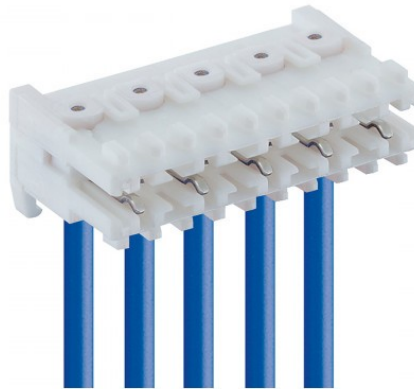
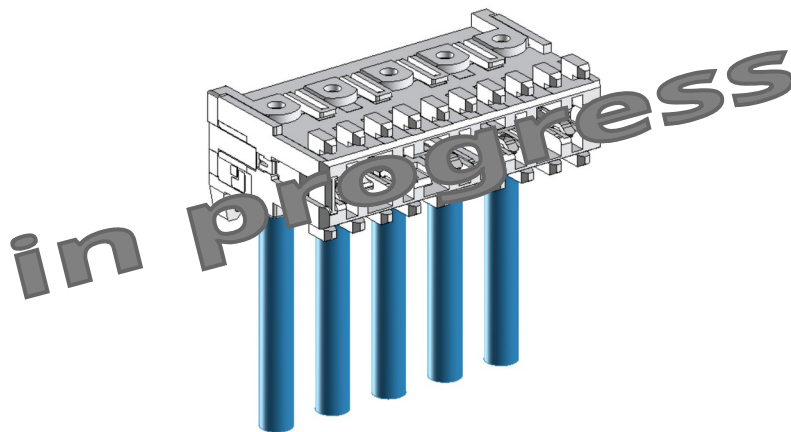


357000



357500



357600



	Date	Name	Edition	1	2	3	4	5	6
Author	14.08.15	sve	Name	jvoss	jvoss	jvoss	fs		
Checked	25.04.25	wie	Date	15.03.24	05.06.24	21.11.24	23.04.25		

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Connector RAST 2.5 Power plus

357V02EN

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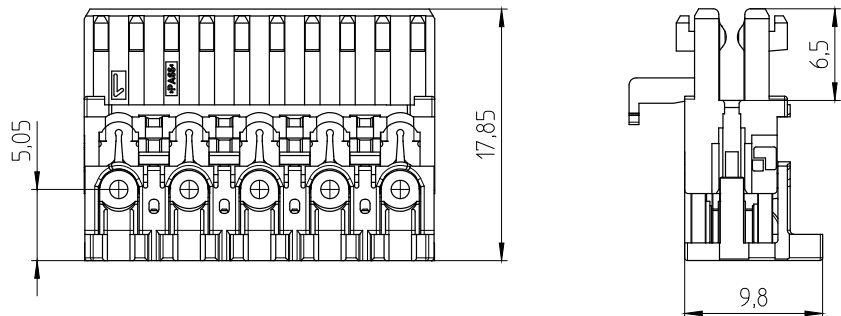
1. Product description

1.1. Product types

Series RAST 2.5 Power plus 357000

Connector for direct and indirect mating in ID technology, coding in conjunction with RAST 2.5 guide frames or pin header.

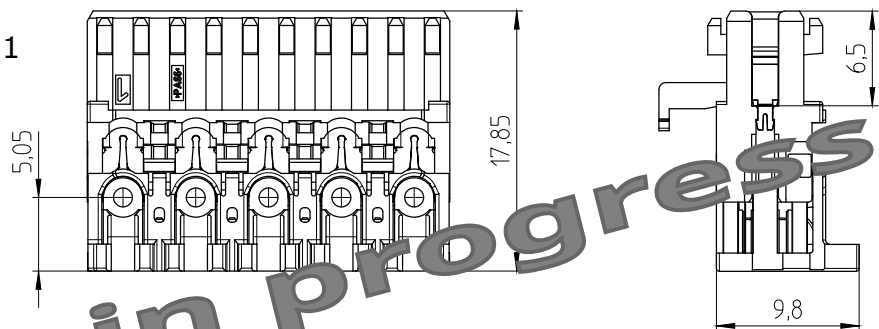
- Pitch 5,0 mm
- acc. to data sheet 357000 01



Series RAST 2.5 Power plus 357500

Connector for direct mating in ID technology, with latching on the PCB, alternatively with or without keying ribs and closed side walls.

