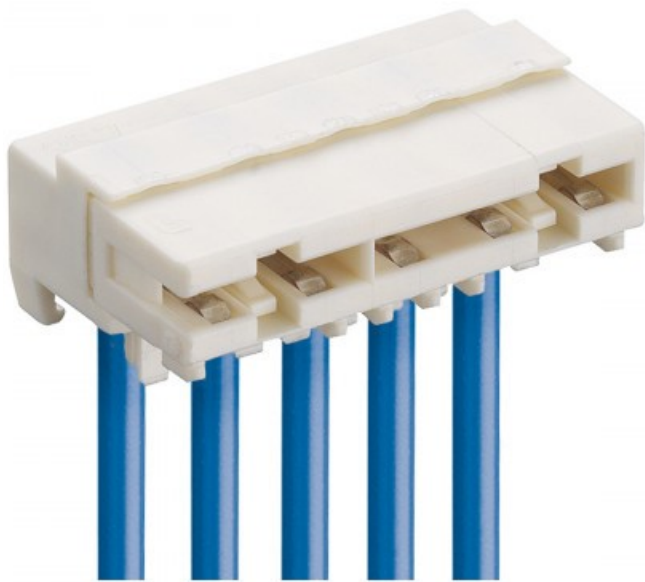


3570

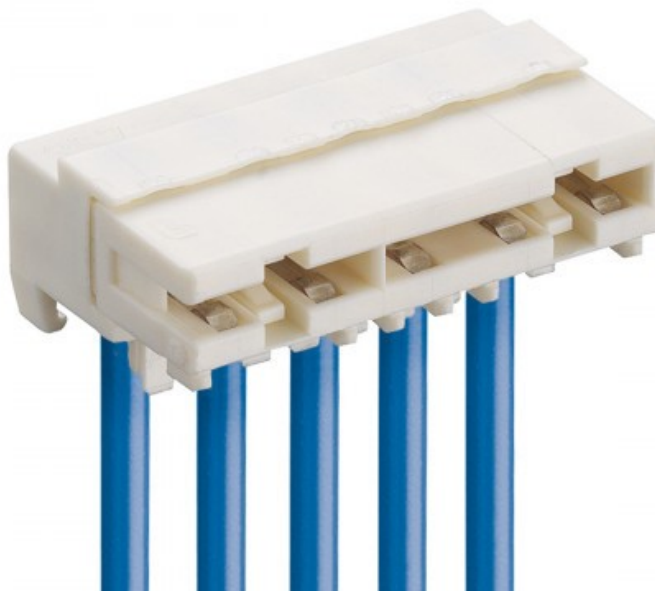



3575



	Date	Name	Edition	7	8	9			
Author	03.06.03	heg	Name	fs	jvoss	fs			
Checked	25.04.25	ritsch	Date	06.03.24	20.11.24	23.04.25			

357099



<p>LUMBERG CONNECT GMBH</p> <p>Im Gewerbepark 2 58579 Schalksmühle</p>	<h1>Processing instruction</h1>	<p>Lumberg  passion for connections</p> <p>357V01EN</p> <p>Page 4 of 20</p>
	<p>Connector RAST 2.5 power</p>	

Contents

1. Product description.....	5
1.1. Product types.....	5
Series 3570.....	5
Series 3575.....	5
Series 357099.....	6
2. System features.....	7
3. Contact principle.....	9
3.1. Indirect mating on the contact pin.....	9
3.2. Direct mating on the PCB.....	9
4. Cutting-off coding keys.....	10
4.1. Cutting blades.....	10
5. Application tooling and machines.....	11
6. Wire specification.....	12
6.1. Wire specifications cross section for connection 0,50...0,75 mm ²	12
7. Assembly.....	13
7.1. Connector feed.....	13
7.2. Termination head.....	14
7.3. Setting dimension of the termination head.....	14
7.4. Wire end position.....	16
7.5. Housing.....	16
7.6. Wire.....	17
8. Quality assurance.....	18
8.1. Quality features.....	18
8.2. Quality features / IDC.....	18
8.3. ID slot width.....	18
8.4. Symmetry of the ID slot.....	18
8.5. Wire quality.....	18
8.6. Wire end position.....	18
8.7. Wire insertion depth.....	19
8.8. Retention force of the wire.....	19
8.9. Electrical testing.....	19
9. Terms of storage.....	20

