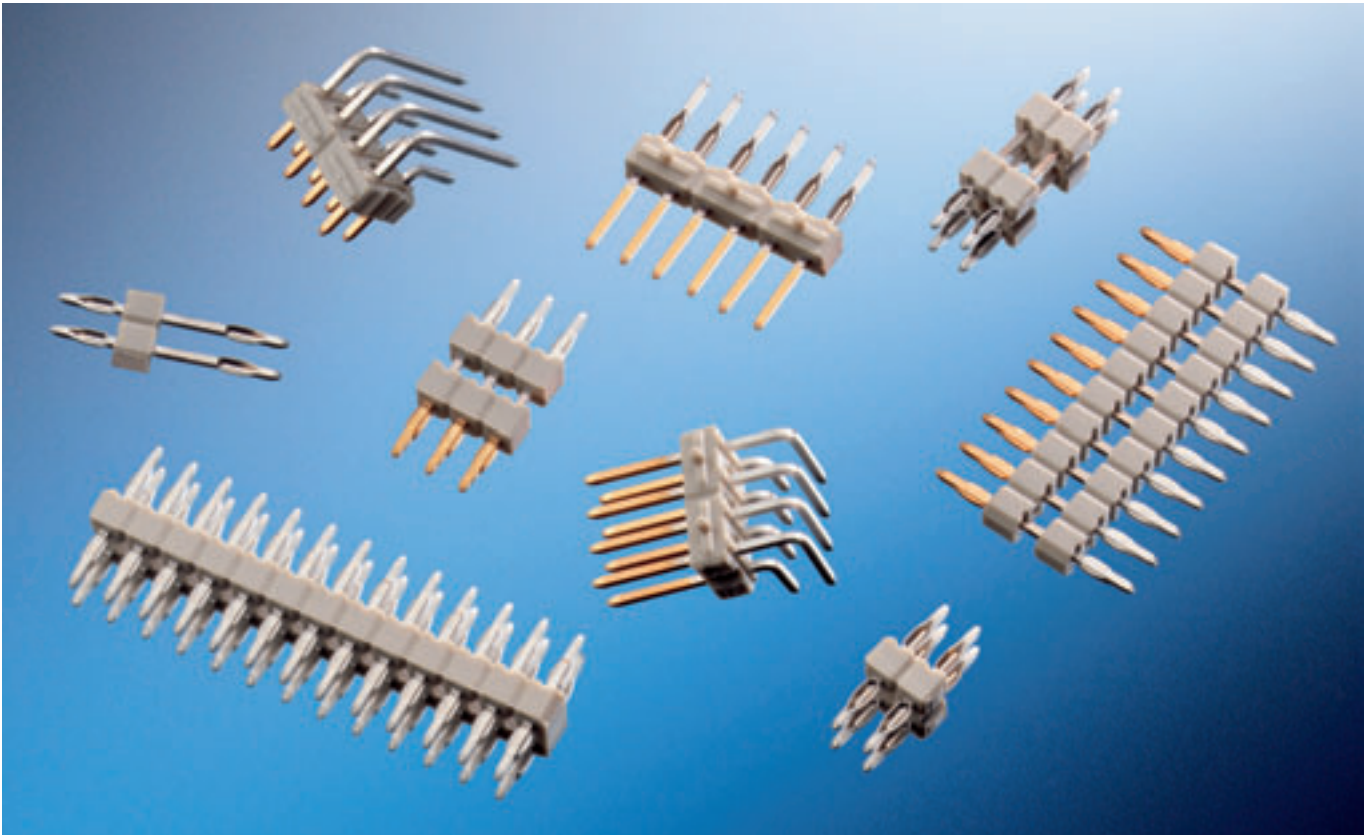


2.54 mm STL Pin Headers and Sockets





General

If you need to connect two PCBs which are arranged on top of each other or to attach connecting cables to PCBs inside your equipment, you will find that the ERNI pin header range offers almost countless possibilities. Anything is possible!

This data sheet lists virtually every possible version of our pin header range. However, if specific numbers of pins, contact lengths or contact materials are required for your particular application, please consult us at any time.

For developing our new header range, we have taken today's rationalization types into account.

You can pressfit ERNI headers solderless or you can reflow solder them. The solderless pressfit technique is particularly recommended for PCBs with components fitted on both sides.

