

733500 / 733510 (not illustrated)



733520 / 733530 (not illustrated)



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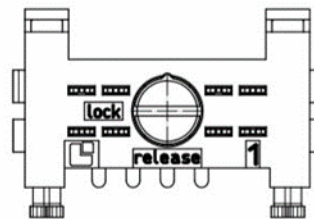
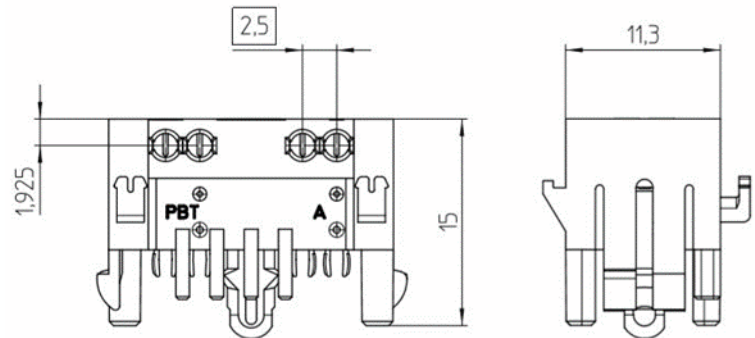
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1. Product description

1.1. Product types

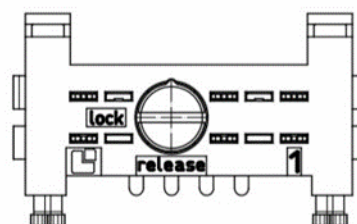
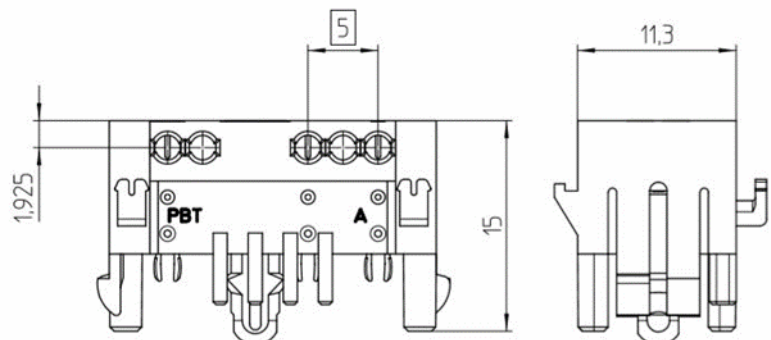
Series Smart SKEDD 733500

