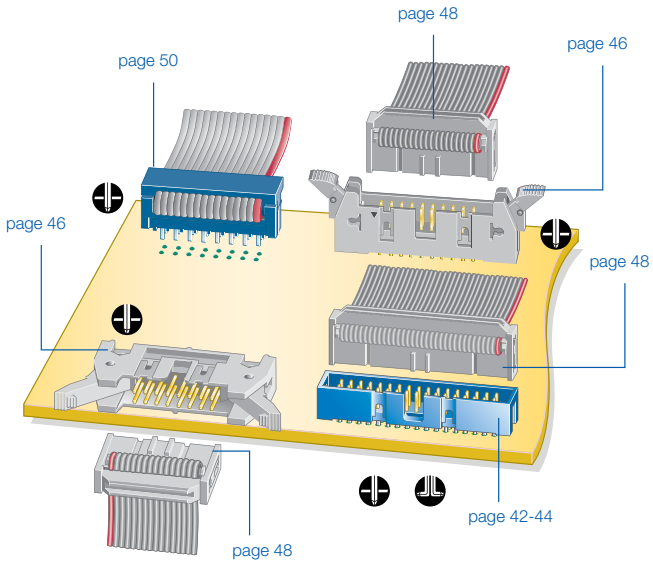
= 2.00 mm

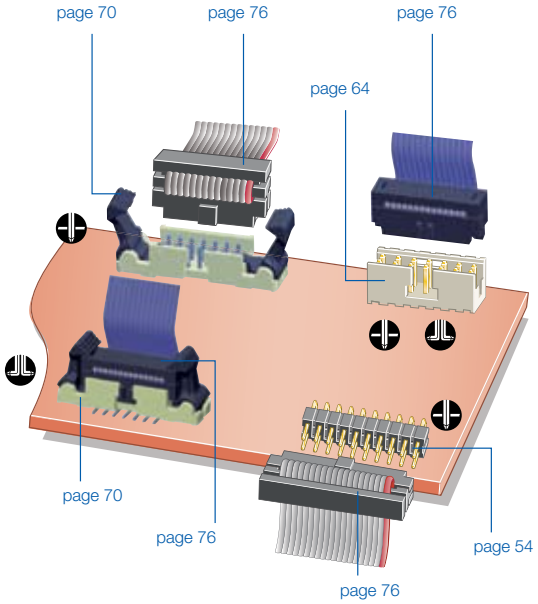
= Through Mount

= Surface Mount

CABLE-TO-BOARD SOLUTIONS

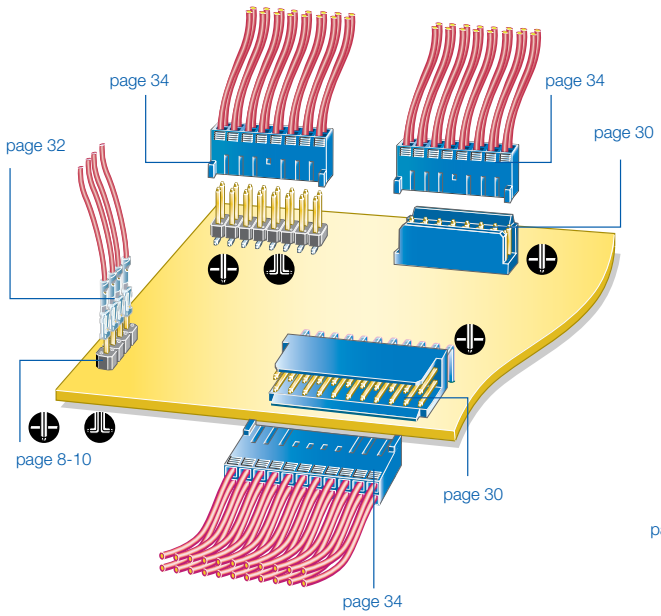
FLAT CABLE IDC

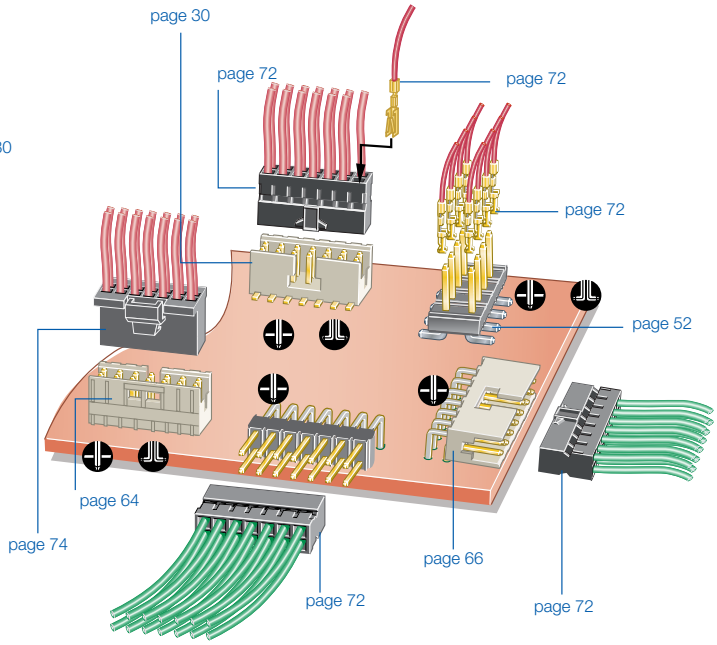




WIRE-TO-BOARD SOLUTIONS

DISCRETE WIRE





= 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 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

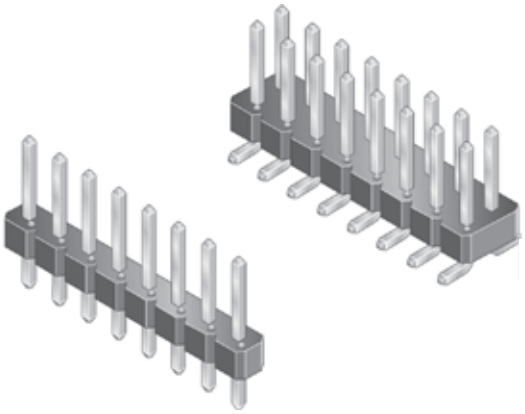
- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-114
- Tape and Reel packaging data: TA-840

PROCESSING INFORMATION

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

RoHs INFORMATION

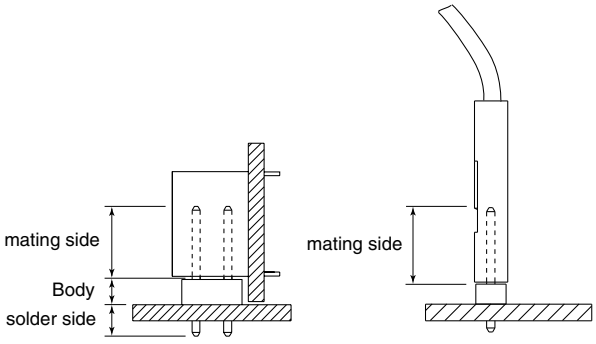
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Dubox™ Crimp-to-wire contacts	32
Dubox™ Crimp-to-wire housings	34
Dubox™ Vertical receptacles	22
Dubox™ Low profile vertical receptacles	24, 26
Dubox™ Horizontal receptacles	28
Quickie™ IDC receptacles	48
PV™ Crimp-to-Wire Contacts	38
PV™ Crimp-to-Wire Housings	40

TYPICAL APPLICATIONS



BergStik® Unshrouded Header, Vertical, Standard Sizes

PART NUMBERS

5-Digit Base Part Number	-	Plating	Pin Style	Option	Total Positions	LF

Through mount
77311 = Single Row
77313 = Double Row

Surface mount
95293 = Single Row
95278 = Double Row

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

Surface mount	
Pin style	Mating
01	5.84
02	8.08

Through mount			
Pin style	Mating	Solder	overall length (OAL)
01	5.84	2.41	10.80
18	5.84	3.05	11.43
02	5.84	3.42	11.80
27	6.60	2.66	11.82
22	7.75	3.06	13.35
24	6.75	2.90	12.20

02 to **36** = Single row TMT
03 to **17** = Single Row SMT
04 to **72** = Double row TMT
04 to **50** = Double Row SMT
08 to **50** = Double Row SMT with pegs

Option	Packaging
-	Plastic bag
A	Tape-and-reel with pick-up cap *
B	Tube with pick-up cap
	availability on request

77311	-	101	- XXLF
77311	-	118	- XXLF
77311	-	124	- XXLF
77313	-	101	- XXLF
77313	-	118	- XXLF
77313	-	124	- XXLF
95278	-	101	A XXLF

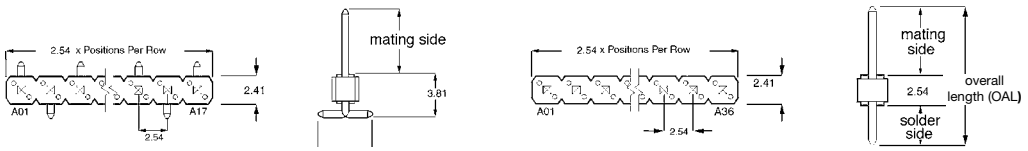
XX = 04, 06, 08, 10, 12, 16, 20

CORE RANGE

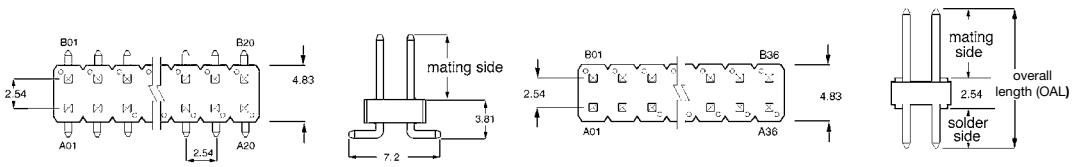
*as available

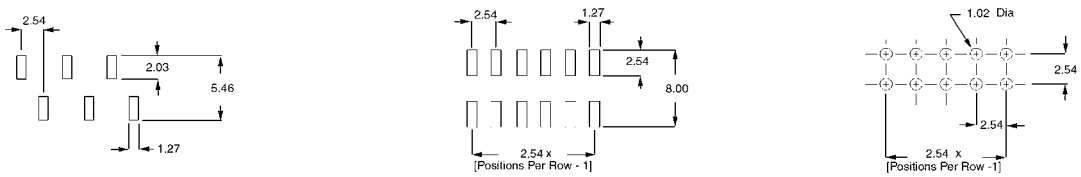
PRODUCT

0,62 square pin



0,62 square pin





Recommended PCB layouts

Dimension in mm

TECHNICAL DATA

PHYSICAL

- Housing: High temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold 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.
- 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
  (SMT pin style 01 only)

REFERENCE INFORMATION

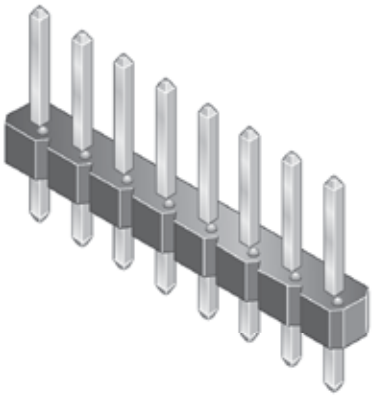
- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-114

PROCESSING INFORMATION

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

RoHs INFORMATION

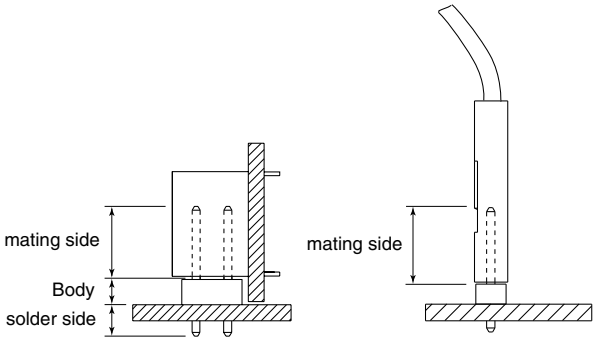
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Dubox™ Crimp-to-wire contacts	32
Dubox™ Crimp-to-wire housings	34
Dubox™ Vertical receptacles	22
Dubox™ Low profile vertical receptacles	24, 26
Dubox™ Horizontal receptacles	28
Quickie™ IDC receptacles	48
PV™ Crimp-to-Wire Contacts	38
PV™ Crimp-to-Wire Housings	40

TYPICAL APPLICATIONS



BergStik® Unshrouded Header, Vertical, Custom Sizes

PART NUMBERS

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

5-Digit Base Part Number	–	Plating	Total positions	–	MMM	TTT	LF

Through mount
68000 = Single Row
67996 = Double Row

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

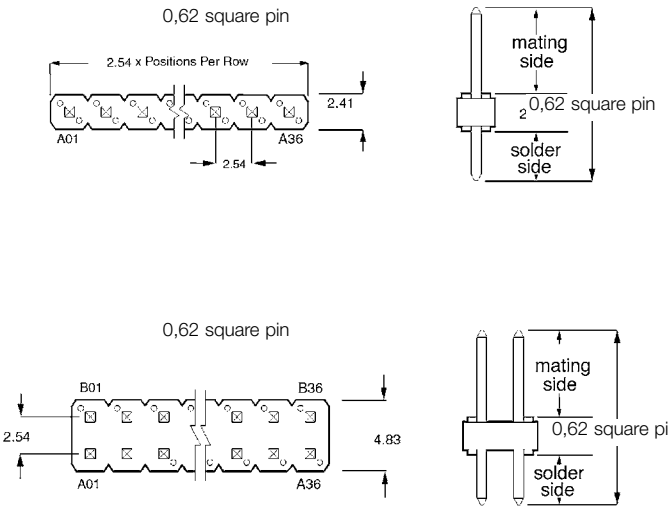
01 to 36 = Single Row
01 to 72 = Double Row

MMM = Mating dimension in 0.1 mm increments e.g. 255 = 25.5 mm

TTT = solder side dimension in 0.1 mm increments e.g. 030 = 3.0 mm

Note: 1. The total combined dimension for mating and solder side may not exceed 27 mm
2. Standard packaging in bulk
3. Special packaging availability upon request

PRODUCT



Recommended PCB layouts

Dimension in mm

2.54 mm (.100")

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 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

- Reel

REFERENCE INFORMATION

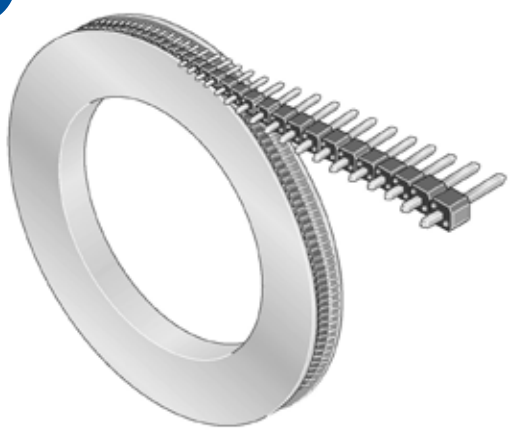
- File no. E66906
- File no. LR46923
- Product drawing: 54101 or 54102
- Product specification: BUS-12-059

PROCESSING INFORMATION

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

RoHs INFORMATION

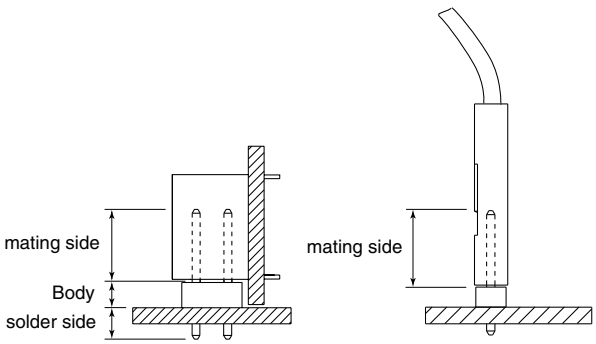
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Dubox™ Crimp-to-wire contacts	32
Dubox™ Crimp-to-wire housings	34
Dubox™ Vertical receptacles	22
Dubox™ Low profile vertical receptacles	24, 26
Dubox™ Horizontal receptacles	28
Quickie™ IDC receptacles	48
PV™ Crimp-to-Wire Contacts	38
PV™ Crimp-to-Wire Housings	40

TYPICAL APPLICATIONS



BergStik® Unshrouded Header, Continuous

PART NUMBERS

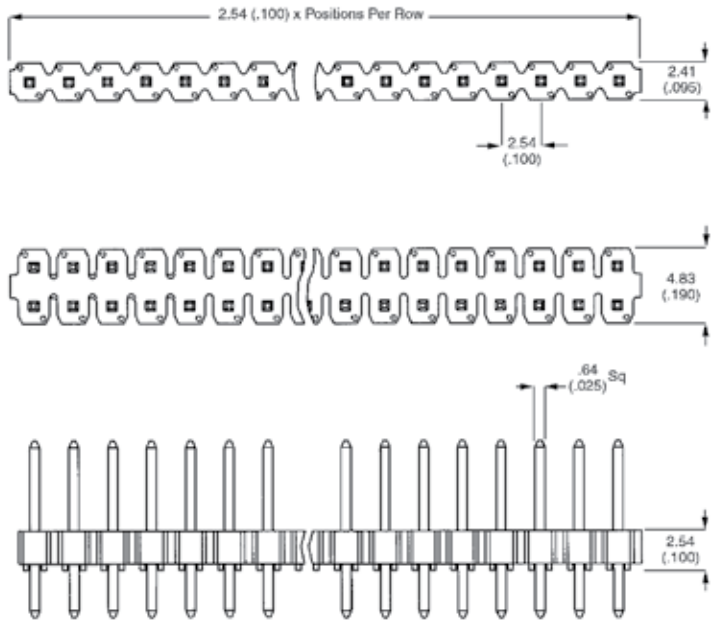
5-Digit Base Part Number	–	Plating	Pin Style	–	00	LF

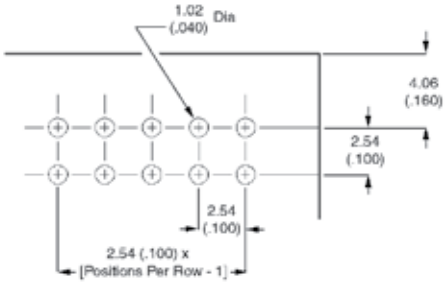
Through mount
77311 = Single Row
77313 = Double Row

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

Pin Style	mating length	solder length	overall length (OAL)
01	5.84	2.41	10.80
18	5.84	3.05	11.43
02	5.84	3.42	11.80
27	6.60	2.66	11.82
22	7.75	3.06	13.35
24	6.75	2.90	12.20

PRODUCT





Recommended PCB layouts

Dimension in mm

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 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

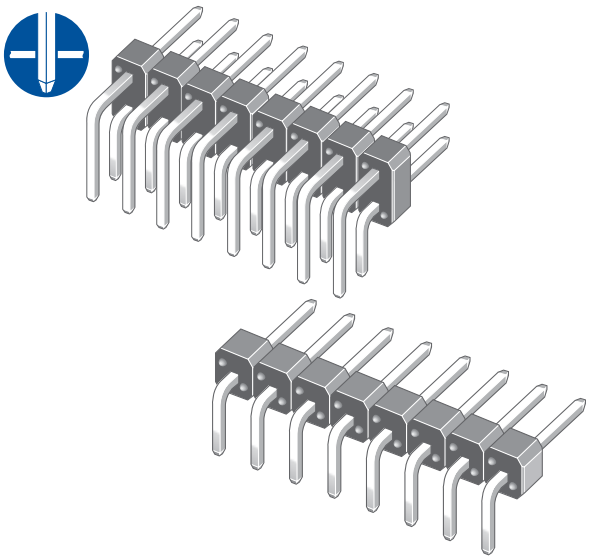
- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-114

PROCESSING INFORMATION

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

RoHs INFORMATION

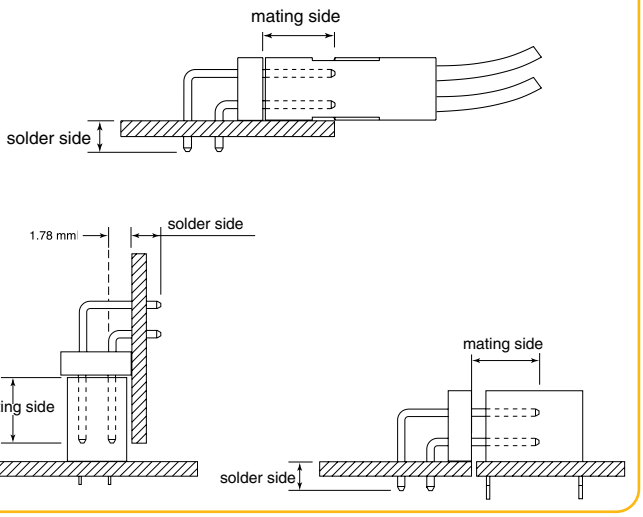
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Dubox™ Crimp-to-wire contacts	32
Dubox™ Crimp-to-wire housings	34
Dubox™ Vertical receptacles	22
Dubox™ Low profile vertical receptacles	24, 26
Dubox™ Horizontal receptacles	28
Quickie™ IDC receptacles	48
PV™ Crimp-to-Wire Contacts	38
PV™ Crimp-to-Wire Housings	40