Features

- Solder, THR, SMT and Pressfit
- Single or dual row
- Straight or right angled
- Harsh environments
- Gas tight, vibration proof connection
- DIN and LPV intermateability
- Flexible manufacturing process

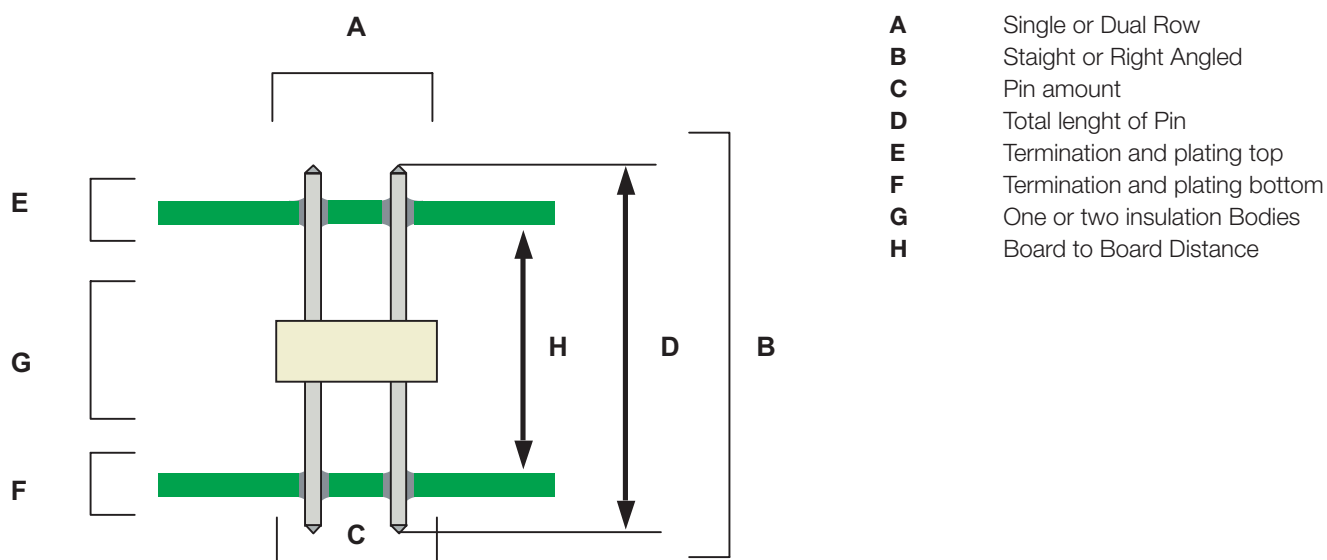
2.54 mm STL Pin Headers

Electrical and Mechanical Characteristics



Characteristics		Solder/ THR	Pressfit	SMT
Maximum No. of Pins	Single row	50	36	50
	Dual row	100	72	Not Available
Temperature Range		-55°C to +125°C		
Current Rating	+20°C	2 A		
	+70°C	1 A		
	+100°C	0.5 A		
Minimum clearance and creepage distance:		1.8 mm	1.2 mm	1.8 mm
Contact Retention Force:		Min. 10 N/pin		
Insulation resistance:		KC 500		
Flammability:		UL 94 V-0		
Total Pin Length		9 - 38 mm	9 - 38 mm	10 - 37 mm
Contact plating 2-3 µm Ni base material		0.8-1.2 µm Au, 0.8-1.2 µm PdNi		
Termination side		4-6 µm Sn	1-2 µm Sn	4-6 µm Sn
Insulation body material	PA 46 GF	High temperature (SMT/THR)		
	PBT GF	Standard (Solder/Pressfit)		
Packaging		Bulk		
RoHS Compliant in accordance to EC 2002/95/EG and 2003/11/EG				