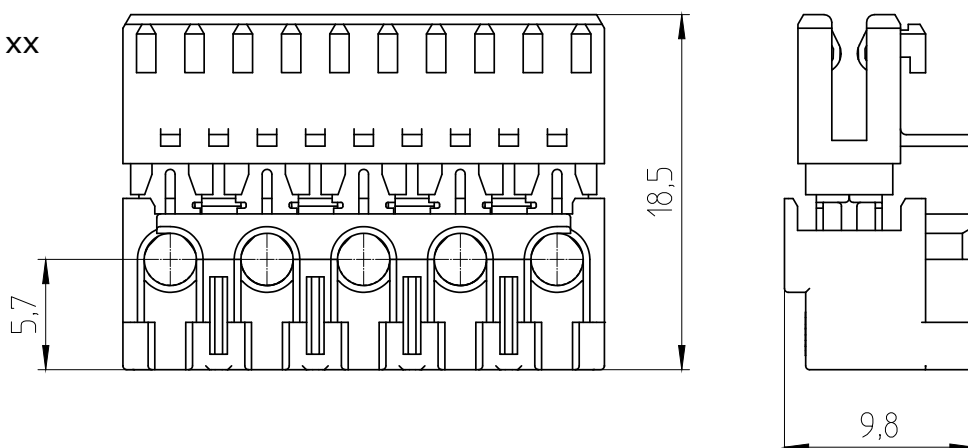
1. Product description

1.1. Product types

Series 3570

Connector for direct and indirect mating in ID Technology, coding in conjunction with RAST 2.5 guide frames or pin assembly, all-insulated and tapped

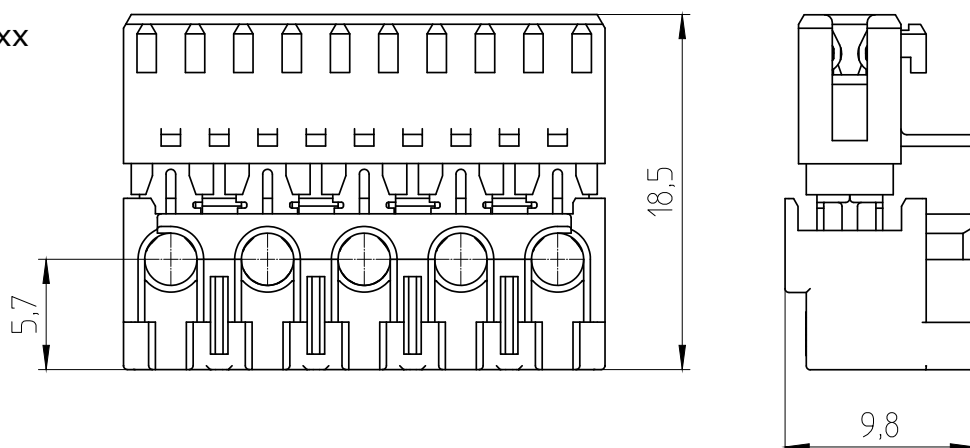
Pitch 5,0 mm
acc. to data sheet 3570 xx



Series 3575

Connector for direct mating in ID Technology, with latching on the PCB, alternatively with or without keying ribs and closed side walls, all-insulated and tapped