Pitch 2,5 mm
acc. to data sheet 733500 01



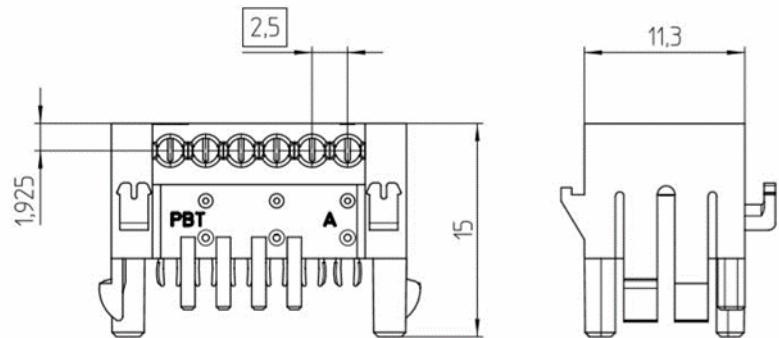
Series Smart SKEDD 733510

Pitch 5,0 mm
acc. to data sheet 733510 01



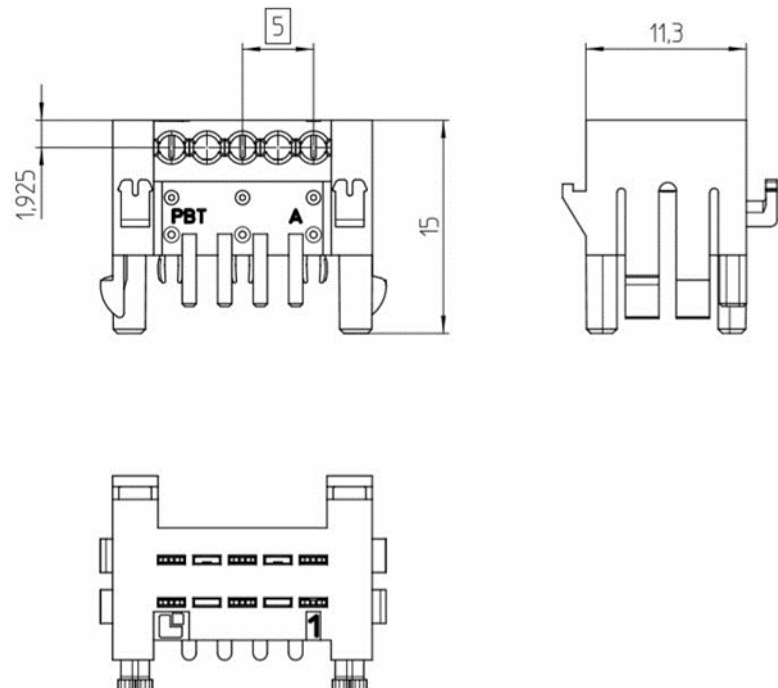
Series Smart SKEDD 733520

Pitch 2,5 mm
acc. to data sheet 733520 01



Series Smart SKEDD 733530

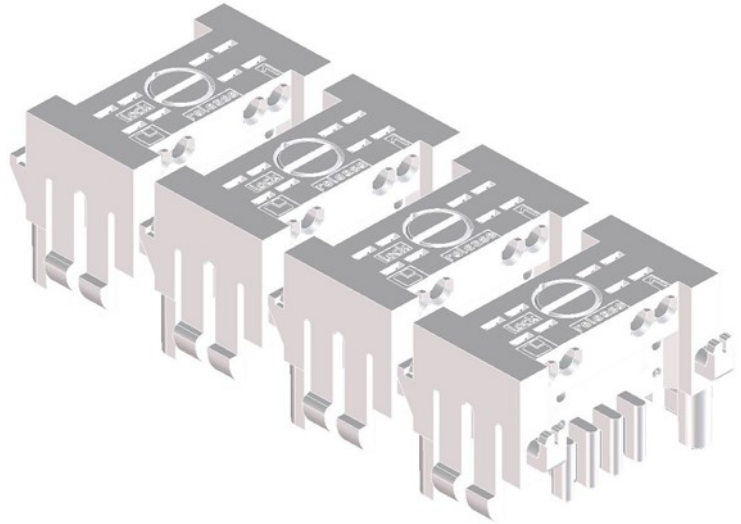
Pitch 5,0 mm
acc. to data sheet 733530 01



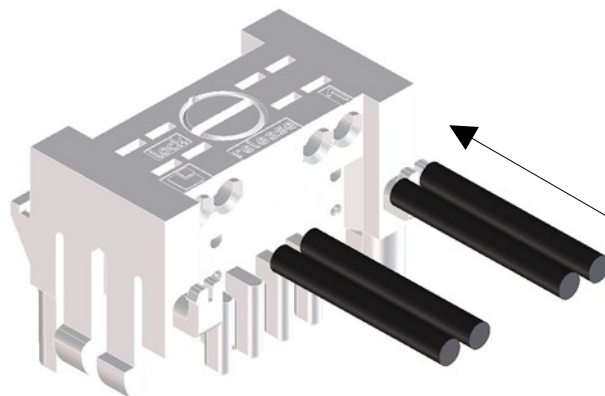
2. System features

Series Smart SKEDD 733500 / 733510

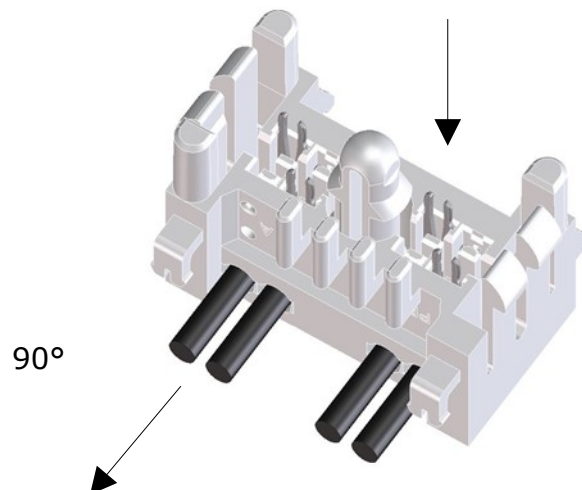
One-piece body
Contact in position before attachment
733500: Pitch 2,5 mm
733510: Pitch 5,0 mm