- Pitch 5,0 mm
- acc. to data sheet 357500 01



Connector RAST 2.5 Power plus

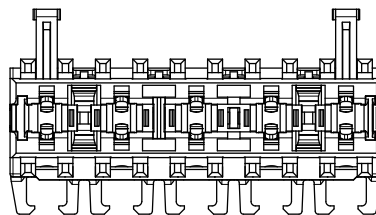
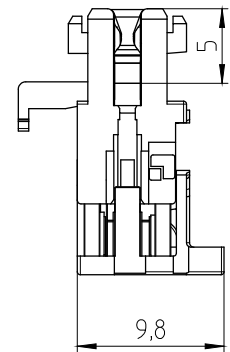
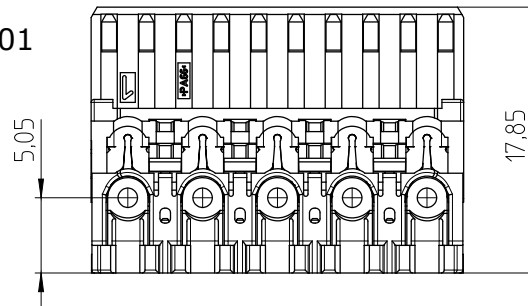
357V02EN

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Series RAST 2.5 Power plus 357600

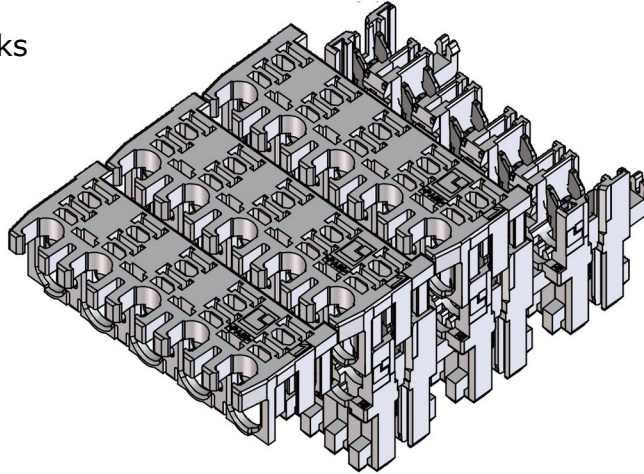
Connector for direct mating in ID technology, with latching on the PCB, alternatively with or without keying ribs and closed side walls.

