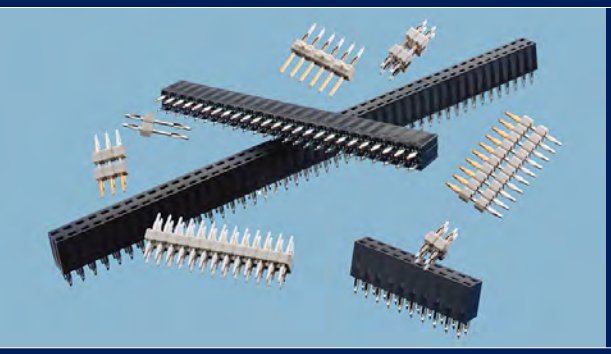

2.54 mm STL Pin Headers and Sockets

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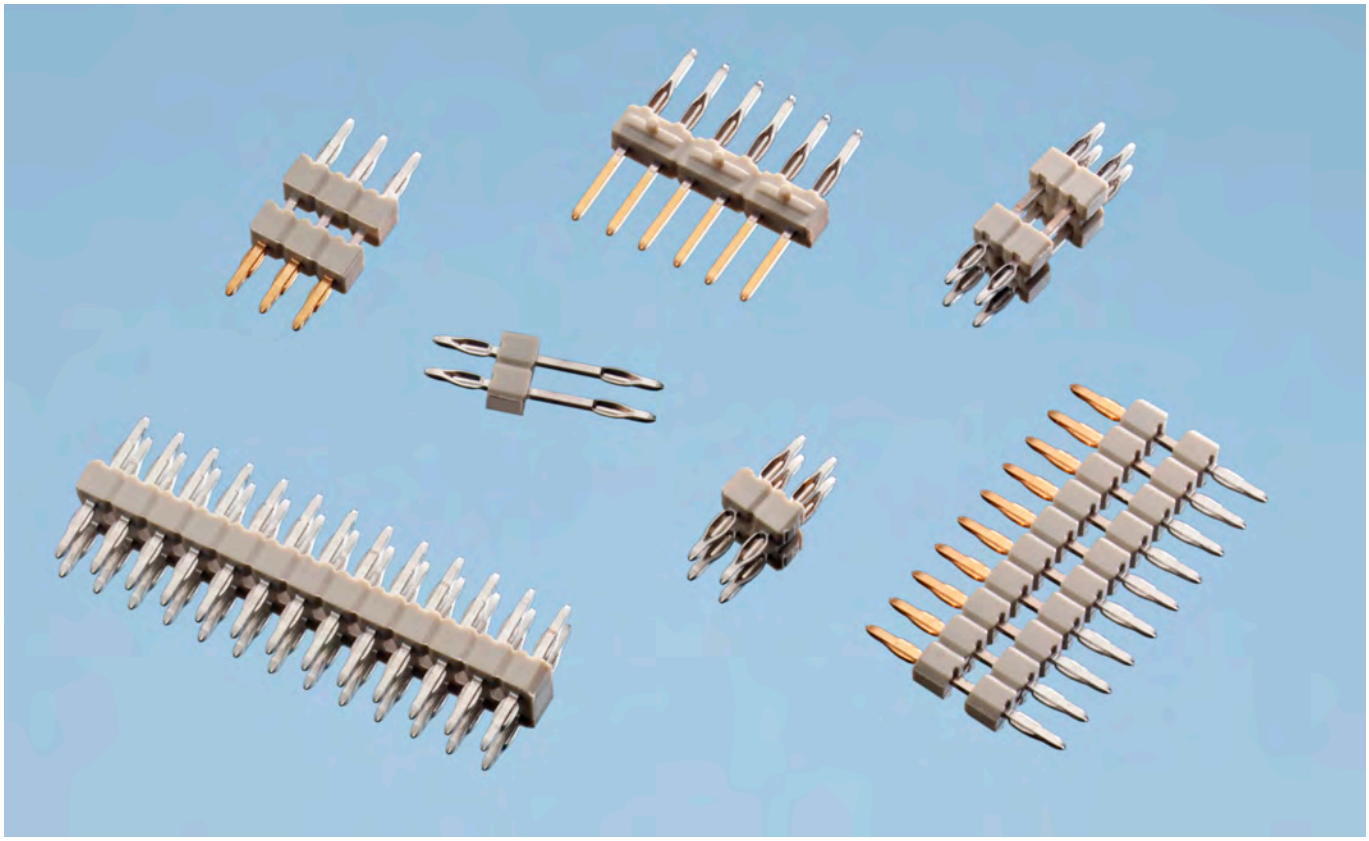


General

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 todays 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.