Information



A. Single Row or Dual Row



Single Row

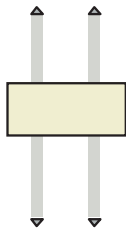


Dual Row

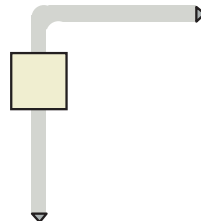
B. Straight or Right Angled



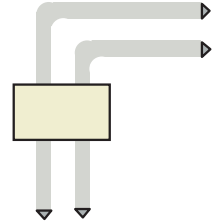
Straight single Row



Straight dual Row



R/A single Row



R/A dual Row

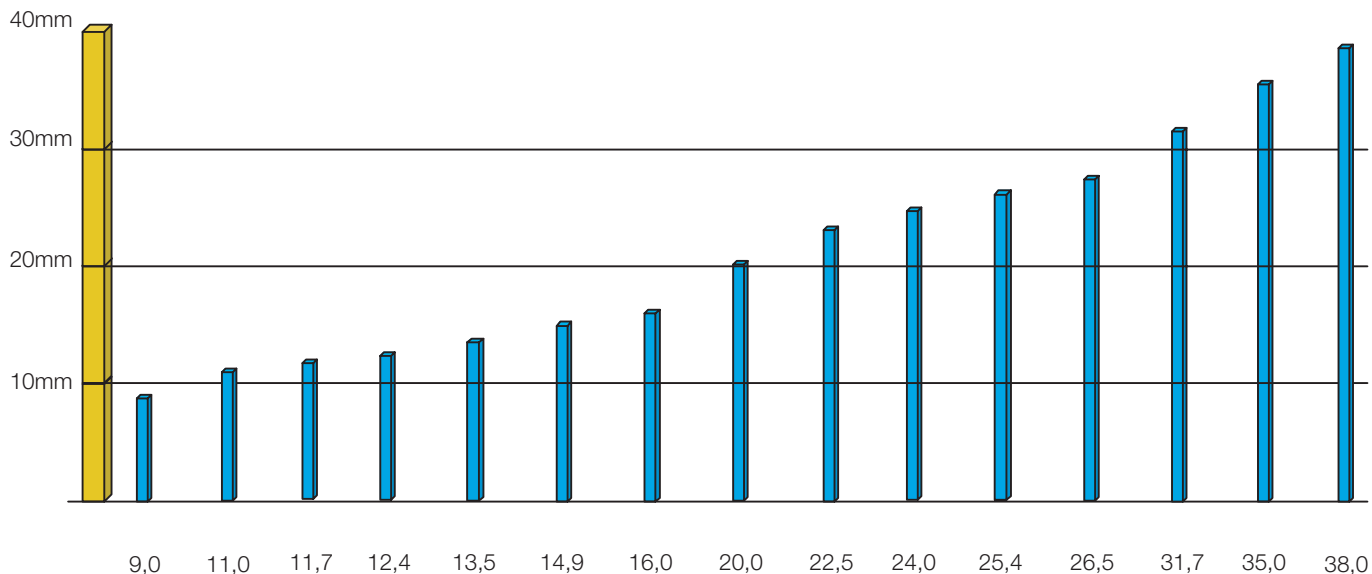
C. Pin amount

Single Row headers are available as solder/THR/SMT versions with up to 50 pins (1x50) or as pressfit versions with up to 36 pins (1x36) maximum.

Dual Row headers are available as solder/THR versions with up to a total of 100 pins (2x50) or as pressfit versions with up to a total of 72 pins (2x36) maximum.