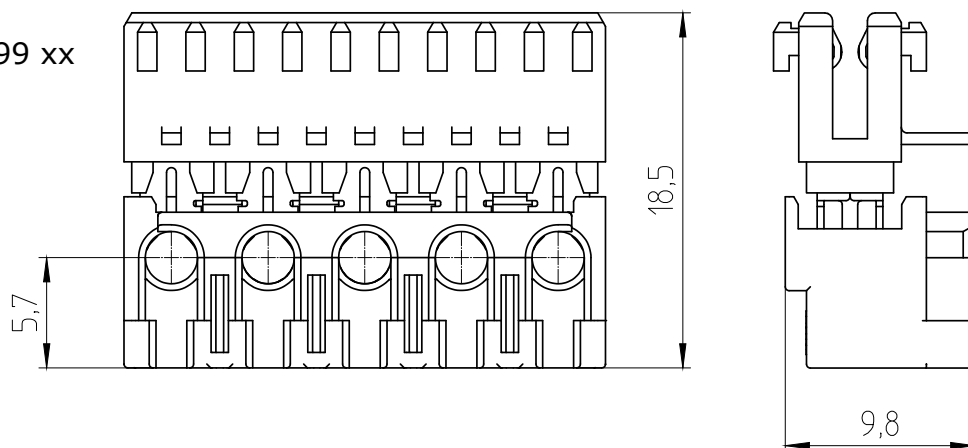
Pitch 5,0 mm
acc. to data sheet 3575 xx



Series 357099

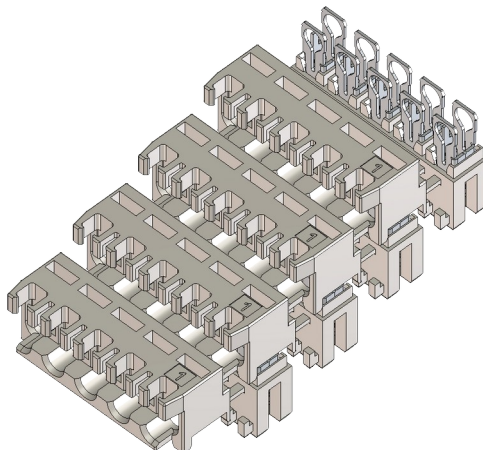
Connector for direct and indirect mating in ID Technology, double-side keying in conjunction with 355299 pin header, all-insulated and tapped

Pitch 5,0 mm
acc. to data sheet 357099 xx

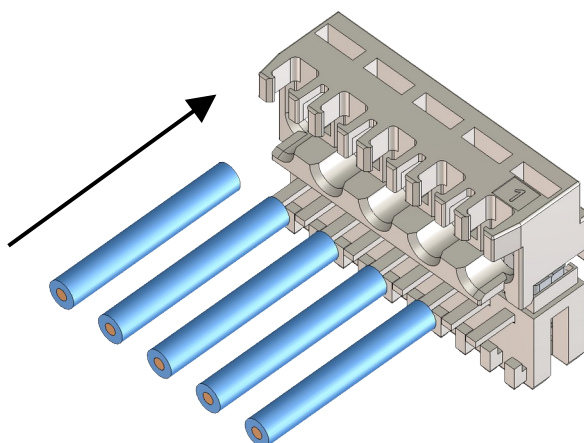


2. System features

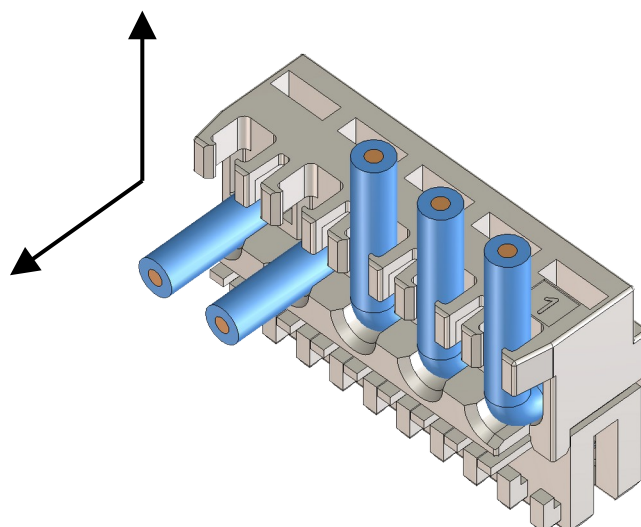
Two-part body
Supplied in following stacks