- Pitch 5,0 mm
- acc. to data sheet 357600 01
- Insertion depth 5,0 mm

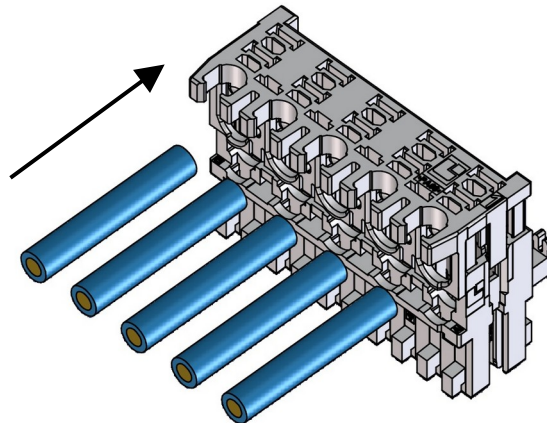


2. System features

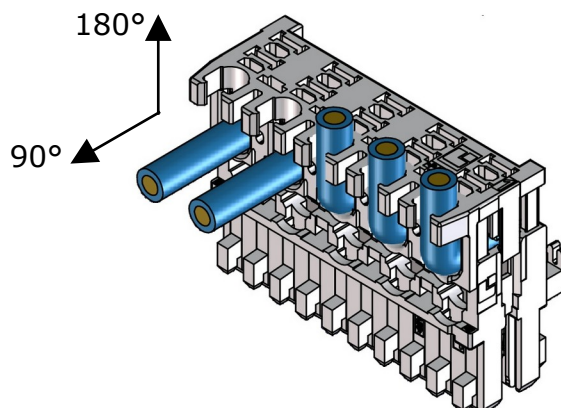
Two-part body
Supplied following stacks



Wire termination

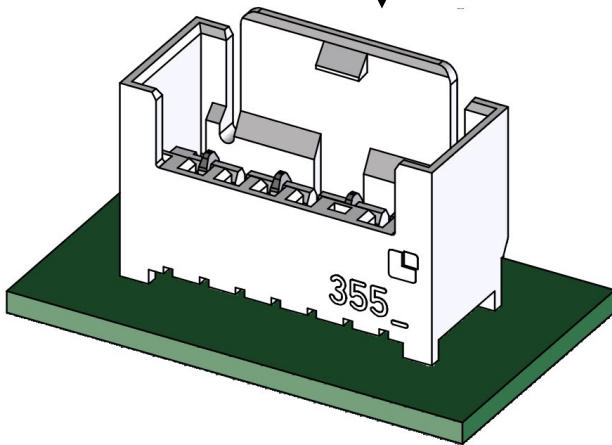
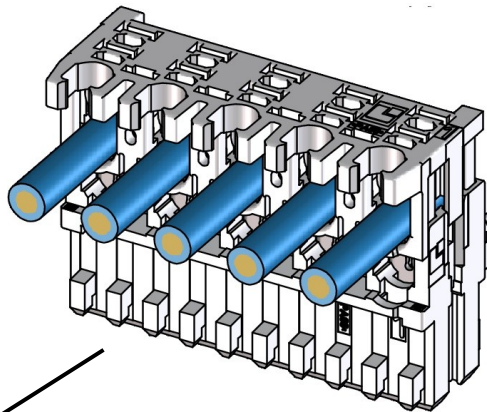


Insulation displacement connection by pressing the top
Wire exit 90° and 180°

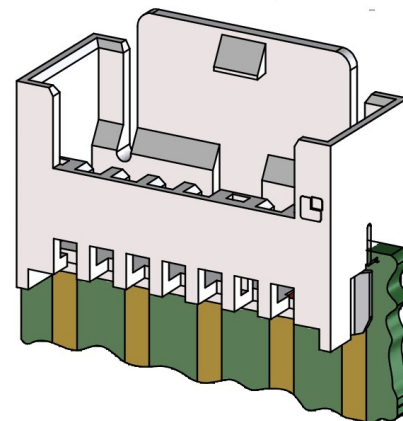


The connectors are used with pin headers as indirect connectors or with guide frames as direct connectors (edge connectors).