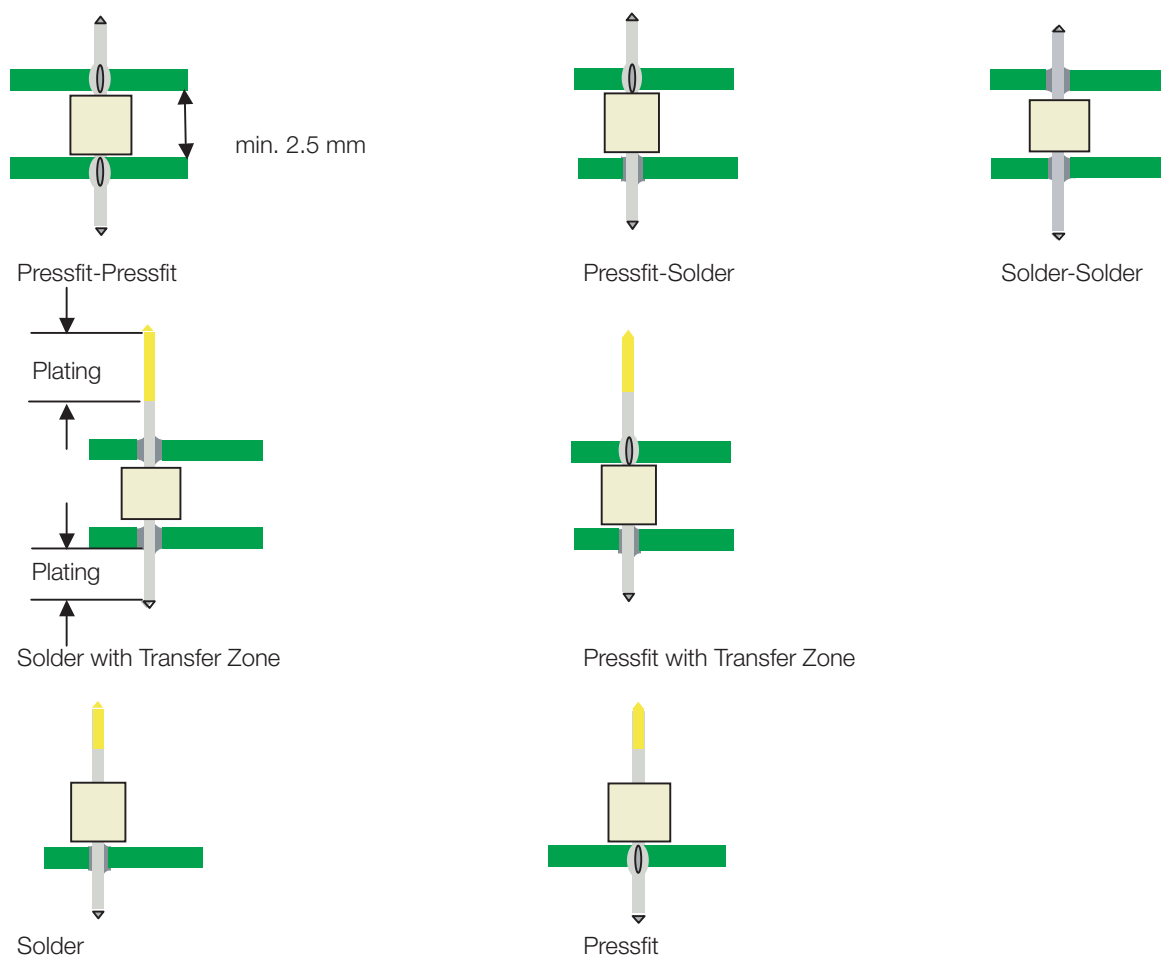
SMT dual row and SMT straight versions are not available

D. Available Total Pin Lengths

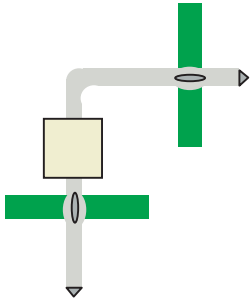


ERNI provides pin headers in various standard lengths. From 9 mm to 38 mm we offer 15 different standard pin lengths.

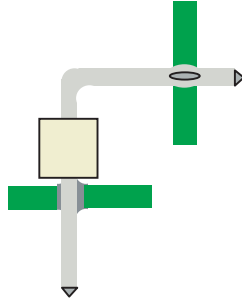
E+F. Termination and Plating Straight Version



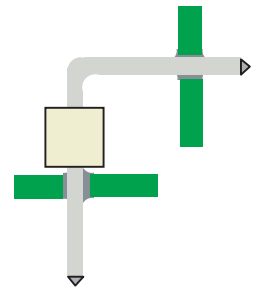
E+F. Termination and Plating Right Angled Version