Wire termination



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

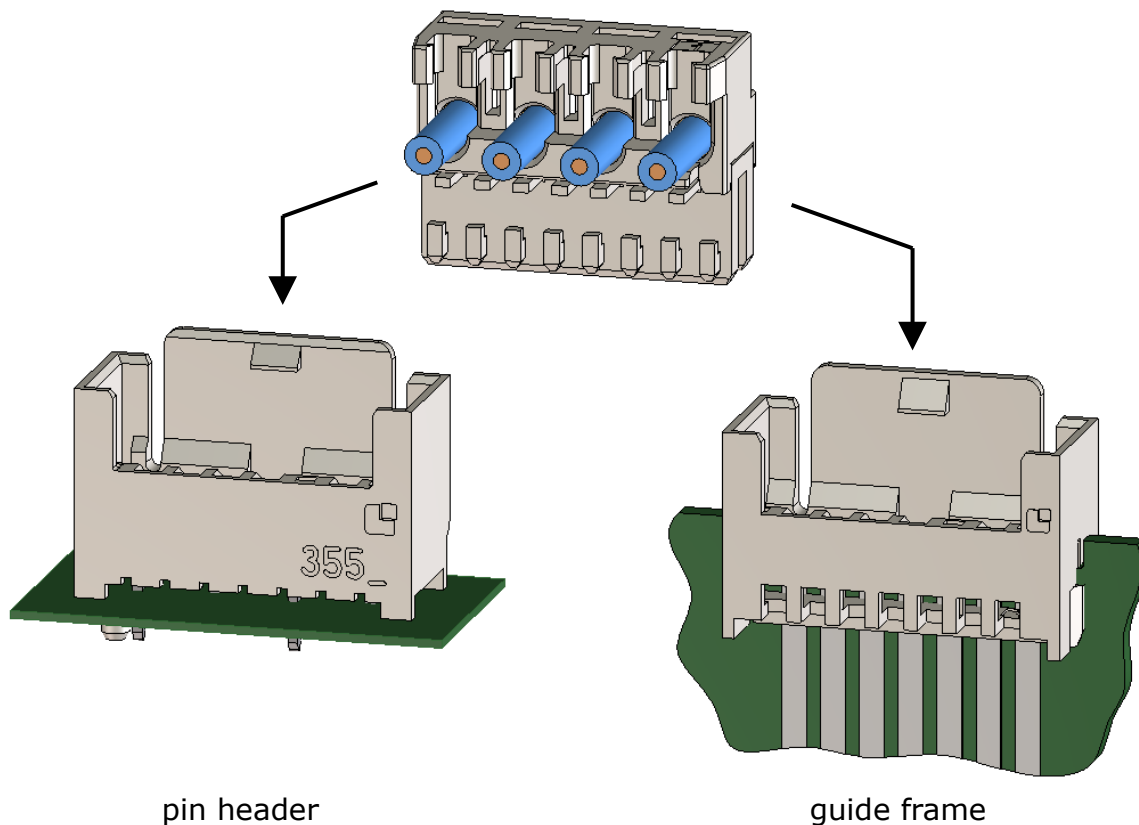


**Connector
RAST 2.5 power****357V01EN**

Page 8 of 20

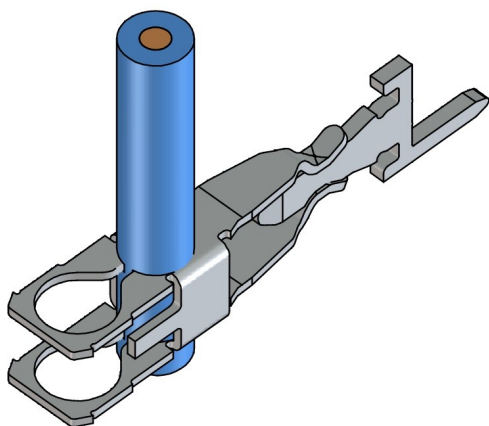
The connectors are used with pin headers as indirect connectors or with guide frames as direct connectors (edge connectors).

connector acc. to RAST 2.5



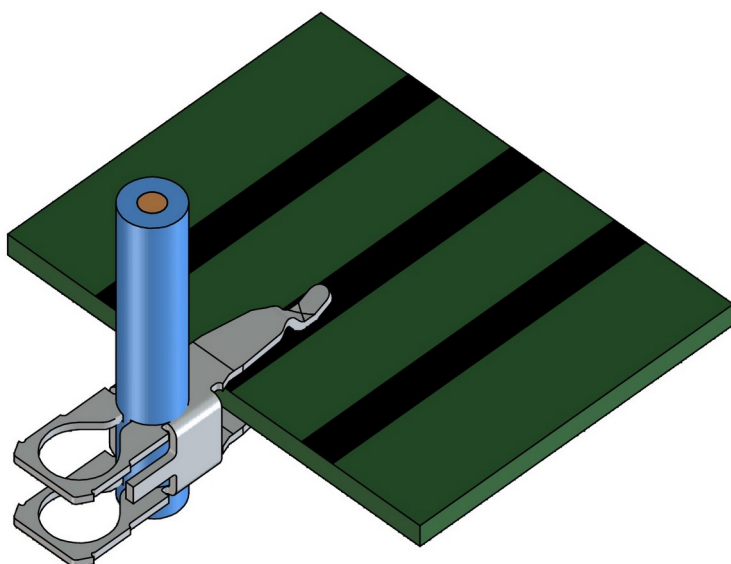
3. Contact principle

3.1. Indirect mating on the contact pin



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

3.2. Direct mating on the PCB



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

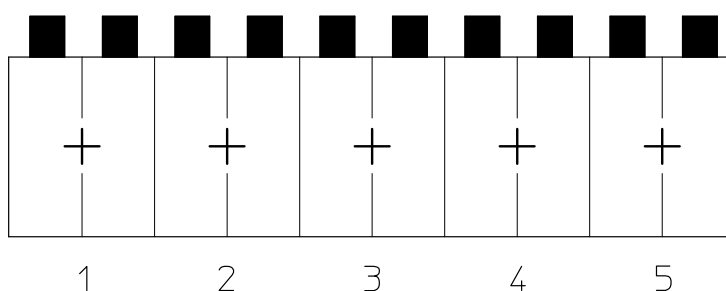
4. Cutting-off coding keys

Connectors can be supplied to the machine as basic types with all coding keys in place. The machine can cut off the keys in any selected position. It is the responsibility of the customer to make a correct arrangement of the connectors, coding device and colour.