connector acc. RAST 2.5

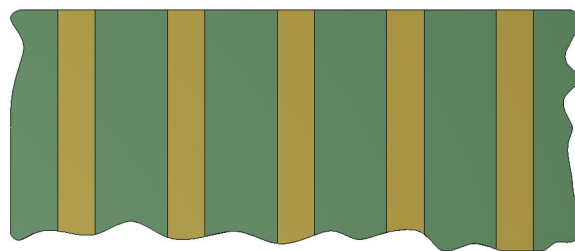


pin header



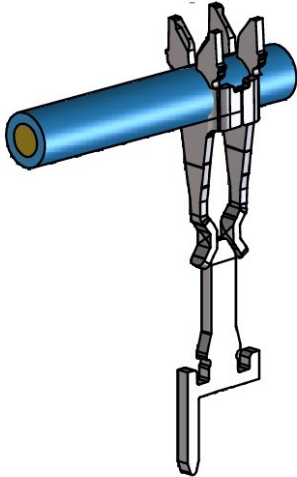
guide frame

PCB



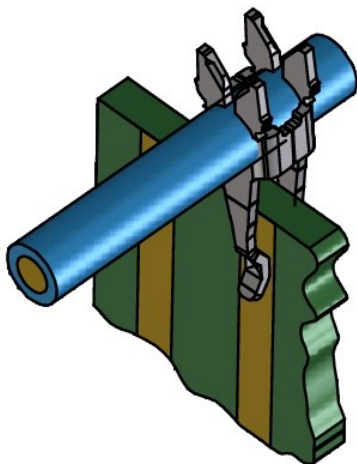
3. Contact principle

Indirect mating on the contact pin



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

Direct mating on the PCB



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

4. Cutting-off coding keys

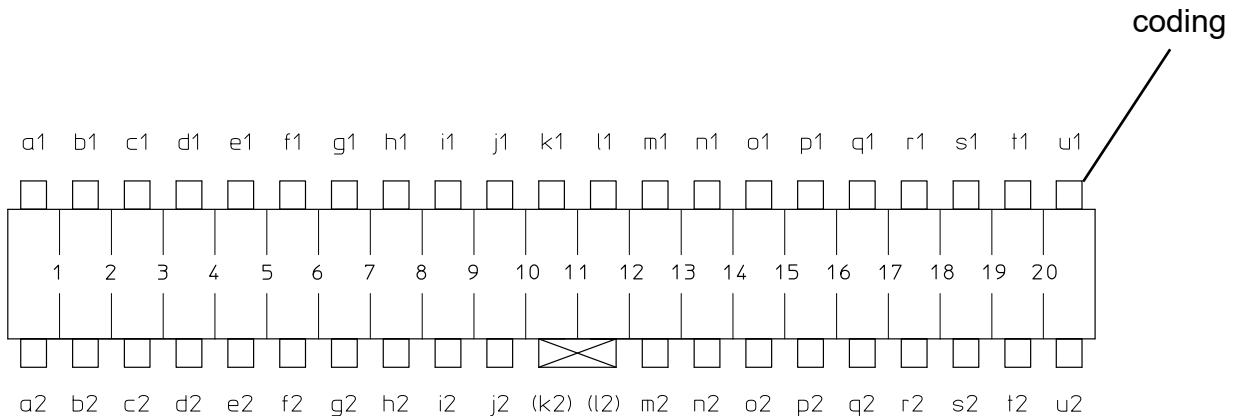
The cutting-off coding keys acc. to RAST 2.5 standard at the termination machine. The allocation of connector, color marking and cutting-off coding keys are the sole responsibility of the customer.

Caution !

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

4.1. Coding acc. RAST 2.5

basis connector in mating direction



4.2. Cutting blades

To ensure a correct cutting-off of the coding keys, use only Lumberg cutting blades. The plug-in area must not exceed a dimension of 5.3 mm (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 into contact with the connectors.

Manual processing tool

For assembling connectors designed for single-unit and small series production.

Manual processing device

For assembling connectors designed for small series production.

Pneumatic processing device

Pneumatically assisted processing device with manual wire feed and connector feed. Designed for small and middle series production.

Semi-automatic processing device

For cost-effective assembling of automatic connector feed and manual wire feed. Designed for serial production.

