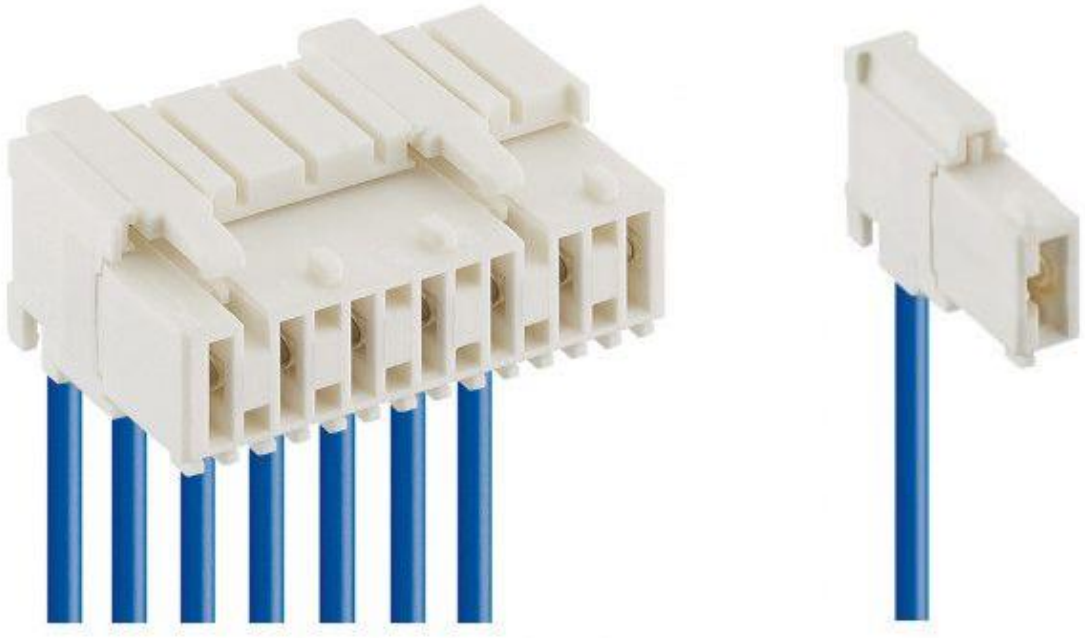
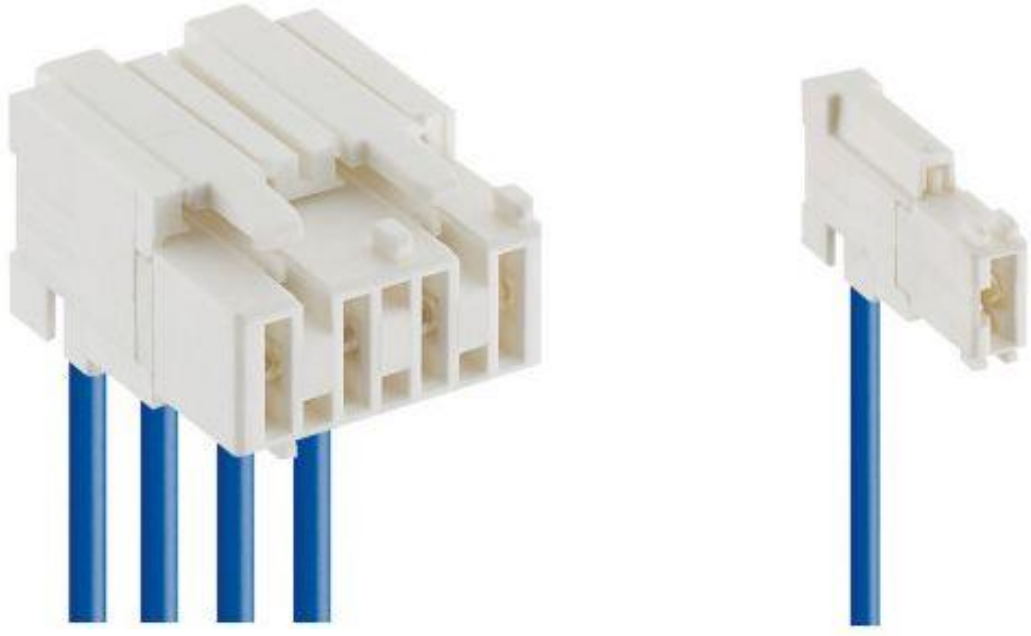
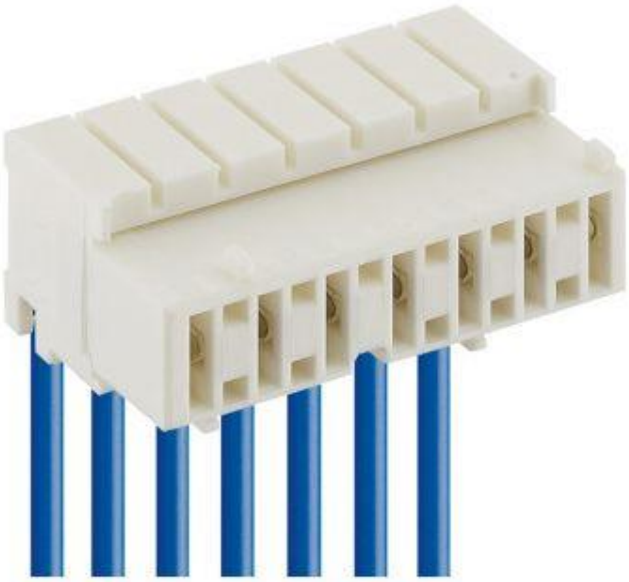
3623