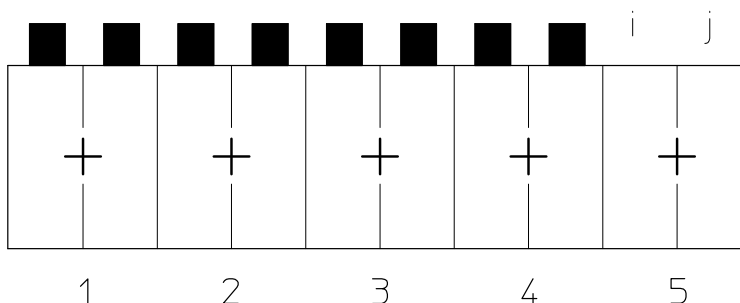
Caution !

The connectors, tab headers and guide frames are always drawn in mating direction.

Connector basic type:





Example: Coding keys i and j are cut:



4.1. Cutting blades

To ensure a correct cutting-off of the coding keys, use only Lumberg cutting blades. A minimal remaining cutting burr of max. 0,15 mm is permitted.

<p>LUMBERG CONNECT GMBH</p> <p>Im Gewerbepark 2 58579 Schalksmühle</p>	<p>Processing instruction</p> <p>Connector RAST 2.5 power</p>	<p>Lumberg  passion for connections</p> <p>357V01EN</p> <p>Page 11 of 20</p>
<p>5. Application tooling and machines</p> <p>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.</p> <p>The user bears full responsibility if any other processing equipment is used.</p> <p>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.</p> <p>Manual processing tool For assembling connectors designed for single-unit and small series production.</p> <p>Manual processing device For assembling connectors designed for small series production.</p> <p>Semi-automatic processing device For cost-effective assembling of automatic connector feed and manual wire feed. Designed for serial production.</p> <p>Automatic processing device For optimal assembling of automatic wire feed and connector feed. Designed for industrial mass production.</p>		

<p>LUMBERG CONNECT GMBH</p> <p>Im Gewerbepark 2 58579 Schalksmühle</p>	<p>Processing instruction</p> <p>Connector RAST 2.5 power</p>	<p>Lumberg  passion for connections</p> <p>357V01EN</p> <p>Page 12 of 20</p>
--	---	---