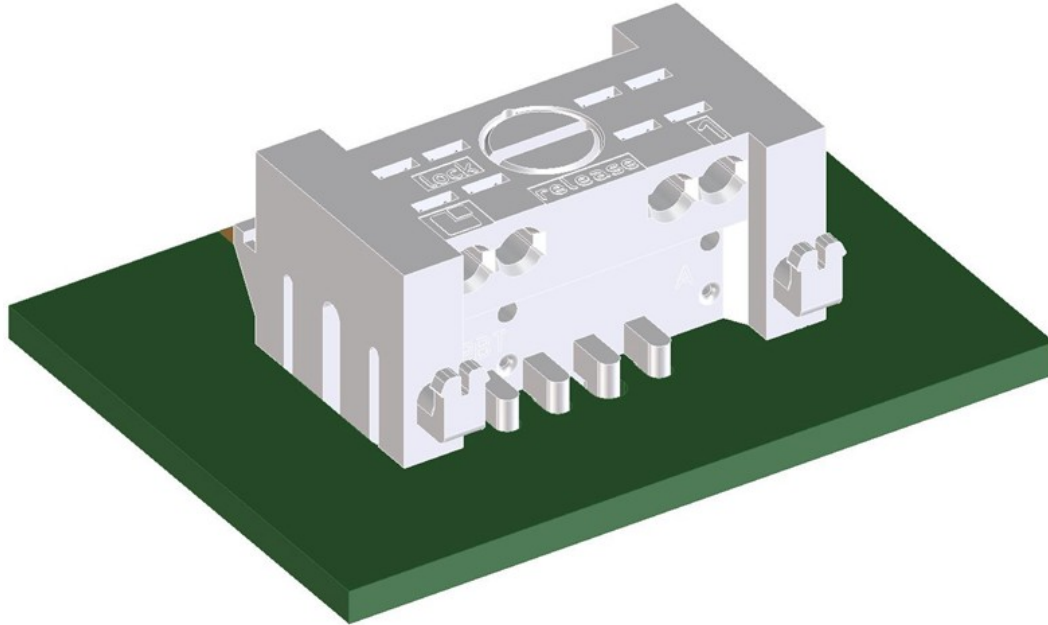
Wire termination



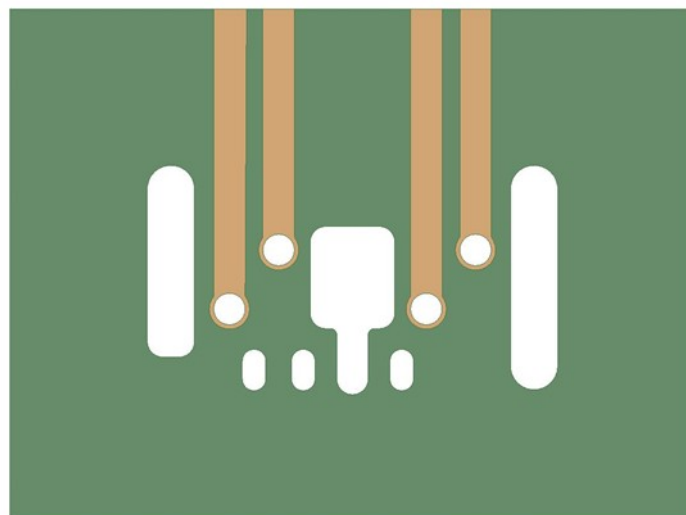
Insulation displacement connection by pressing the contacts
Wire exit 90°



Connector for direct mating, insulation displacement technology (IDT), with keying, positioning pins, Primary locking mechanism by means of locking latches and secondary locking by means of a locking pin on the printed circuit board.

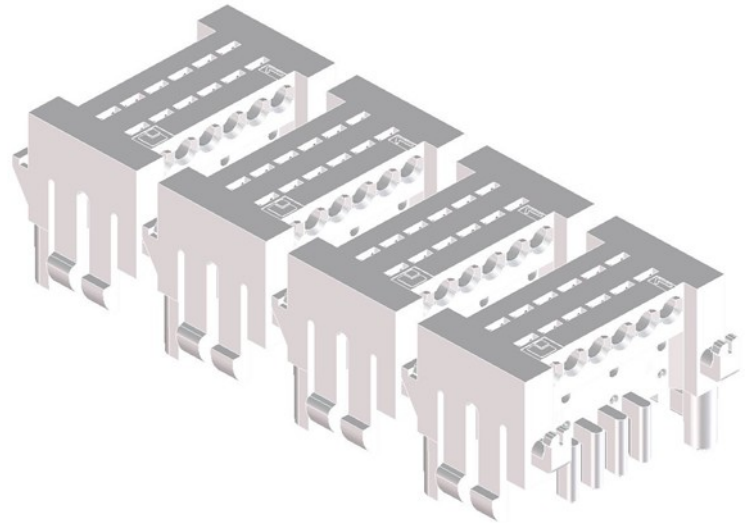


Printed circuit board

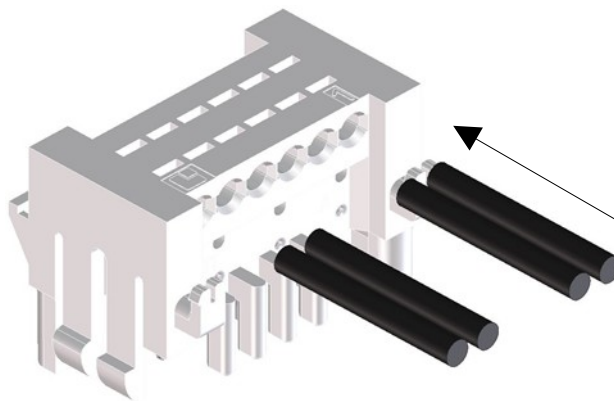


Series Smart SKEDD 733520 / 733530

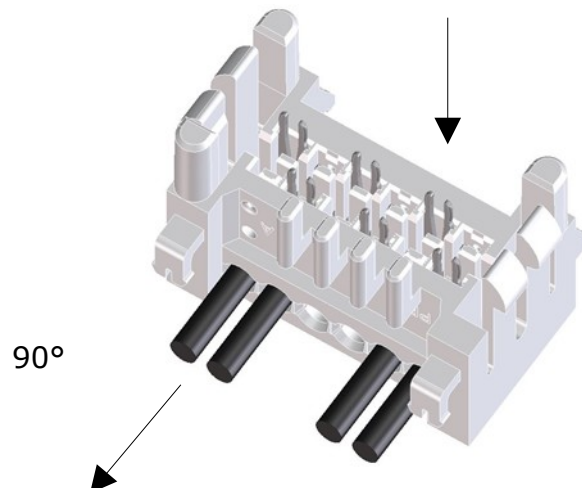
One-piece body
Contact in position before attachment
733520: Pitch 2,5 mm
733530: Pitch 5,0 mm