Automatic processing device

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

6. Wire specification

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

6.1. Wire specifications cross section for connection 0,50...0,75 mm²

Technical data sheet 908 15 stranded wire =0,50 mm²

Technical data sheet 908 13 stranded wire =0,75 mm²

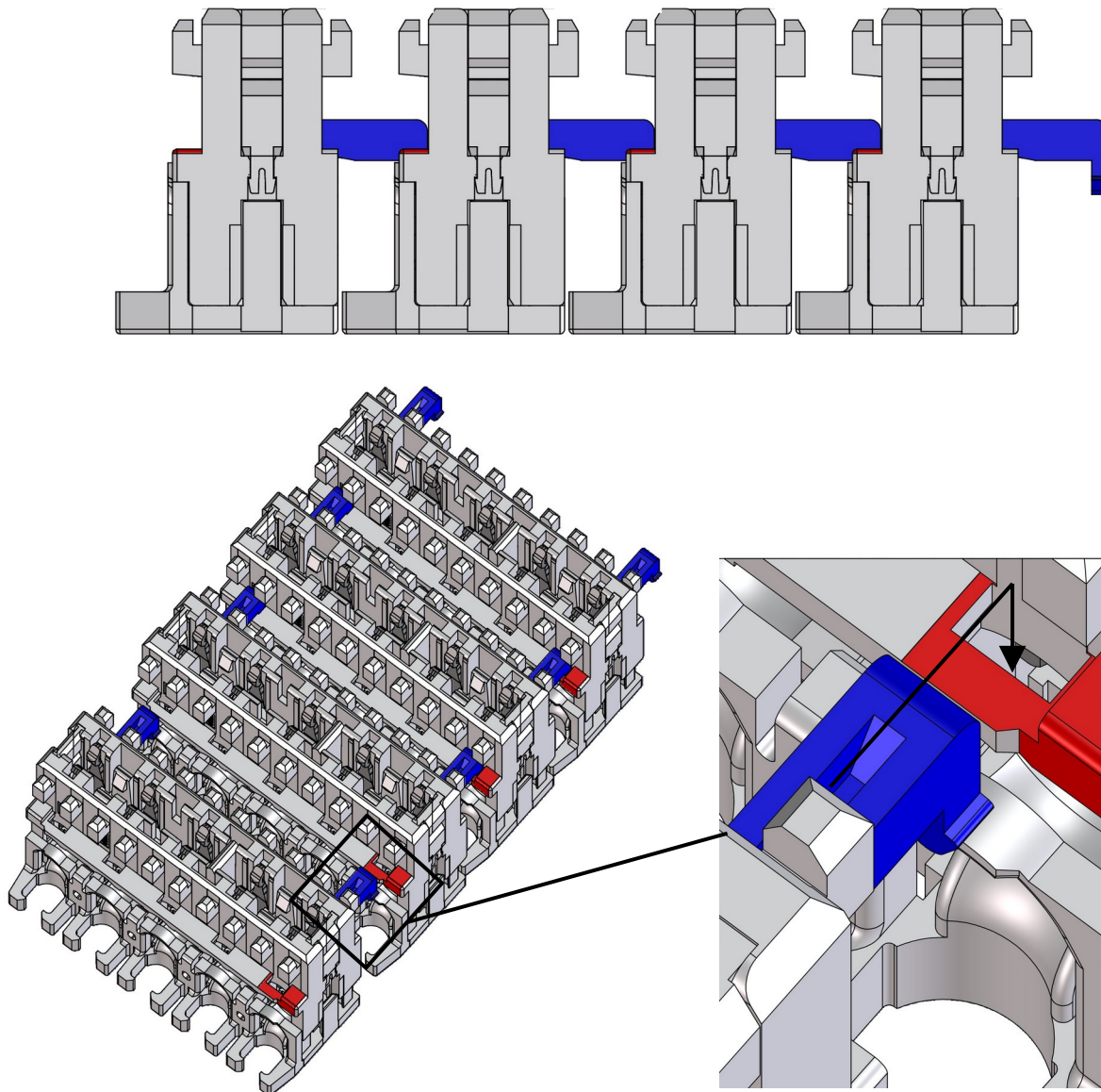
Other approved wire see Lumberg release list in the internet at www.lumberg.com