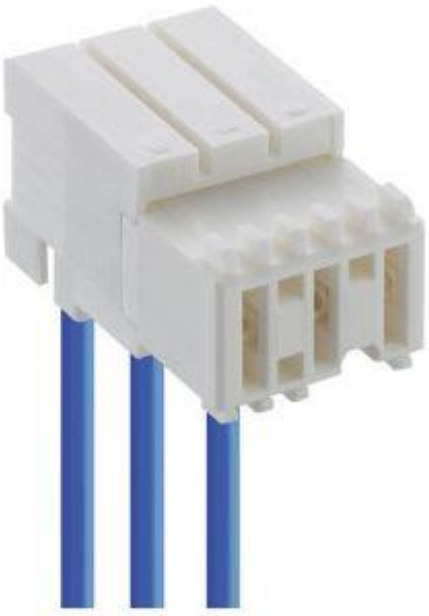
3625



3626

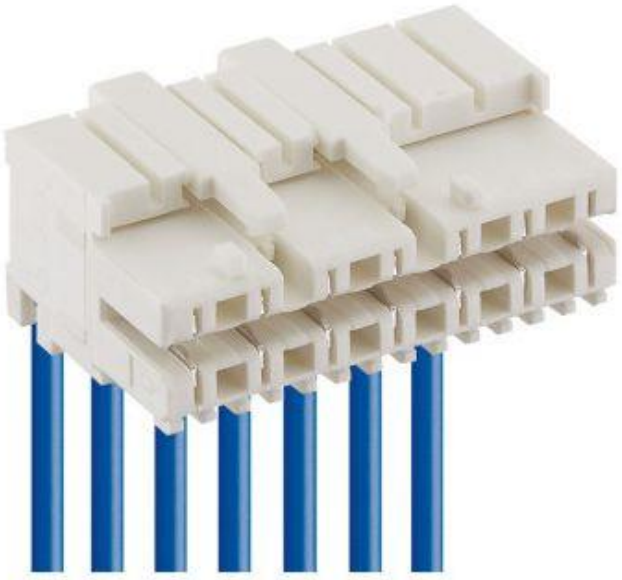


3627

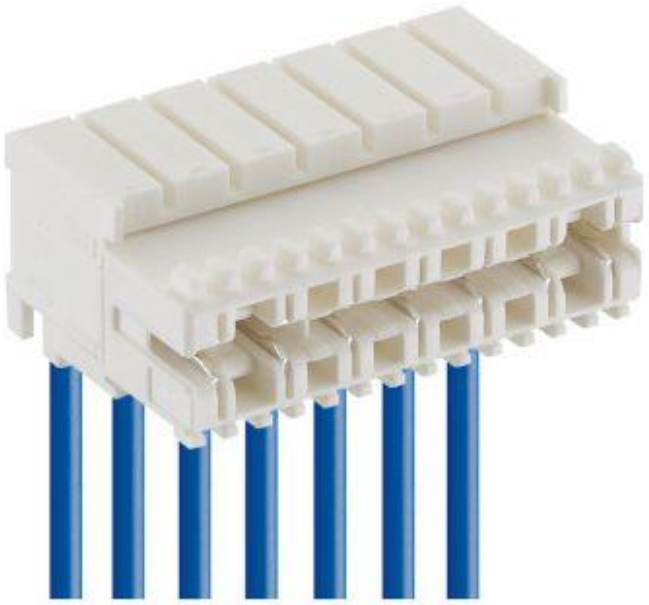


3628-1

3633



3636



Alteration Description

Edition	Alterations carried out
1	Reision of cable specification
2	Pull out force of silicon stranded wire added
3	Change of name and inspection note added
4	Product types 3626 / 3636 added, Processing instruction with new layout
5	Revision of syste, features – wire exit
6	Processing instruction with new layout, Illustration of the connectors updated, Product type 3627 added, Point 6 revised