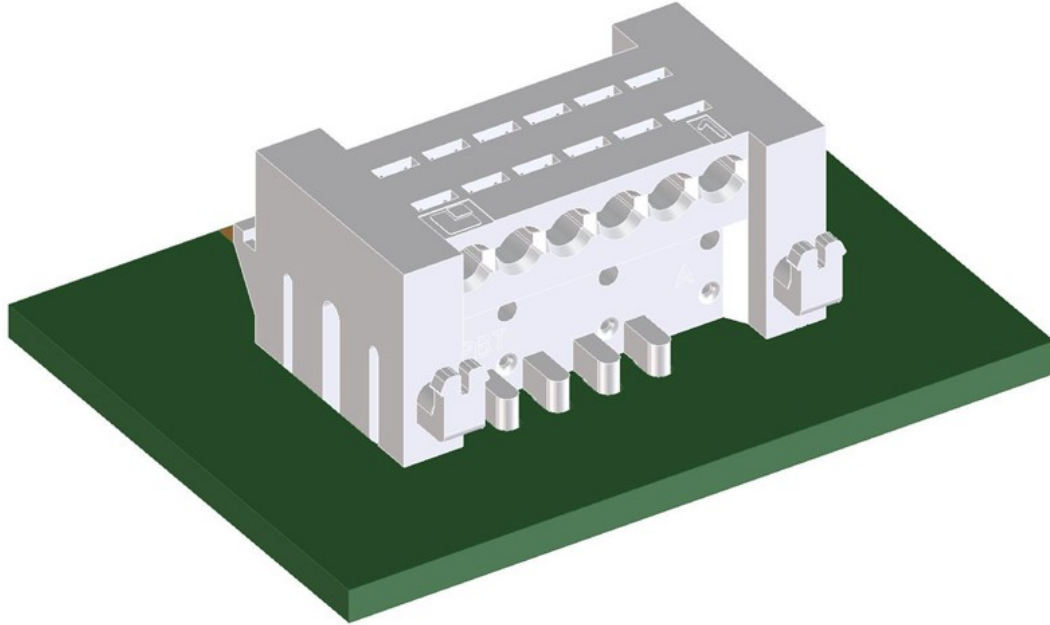
Wire termination



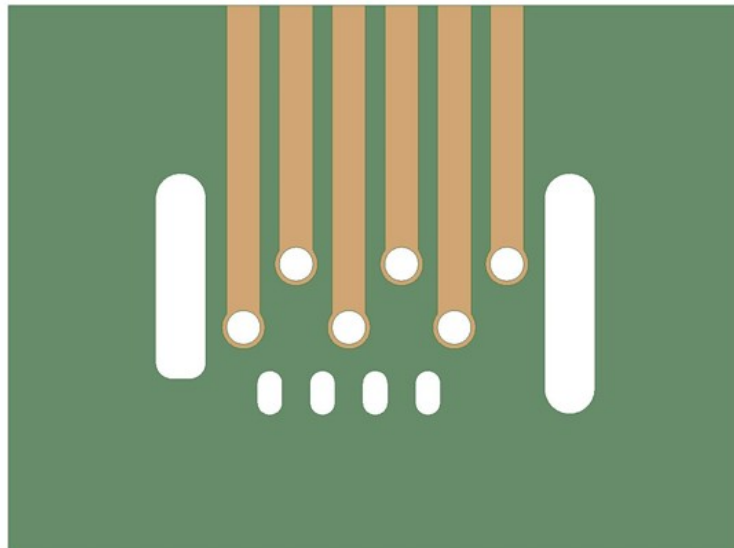
Insulation displacement connection by pressing the contacts
Wire exit 90°



Connector for direct mating, insulation displacement technology (IDT), with keying, Positioning pegs and locking by means of snap-in clips on the printed circuit board.



Printed circuit board



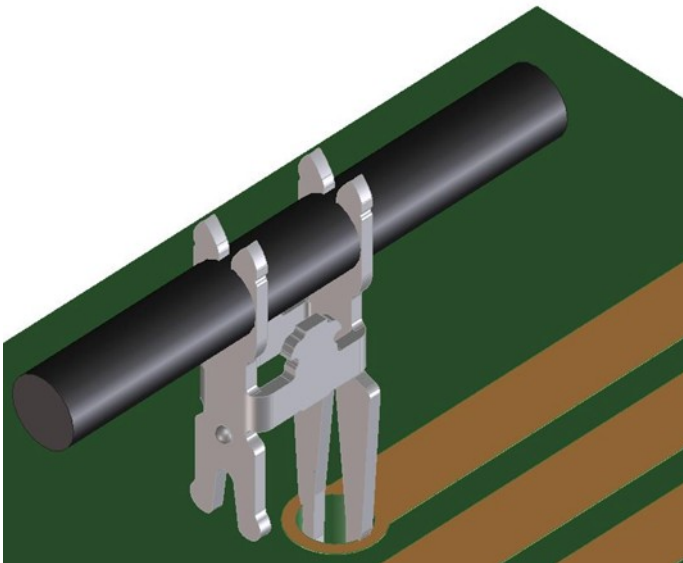
3. Contact principle

Direct plugging on the contact



Insulation displacement connection
(Test acc. to DIN EN 60352-4 / IEC 60352-4)

Direct plugging on the PCB



Insulation displacement connection
(Test acc. to DIN EN 60352-4 / IEC 60352-4)