7. Assembly

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

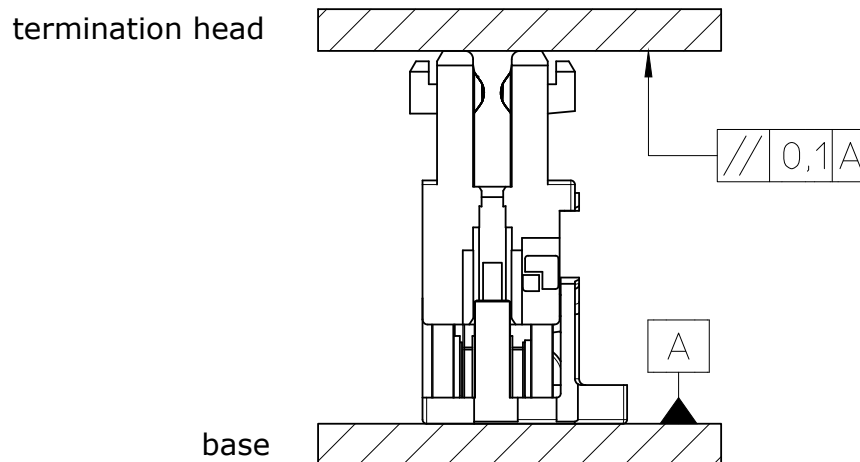
7.1. Connector feed

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. Termination head

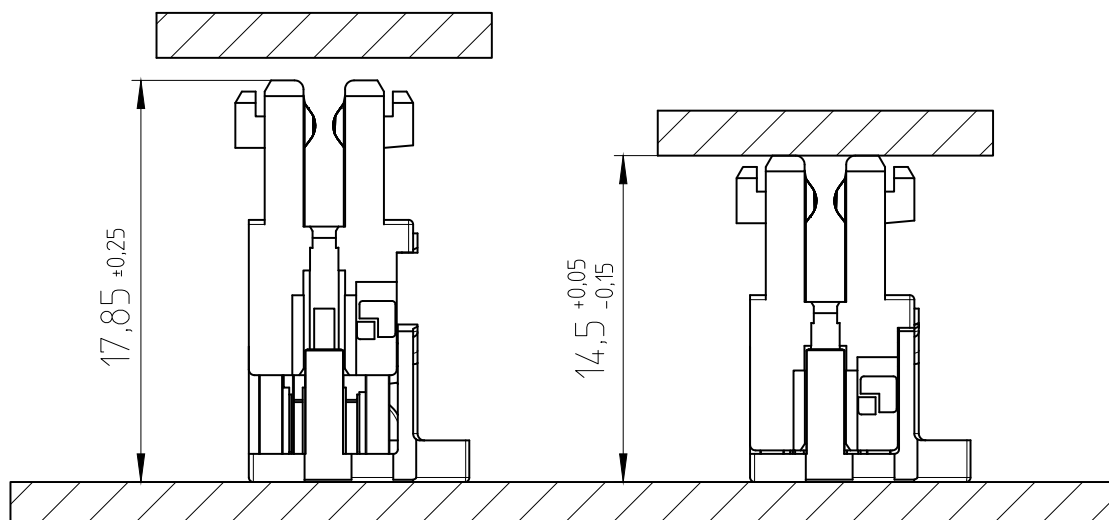
The connector will be terminated by using a flat termination head. The connector must be perpendicular to the base of the termination head and also the base must be parallel to the top.

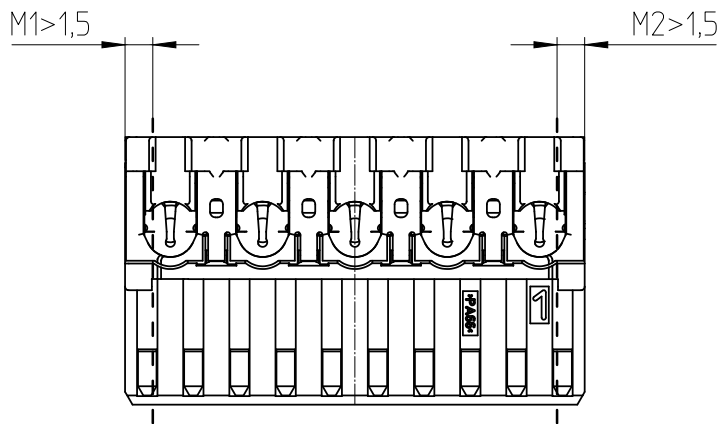


7.3. Setting dimension of the termination machine

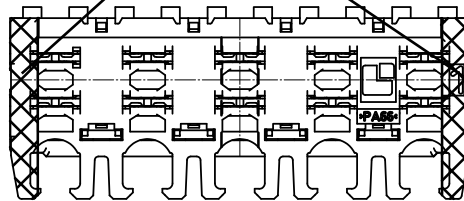
An important feature for the function of the connector is the connector height, measured after assembling. The shut height is determined by the setting dimension of the termination machine.

The shut height must be measured within 30 minutes after the assembling in order to achieve a $cmk > 1.67$, on acceptens of the processing machine and a $cpk > 1.33$ in series production. To adjust the termination machine it is recommended setting the shut height to the center of tolerance.





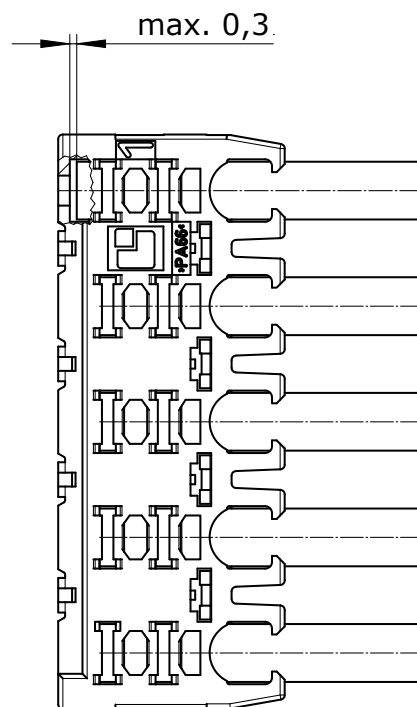
no measuring area



The shut height has to be measured on both sides and in the center area.
If a depth gauge is used for measuring, the connector must lay flat with its mating face downwards. A measuring tip of at least $\varnothing 3$ mm is required. Make sure that the measurement is not distorted by a protruding dovetail guide, pole number marking or similar.