TYPICAL APPLICATIONS



BergStik® Unshrouded Header, Right Angle, Standard Sizes

PART NUMBERS

5-Digit Base Part Number	–	Plating	Pin Style	–	Total Positions	LF

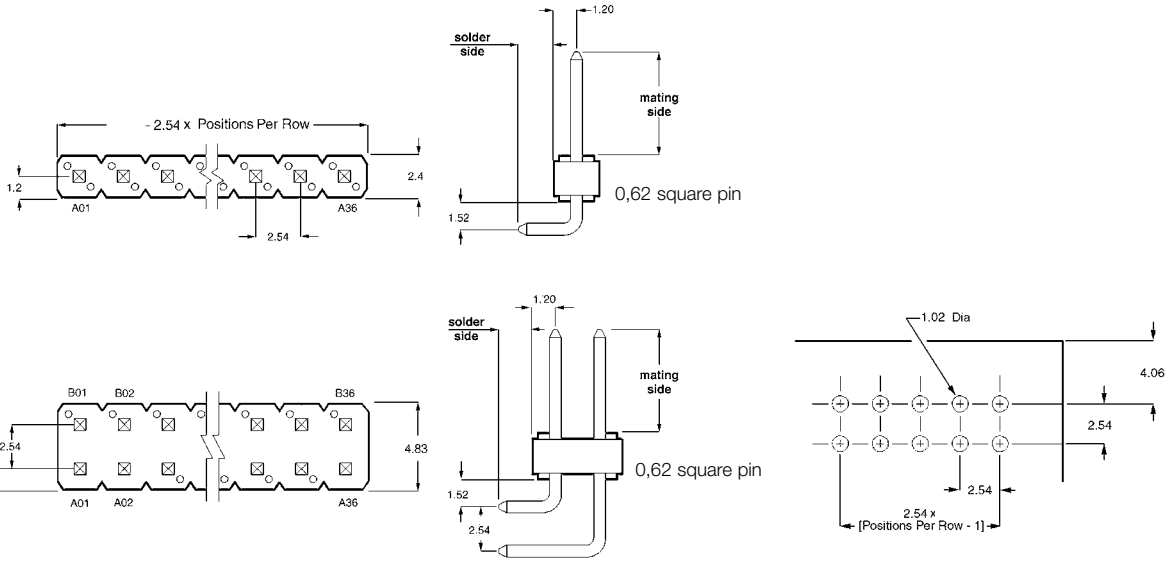
Through mount
77315 = Single Row
77317 = Double Row

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

Pin style			
77315	77317	Mating	Solder
01	03	5.84	2.41
18	04	5.84	3.05
24	12	6.75	2.90

02 to **36** = Single row TMT
04 to **72** = Double row TMT

PRODUCT



Recommended PCB layouts

Dimension in mm

TECHNICAL DATA

PHYSICAL

- Housing: High temperature, black thermoplastic
- Flammability rating: UL 94 V-0
- Pin: Phosphor-bronze
- Plating: Gold 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.
- 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

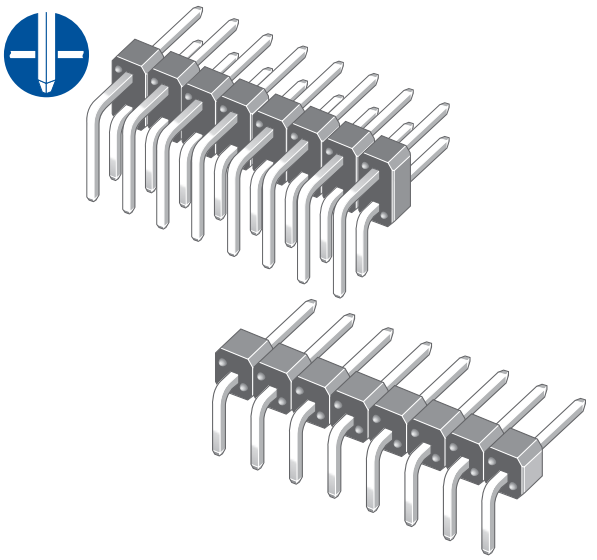
- File no. E66906
- File no. LR46923
- Product drawing: 55101 or 55102
- Product specification: BUS-12-114

PROCESSING INFORMATION

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

RoHs INFORMATION

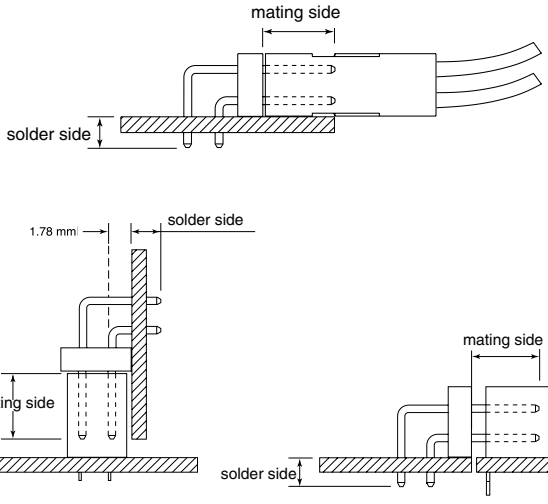
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Dubox™ Crimp-to-wire contacts	32
Dubox™ Crimp-to-wire housings	34
Dubox™ Vertical receptacles	22
Dubox™ Low profile vertical receptacles	24, 26
Dubox™ Horizontal receptacles	28
Quickie™ IDC receptacles	48
PV™ Crimp-to-Wire Contacts	38
PV™ Crimp-to-Wire Housings	40

TYPICAL APPLICATIONS



BergStik® Unshrouded Header, Right Angle, Custom Sizes

PART NUMBERS

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

5-Digit Base Part Number	–	Plating	Total positions	–	MMM	TTT	LF

Through mount
68015 = Single Row, Right angle
68020 = Double Row, Right angle

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

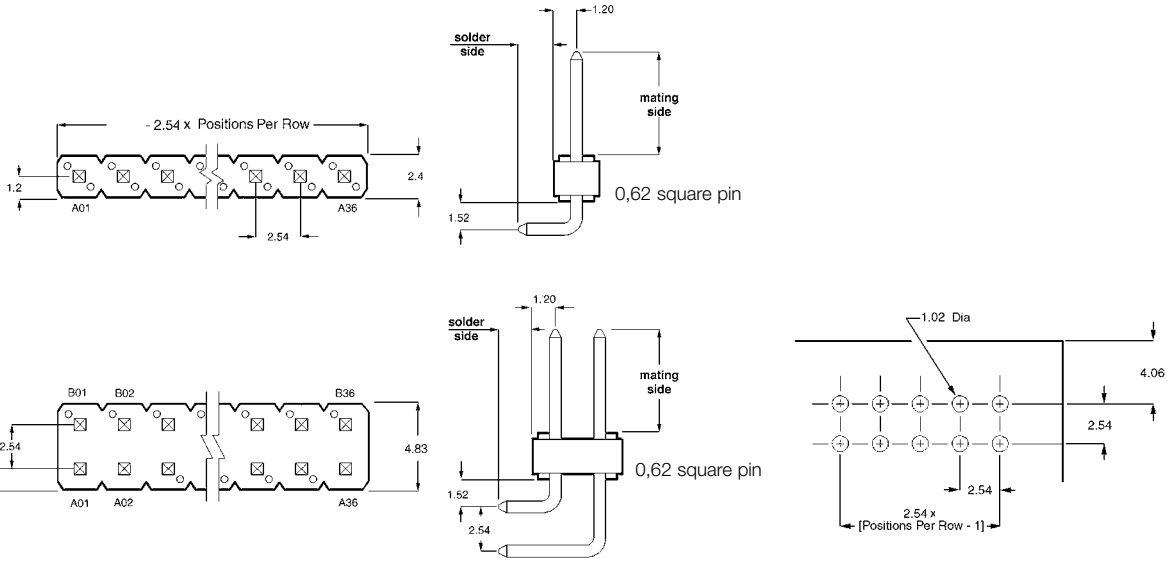
01 to 36 = Single Row
02 to 72 = Double Row

MMM = Mating dimension
in 0.1 mm increments
min = 2.3 mm
max = 15.2 mm
e.g. 135 = 13.5 mm

TTT = solder side dimension
in 0.1 mm increments
min = 2.0 mm
max = 14.7 mm
e.g. 030 = 3.0 mm

Note: 1. Bend dimension 1.52 mm only
2. The total combined dimension for mating and solder side may not exceed 25,5 mm

PRODUCT



Recommended PCB layouts

Dimension in mm

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 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

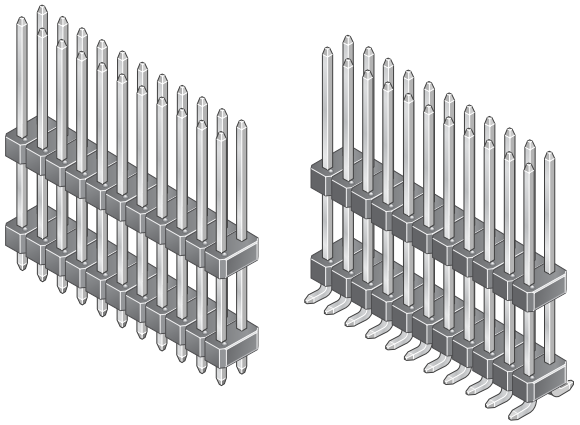
- File no. E66906
- File no. LR46923
- Product drawing: By 5-digit base part number
- Product specification: BUS-12-114

PROCESSING INFORMATION

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

RoHs INFORMATION

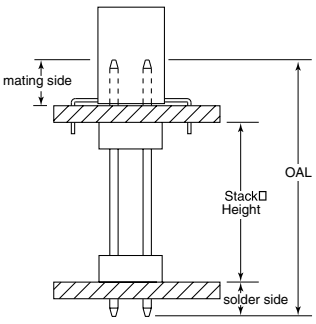
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC

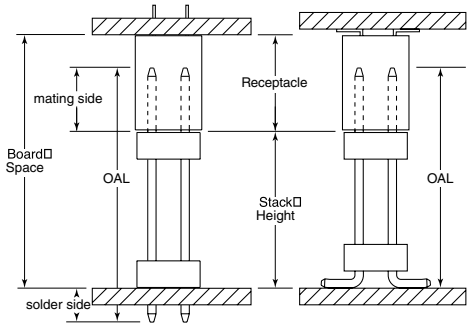


MATING DATA

Dubox™ Vertical receptacles	22
Dubox™ Low profile vertical receptacles	24, 26

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

Lead
1 = Through Hole (TMT)
2 = Surface Mount (SMT)

Solder Side Option
1 = 2.41 mm
2 = 3.05 mm
4 = SMT (double row only)

Row Option
1 = Single Row (TMT only)
2 = Double Row

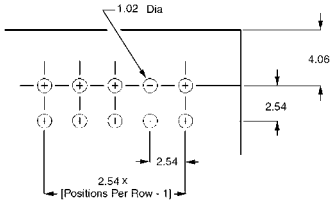
Plating
1 = 0.76 µm (30µ") gold/GXT on mating area, tin on solder side
8 = 0.38 µm (15µ") gold/GXT on mating area, tin on solder side

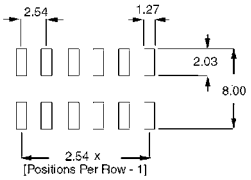
Total Positions
02 to **36** single row (TMT)
04 to **72** double row (TMT)
04 to **50** double row (SMT

Pin Style	Overall length (TMT) mm	Overall length (SMT) mm
01	12.20	10.42
02	13.50	11.72
03	15.90	14.12
04	16.76	14.98
05	17.65	15.87
06	18.91	17.13
07	20.96	19.18
08	23.50	21.72
09	26.04	24.26
10	28.58	26.80
11	31.12	29.34
12	33.66	31.88

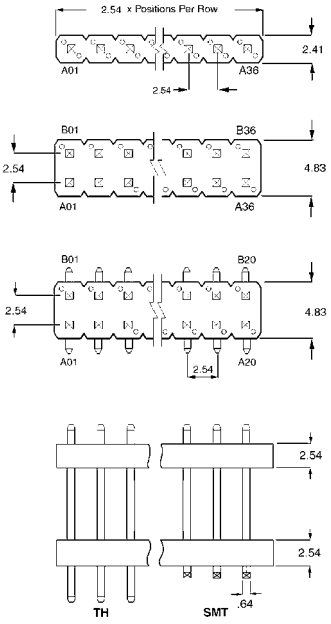
Stack Height
XX.XX = mm
Specify mm
i.e. 08.50 = 8.50 mm
in 0.50 mm increments
TMT = 08.00 min. - 25.00 max.
SMT = 09.50 min. - 26.00 max.

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 in mm

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

low profile only

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

ELECTRICAL PERFORMANCE

- Current rating: 2.5 A max. per contact
- Insulation resistance: 50,000 MΩ min.
- Contact resistance: 15 MΩ max. initial, 20 MΩ 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

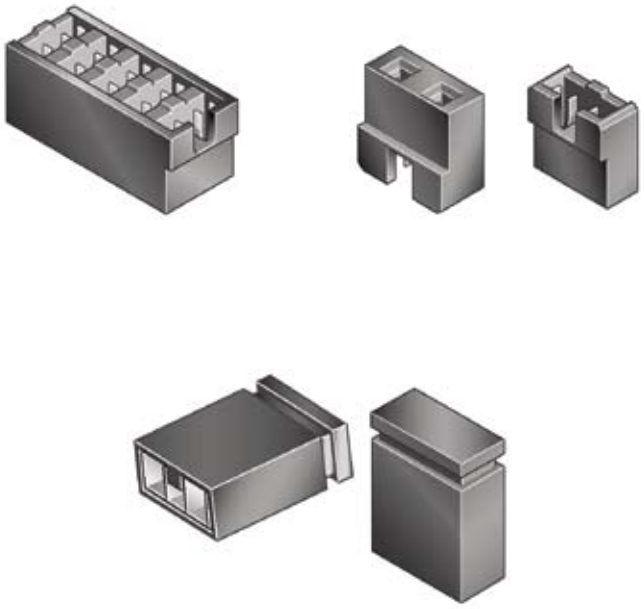
- Plastic bags

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



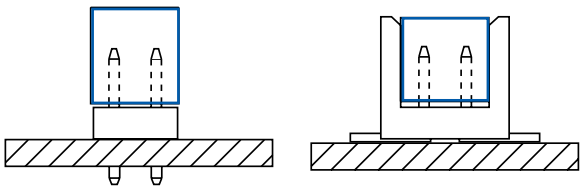
MATING DATA

Continuous unshrouded headers	12
Unshrouded vertical headers	8, 10
Unshrouded right angle headers 1	14, 16

INSERTION DEPTH

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

TYPICAL APPLICATIONS



SHUNTS

PART NUMBERS

Low profile

68786	-	Plating	02	LF

2 = 0.76 µm (30µ") gold
3 = tin

Standard

63429	-	Plating	02	LF

2 = 0.76 µm (30µ") gold
3 = tin

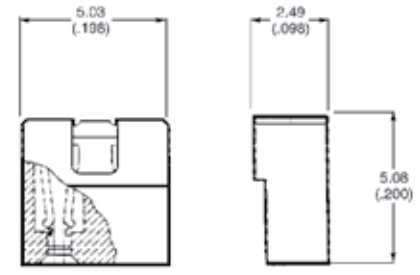
Multi-position

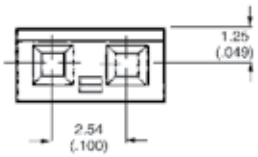
69145	-	Plating	Number of positions	LF

2 = 0.76 µm (30µ") gold
3 = tin
4 to **20** positions

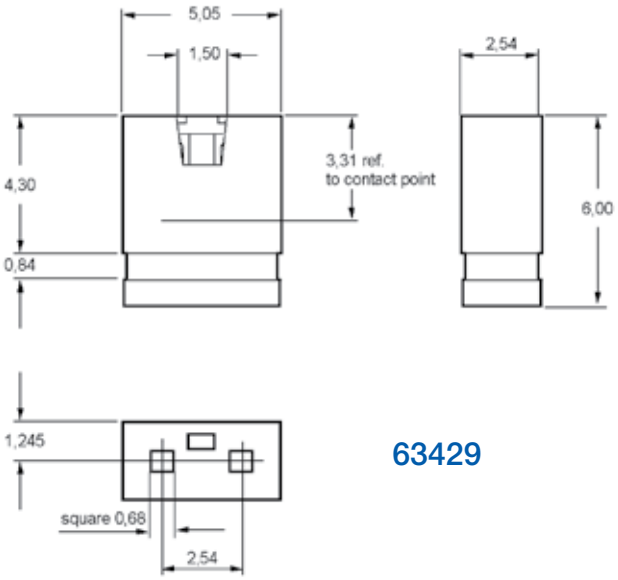
68786 - 202LF CORE RANGE

PRODUCT

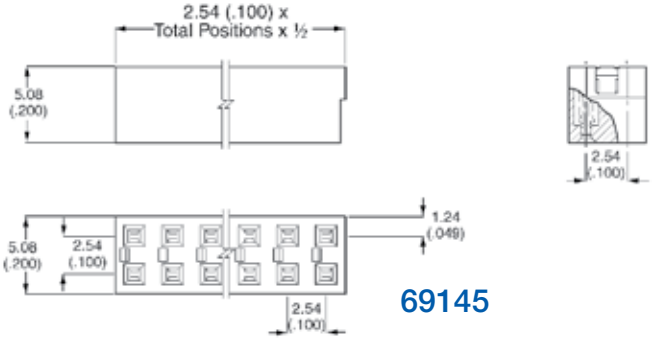




68786



63429



69145

Dimension in mm

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 or tin in accordance with IEC 603-8I

ELECTRICAL PERFORMANCE

- Current rating: 3 A dc max. per individual contact
  2 A dc max. per contact for fully energized connector
- Insulation resistance: 1x 10^5 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

- Plastic boxes or tubes

PROCESSING INFORMATION

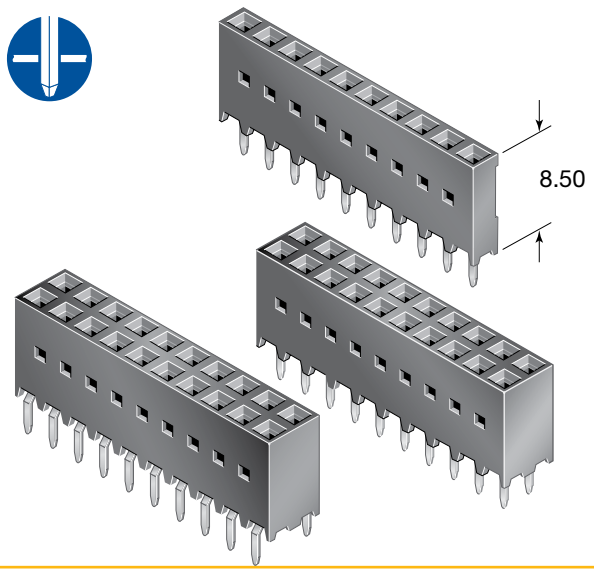
- Compatible with wave soldering processes

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



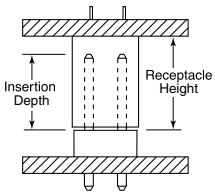
MATING DATA

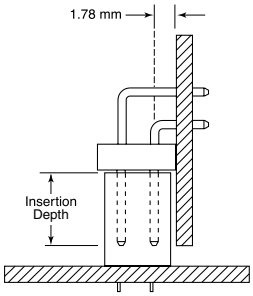
- BergStik® Unshrouded vertical headers 8, 10
- BergStik® Unshrouded right angle headers 14, 16
- BergStik® Unshrouded stacking headers 18
- BergStik® continuous Unshrouded headers 12

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

5-Digit Base Part Number	–	Plating	Positions Per Row	LF

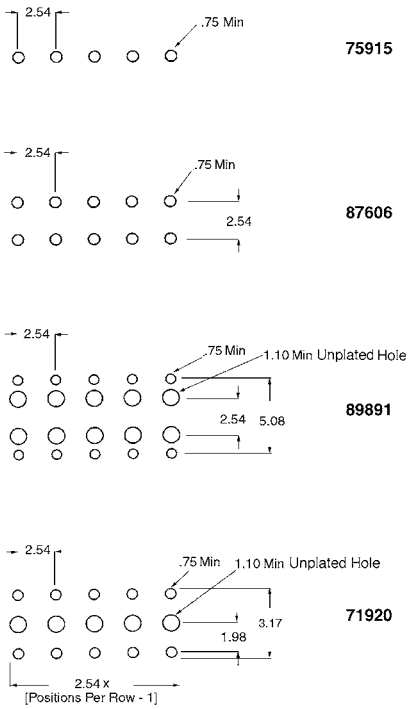
75915 = Single Row, Top Entry
71920 = Single Row, Dual Entry
87606 = Double Row, Top Entry
89891 = Double Row, Dual Entry