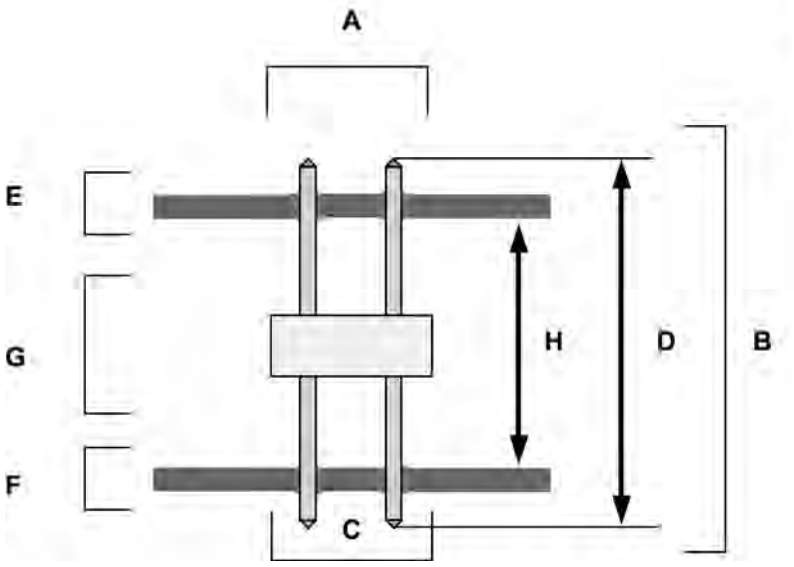
Features

- Straight versions with solder, THR, SMT and pressfit termination
- Horizontal SMT version
- Single or dual row
- 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	36
	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 or Dual Row
B Straight
C Pin amount
D Total length of Pin
E Termination and plating top
F Termination and plating bottom
G One or two insulation Bodies
H Board to Board Distance

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2.54 mm STL Pin Headers
Description

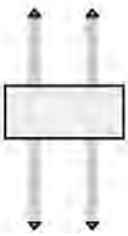
A. Single Row or Dual Row

Single Row

Dual Row

B. Straight

Straight single Row



Straight dual Row

C. Pin amount

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

Solder, THR and pressfit angled versions are not available.

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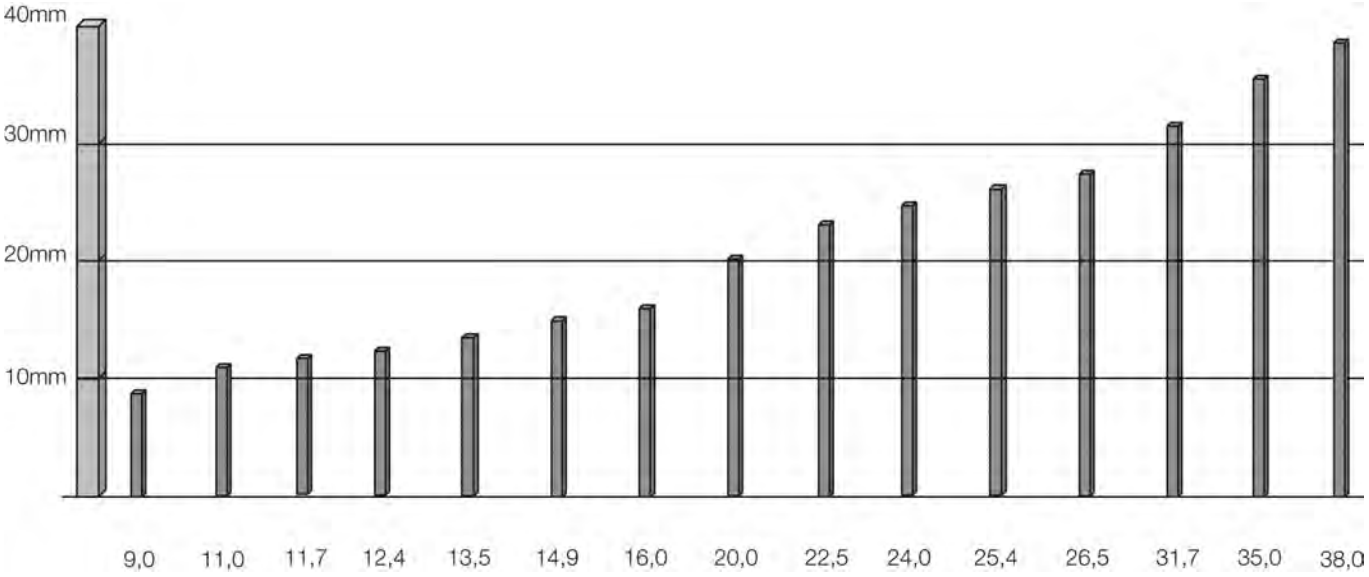
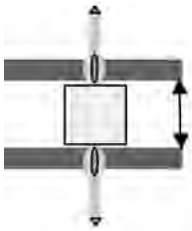
2.54 mm STL Pin Headers
Description