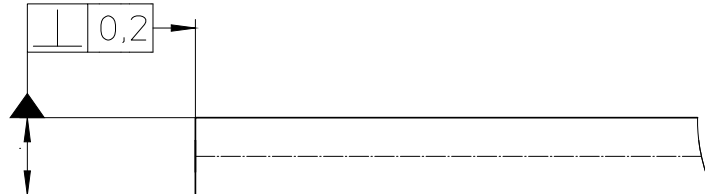
7.4. Wire end position

The correct position of the wire guarantees the mating of both ID slots. The end position of the wire is taken into account when processing and checked with appropriate measures after termination. The insulation offset inwards is only permitted within the specified dimension range. The end position query must be carried out completely.

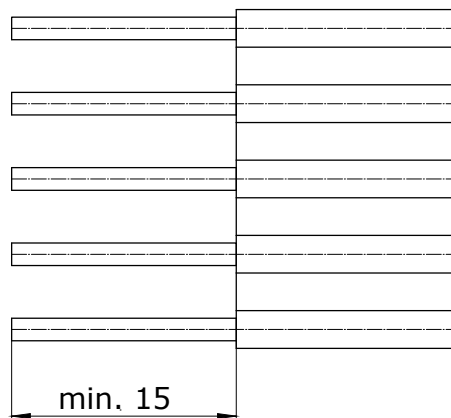


7.5. Wire (stranded wire / ribbon cable)

The wires must be cut off without burr and deformity. No cuts in the insulation are allowed in wire exit direction (visual check). Insulation cuts are permitted between the ID slots of the contact.



Ribbon cables must be punched out.



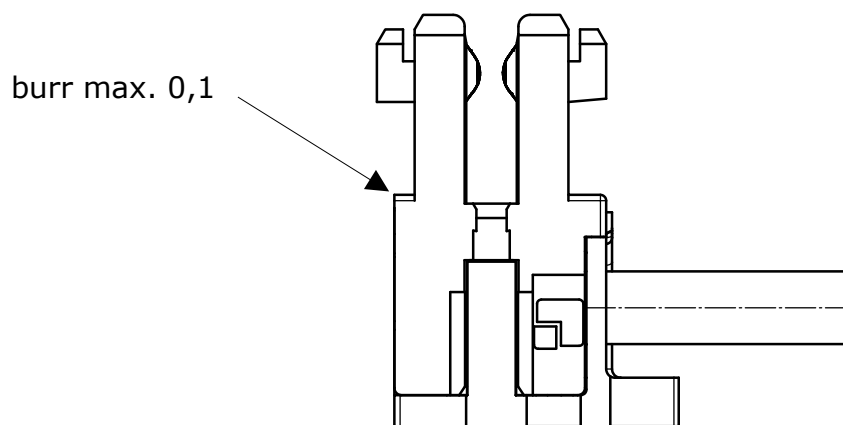
7.6. Housing

After termination no visual damages of the housing are allowed (visual check).

The links must be cut off without burr.

The mating function must be guaranteed (functional test).

The contact must be in correct position in the housing (visual check).



8. Quality assurance

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

8.1. Quality features

The following quality features must be taken into consideration:

8.2. Quality features / IDC

- ID slot width
- Symmetry of the ID slot
- Wire quality
- Conductor insertion depth
- Wire end position
- Electrical testing

8.3. ID slot width

Lumberg guarantees correct ID slot.

8.4. Symmetry of the ID slot

Symmetry of the ID slot, tolerance $\pm 0,1$ mm, is guaranteed by the body.

8.5. Wire quality

The wire must meet Lumberg specification acc. to point 6.