Contents:

1. Product description

1.1 Product types

ID Technology Connector (pitch 5 mm) according to RAST 5 mm

Connector 3623

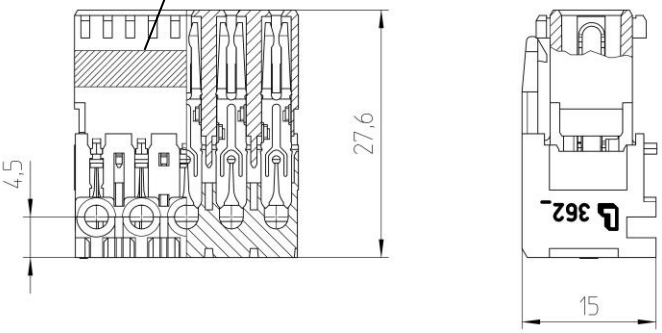
for 6A/10A
1...12-pole

Indirect connector 3623:
cross section 0,50...0,75 mm²

Indirect connector 3623...S01:
cross section 0,22...0,38 mm²

acc. to data sheet 3623…

Colour marking for insulation displacement termination S01



Connector 3626

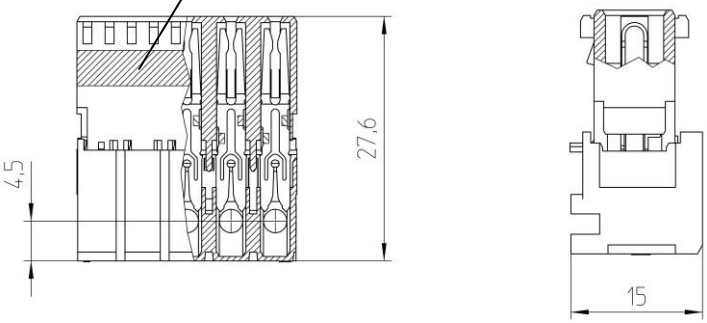
for 6A/10A
2...12-pole

Indirect connector 3626:
cross section 0,50...0,75 mm²

Indirect connector 3626...S01:
cross section 0,22...0,38 mm²

acc. to data sheet 3626..

Colour marking for insulation displacement termination S01



Connector 3633

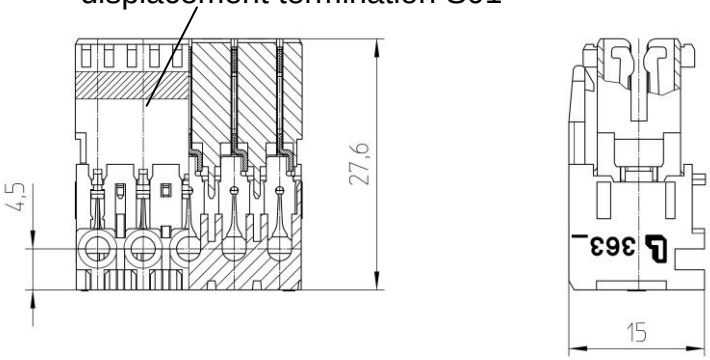
for 6A
2...12-pole

Direct connector 3633:
cross section 0,50...0,75 mm²

Direct connector 3633...S01:
cross section 0,22...0,38 mm²

acc. to data sheet 3633…

Colour marking for insulation displacement termination S01



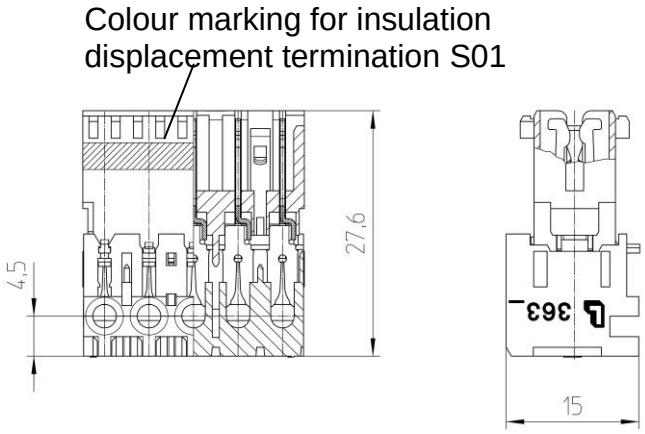
Connector 3636

for 6A
2...12-pole

Direct connector 3636:
cross section 0,50...0,75 mm²

Direct connector 3636...S01:
cross section 0,22...0,38 mm²

acc. to data sheet 3636..