D. Available Total Pin Lengths

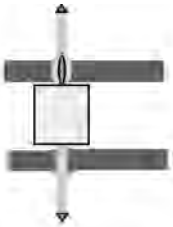


ERNI provides pin headers in various standard lengths. From 9 mm to 38 mm we offer 15 different standard pin lengths.

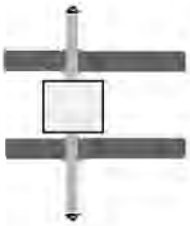
E+F. Termination and Plating Straight Version



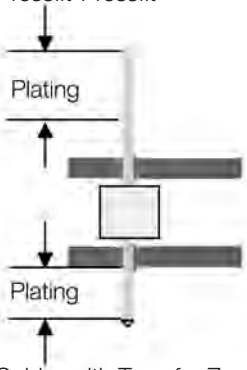
Pressfit-Pressfit



Pressfit-Solder

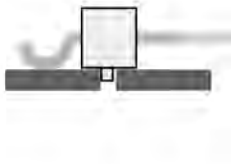


Solder-Solder



Solder with Transfer Zone

Pressfit with Transfer Zone



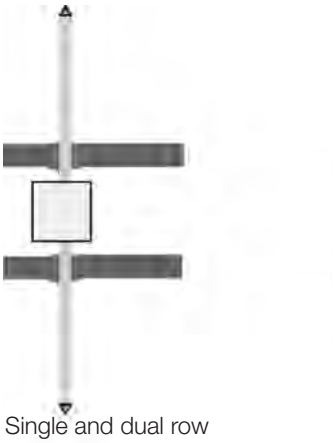
SMT horizontal

Solder

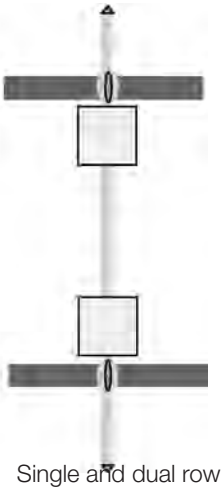
Pressfit

2.54 mm STL Pin Headers
Description

G. Insulation bodies



Single and dual row
straight



Single and dual row
straight

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.

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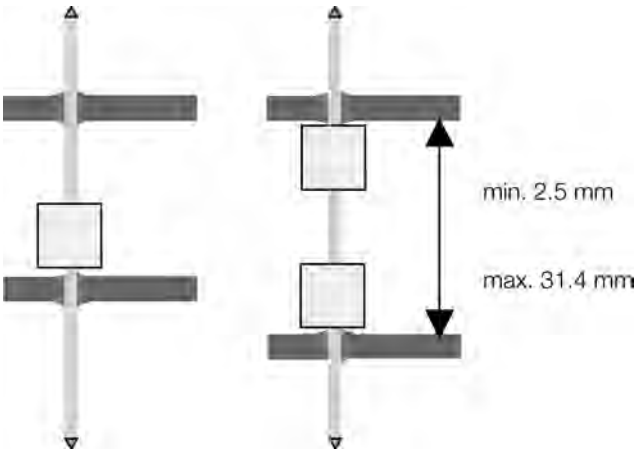
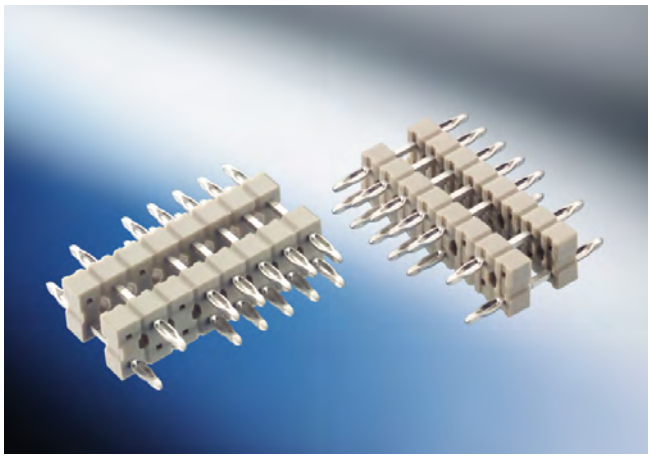
2.54 mm STL Pin Headers
Description