4. Cutting-off coding keys

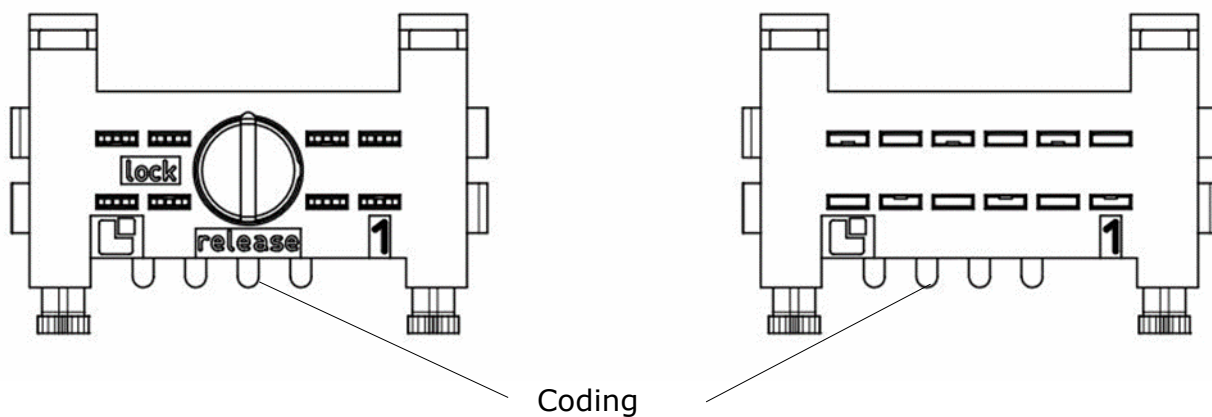
The allocation of connector, color marking and cutting off keys are the sole responsibility of the customer.

Caution!

Connectors, pin headers and guide frames are always marked in mating direction.

4.1. Coding acc. to Smart SKEDD

Basic connector in mating direction



4.2. Cutting blades

To ensure a correct cutting off the coding keys, use only Lumberg cutting blades. A minimum of residual cutting burrs are permitted.

5. Application tooling and machines

The function, safety and quality of the connectors are only guaranteed by using of Lumberg processing equipment. It has to be taken into account that the connectors aren't checked electrically before the processing / assembling. Because of that an electrical test should be carried out after processing / assembling.

The user bears full responsibility if any other processing equipment is used.

In case of using any lubricants or sliding agents in the feed and press areas residues (impurities) must not come onto contact with the connectors.

Manual processing tool

For fitting single wires and ribbon cables. For single and small series.

Manual processing device

For fitting single wires and ribbon cables. For small series.

Pneumatic processing device

Pneumatically assisted processing device with manual cable feed and connector feed. For small and middle series.

Semi-automatic processing device

To the economic assembling of automatic connector feed and manual cable feed. For serial production.

Automatic processing device

For optimal assembling of automatic wire feed and connector feed. For industrial mass production.

6. Cable specification

The cable specification must be kept. Any deviation must be discussed and approved by Lumberg.

6.1. Cable specification cross section for connection 0,38 mm²

Technical data sheet 908 14

Technical data sheet 908 30

Technical data sheet 908 85

Technical data sheet 908 86

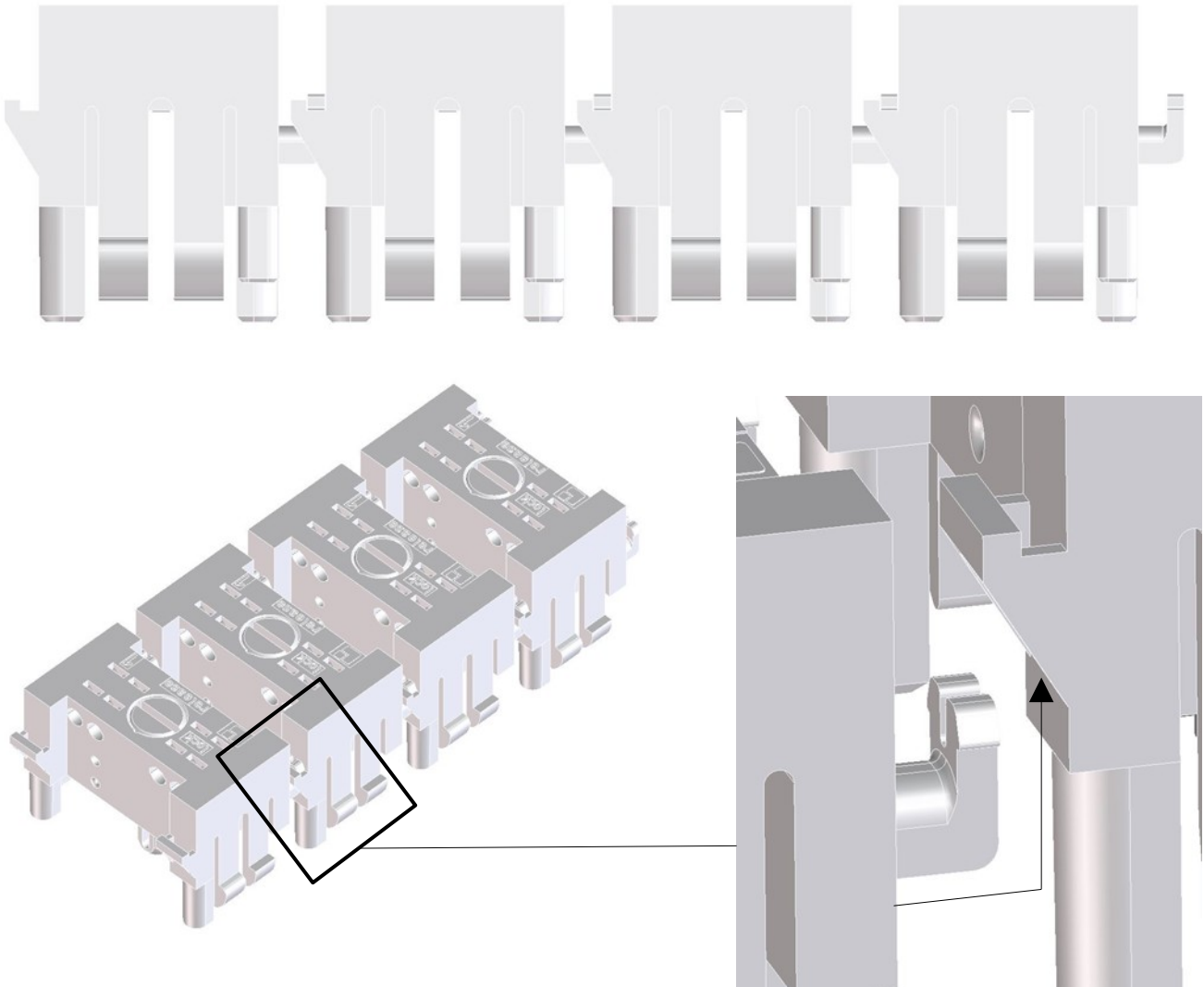
Other approved cable see Lumberg release list in the internet at www.lumberg.com