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

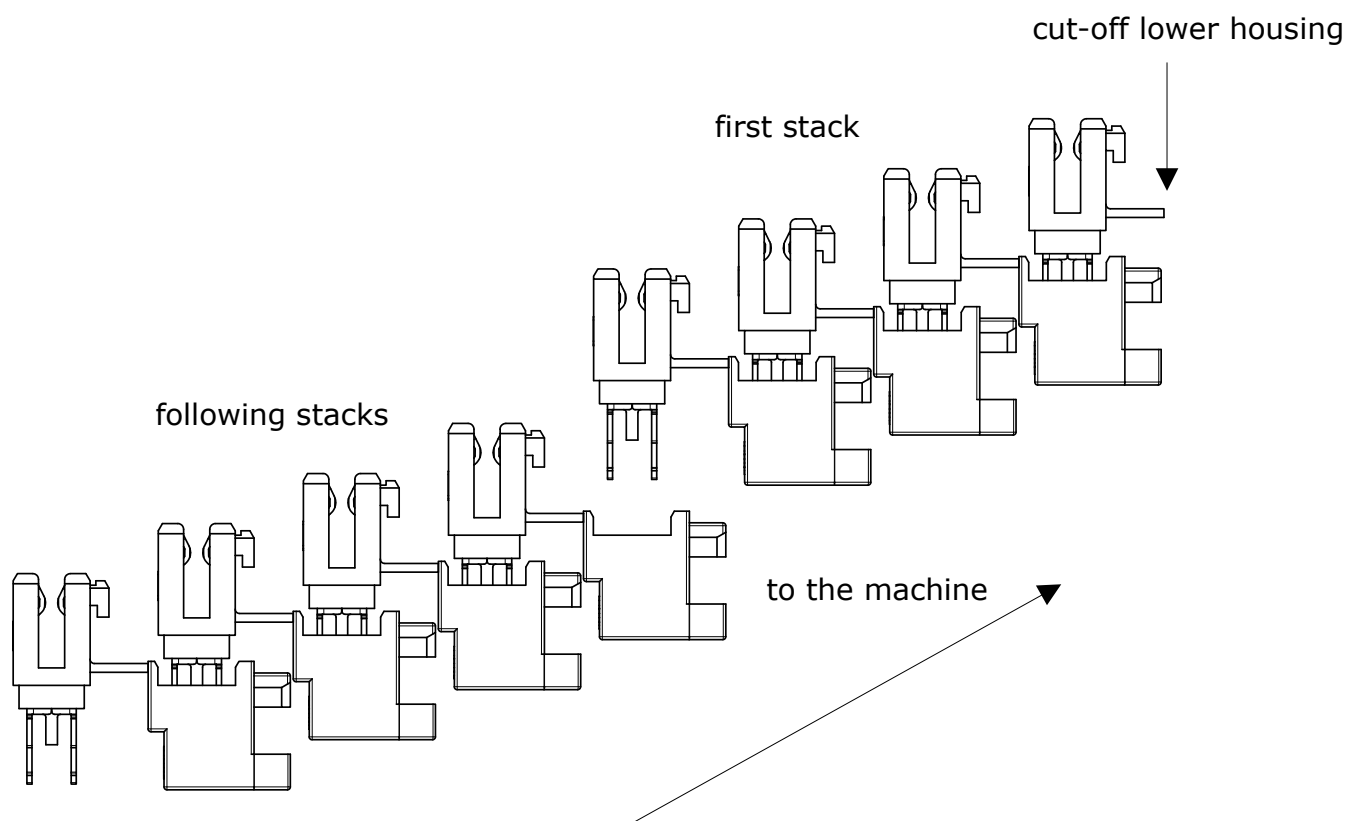
Other approved wire see Lumberg release list in the internet at www.lumberg.com

7. Assembly

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

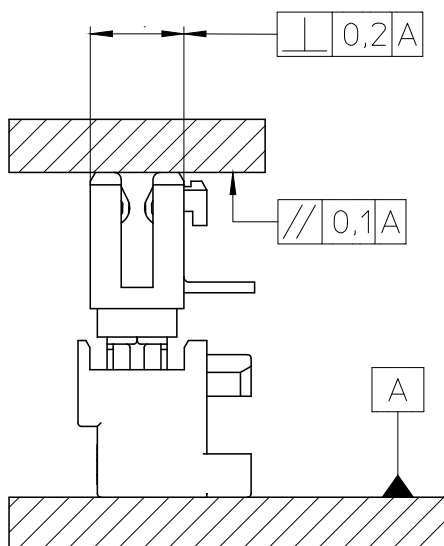
7.1. Connector feed

The lower housing must be cut-off before the first stack of connectors is fed into the termination head. To feed a new stack into the machine the upper housing of the stack in the machine must be placed into the lower housing of the new stack. The stacks are securely linked when the measure of altitude 18,5 mm is reached in the pre-latching position. The cutting-off of the single connector from the stack is done by the machine, the links will remain on the connector.



7.2. Termination head

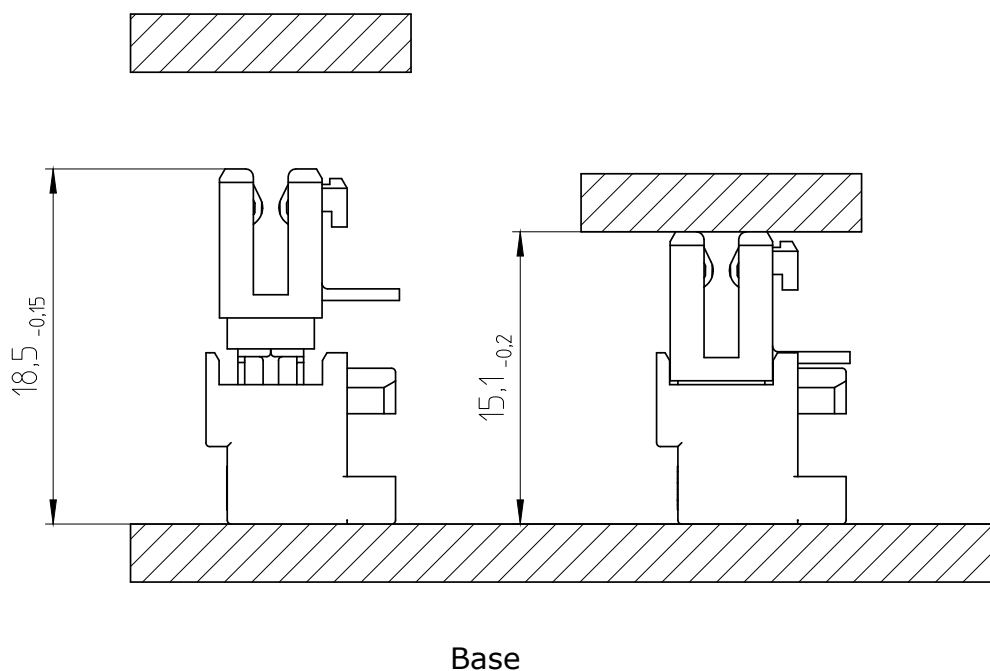
The connector will be terminated by using a flat termination head. The connector must be perpendicular to the base of the termination head and also the base must be parallel to the top.