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.

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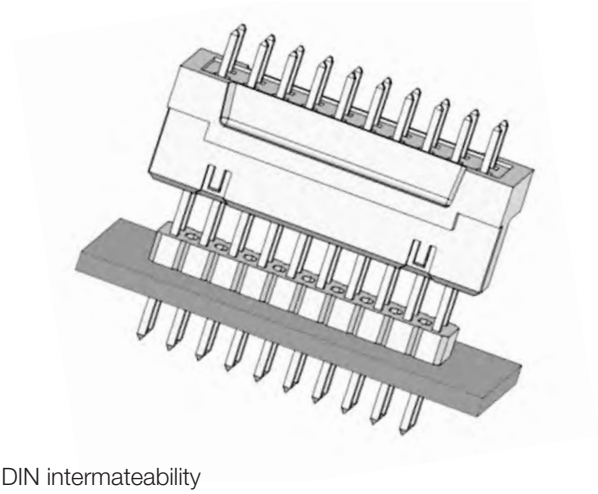
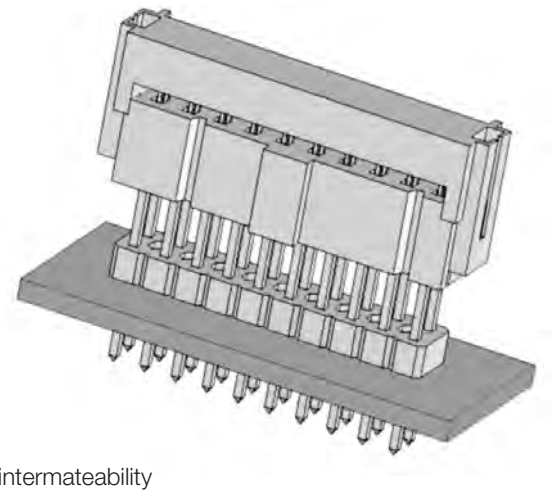
2.54 mm STL Pin Headers
Description