7. Assembly

Connector and cross section should be adapted with each other acc. Lumberg specification (see technical data sheet).

7.1. Connector feed

The links are processed with taped connectors. The connectors are separated for processing. Before assemble is a separation of the chain links needed. To optimize the processing of the chain can, if necessary, by simple assembly of chain links (see figure) are automatically fair.

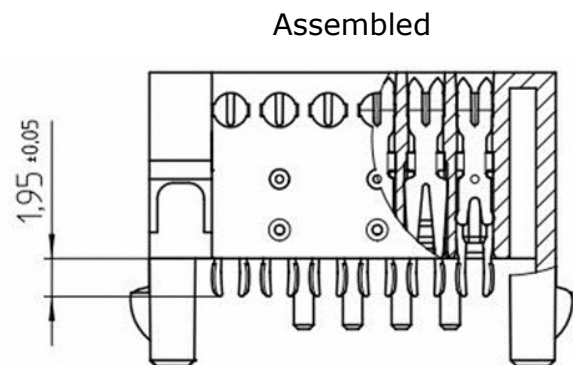
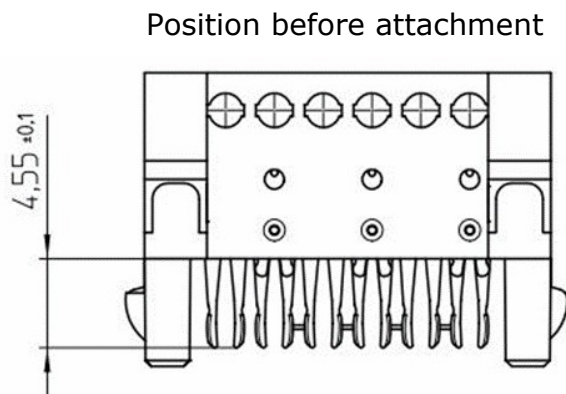


7.2. Impression die stamp

Only use impression die stamps from Lumberg.
Impression die stamps: free of lubricants and sliding agents.

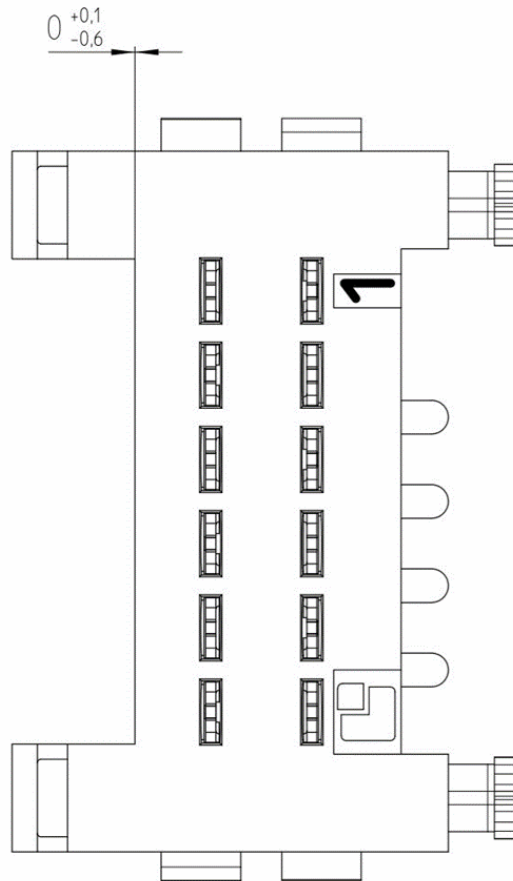
7.3. Adjustment dimension of the processing machine

The contact height is a decisive feature for the function of the male pin header once it has been assembled. It is determined by the adjustment dimension on the processing machine. Depending on the pin header and cable being used, it may be necessary to adjust the setting dimension in order to maintain the proper contact height.