7.3. Setting dimension of the termination head

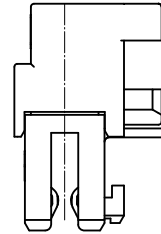
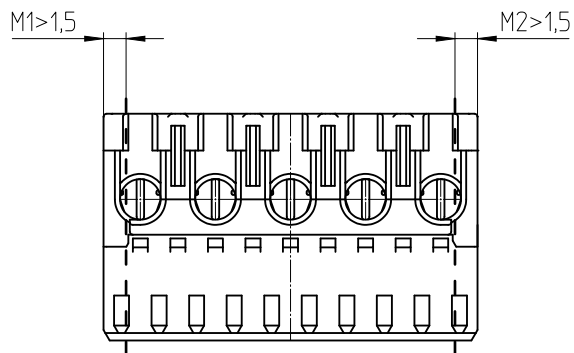
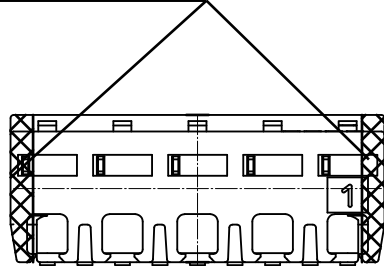
An important feature for the function of the connector is the connector height, measured after assembling. The shut height is determined by the setting dimension of the termination machine.

Termination head



**Connector
RAST 2.5 power****357V01EN**

Page 15 of 20

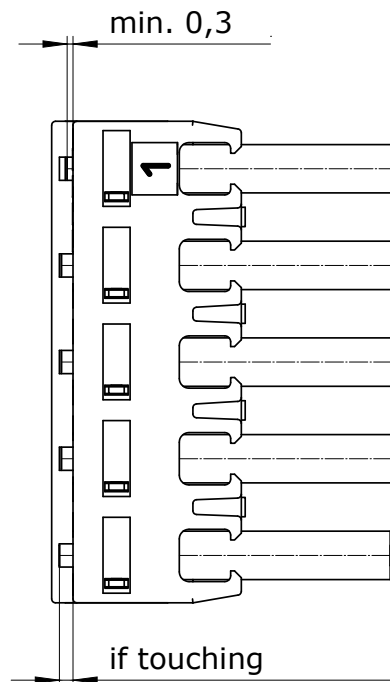
No measuring range

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.

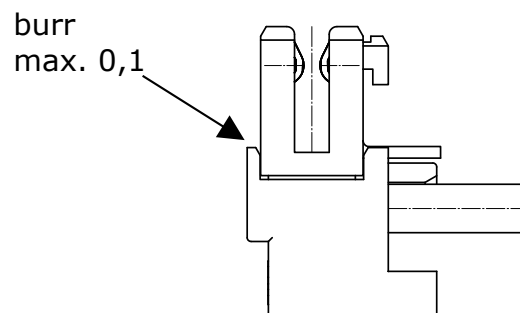
7.4. Wire end position

There must be the correct wire protrusion to guarantee good wire termination in both ID slots of the contact. After termination the wire protrusion must be visually checked.



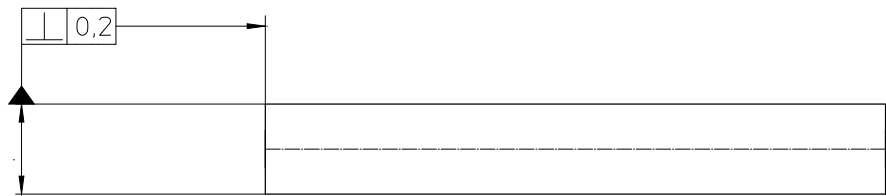
7.5. Housing

After termination no visual damages of the housing are allowed (visual check).
The mating function must be guaranteed (functional test).
The contact must be in correct position in the housing (visual check).