Mating and PCB configurations



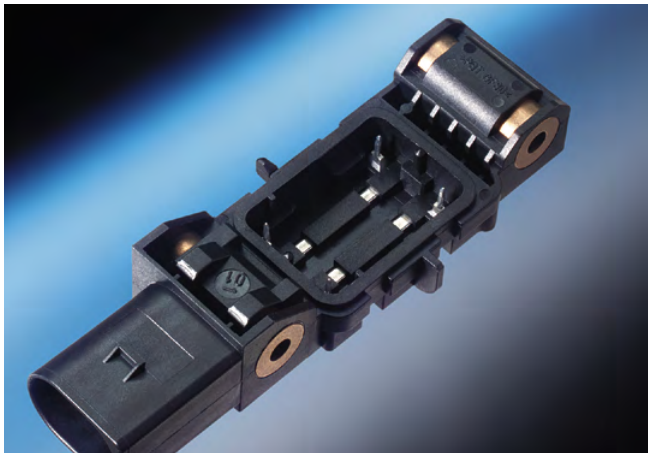
DIN intermateability

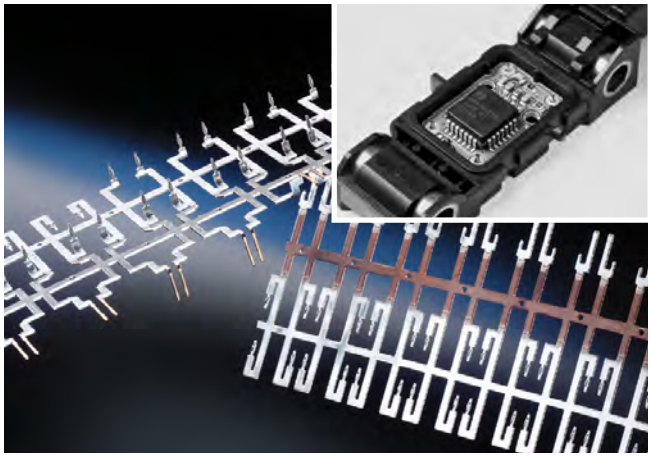


LPV intermateability

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.