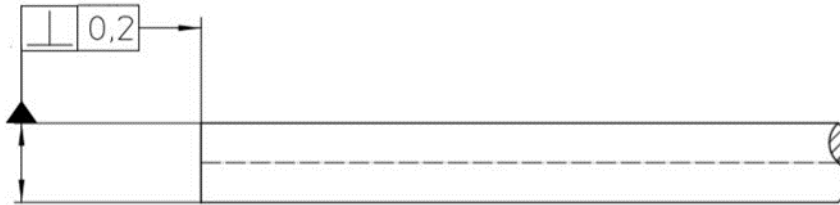
7.4. Wire end position

There must be the correct cable protrusion (max, 0,1 mm) to guarantee good wire termination in the both ID slots of the contact. The stop position of the wire is taken into account when processing and checked with appropriate measures after termination. The end-position query must always be performed completely.



7.5. Wire (stranded wire)

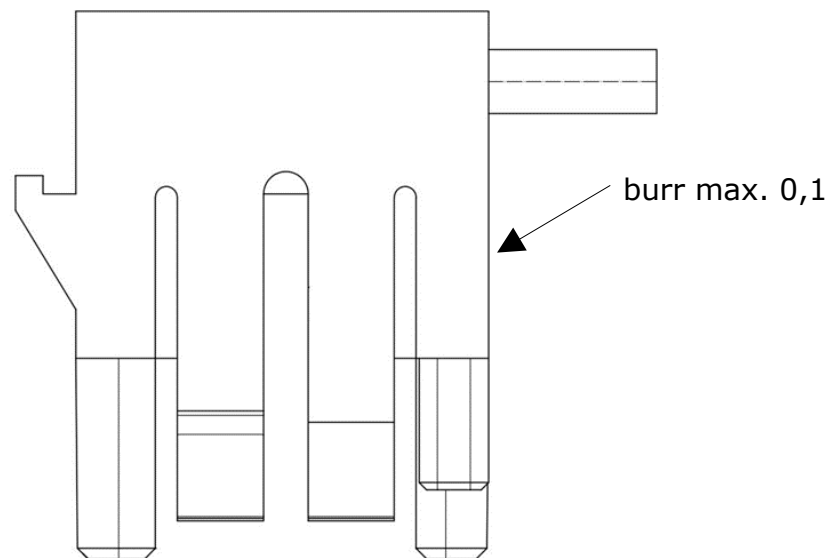
The cable ends must be cut off without burr deforming.



No cuts in the insulation are allowed in wire exit direction (visual check). Insulation cuts are permitted between the ID slots of the contact.

7.6. Housing

No damage of the connector is allowed after termination (visual check). The links must be cut off without burr.



8. Quality assurance

For all working processing steps and alterations (e.g. product launch, changes of the cable, changes of the tool or machine...), which may affect the product quality, the responsible departments have to be care of appropriate quality assurance steps.

8.1. Quality features

The following quality features must be taken into consideration:

8.2. Quality features / IDC

- Width of the cutting slit (insulation displacement terminal)
- Center position of the cutting slit (insulation displacement terminal)
- Cable quality
- Cable insertion depth
- Cable protrusion
- Electrical testing

8.3. Width of the cutting slit

Lumberg guarantees that the width of the cutting slit is maintained.

8.4. Center position of the cutting slit

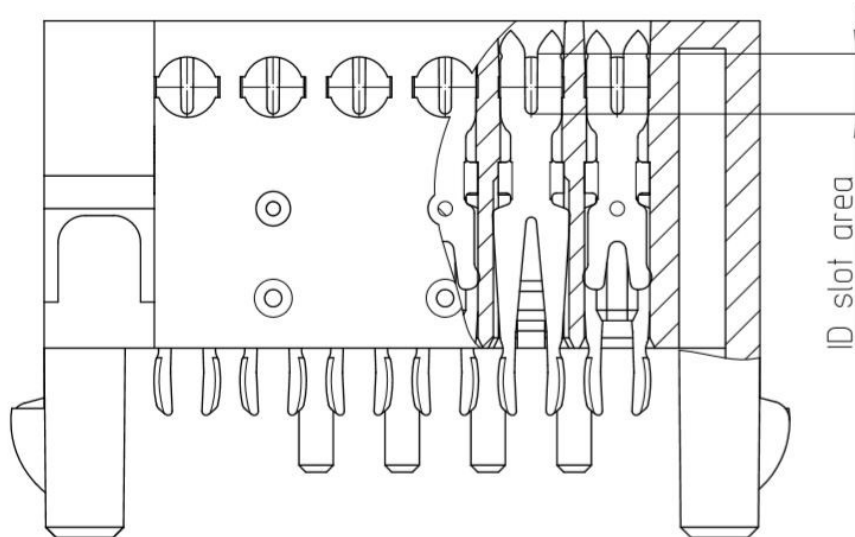
The contact carrier ensures the central positioning of the cutting slit, which is responsible for taking up the conductor, to a tolerance of $\pm 0,1$.