02 to **36** *

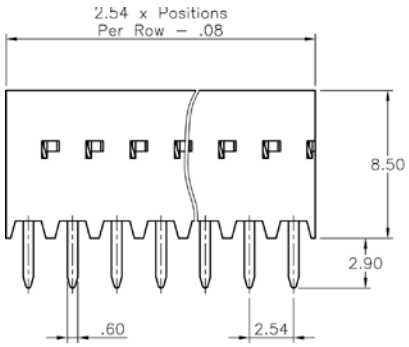
3 = 0,76 µm (30µ") gold on mating area, tin on solder side

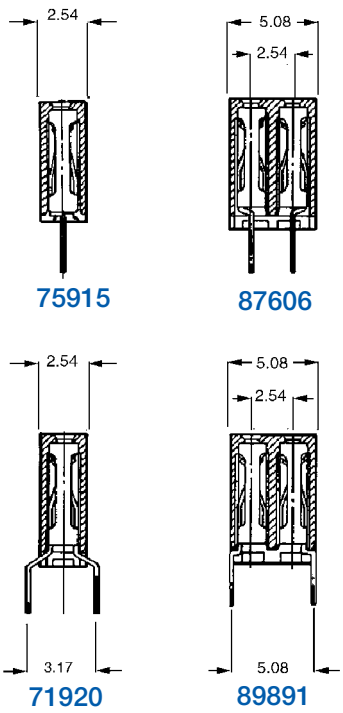
*Other sizes available on request

PRODUCT



Recommended PCB layouts





Dimension in mm

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 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 10^5 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

- Plastic boxes or tubes

PROCESSING INFORMATION

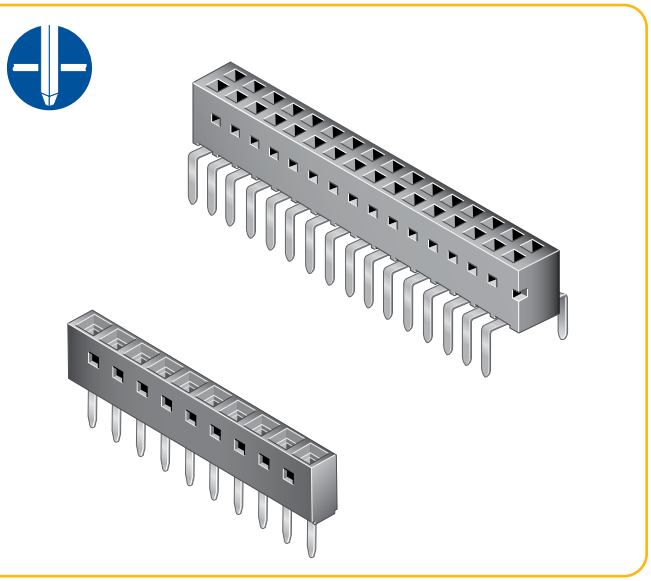
- Compatible with wave soldering processes

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



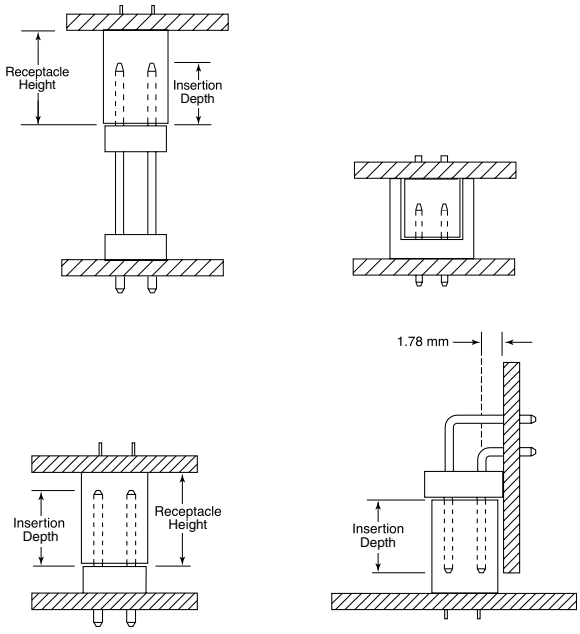
MATING DATA

- BergStik® Unshrouded vertical headers 8, 10
- BergStik® Unshrouded right angle headers 14, 16
- BergStik® Unshrouded stacking headers 18
- 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	(H)	LF

76341 = Single Row, Top Entry
76342 = Double Row, Top Entry
71991 = Double Row, Dual Entry

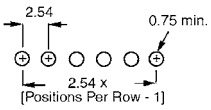
02 to **36** *

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

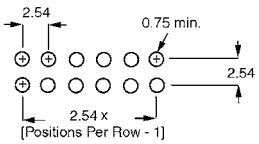
* Other sizes available on request

PRODUCT

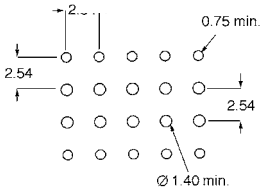
P/N 76341
Top Entry



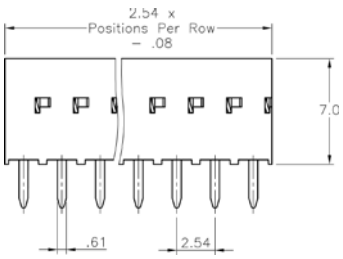
P/N 76342
Top Entry

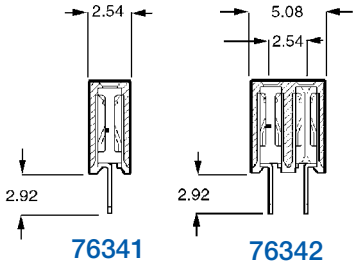


P/N 71991
Dual Entry



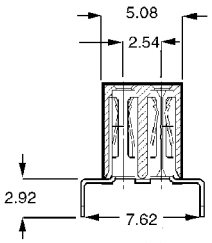
Recommended PCB layouts





76341
Top entry

76342
Top entry



71991
Dual entry

Dimension in mm

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 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 10^5 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

- Plastic boxes or tubes
- Tape and reel as available

PROCESSING INFORMATION

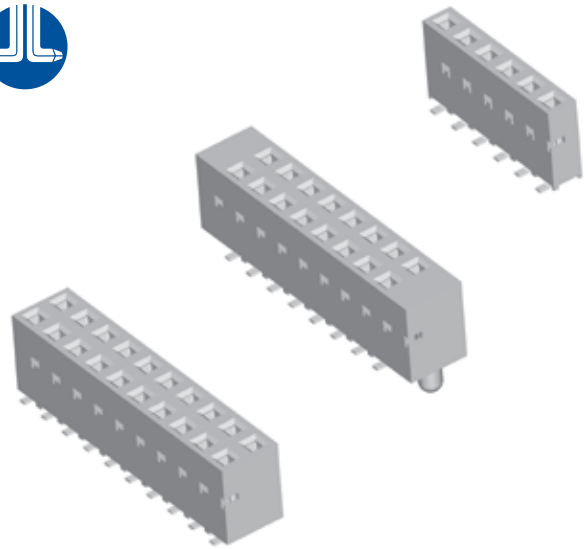
- Compatible with vapor-phase, and
  IR reflow soldering processes

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



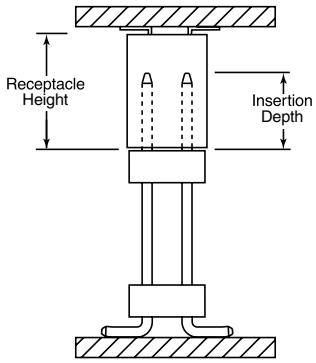
MATING DATA

BergStik® Unshrouded vertical headers	8, 10
BergStik® Unshrouded right angle headers	14, 16
BergStik® Unshrouded stacking headers	18
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

91601 = Single Row, Dual Entry
91614 = Single Row with external Locating Pegs, Dual Entry
89898 = Double Row, Dual Entry
91615 = Double Row with External Locating Pegs, Dual Entry
91618 = 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

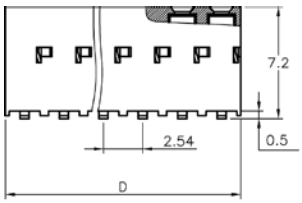
3 = 0,76 µm (30µ") gold on mating area, tin on solder side

89898 – 3XXALF CORE RANGE
XX = 02, 03, 04, 05, 06, 08, 10

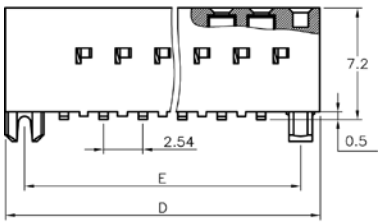
*as available

PRODUCT

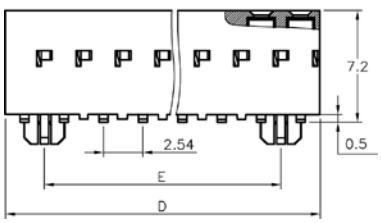
Standard



External Locating Pegs



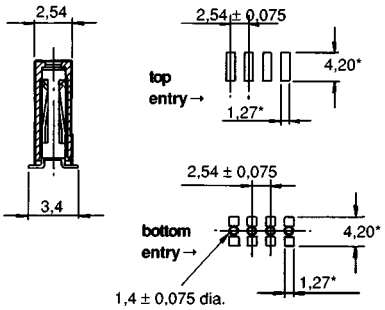
Internal Locating Pegs



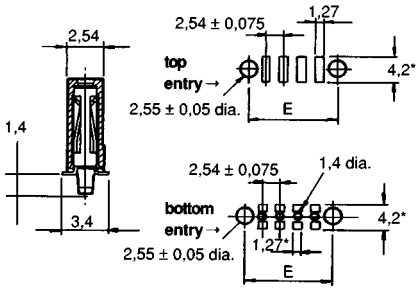
Dimension in mm

Single Row + Pad lay-outs

91601



91614



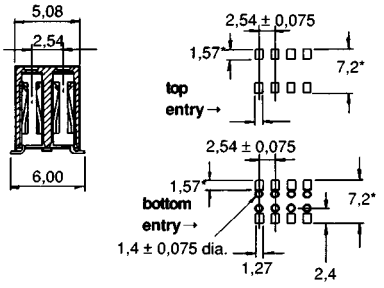
*Note: available as of 3 position versions

not available in single row

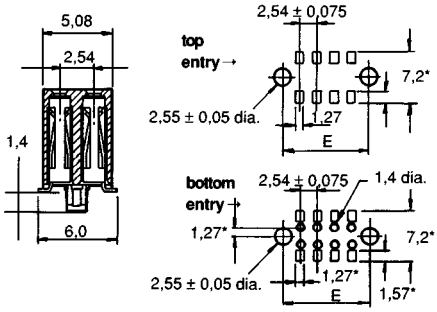
Note:
All dimensions marked with * are minimum dimensions

Double Row + Pad lay-outs

89898

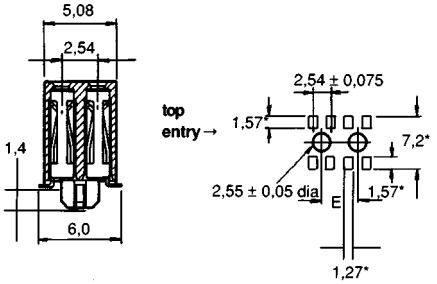


91615



*Note: available as of 3 position versions

91618



*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 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 10^5 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

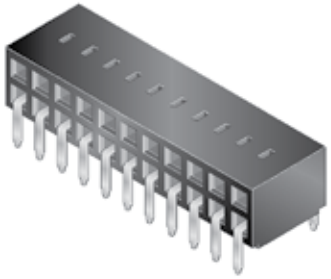
- Series 89882, 89883: compatible with wave soldering processes
- Series 71607, 71609: compatible with vapor-phase and IR reflow soldering processes

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



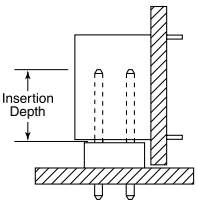
MATING DATA

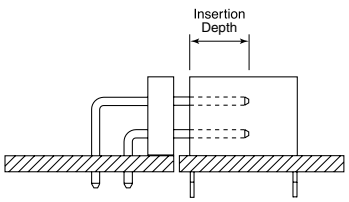
- BergStik® Unshrouded vertical headers 8, 10
- BergStik® Unshrouded right angle headers 14, 16
- BergStik® continuous Unshrouded headers 12

INSERTION DEPTH

- 3,6 mm min. to 7.50 mm max.
  [provides .381 mm wipe]

TYPICAL APPLICATIONS





Dubox™ Horizontal Receptacles

PART NUMBERS

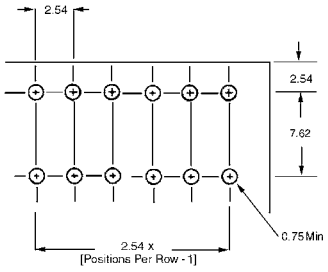
5-Digit Base Part Number	–	Plating	Positions Per Row	ALF

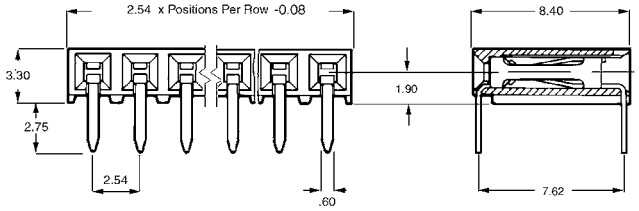
89882 = Through Hole (TMT), Single Row
89883 = Through Hole (TMT), Double Row
71607 = Surface Mount (SMT), Single Row
71609 = Surface Mount (SMT), Double Row

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

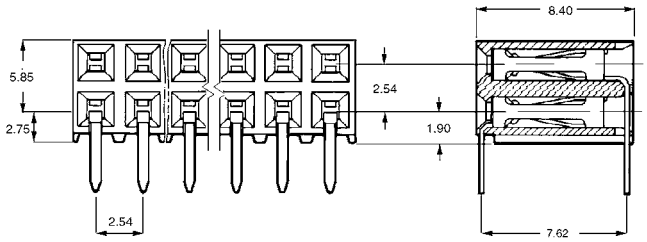
3 = 0,76 µm (30µ") gold on mating area, tin on solder side

PRODUCT

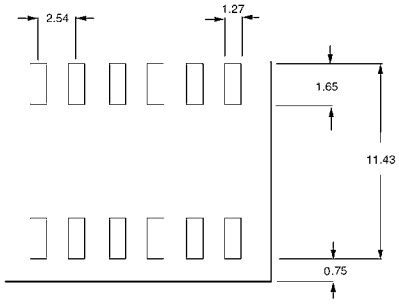




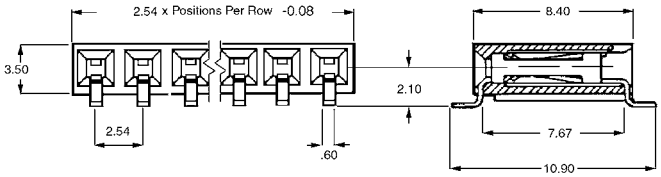
89882



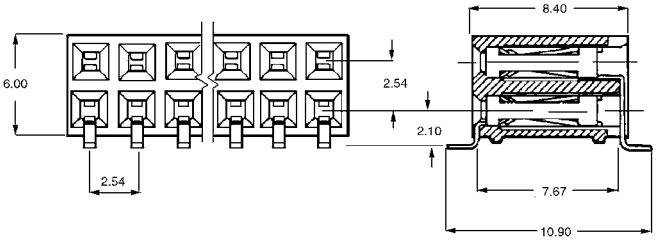
89883



Recommended PCB layouts



71607



71609

Dimension in mm

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 or tin over 1.27 µm (50µ") nickel

ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 1x 10^5 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

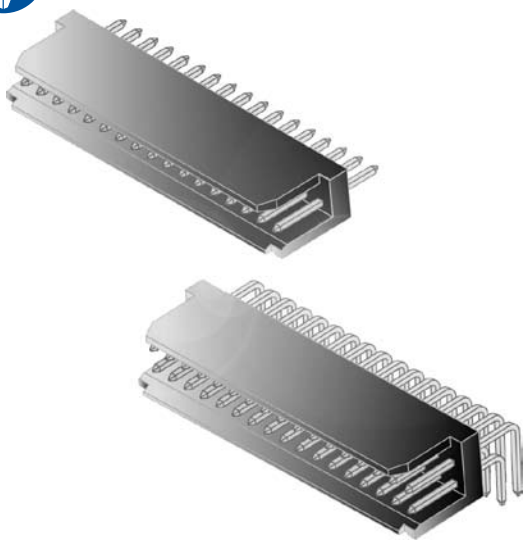
- Compatible with wave soldering processes

REFERENCE INFORMATION

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

RoHs INFORMATION

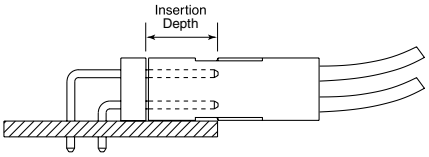
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC

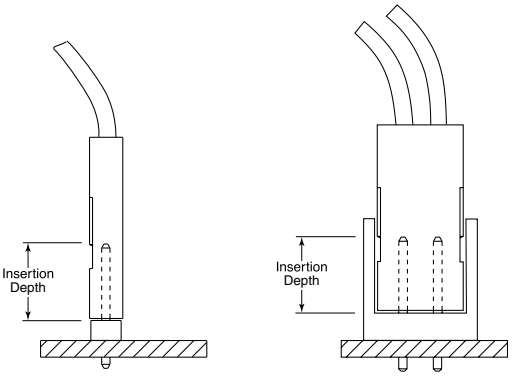


MATING DATA

Dubox™ Crimp-to-wire contacts	32
Dubox™ Crimp-to-wire housings	34

TYPICAL APPLICATIONS





Dubox™ Shrouded Headers

PART NUMBERS

5-Digit Base Part Number	-	Plating	Positions Per Row	LF

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

02 up to **18**

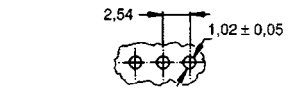
3 = 0.76 µm (30µ") gold/GXT on mating area, tin on solder side
4 = tin

76384	-	3XXLF
76385	-	3XXLF

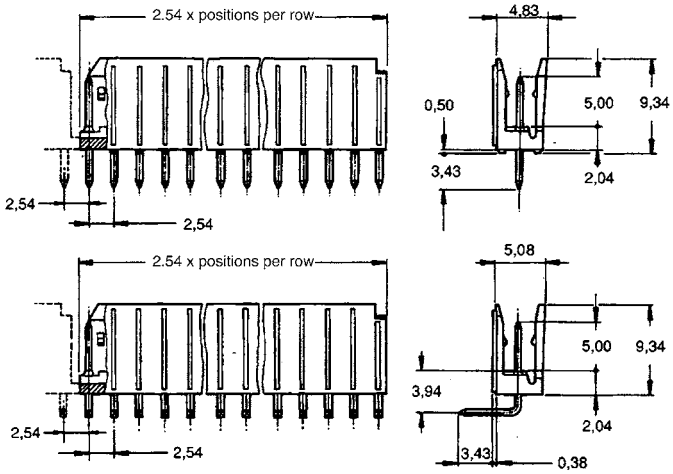
CORE RANGE

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

PRODUCT

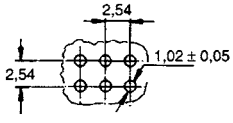


Recommended PCB layouts

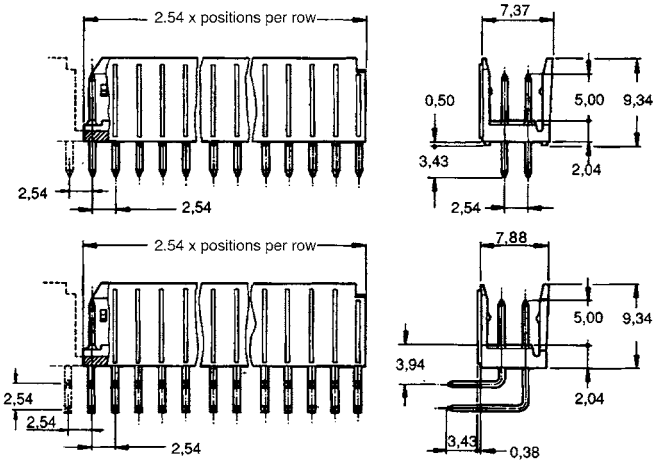


76384

76382



Recommended PCB layouts



76385

76383

Dimension in mm

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 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