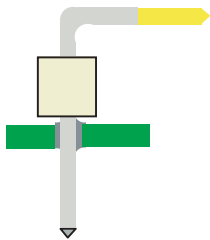
Pressfit-Pressfit



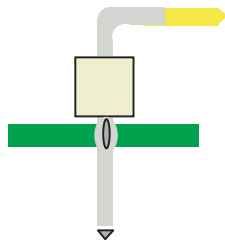
Pressfit-Solder



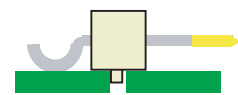
Solder-Solder



Contact-Solder

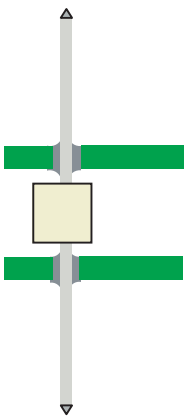


Contact-Pressfit

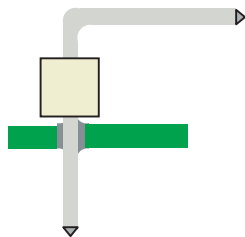


SMT

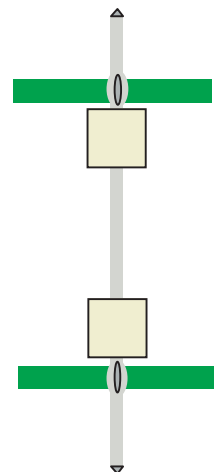
G. Insulation bodies



Single and dual row straight



Single row right angled



Single and dual row straight

2.54 mm STL Pin Headers

Description



Available insulation bodies



Single row with stand offs
2.8 mm height



Dual row with stand offs
2.8 mm height



Single row w/o stand offs
2.5 mm height

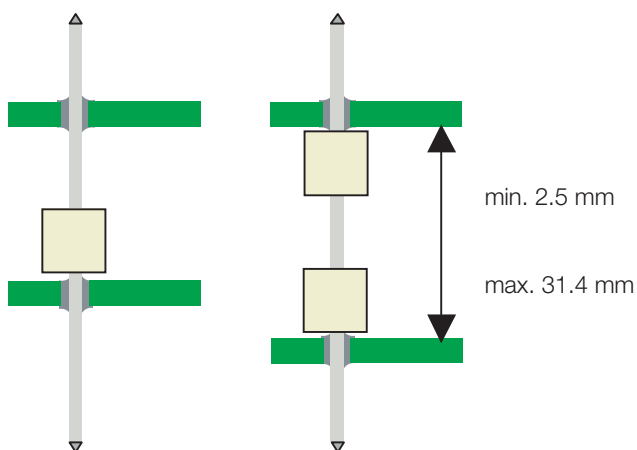


Dual row w/o stand offs
2.5 mm height

Our insulation bodies have prepared fracture points so that any number of pins can be snapped off.

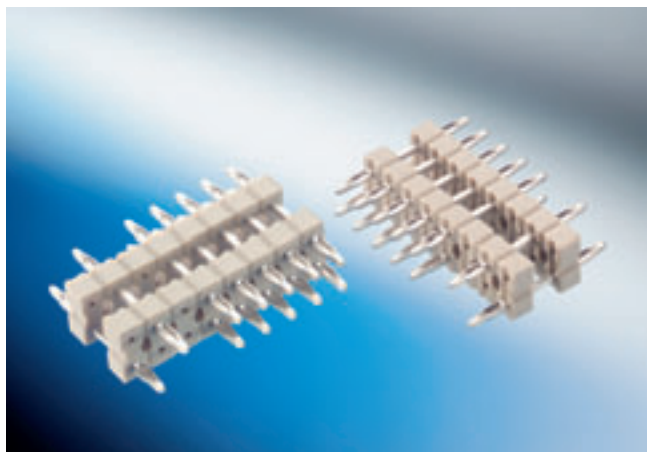
Material: ERNI Offers two different materials for its Pin Headers. PA 46 GF black for high temperature soldering like SMT or THR, and PBT GF for wave soldering processes and pressfit versions.

H. Board to Board distance



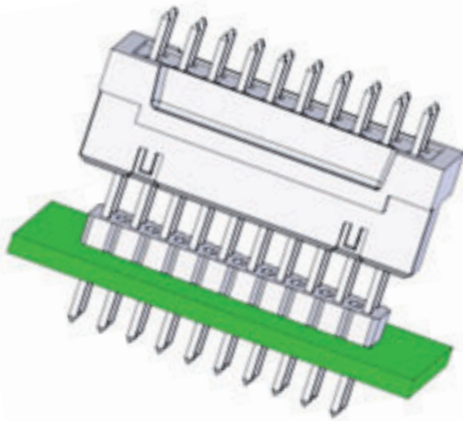
Various board-to-board distances are available, from 2.5 mm to 31.4 mm. Pin Headers are available with one or two insulation bodies.