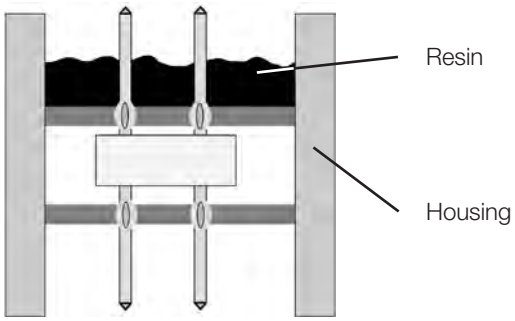
Automotive approval





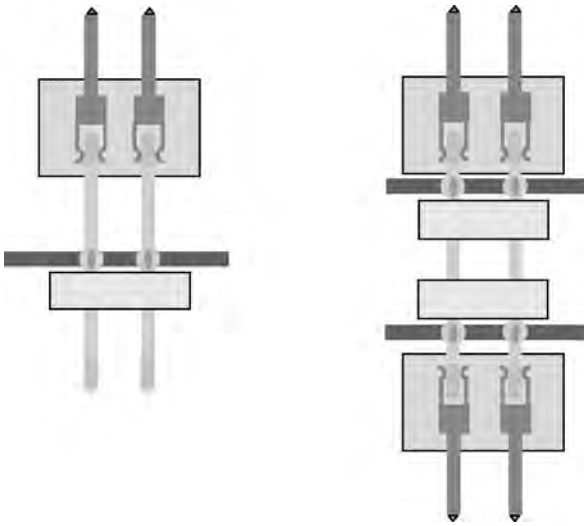
Harsh Environments

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

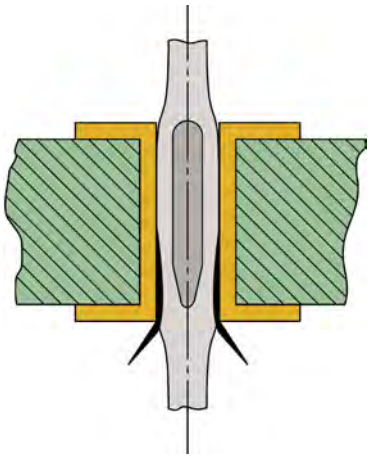


Pressfit Termination

Special shape of the pin offers the necessary elasticity

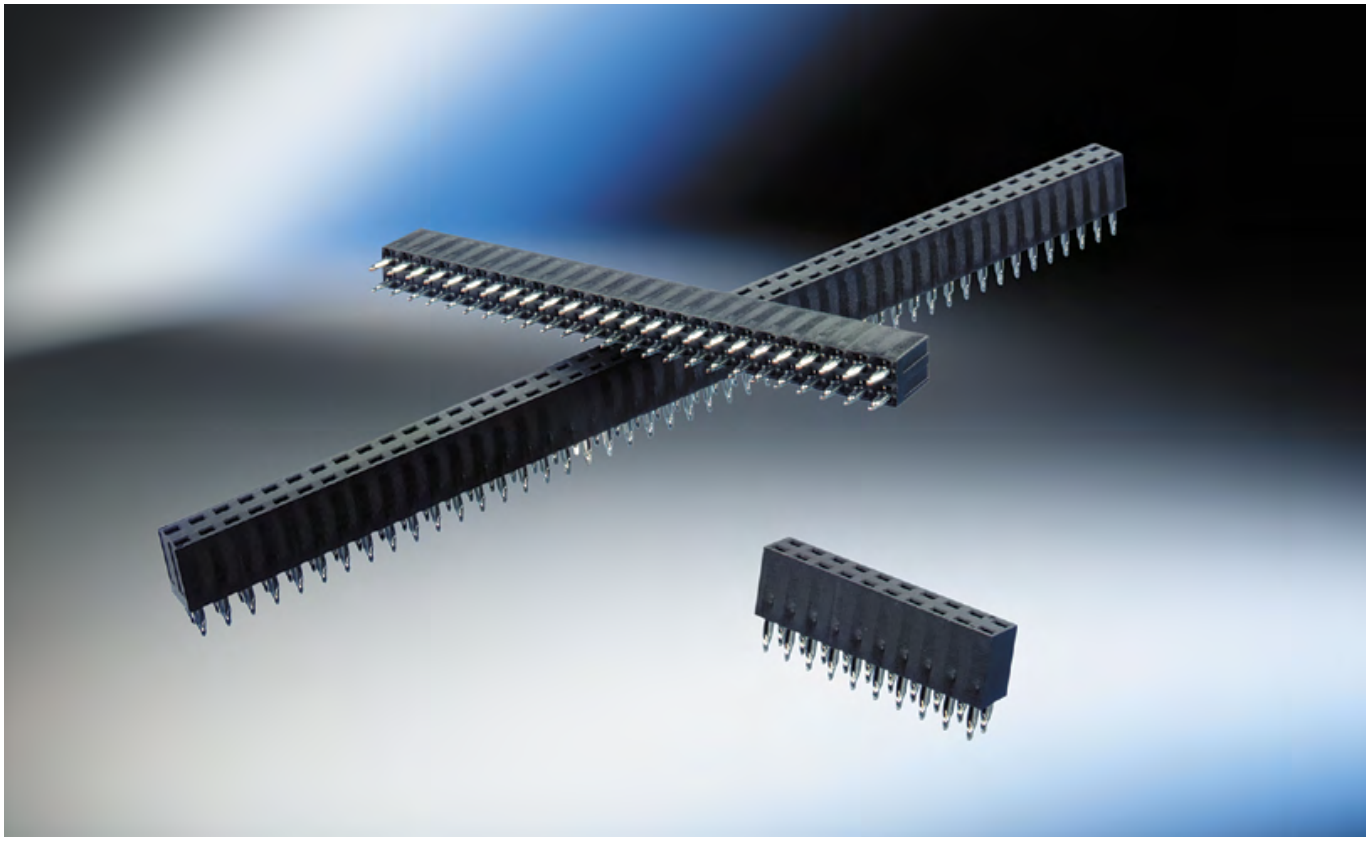
Rounded die cut edges protect the metal plating

Gas tight, vibration proof connection, provides a secure fit



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.

2.54 mm Sockets



General

ERNI's Socket strips are a perfect addition to the 2.54mm 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 with pin configurations of 10, 16, 34, 52, 72 and 94 pins.

Features

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

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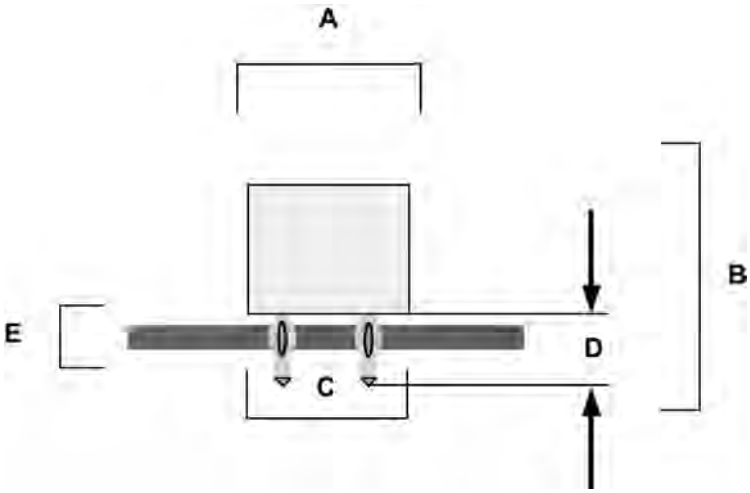
2.54 mm Sockets
Information



A	Dual Row
B	Staight
C	Pin amount
D	Termination Length
E	Termination

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 pressfit versions with up to a total of of 94 pins (2x47) maximum.

D. Termination Length

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

E. Termination

Pressfit

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