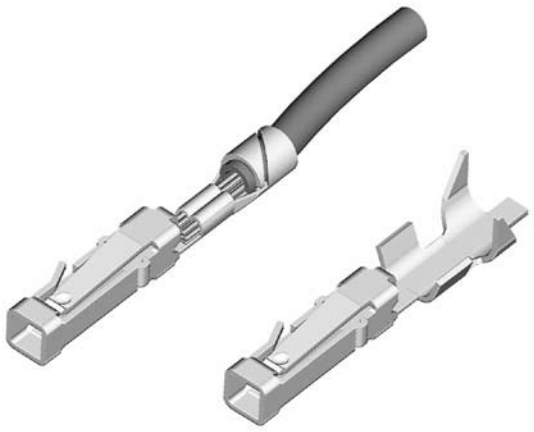
- 1Reels
- Boxes - Loose piece

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



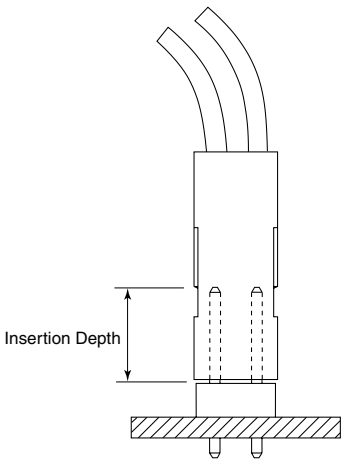
MATING DATA

- BergStik® unshrouded straight headers 8, 10
- BergStik® unshrouded right angle headers 14, 16
- Dubox™ shrouded vert./ra. headers 30
- 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
22-30	0.90 - 1.50	76347-301LF	76347-401LF	15.000/reel
22-30	0.90 - 1.50	76347-302 LF•	76347-402LF•	15.000/reel
22-30	0.90 - 1.50	76347-303 LF	76347-403LF	500/reel
20-22	1.10 - 1.60	76347-311LF	76347-411LF	15.000/reel
20-22	1.10 - 1.60	76347-312 LF•	76347-412LF•	15.000/reel

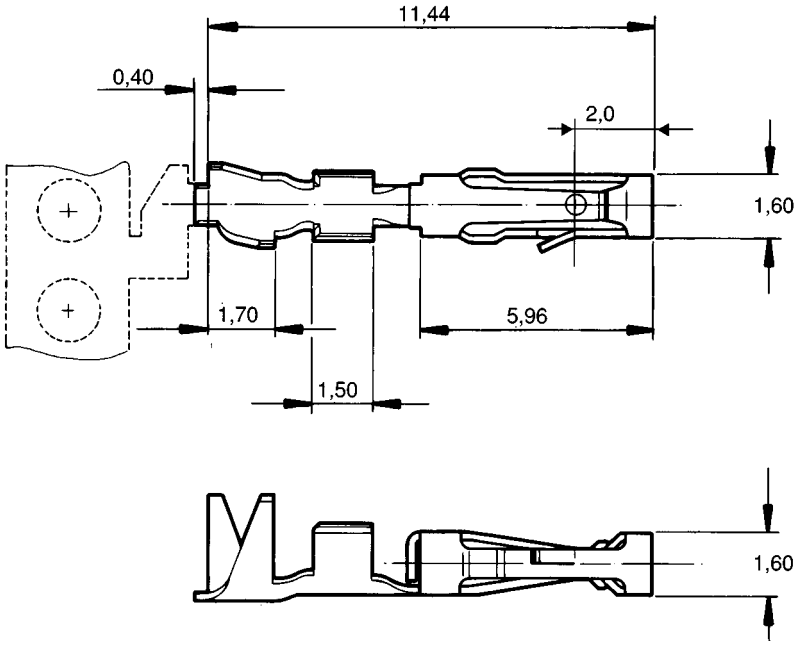
Part numbers / Contacts loose Piece

Wire size	insulation O.D.	Selective Gold Plated	Tin plated	Packaging
22-30	0.90 - 1.50	76357-301LF	76357-401LF	1000/box

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

76347 – 301LF CORE RANGE

PRODUCT



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

Wire strip length = 3,00 ± 0,25 mm

Mating pin size = 0,62 mm square

Mating pin recommended length = 5,00 mm min.

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: 1x 10^5 MΩ min.
- Dielectric withstanding voltage: 1000 V rms

OPERATING TEMPERATURE RANGE

- -65°C to +125°C

PACKAGING

- Bulk

PROCESSING INFORMATION

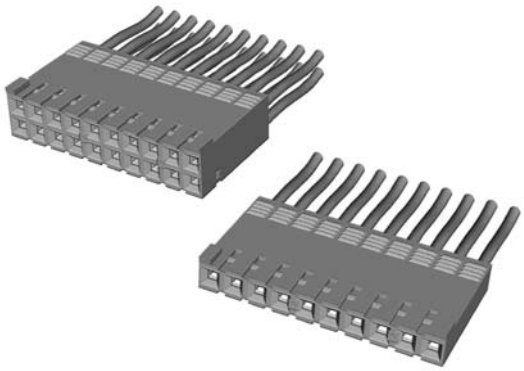
- Compatible with wave soldering processes

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



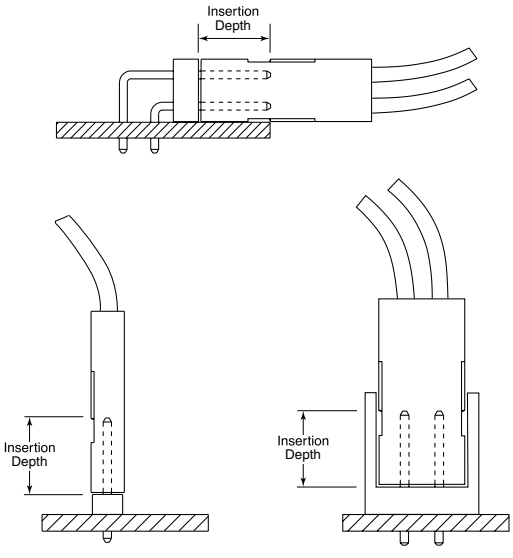
MATING DATA

BergStik® unshrouded straight headers	8, 10
BergStik® unshrouded right angle headers	14, 16
Dubox™ shrouded vert./ra. headers	30

INSERTION DEPTH

- 3.6 mm min. to 6.0 mm max.

TYPICAL APPLICATIONS



Dubox™ Crimp-to-Wire Housings

PART NUMBERS

5-Digit Base Part Number	–	0	Positions Per Row	LF

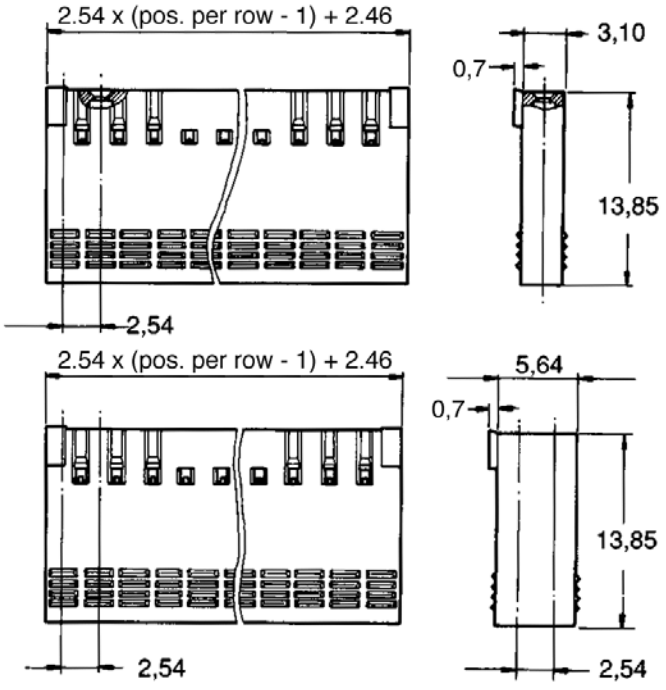
65240 = Single row
65239 = Double row

02 up to **36**

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 mm square
- Recommended pin length: 5.00 mm min.

2.54 mm (.100")

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 or tin-lead over 1.27 µm (50 µ") nickel

ELECTRICAL PERFORMANCE

- Current rating: 3 A continuous
- Insulation resistance: 1x 10^5 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

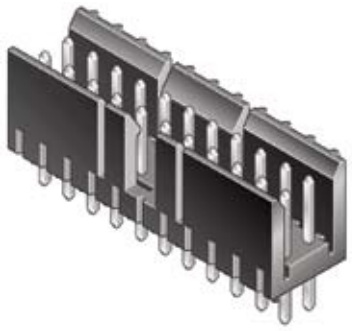
- Compatible with wave soldering processes

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

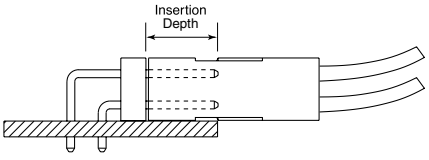


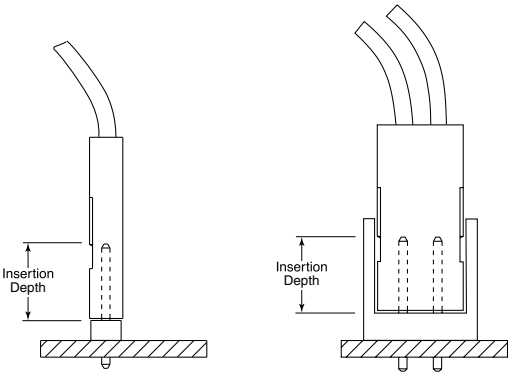
SUPERIOR PERFORMANCE

MATING DATA

- PV™ Crimp-to-wire contacts 38
- PV™ Crimp-to-wire housings 40

TYPICAL APPLICATIONS





PV™ Shrouded Headers

PART NUMBERS

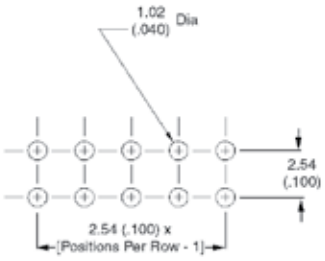
5-Digit Base Part Number	–	Plating	Total Positions	HLF

Vertical
69167 = Single Row
69168 = Double Row
Right Angle
78208 = Single Row
78207 = Double Row

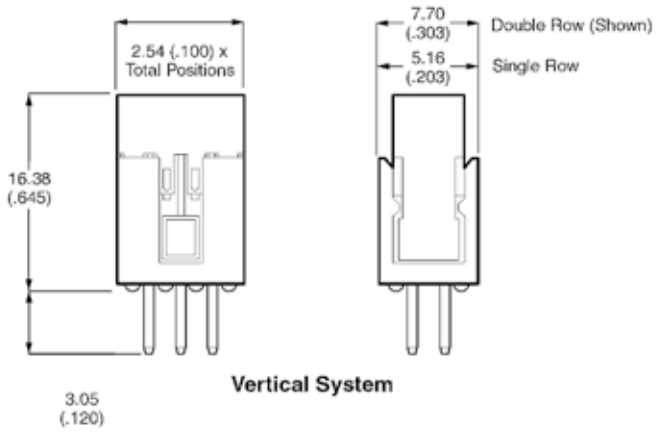
1 = 0.76 µm (30 µ") Gold
4 = tin

03 to **15** (Single Row)
06 to **30** (Double Row)

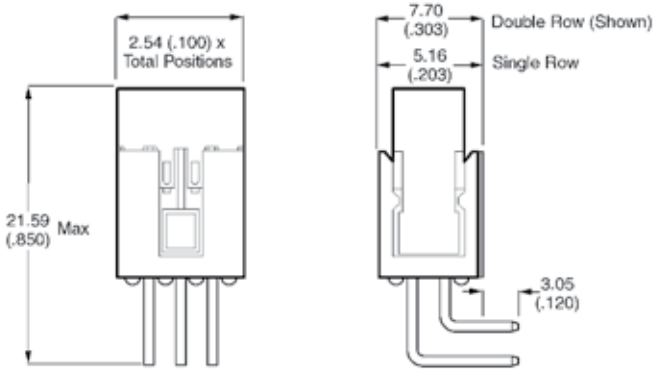
PRODUCT



Recommended PCB layouts



Vertical System



Right Angle System

Dimension in mm

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 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

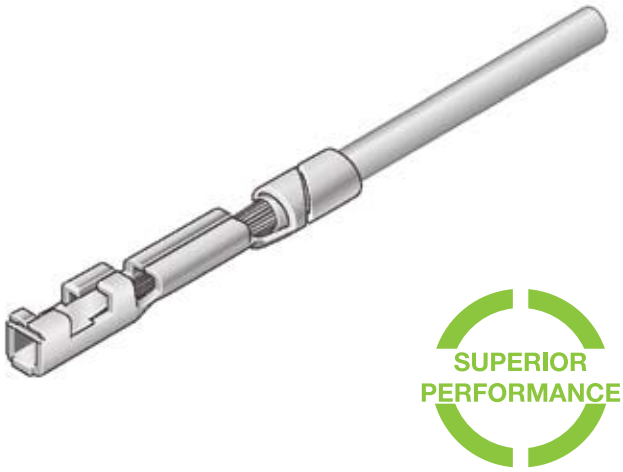
- 1Reels
- Boxes - Loose piece

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



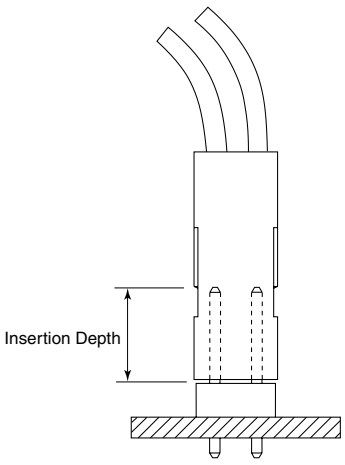
MATING DATA

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

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

5-Digit Base Part Number	–	3-Digit Dash Number	LF

1 2

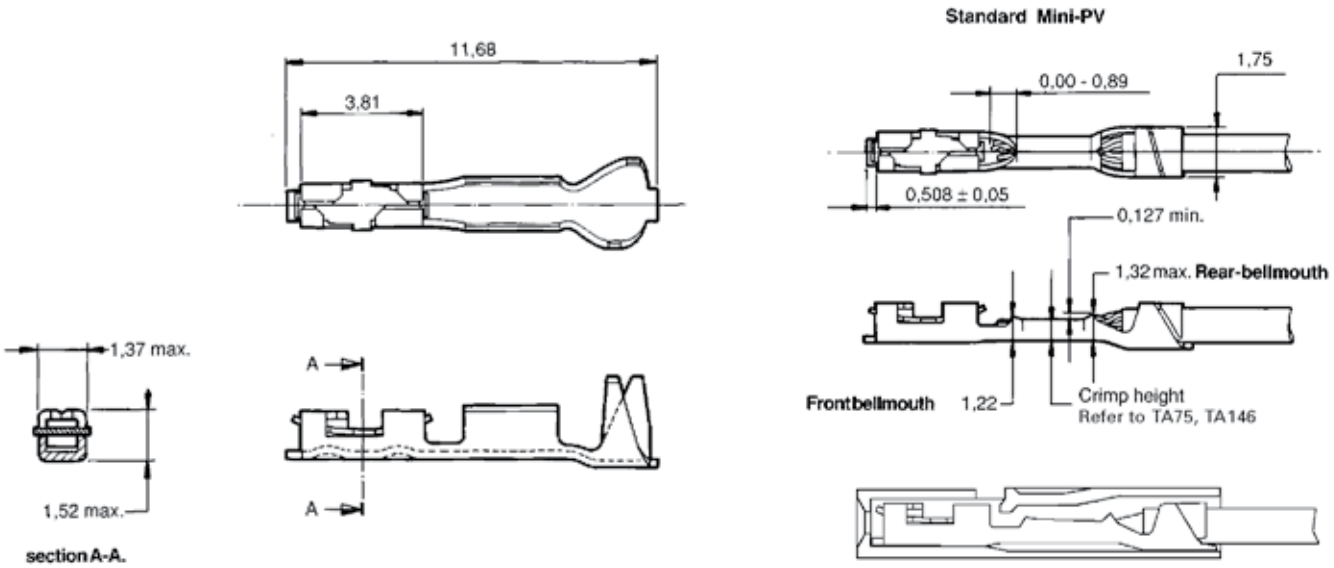
HOW TO SELECT THE RIGHT CONTACT

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

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

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

PRODUCT



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: 1x 10^5 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

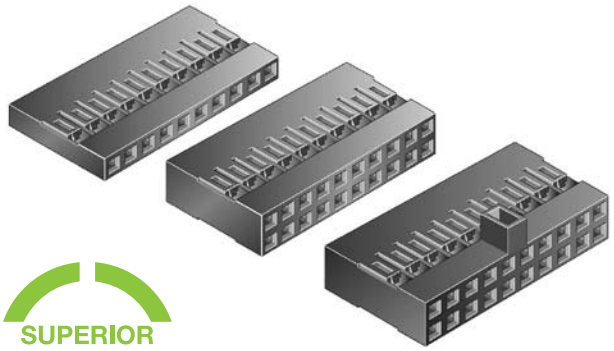
- Compatible with wave soldering processes

REFERENCE INFORMATION

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

RoHs INFORMATION

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



SUPERIOR PERFORMANCE

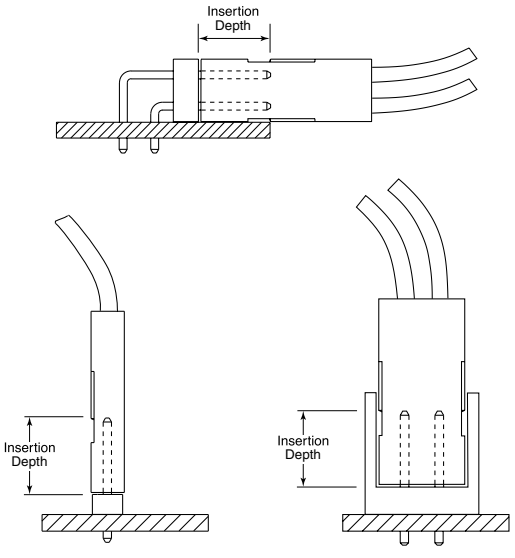
MATING DATA

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

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 Housings

PART NUMBERS

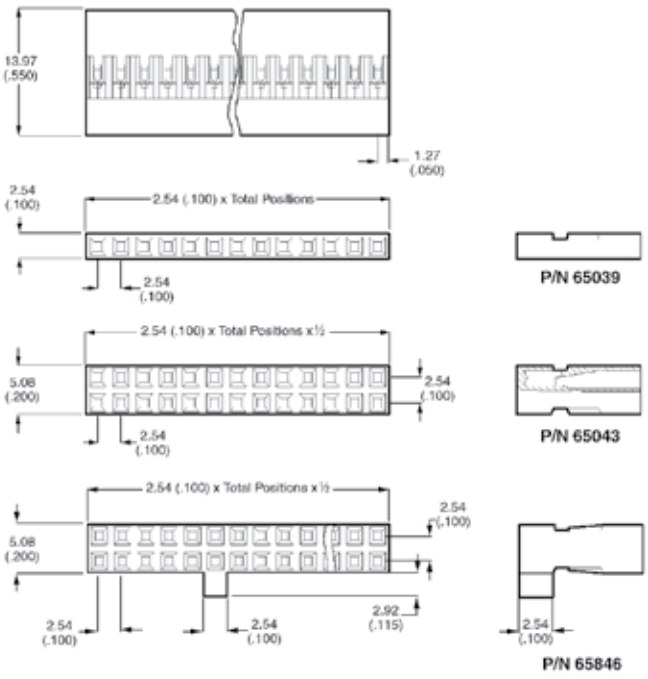
5-Digit Base Part Number – **3-Digit Dash Number** **ELF**

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

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

	Single Row			Double Row	
Total Positions	65039	78211	Total Positions	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



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: 1x 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

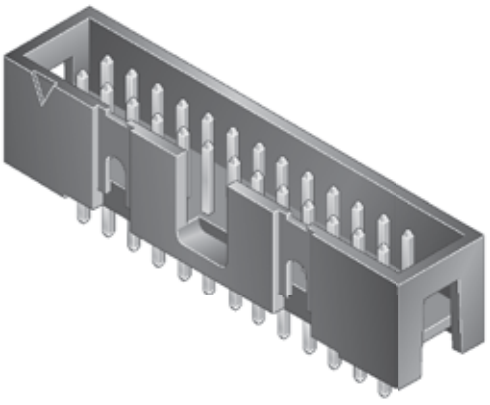
- Compatible with wave soldering processes

REFERENCE INFORMATION

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

RoHs INFORMATION

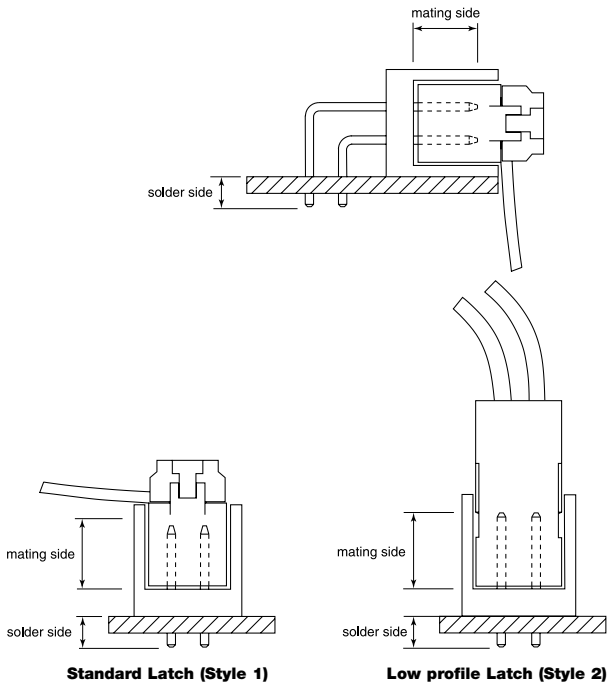
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Quickie™ IDC receptacles	48

TYPICAL APPLICATIONS



Standard Latch (Style 1) **Low profile Latch (Style 2)**

Quickie™ Shrouded Headers, Low Profile

PART NUMBERS

5-Digit Base Part Number	–	Plating	Total Positions	LF

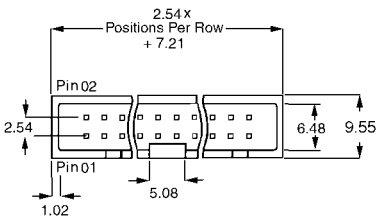
Through mount
75869 = Vertical
75867 = Right angle

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

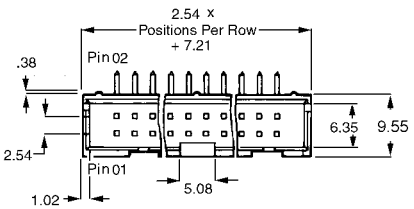
30 = 4 pos.
31 = 6 pos.
32 = 8 pos.
01 = 10 pos.
02 = 14 pos.
03 = 16 pos.
04 = 20 pos.
05 = 26 pos.
06 = 34 pos.
07 = 40 pos.
08 = 50 pos.
09 = 60 pos.
10 = 64 pos.