Partially loaded

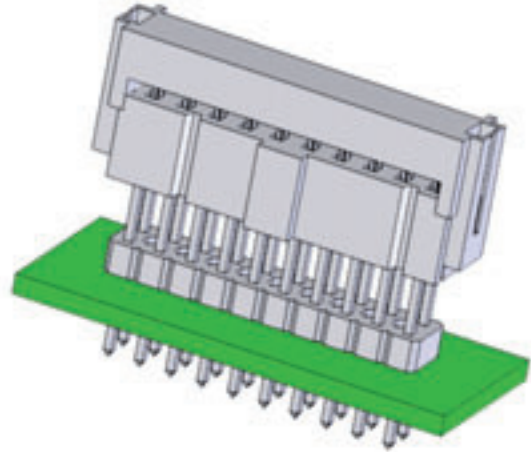


ERNI's flexible manufacturing process allows partially loaded pin headers. Various designs are possible. Solder or Pressfit.

Mating and PCB configurations



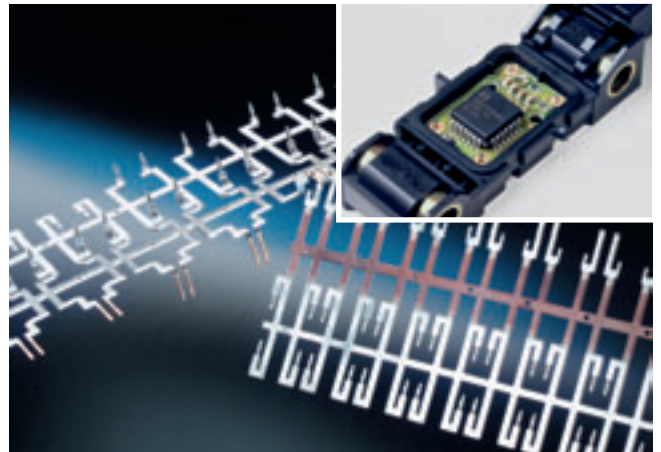
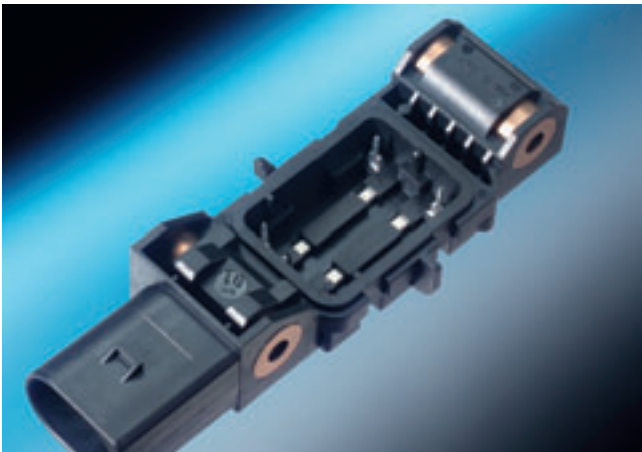
DIN intermateability



LPV intermateability

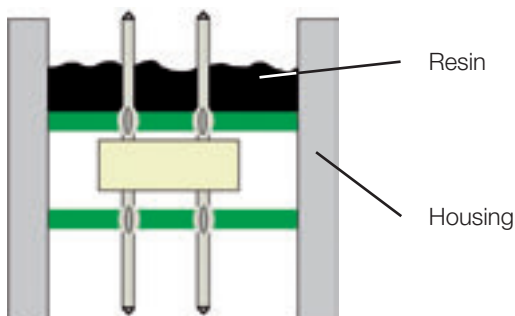
The pictures above show a female DIN B/3 and a female LPV IDC connector mating with a 20 pin pin header. This is possible due to their common 2.54 mm pitch and the compatibility with the widely spread pin diameter of 0.63 mm x 0.63 mm.

Automotive approval



Harsh Environments

By using a resin to seal the application from outside materials such as fluids, dirt and dust ERNI's pin headers are even suitable for harsh environments.