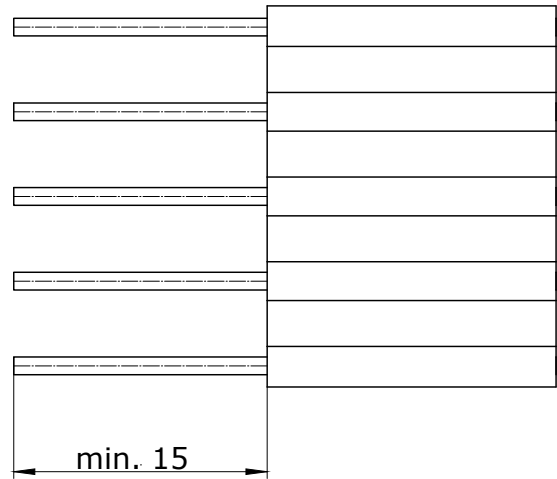



7.6. Wire

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



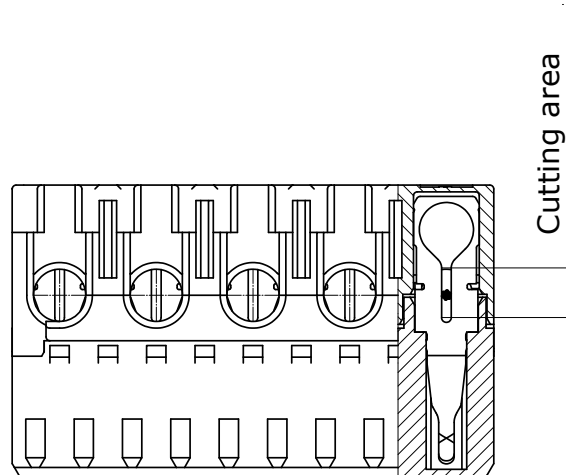
Ribbon cables must be punched out.



<p>LUMBERG CONNECT GMBH</p> <p>Im Gewerbepark 2 58579 Schalksmühle</p>	<p>Processing instruction</p> <p>Connector RAST 2.5 power</p>	<p>Lumberg  passion for connections</p> <p>357V01EN</p> <p>Page 18 of 20</p>
<p>8. Quality assurance</p> <p>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.</p> <p>8.1. Quality features</p> <p>The following quality features must be taken into consideration:</p> <p>8.2. Quality features / IDC</p> <ul style="list-style-type: none"> • ID slot width • Symmetry of the ID slot • Wire quality • Conductor insertion depth • Wire end position • Electrical testing <p>8.3. ID slot width</p> <p>Lumberg guarantees correct ID slot.</p> <p>8.4. Symmetry of the ID slot</p> <p>Symmetry of the ID slot, tolerance $\pm 0,1$ mm, is guaranteed by the body.</p> <p>8.5. Wire quality</p> <p>The wire must meet Lumberg specification.</p> <p>8.6. Wire end position</p> <p>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.</p>		

8.7. Wire insertion depth

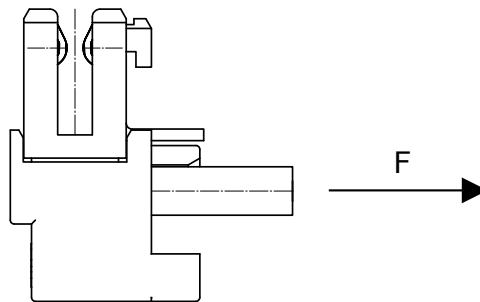
The conductor insertion depth is determined by the height of the body.
All single strands must be in the ID slot area.



8.8. Retention force of the wire

The retention force of the wire in the ID slot must be as follows:

Stranded wire LIYV: $0,75 \text{ mm}^2 > 50 \text{ N}$




The stated value for the wire pull-out force is a typical value, established during a test with a standard $0,75 \text{ mm}^2$ wire. All values were determined under laboratory conditions and serve as a reference.

8.9. 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.

<p>LUMBERG CONNECT GMBH</p> <p>Im Gewerbepark 2 58579 Schalksmühle</p>	<p>Processing instruction</p> <p>Connector RAST 2.5 power</p>	<p>Lumberg  passion for connections</p> <p>357V01EN</p> <p>Page 20 of 20</p>
--	---	---

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.