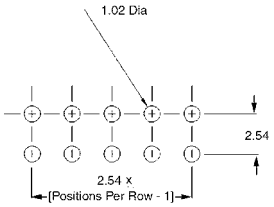
PRODUCT

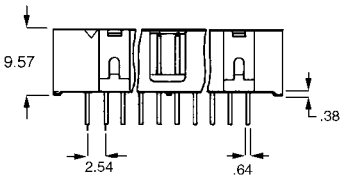
Vertical

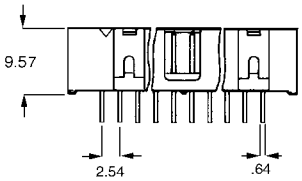


Right Angle

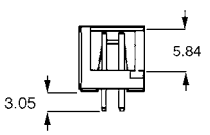


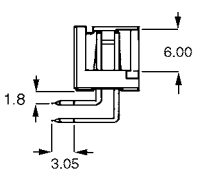






Recommended PCB layouts





Dimension in mm

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 10^5 MΩ min.
- Dielectric withstanding voltage: 500 V rms min.

MECHANICAL PERFORMANCE

- Pin retention to housing: 20 N min.

OPERATING TEMPERATURE RANGE

- -65°C to +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

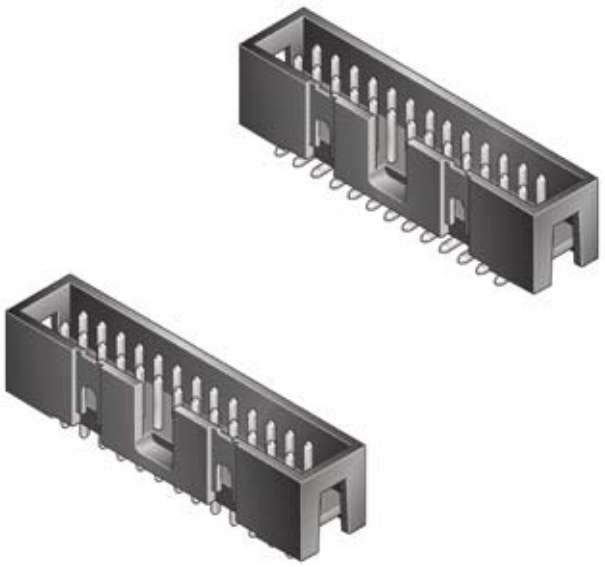
- Compatible with wave, vapor-phase, and IR reflow soldering processes

REFERENCE INFORMATION

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

RoHs INFORMATION

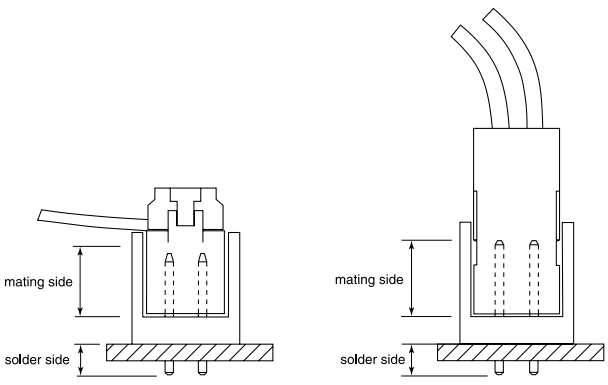
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Quickie™ IDC receptacles	48

TYPICAL APPLICATIONS



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

PART NUMBERS

SMT (Surface Mount)

52601	-	G	Total Positions	-	8TLF

10, 14, 16, 20, 26, 30, 34, 40, 44, 50, 60

PiP (Pin-in-Paste)

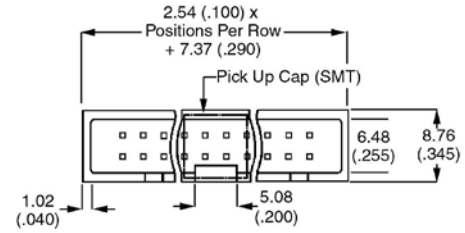
Base Part Number	-	1	Total Positions	option	LF

10056844 = Vertical
10056845 = Right angle

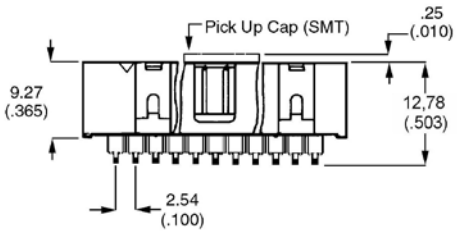
08, 10, 14, 16, 20, 26, 30, 34, 40

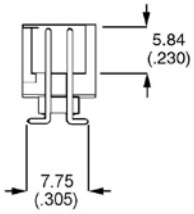
A = Tape & reel (for vertical)
Blank = Tube (for right angle)

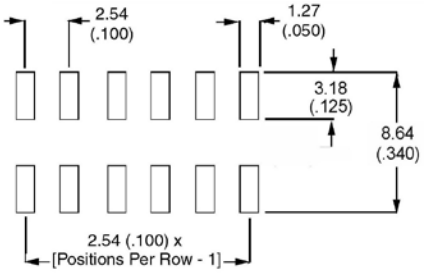
PRODUCT



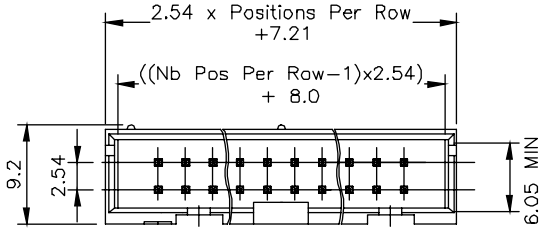
52601



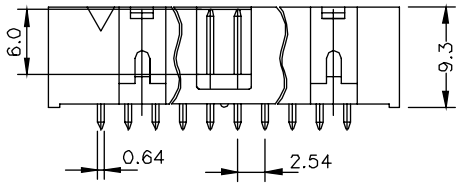


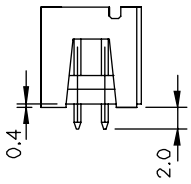


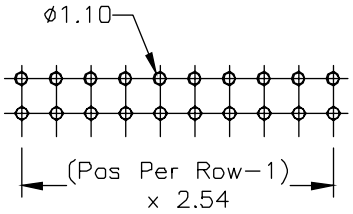
Recommended PCB layouts



10056844







Recommended PCB layouts

Dimension in mm

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 10^5 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

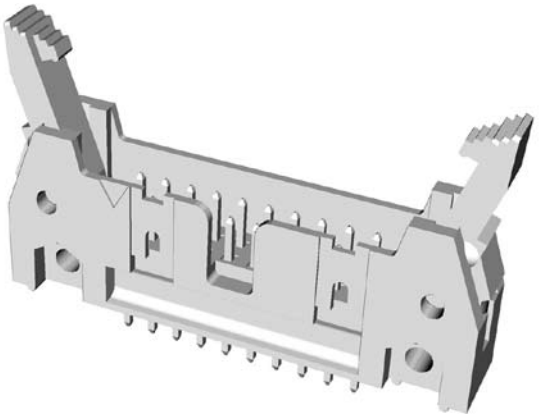
- Compatible with wave soldering processes

REFERENCE INFORMATION

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

RoHs INFORMATION

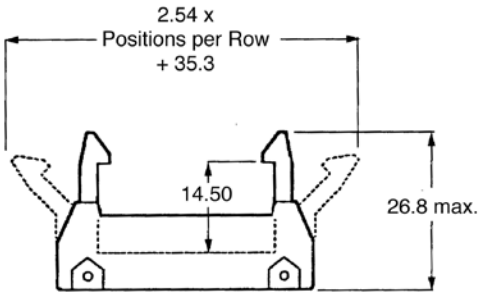
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



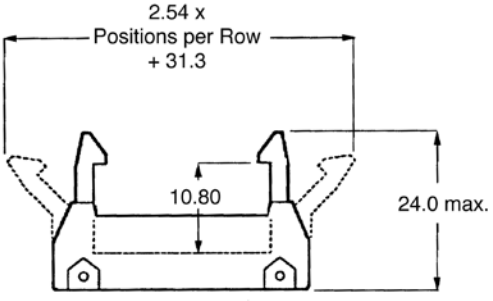
MATING DATA

Quickie™ IDC receptacles	48

TYPICAL APPLICATIONS



Standard Latch (Style 1)



Low profile Latch (Style 2)

Quickie™ Shrouded Headers, Eject Latch

PART NUMBERS

5-Digit Base Part Number	–	Latch Style	Total Positions	LF

Through mount
71918 = Vertical
71922 = Right angle

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

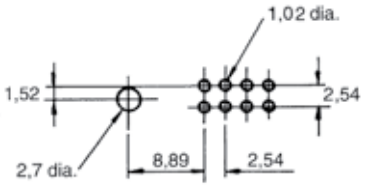
06, 08, 10, 14, 16, 18, 20, 26, 30, 34, 40, 44, 50, 60, 64

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

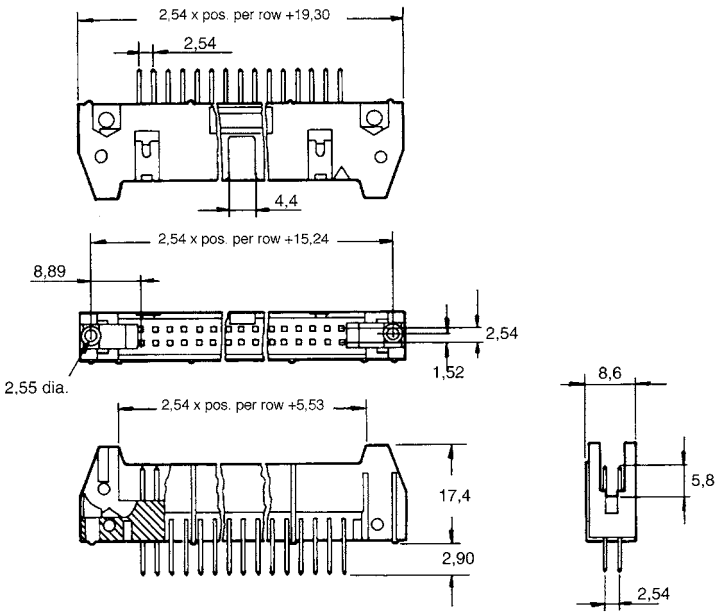
71918	–	1XXLF	CORE RANGE
71922	–	1XXLF	

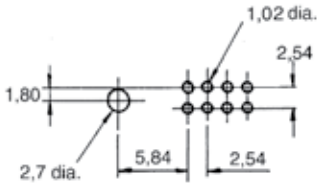
XX = 06, 08, 10, 16, 20

PRODUCT

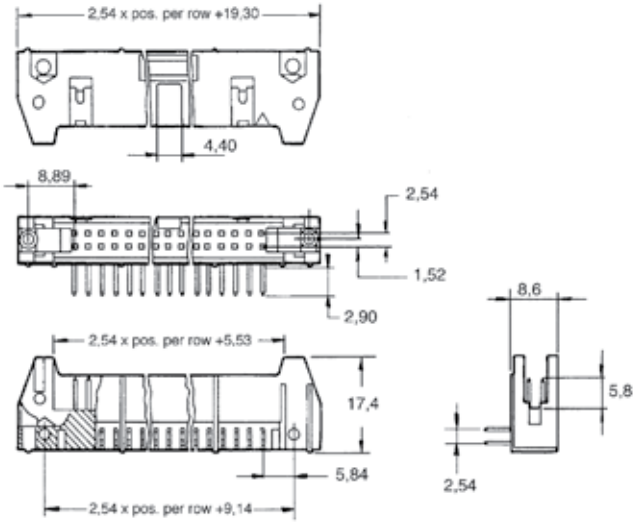


Vertical





Right Angle



Recommended PCB layouts

Dimension in mm

TECHNICAL DATA

PHYSICAL

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

ELECTRICAL PERFORMANCE

- Current rating: 1 A continuous
- Insulation resistance: 1x 10^5 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

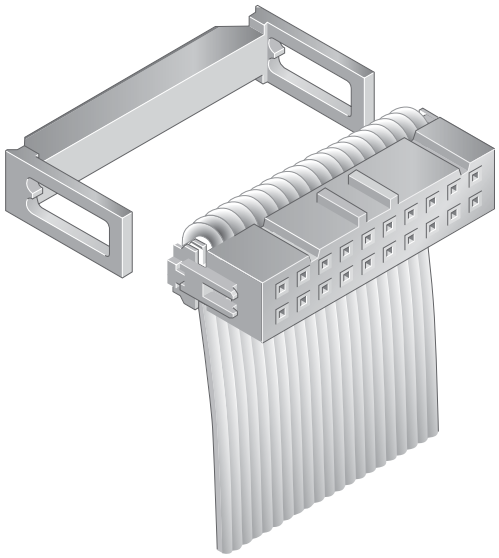
- Compatible with wave soldering processes

REFERENCE INFORMATION

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

RoHs INFORMATION

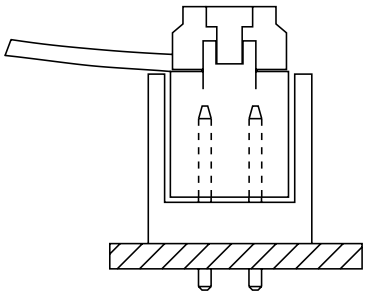
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

BergStik® unshrouded vertical headers	8, 10, 12
Quickie® shrouded low profile headers	42, 44
Quickie® shrouded eject latch headers	46

TYPICAL APPLICATIONS



Low profile Latch (Style 2)

Quickie™ IDC Receptacle

PART NUMBERS

7	1	6	0	0	–	Strain Relief	Total Positions	LF

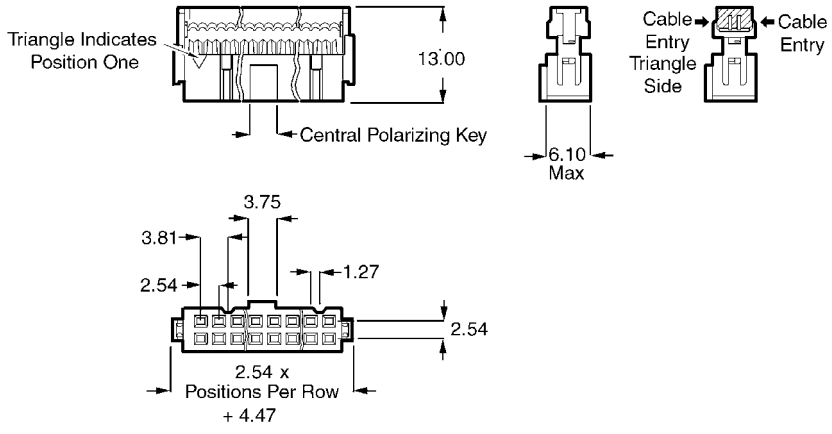
Note: 4 position available without strain relief only

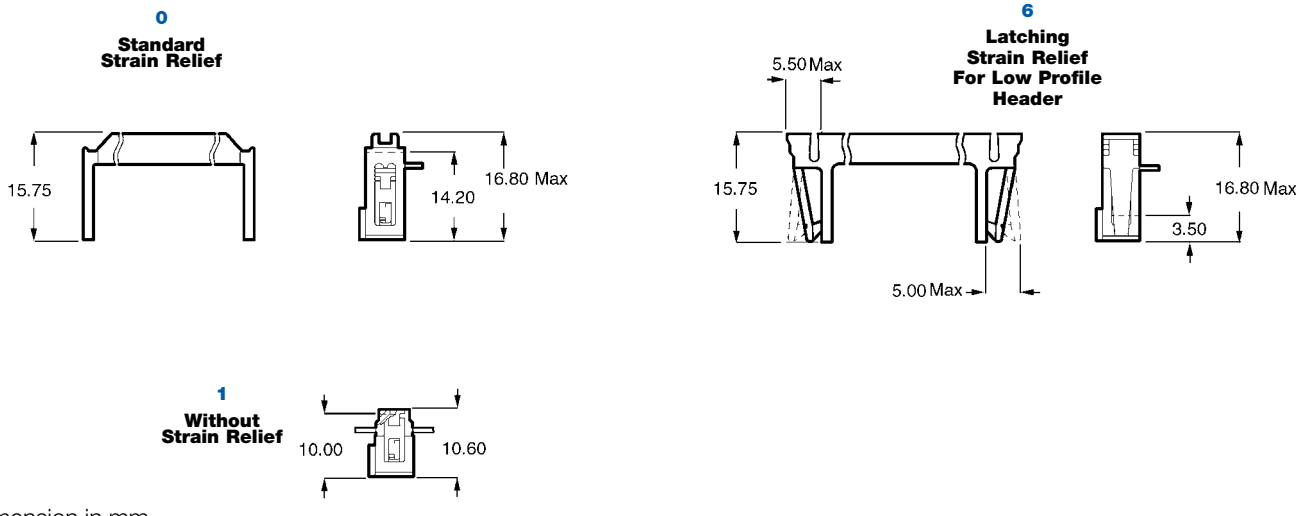
04, 06, 08, 10, 14, 16, 20, 26, 34, 40, 50, 60, 64

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

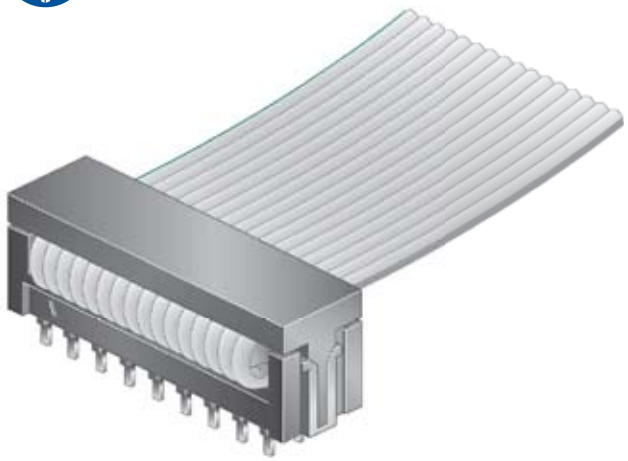




Dimension in mm

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: 1x 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

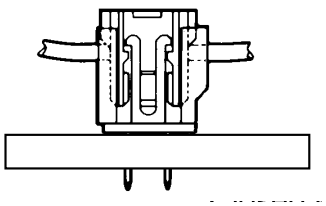
REFERENCE INFORMATION

- 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



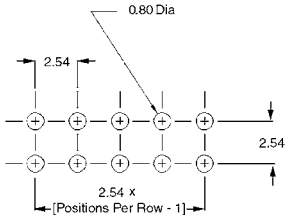
Quickie™ IDC PCB Connector

PART NUMBERS

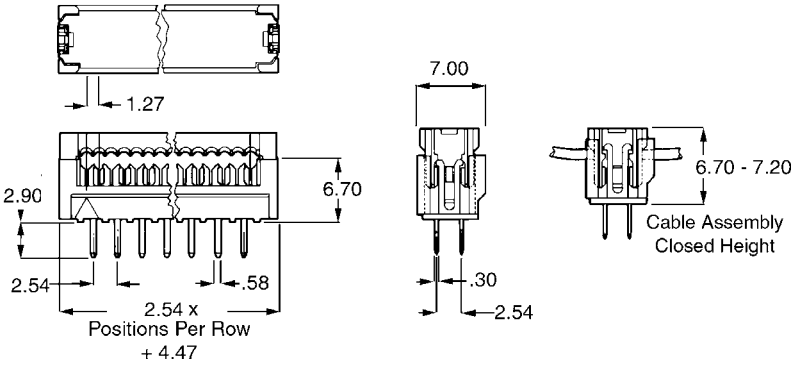
6	9	8	3	0	–	0	Total Positions	LF

06 = 6 pos.
08 = 8 pos.
10 = 10 pos.
14 = 14 pos.
16 = 16 pos.
18 = 18 pos.
20 = 20 pos.
24 = 24 pos.
26 = 26 pos.
30 = 30 pos.
34 = 34 pos.
40 = 40 pos.
50 = 50 pos.
60 = 60 pos.
64 = 64 pos.