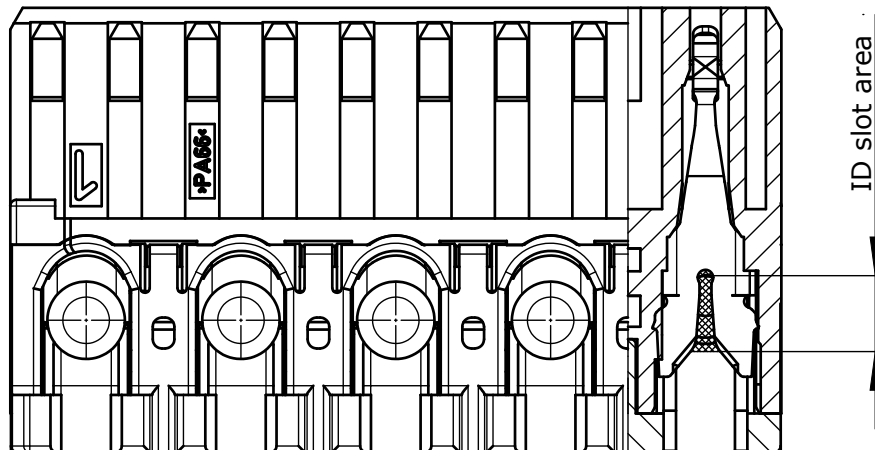
Customized wires, which are listed in the release lists, have to correspond with the available specification sheets.

Only Lumberg released wires are to be used. The customer bears full responsibility for the correct mating when wires 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 conductor insertion depth is determined by the height of the body.
All singles strands must be in the ID slot area.



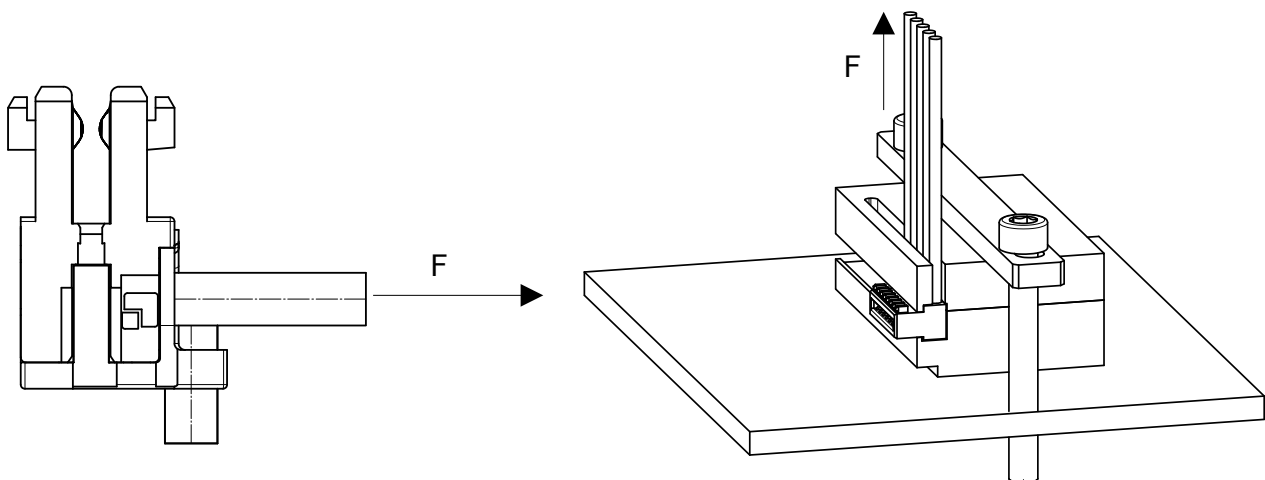
8.7. Wire end position

The wire protrusion acc. to point 7.4 must be kept. A deeper offset of the wire inwards the housing leads to an incorrect connection.

8.8. Retention force of the wire

Minimal retention force of the wire from the insulation displacement contact:

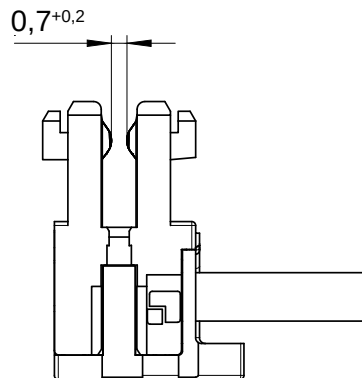
Stranded wire LIYV:	0,50 mm ²	>	50 N
Stranded wire LIYV:	0,75 mm ²	>	50 N



The stated value for the wire pull-out force is a typical value, established during a test with a standard 0,50 mm² / 0,75 mm² wire. All values were determined under laboratory conditions and serve as a reference.

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. Terms of storage

The general terms and conditions of storage are available on the internet under Downloads at www.lumberg.com. The specified terms of storage must be complied with.