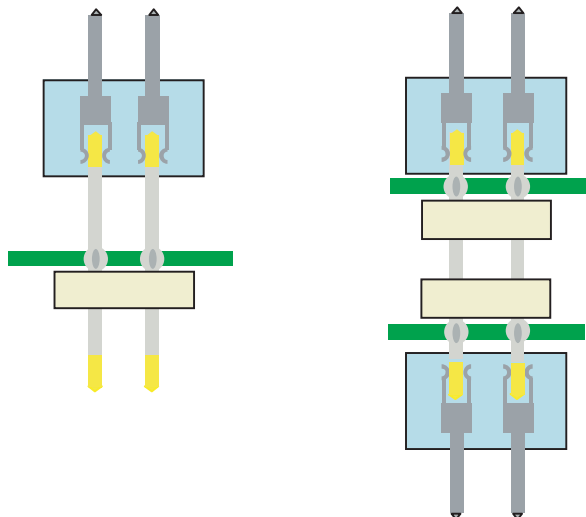


2.54 mm STL Pin Headers

Description



Additional examples



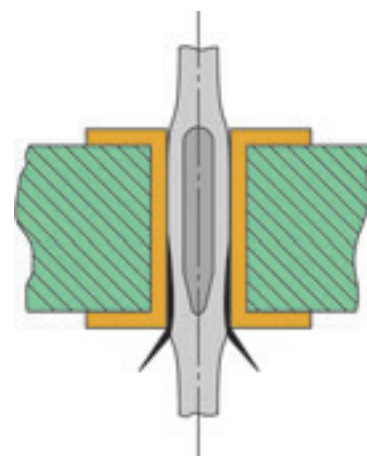
Pressfit Termination

Special shape of the pin offers the necessary elasticity

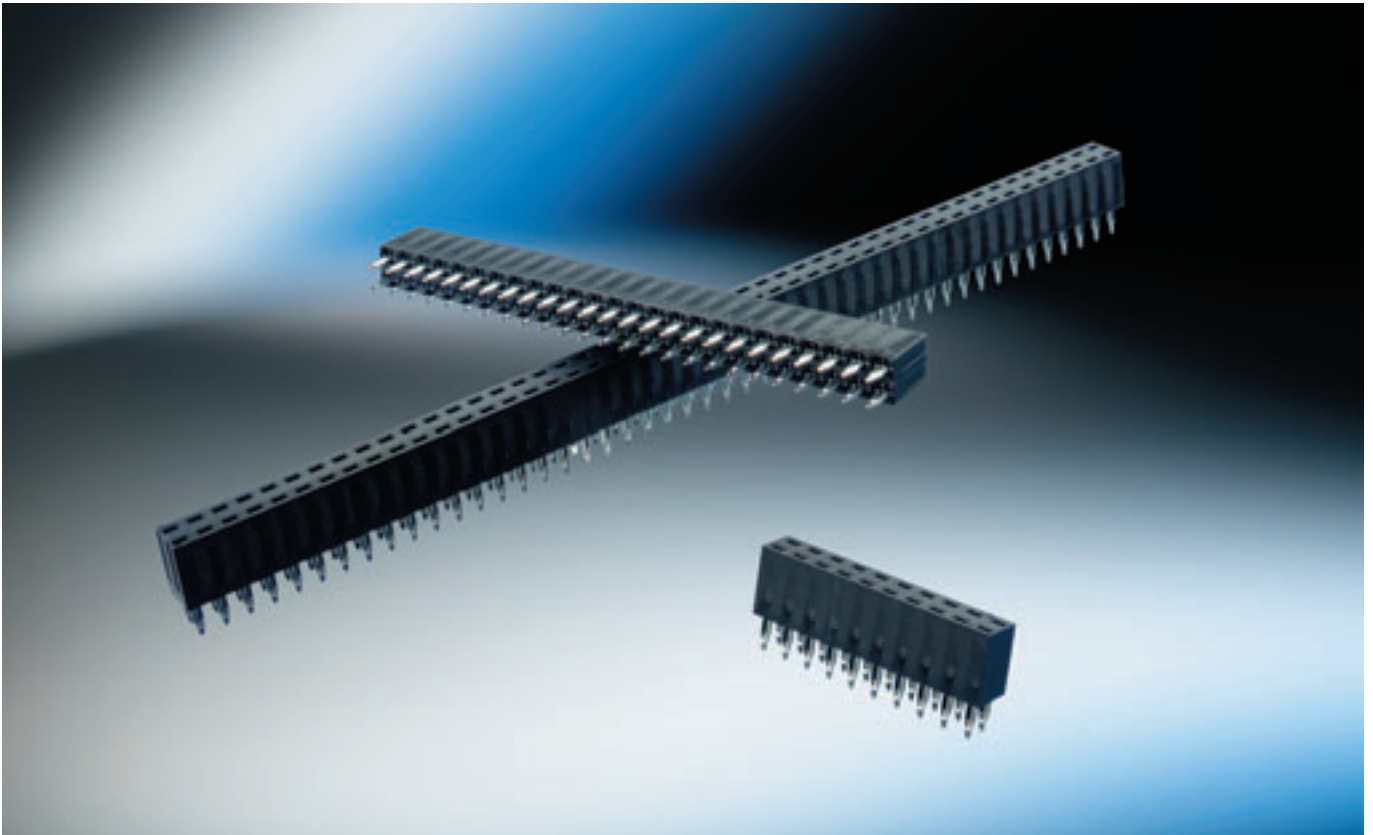
Gas tight, vibration proof connection, provides a secure fit