8.5. Cable quality

The cable must meet Lumberg specification acc. to point 6.1. Customized cables, which are listed in the release lists, have to correspond with the available specification sheets. Only Lumberg released cables are to be used. The customer bears full responsibility for the correct mating when cables are used which are not listed in the release lists.

The user must ensure that all approved wires are delivered in an adequate quality. The wire cross-section, concentricity, micro Shore hardness and the termination (lay) length should all be checked.

8.6. Contact insertion depth



The wire insertion depth is determined by the height of the body. All singles conductors must be in the ID slot area.

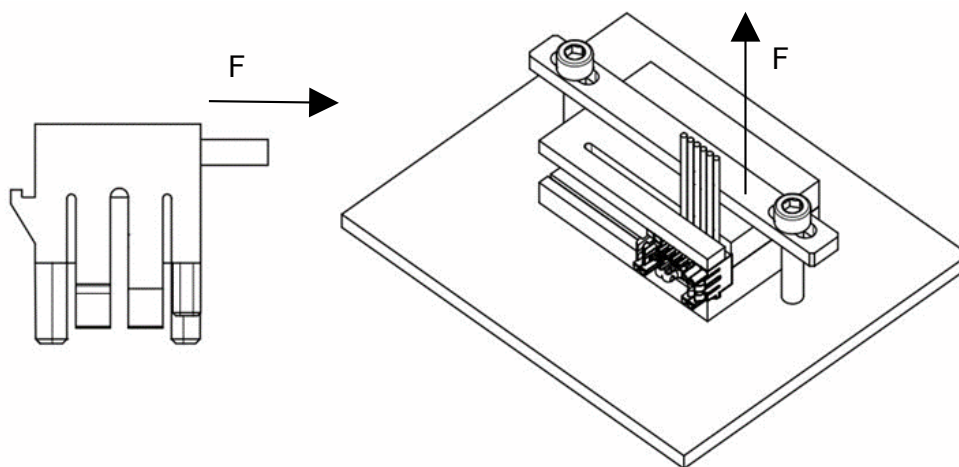
8.7. Cable protrusion

The cable protrusion acc. to point 7.4 must be kept. A protrusion of the cable in the housing leads to an incorrect mating.

8.8. Retention force of the wire

The extraction force of the wire from the IDC contact must be as follows:

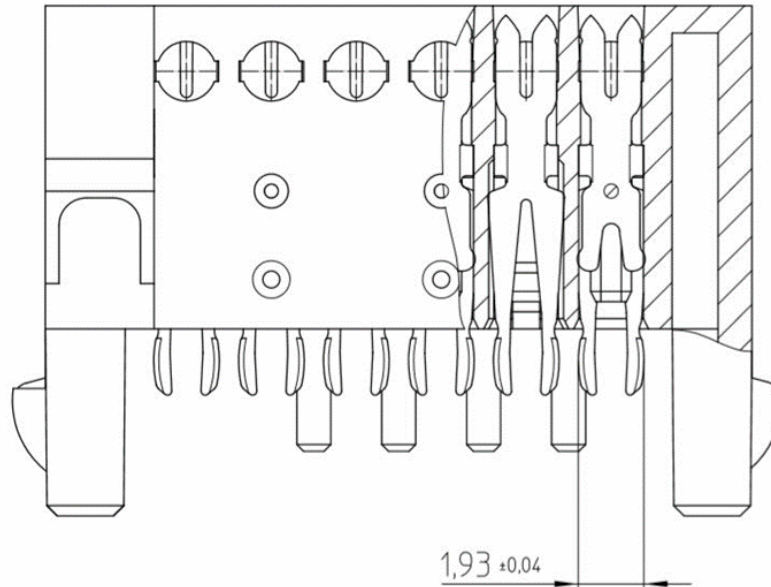
For PVC wire: $0,38 \text{ mm}^2 > 50 \text{ N}$



The stated value for the conductor's pull-out force is the typical value established during a test carried out with a standard $0,38 \text{ mm}^2$ line. All values were determined under laboratory conditions and serve as a reference. A speed of 50 mm/min is used to determine the extraction force.

8.9. Contact gap

Contact gap after termination.



8.10. Electrical testing

Electrical testing shall be performed in accordance with IPC/WHMA-A-620. The nature and extent of the electrical tests (short circuit testing, continuity testing, insulation testing, high voltage testing, etc.) should be specified depending on the application and the processing machine.

9. Storage

Tin-plated and silver-plated surfaces can undergo a physical aging process that may negatively affect their ability to be soldered. In order to maintain the best connection characteristics, make sure that the following instructions are closely followed during additional processing steps:

Storage conditions:

The parts should ideally be stored in the original packaging, at a constant temperature of 21-25°C, with a relative humidity of no more than 55%. The components should not be exposed to direct light. They should also be protected from any extreme ambient conditions (such as air pollution).

The storage time should be kept as short as possible, especially for silver-plated components and for solder connections in general. Our experience is that tin-plated components can be soldered for about a year after delivery when using the proper conventional flux. Silver-plated components, owing to their physical characteristics, should be processed within about six months of delivery.

These specifications are based on experience using components stored under optimal conditions. They do not constitute a binding commitment for the fulfillment of any characteristics.

Ask Lumberg for more information about alternative packaging options for other temperatures and environmental conditions.