PRODUCT



Recommended PCB layouts



Dimension in mm

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 10^5 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: TMT in tubes (04 to 06 pos. packed in box)
- SMT in Tape-and-reel
- Optional: SMT in Tubes

PROCESSING INFORMATION

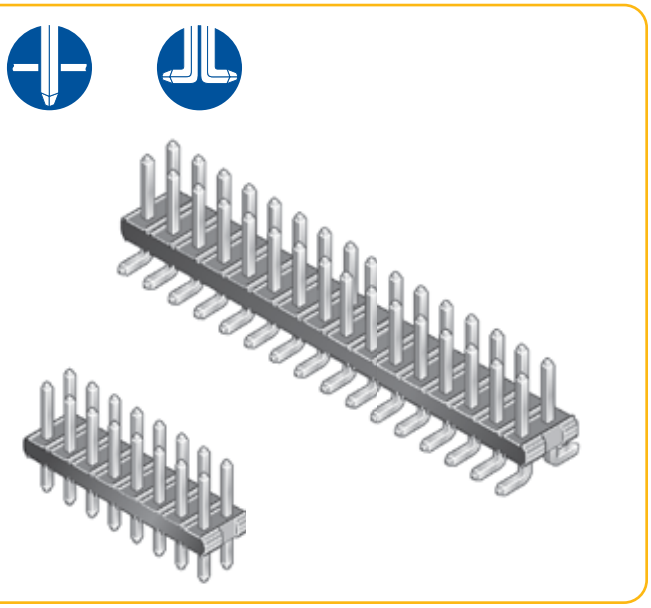
- Compatible with wave, vapor-phase, and IR reflow soldering processes

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

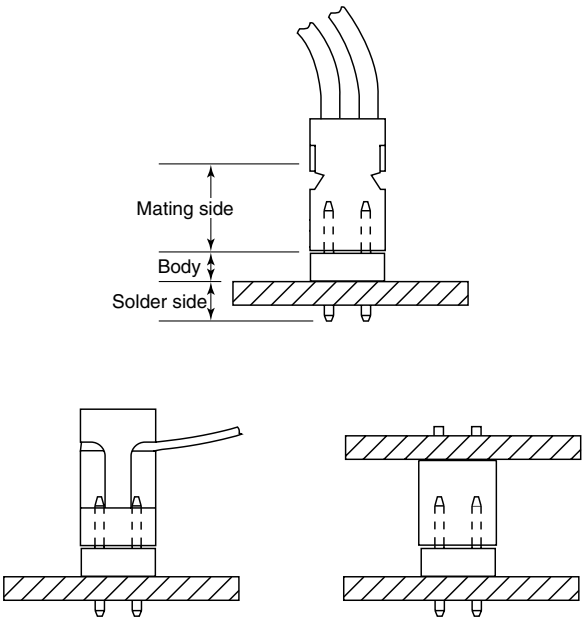
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Minitek™ ctw contacts and housings	72
Minitek™ Vertical receptacles	60
Minitek™ Shunts	62
Minitek™ IDC receptacles	76

TYPICAL APPLICATIONS



Minitek™ Unshrouded Vertical Headers

PART NUMBERS

5	7	Lead	0	2	–	Plating	Pin Style	–	Positions Per Row	Packaging	LF

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)

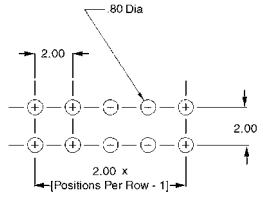
U = Tube without cap (TMT)
A = Tape-and-reel with cap (SMT)

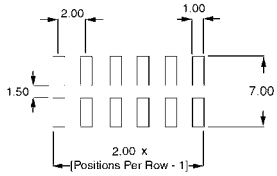
57202 – G 52 – XXALF
XX = 02, 03, 04, 05, 06, 08, 10

CORE RANGE

Surface Mount		Through Mount			
Pin Style	Mating side mm	Pin Style	Mating Side mm	Solder Side mm	OAL mm
51	2.00	06	4.00	2.50	8.00
52	4.00	08	4.00	3.00	8.50

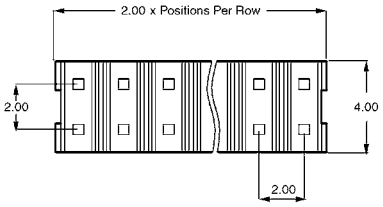
PRODUCT



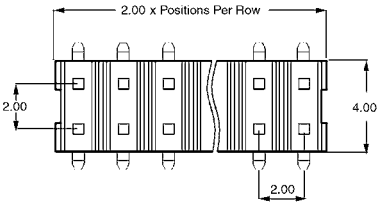


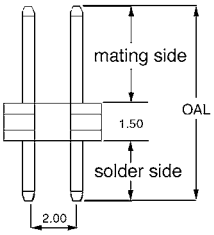
Recommended PCB layouts

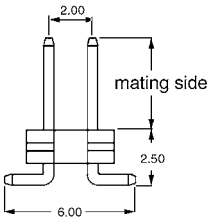
TMT

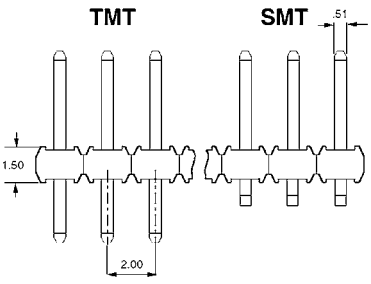


SMT









Dimension in mm

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: 1x 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

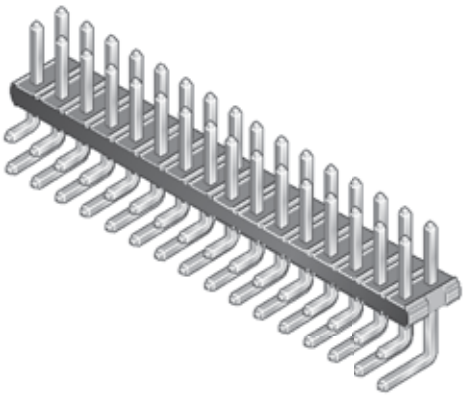
- Compatible with wave, vapor-phase, and IR reflow soldering processes

REFERENCE INFORMATION

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

RoHs INFORMATION

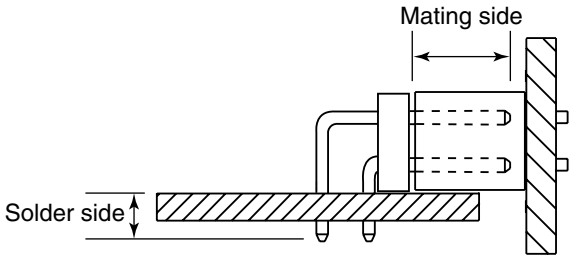
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC

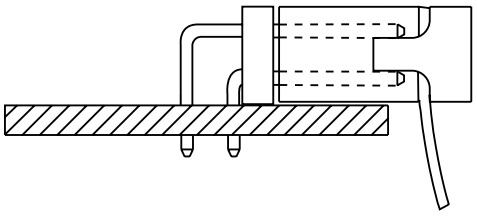


MATING DATA

Minitek™ ctw contacts and housings	72
Minitek™ Vertical receptacles	60
Minitek™ Shunts	62
Minitek™ IDC receptacles	76

TYPICAL APPLICATIONS





Minitek™ Unshrouded Right Angle Headers

PART NUMBERS

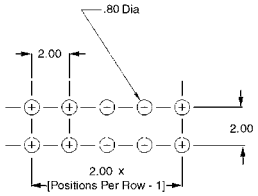
9	8	4	2	3	–	Plating	61	–	Positions Per Row	U	LF

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

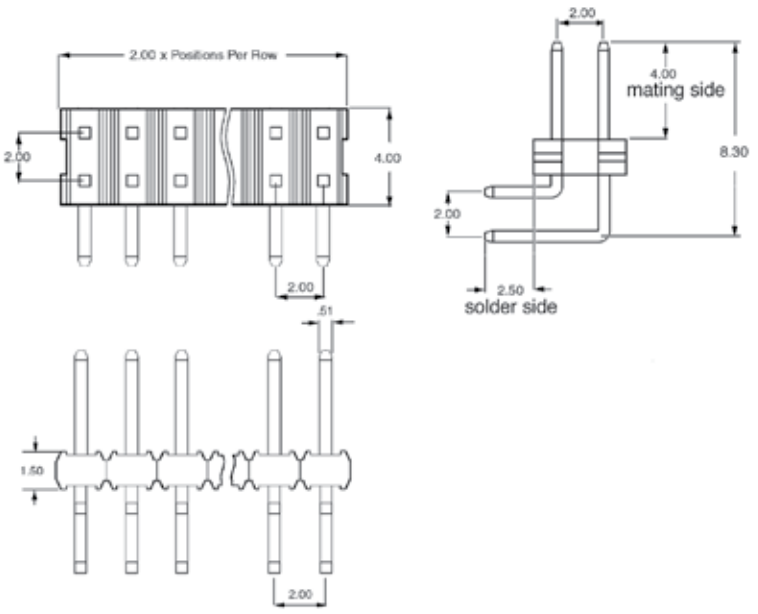
F = Gold flash on mating area, 2-6 µm (79-237µ") Tin on solder side

02 to **25**

PRODUCT



Recommended PCB layouts



Dimension in mm

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 10^5 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

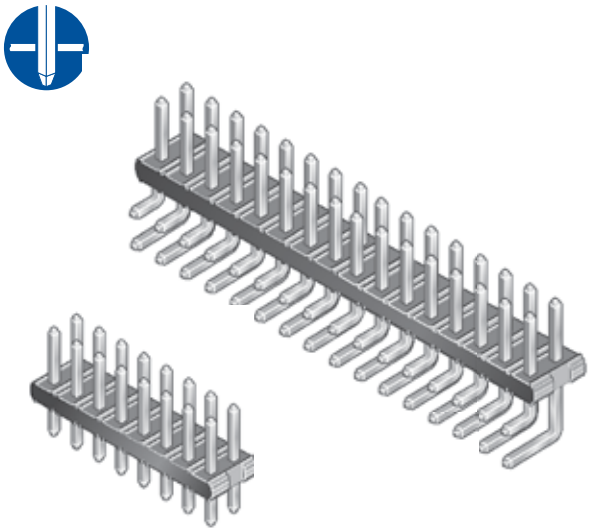
- Tubes (04 to 06 pos. packed in box)
- Tape on reel with pick up cap

PROCESSING INFORMATION

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

REFERENCE INFORMATION

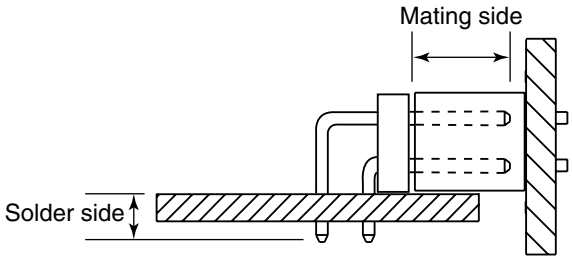
- File no. E66906
- File no. LR46923
- Product drawing: by 8-digit base part number
- Product specification: DPS-12-011 and GS-12-163
- Application specification: TA-895
- Reflow prpfile: TA-842

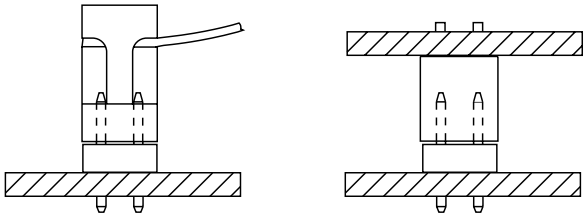


MATING DATA

Minitek™ ctw contacts and housings	72
Minitek™ Vertical receptacles	60
Minitek™ Shunts	62
Minitek™ IDC receptacles	76

TYPICAL APPLICATIONS





Minitek™ Unshrouded Headers, Pin-in-Paste

PART NUMBERS

8-Digit Base Part Number	–	Plating	Pin style	–	no. of pos. per row	Packaging	LF

10075024 = Vertical
10072353 = Right angle

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

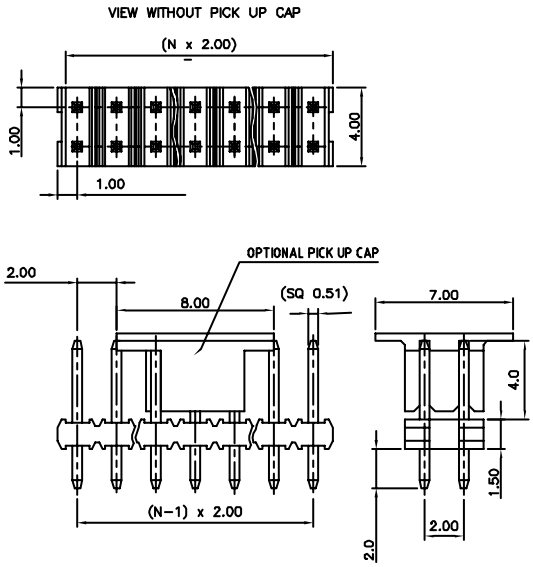
Pin Style	mating side length	solder side length
01	4.00	2.00

02 to 25

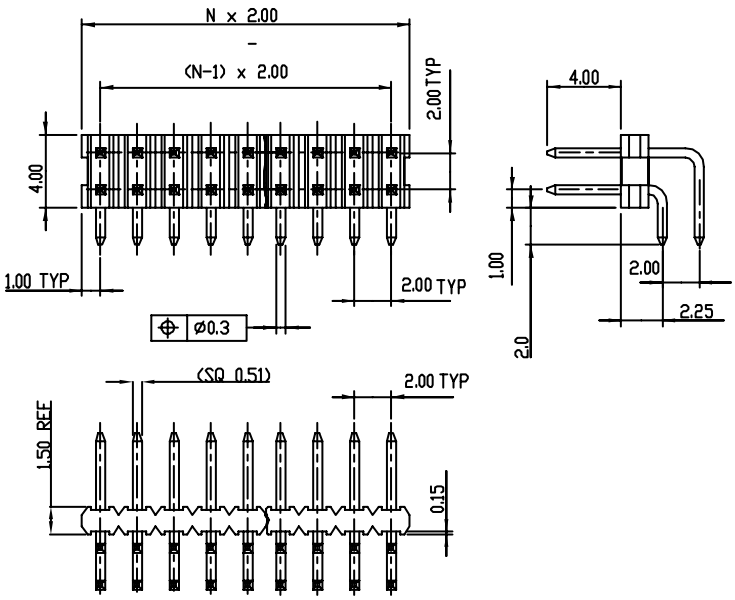
U = Tube without cap from 04 to 25 pos.
A = Tape, availability on request

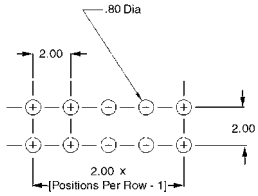
PRODUCT

10075024 Vertical



10072353 Right angle





Dimension in mm

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 over over 1.27 µm (50µ") nickel

ELECTRICAL PERFORMANCE

- Current rating: 2 A continuous
- Insulation resistance: 1x 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

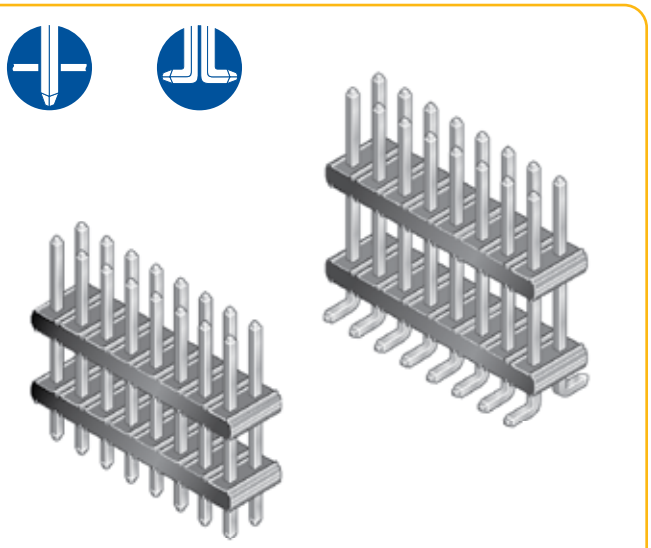
- Compatible with wave, vapor-phase, and IR reflow soldering processes

REFERENCE INFORMATION

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

RoHs INFORMATION

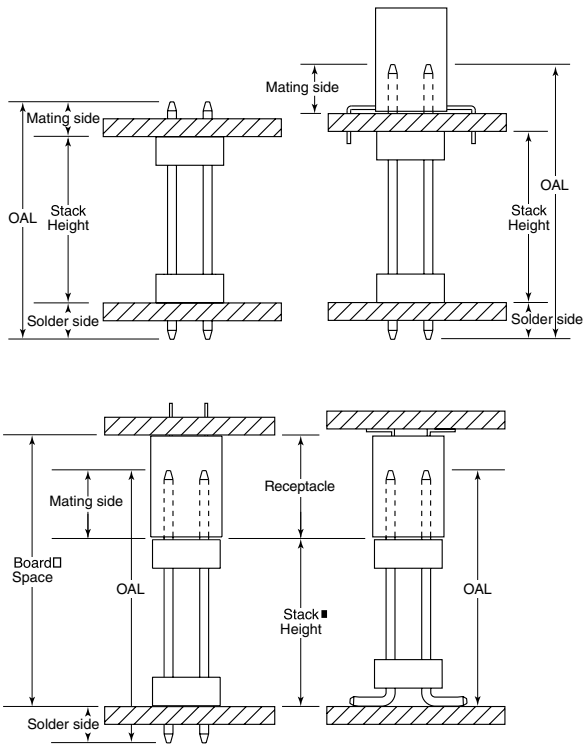
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Minitek™ ctw contacts and housings	72
Minitek™ Vertical receptacles	60
Minitek™ Shunts	62
Minitek™ IDC receptacles	76

TYPICAL APPLICATIONS



Minitek™ Unshrouded Stacking Headers

PART NUMBERS

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

5	9	Lead	Solder Side Option	2	-	Plating	Pin Style	Positions Per Row	-	Stack Height	LF

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

1 = 2.50
3 = 3.00
0 = SMT

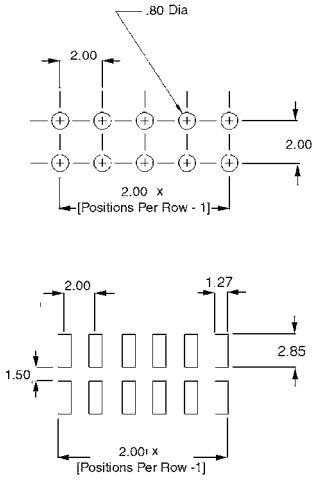
T = 0,76 µm (30µ") Gold on mating side, tin on solder side