Rounded die cut edges protect the metal plating



ERNI Pressfit technology offers a startlingly simple yet high-quality method for connecting mezzanine boards. Double sided pressfit pin headers in 2.54 mm grid take on both mechanical and electrical functions at the same time. Although the connection is permanent, it is very sturdy, functional, vibration resistant and non-sensitive as well as being an efficient, low cost and variable technical solution.



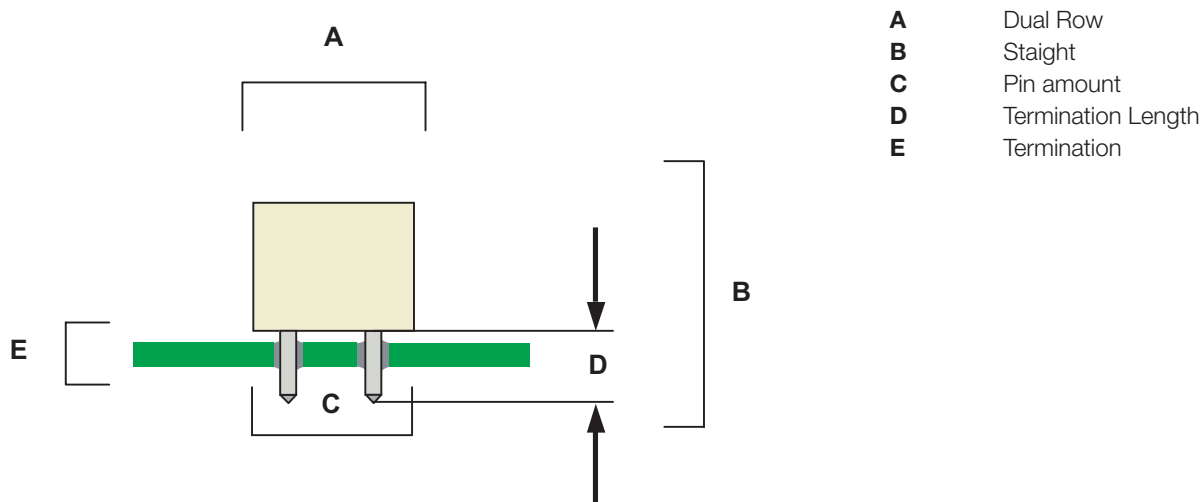
General

ERNI's Socket strips are a perfect addition to the 2.54 mm Unshrouded Header System STL. With its 2.54 mm pitch they are fully compatible with all 2-row unshrouded headers. This combination represents an excellent way to connect 2 PCB boards. Socket strips are available in the 2nd quarter 2007 with pin configurations of 10 - 94 pins.

Features

- Solder and Pressfit
- Dual row
- Straight versions
- Harsh environments
- Gas tight, vibration proof connection
- DIN and LPV intermatability
- Flexible manufacturing process

2.54 mm Sockets Information



Description

A+B. Dual Row Straight

Socket strips are only available in straight versions with two pin rows.

C. Pin amount

Socket strips are only available as solder or pressfit versions with up to a total of 94 pins (2x47) maximum.

D. Termination Length

ERNI offers the socket strips with the standard termination length of 3.7 mm.

E. Termination





Member





ERNI Electronics GmbH

Seestrasse 9, Postfach
73099 Adelberg, Deutschland
Tel +49 (0)71 66 50-0
Fax +49 (0)71 66 50-282
info@erni.de

Europe South America Africa

ERNI Electronics, Inc.

3005 E. Boundary Terrace
Midlothian, VA 23112
Tel +1 (804) 228-4100
Fax +1 (804) 228-4099
info.usa@erni.com

North America Canada Mexico

ERNI Asia Holding Pte Ltd.

Blk 4008 Ang Mo Kio Avenue 10
#04-01/02 Techplace I
Singapore 569625
Tel +65 6 555 5885
Fax +65 6 555 5995
info@erni-asia.com

Asia

www.erni.com

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