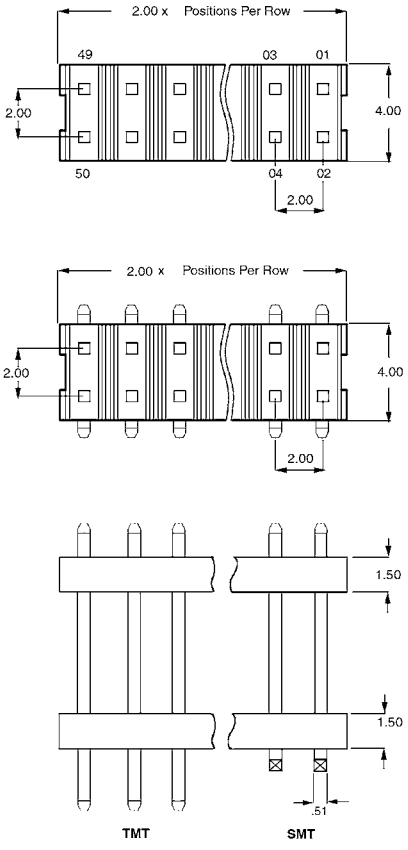
02 to **25** (TMT)
02 to **25** (SMT)

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

Pin Style	Overall length (OAL) (TMT) mm	(SMT) mm
22	8.20	6.53
24	9.55	7.87
26	10.19	8.51
28	11.79	10.11
30	13.54	11.86
32	14.10	12.42
34	15.60	13.92
36	17.09	15.42
38	19.08	17.40
40	21.08	19.41

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 in mm

FEATURES

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

TECHNICAL DATA

PHYSICAL

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

ELECTRICAL PERFORMANCE

- Current rating: 2 A continuous
- Insulation resistance: 1x 10^5 MΩ 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

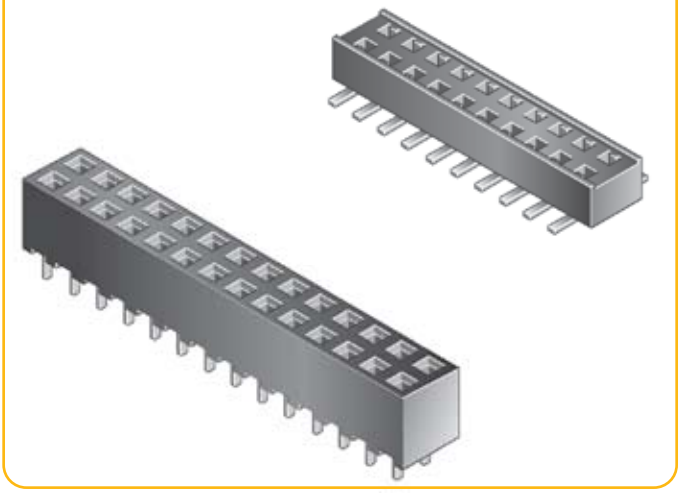
- Compatible with wave, vapor-phase, and IR reflow soldering processes

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



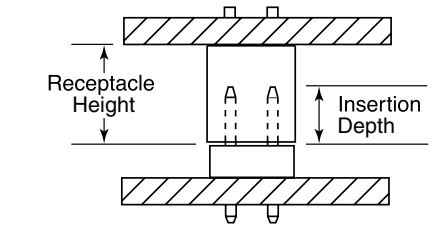
MATING DATA

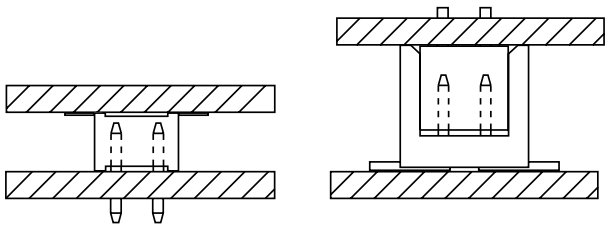
Minitek™ Unshrouded headers	52, 54, 58
Minitek™ Shrouded headers	64, 66

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

	Through Mount (TMT)	
	Height	Entry
63453	4.50	Top
	Surface Mount (SMT)	
55510	4.50	Top
55508	2.30	Top
91596	2.30	Bottom

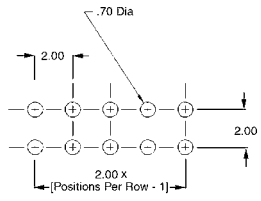
04 to **50** Top Entry
04 to **30** Bottom Entry

- (dash) = Tubes (TMT)
TR = Tape-and-reel (SMT)

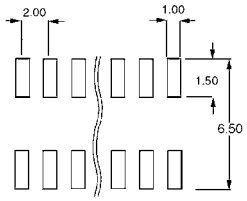
1 = 0,76 µm (30µ") Gold on mating area, 2-6 µm (79-237µ") Tin on solder side

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

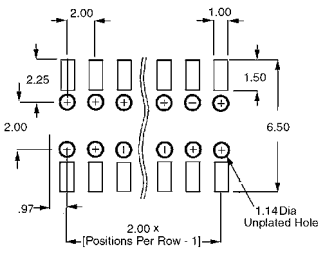
PRODUCT



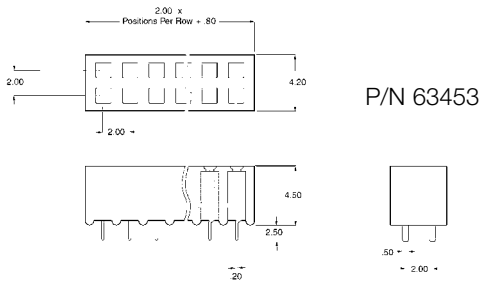
Top Entry



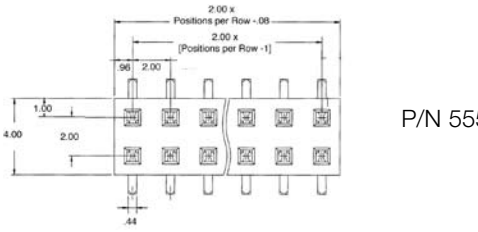
Bottom Entry



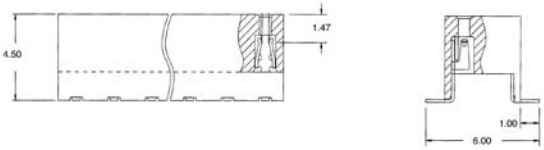
Recommended PCB layouts

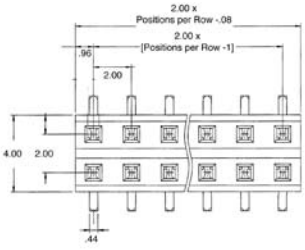


P/N 63453

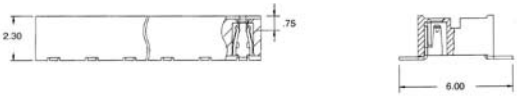


P/N 55510





P/N 55508



Dimension in mm

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 or tin-lead over 1.27 µm (50 µ") nickel

ELECTRICAL PERFORMANCE

- Current rating: 1 A continuous
- Insulation resistance: 1x 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

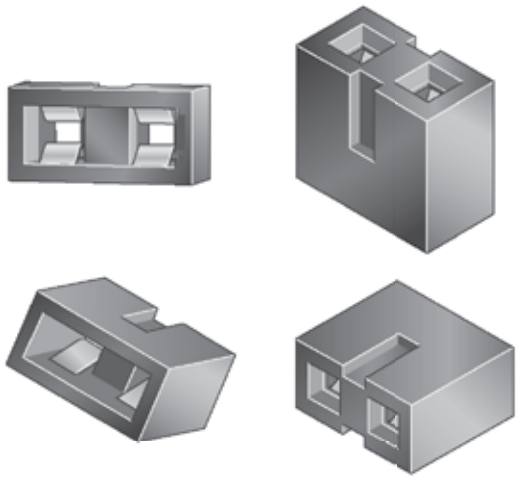
- Compatible with wave, vapor-phase, and IR reflow soldering processes

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



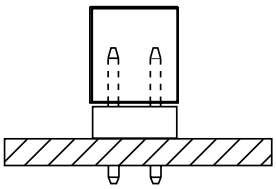
MATING DATA

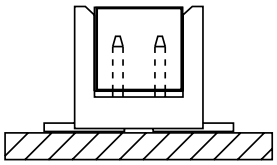
Minitek™ Unshrouded headers	52, 54, 58
Minitek™ Shrouded headers	64, 66

INSERTION DEPTH

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

TYPICAL APPLICATIONS





Minitek™ Shunts

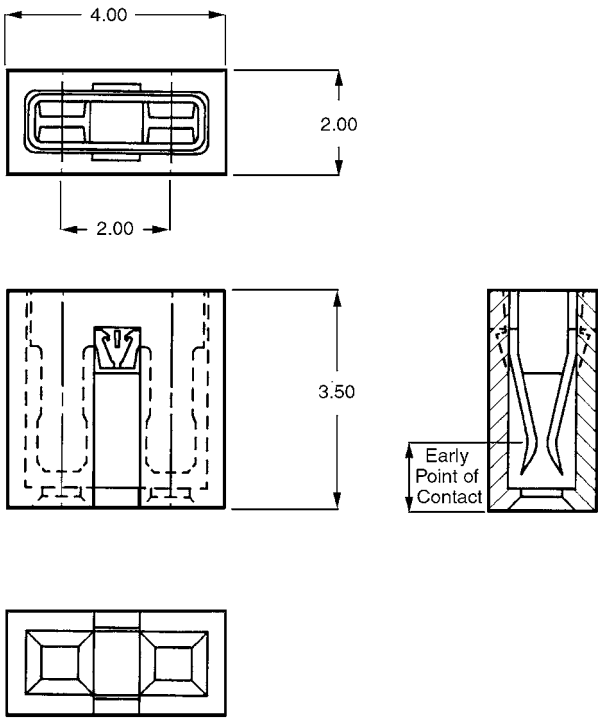
PART NUMBERS

8	6	7	3	0	–	Plating	0	1	LF

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

86730 – 101LF CORE RANGE

PRODUCT



Dimension in mm

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: 1x 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: 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

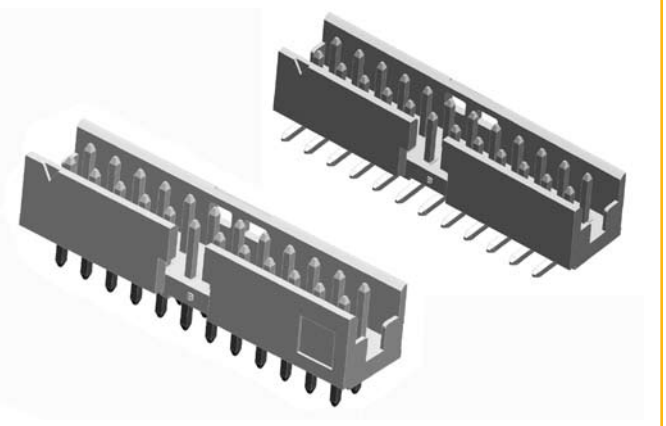
- Compatible with wave, vapor-phase, and IR reflow soldering processes

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

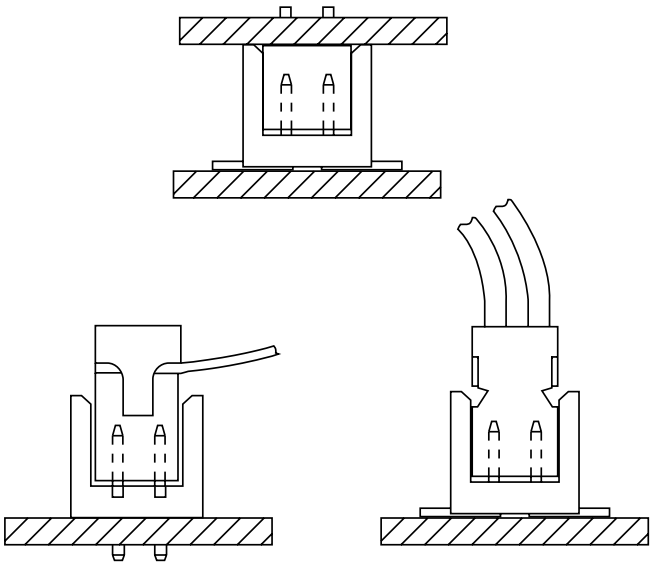
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC



MATING DATA

Minitek™ ctw contacts and housings	72
Minitek™ Vertical receptacles	60
Minitek™ Shunts	62
Minitek™ IDC receptacles	76
Minitek™ Active latch	74

TYPICAL APPLICATIONS



Minitek™ Shrouded Vertical Headers

PART NUMBERS

5-Digit Base Part Number	–	Plating	Pin style	–	Total Positions	Packaging	LF

98414 = Through Mount, Double Row
98424 = Surface Mount, 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

04 to **50**

U = Tube (TMT)
A = Tape-and-reel (SMT)

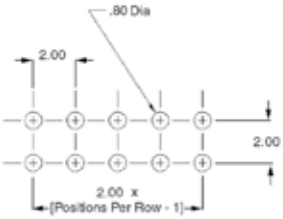
Pin Style	Surface Mount Mating side mm
52	4.00

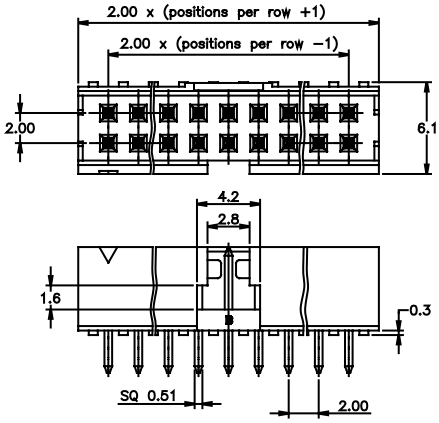
Pin Style	Through Mount Mating side mm	Through Mount Solder side mm
06	4.00	2.50

98424 – G 52 – XX ALF
XX = 04, 06, 08, 10, 12, 16, 20

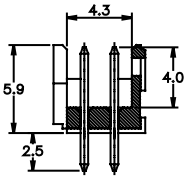
CORE RANGE

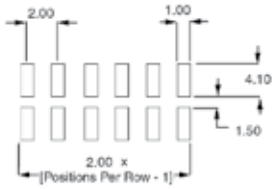
PRODUCT

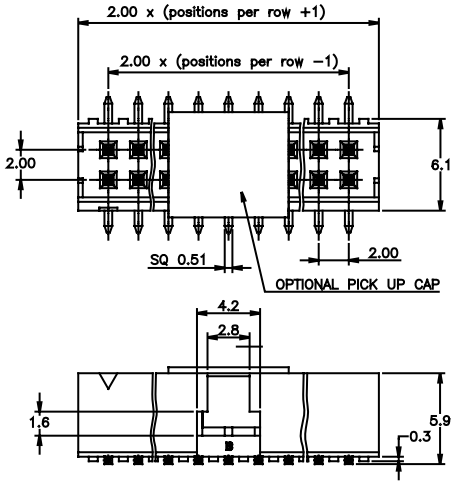




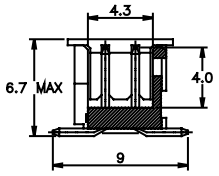
98414 Through mount







98424 Surface mount



Recommended PCB layouts

Dimension in mm

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: 1x 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

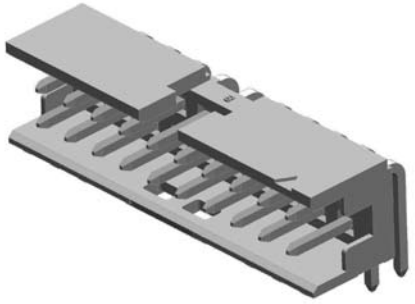
- Compatible with wave, vapor-phase, and IR reflow soldering processes

REFERENCE INFORMATION

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

RoHs INFORMATION

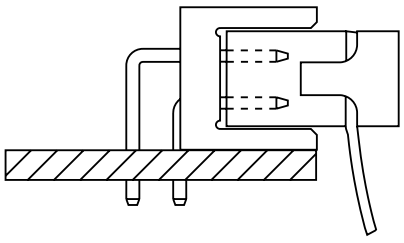
- This product is RoHs compatible according to the European Union Directive 2002/95/IEC

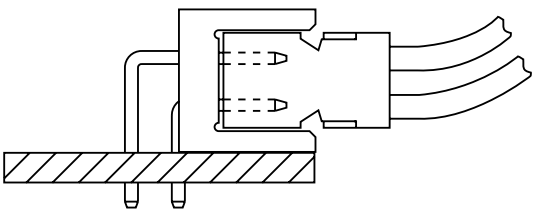


MATING DATA

Minitek™ ctw contacts and housings	72
Minitek™ Vertical receptacles	60
Minitek™ Shunts	62
Minitek™ IDC receptacles	76
Minitek™ Active latch	74

TYPICAL APPLICATIONS





Minitek™ Shrouded Right Angle Headers

PART NUMBERS

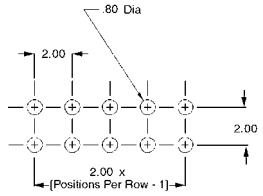
9	8	4	6	4	–	Plating	61	–	Total Positions	U	LF

04 to **50** (Double Row)

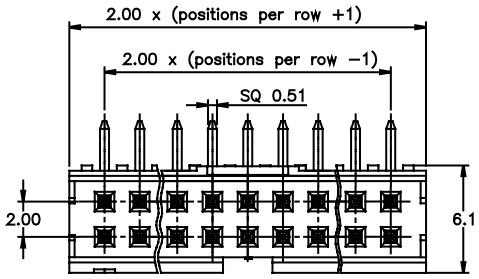
G = 0,76 µm (30µ") gold/GXT on mating area,
2-6 µm (79-237µ") Tin on solder side

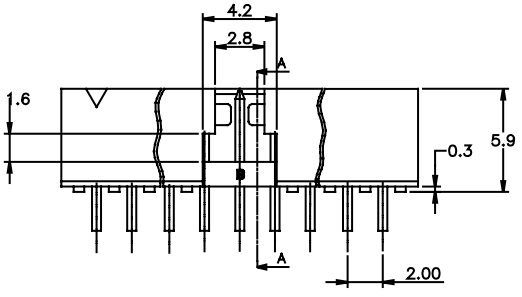
F = Gold flash on mating area,
2-6 µm (79-237µ") Tin on solder side

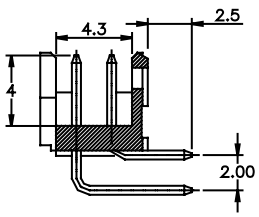
PRODUCT



Recommended PCB layouts







Dimension in mm

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 10^5 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

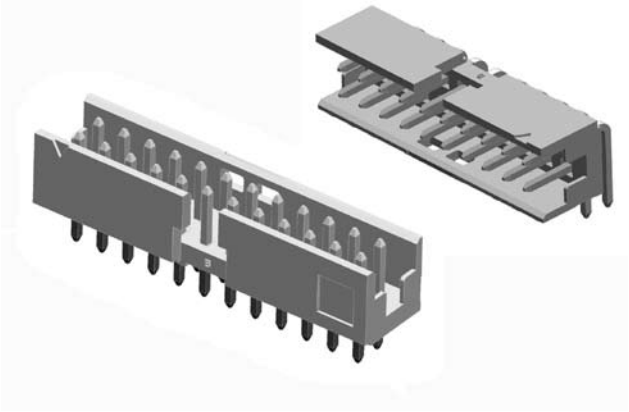
- Tubes (04 pos. packed in box)
- Tape on reel with pick up cap

PROCESSING INFORMATION

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

REFERENCE INFORMATION

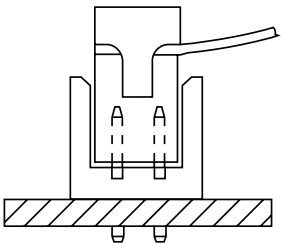
- File no. E66906
- File no. LR46923
- Product drawing: by 8-digit base part number
- Product specification: DPS-12-011 and GS-12-163
- Application specification: TA-895
- Reflow prpfile: TA-842

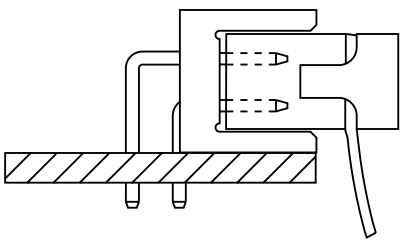


MATING DATA

Minitek™ ctw contacts and housings	72
Minitek™ Vertical receptacles	60
Minitek™ Shunts	62
Minitek™ IDC receptacles	76
Minitek™ Active latch	74

TYPICAL APPLICATIONS





Minitek™ Shrouded Headers, Pin-in-Paste

PART NUMBERS

8-Digit Base Part Number	–	Plating	Pin style	–	Total Positions	Packaging	LF

10075025 = Vertical
10072354 = Right angle

04 to 50 (Double row)

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

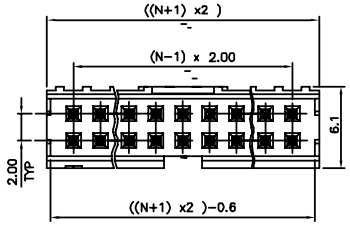
F = gold flash on mating area
2-6µm (50-150µ") tin on solder side

Pin Style	mating side length	solder side length
01	4.00	2.00

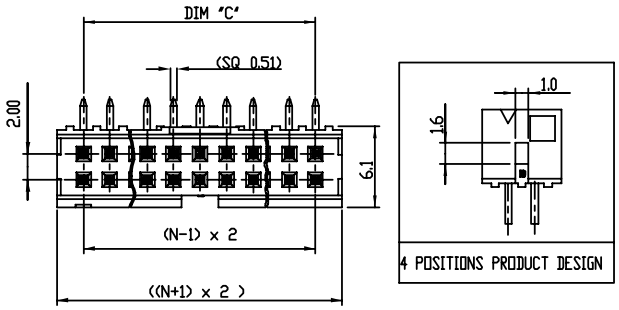
U = Tube without cap from 04 to 25 pos.
A = Tape, availability on request

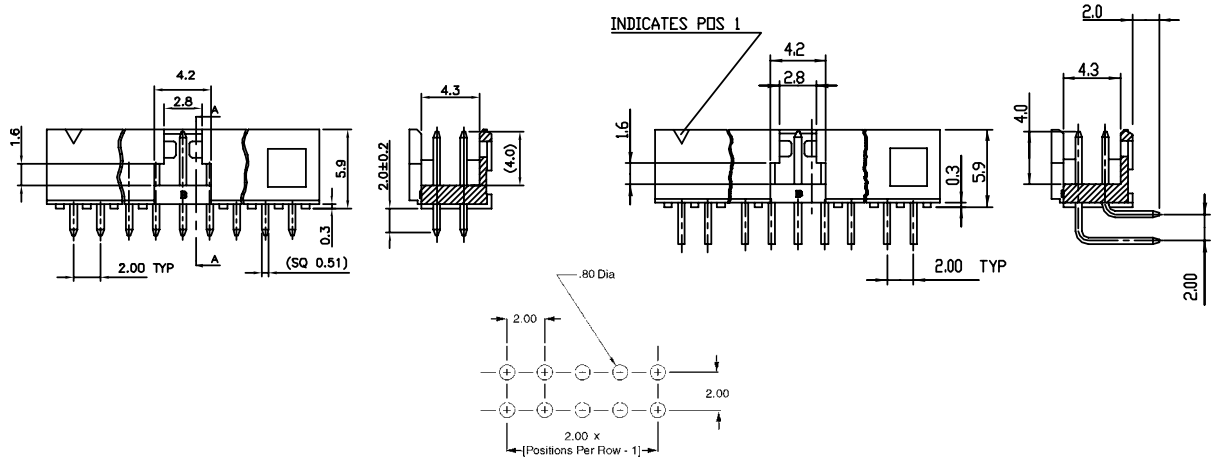
PRODUCT

10075025 Vertical



10072354 Right angle





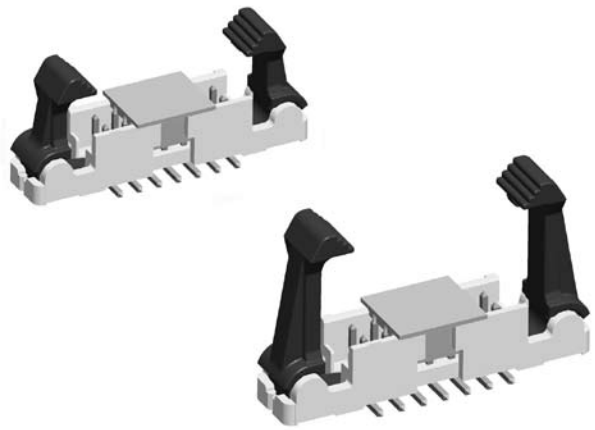
Dimension in mm

Recommended PCB layouts

Shrouded Eject Latch Headers

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: 1x 10^5 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

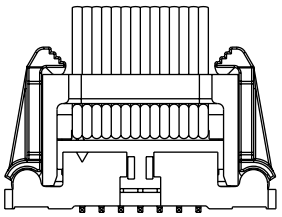
RoHs INFORMATION

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

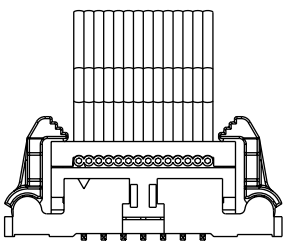
MATING DATA

Minitek™ IDC receptacles	76

TYPICAL APPLICATIONS



with strain relief
standard latch



without strain relief
low profile latch

Minitek™ Shrouded Eject Latch Headers

PART NUMBERS

8-Digit Base Part Number	–	G	Pin Style	Latch Type	–	total positions	packaging	LF

10078991 = Vertical TMT
10078995 = Vertical SMT

G = 0.76µm (30µ") gold /GXT on mating area

Style Solder side
0 = SMT
2 = 2.50 mm TMT
3 = 3.10 mm TMT

1 = Standard latch
2 = Low profile latch

6, 8, 10, 12, 14, 24, 30, 40, 44, 50

U = tube, for through mount
A = tape & reel, SMT only*
B = tube with cap, SMT only

10078991	–	G	22	–	XX	U	LF			
10078995	–	G	02	–	XX	U	LF			

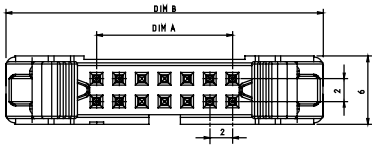
XX = 06, 08, 10, 12,

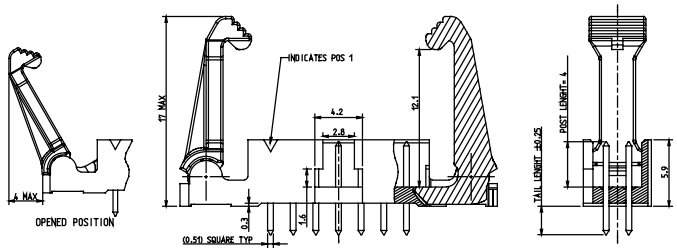
CORE RANGE

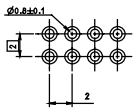
*as available

PRODUCT

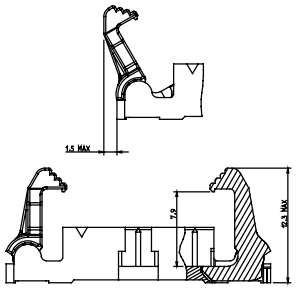
10078991
Vertical TMT





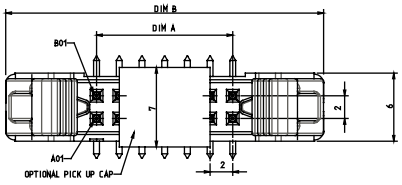


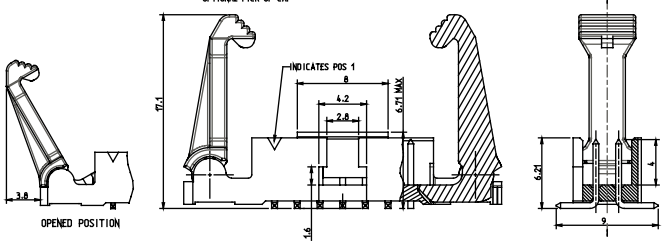
Recommended PCB layout

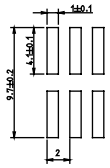


Low Profile Latch

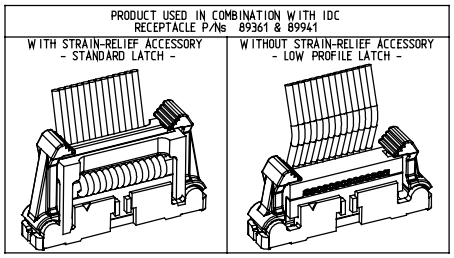
10078995
Vertical SMT







Recommended PCB layout



Dimension in mm

Housings and Contacts

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 over 1.27 µm (50 µ") nickel

ELECTRICAL PERFORMANCE

- Current rating: 2 A continuous
- Insulation resistance: 1x 10^5 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

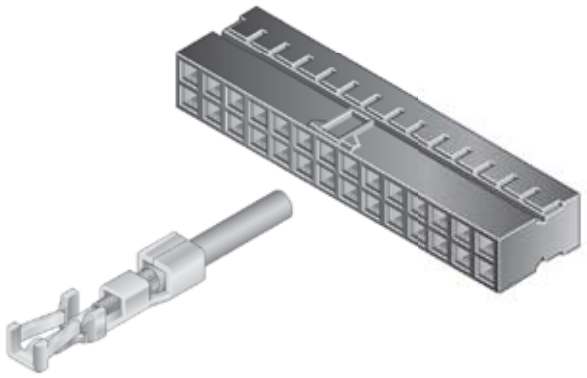
- Reels – Contacts
- Bags – Housings

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



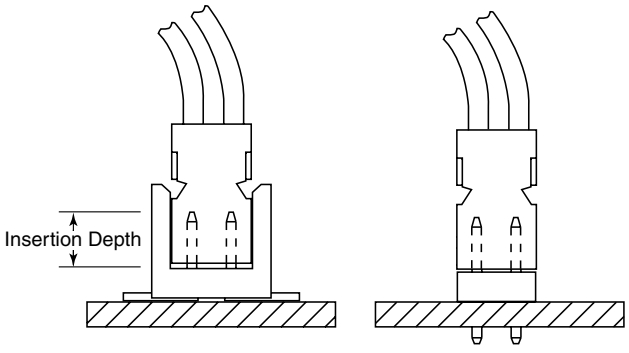
MATING DATA

Minitek™ Unshrouded headers	52, 54, 58
Minitek™ Shrouded headers	64, 66

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

77138	–	Plating	0	1	LF

26 AWG to 30 AWG

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

Housings

10087010	–	0	Total Positions	LF

04 to **50** (Double Row)

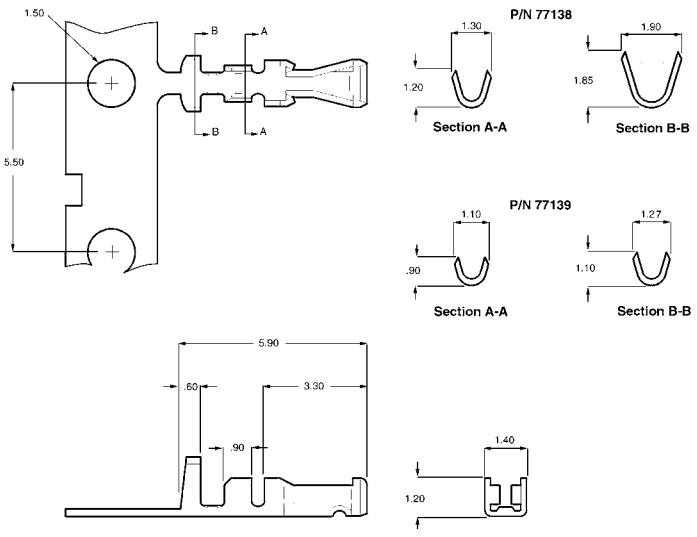
77138	–	101LF
10087010	–	0XXLF

CORE RANGE

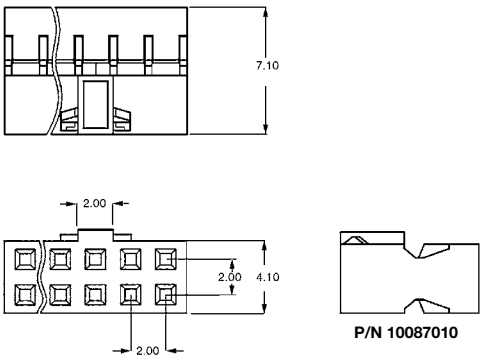
XX = 04, 06, 08, 10, 12, 16, 20

PRODUCT

Contacts



Housings

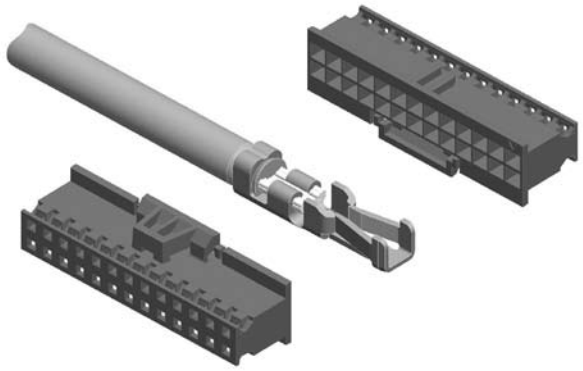


Dimension in mm

Housings, Active latch

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: 1x 10^5 MΩ 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

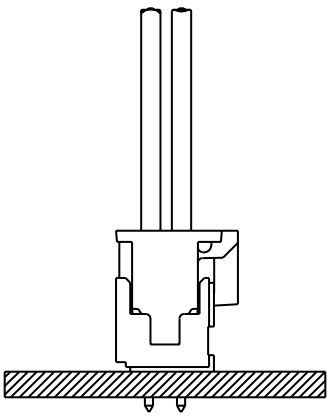
RoHs INFORMATION

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

MATING DATA

Minitek™ Shrouded headers	64, 66, 68
Minitek™ CTW contacts	72, 74

TYPICAL APPLICATIONS



Minitek™ Crimp-to-wire Housings, Active latch

PART NUMBERS

Contacts

77138	–	Plating	0	1	LF

26 AWG to 30 AWG

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

Housings

10073599	–	0	total positions	LF

6 to 50

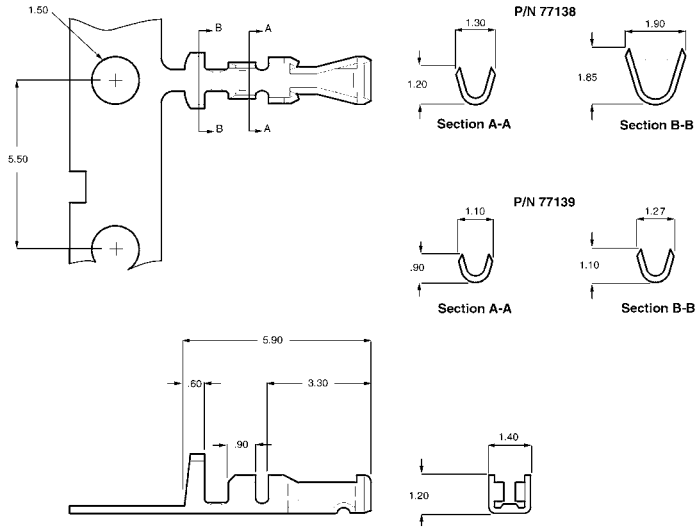
77138	–	101LF
10073599	–	0XXLF

CORE RANGE

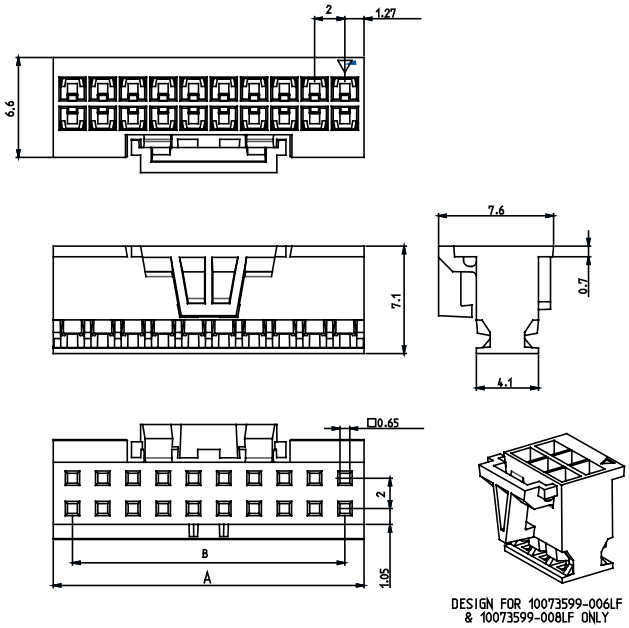
XX = 04, 08, 10, 12, 16, 20

PRODUCT

Contacts



Housings



Dimension in mm

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 over 1.27 µm (50 µ") nickel

ELECTRICAL PERFORMANCE

- Current rating: 1 A continuous
- Insulation resistance: 1x 10^5 MΩ min.
- Contact resistance: 30 mΩ
- 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

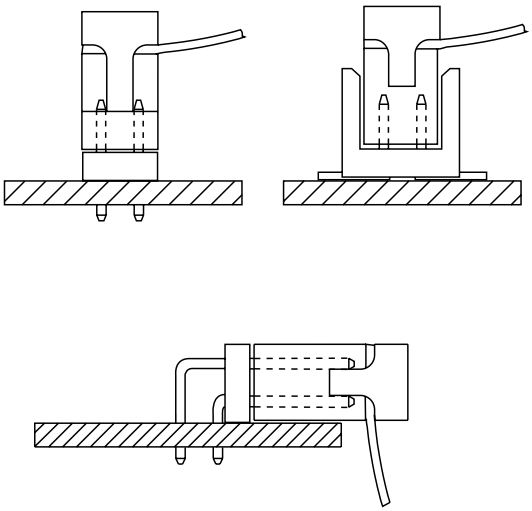
MATING DATA

Minitek™ Unshrouded headers	52, 54, 58
Minitek™ Shrouded headers	64, 66

INSERTION DEPTH

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

TYPICAL APPLICATIONS



Minitek™ IDC Receptacle

PART NUMBERS

5-Digit Base Part Number	–	Center Key	Total Positions	S	LF

06 to **50**

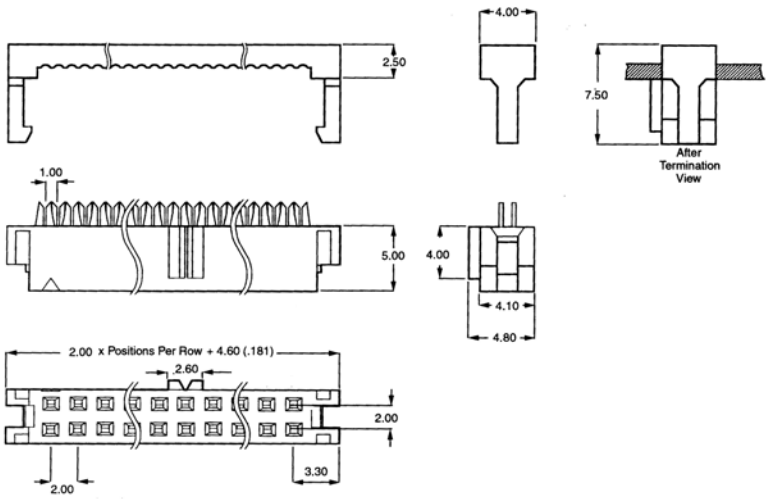
optional S = Add Optional **S** for Strain relief

89947 = 0,76 µm (30µ") Gold
89361 = 0,20 µm (8µ") Gold

1 = Standard
7 = With Center Key and friction Latching (available from 06 to 30 positions)

89361 – 7XXLF
XX = 06, 08, 10, 12, 16, 20
CORE RANGE

PRODUCT



Dimension in mm

MORE OPTIONS

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

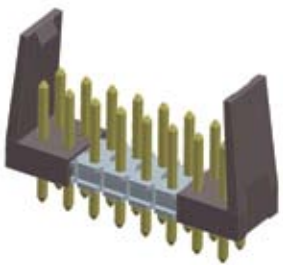
- Locating pins on SMT headers

- Polarized (missing) positions

- Kinked legs

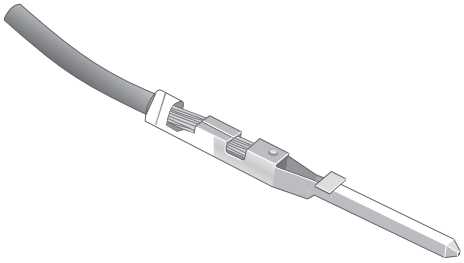
- Press-fit pins

- Add-on latches for headers



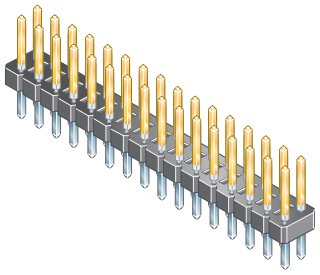
- Wide body headers

- Crimp-to-wire pin

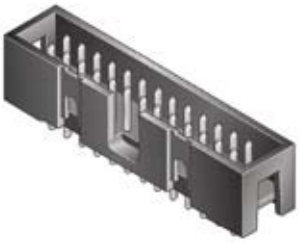


- Printed housings

- Additional plating options



- Pin-in-paste headers



Visit: www.fci.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	RCY21151	155250-101	HT-0080
Minitek	AWG 32-36	RCY21152	155250-102	HT-0080

BergStik® AND Bergstrip®

- Manual cutting tool: HT 320
- Automatic cutting machine for Bergstrip: BSS-300

Quickie® IDC

- Manual flat cable cutter: HT 209
- Quickie assembly hand tool: HT 210
- 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

- **Europe**
  Föhrenbach Application Tooling N.V.
  Phone: +32 3 216 19 98
  Email : application.tooling@foehrenbach.be

- **Asia**
  Phone: +65 549 6666
  E-mail: fcising_sales@fciconnect.com

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