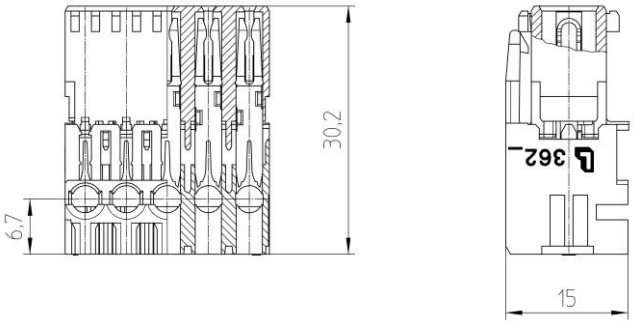


Connector 3625

for 16A
1...4-pole

Indirect connector 3625:
cross section 1,0...1,5 mm²

acc. to data sheet 3625..

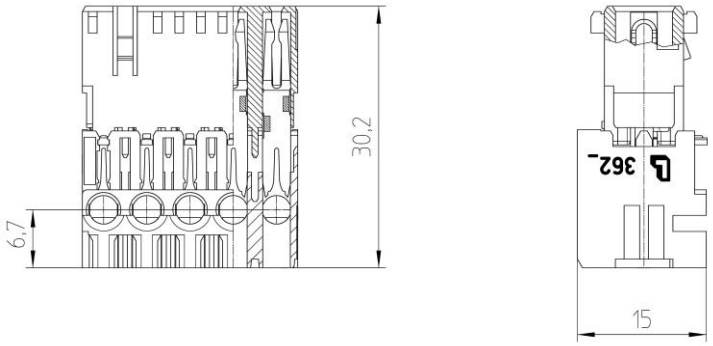


Connector 3627

for 16A
2...8-pole

Indirect connector 3627:
cross section 1,0...1,5 mm²

acc. to data sheet 3627..

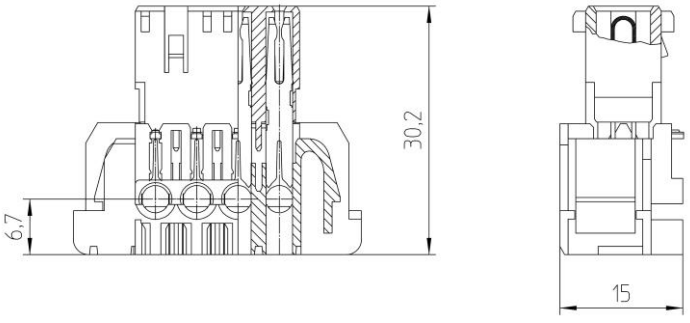


Connector 3628-1

for 10,5A (high temperature)
2...8-pole

Indirect connector 3628-1:
cross section 1,0 mm²

acc. to data sheet 3628..

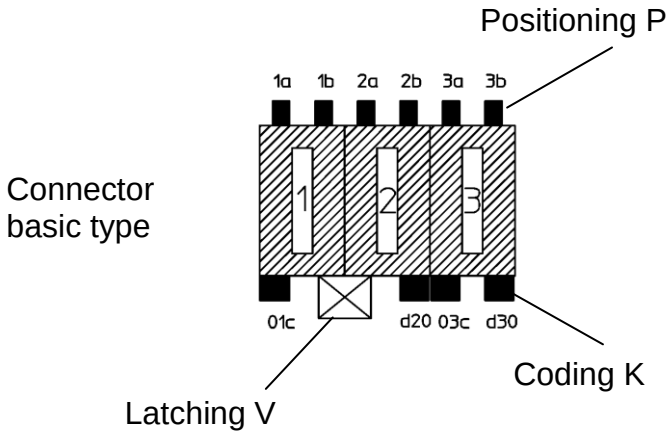


2. Cutting-off coding keys

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.

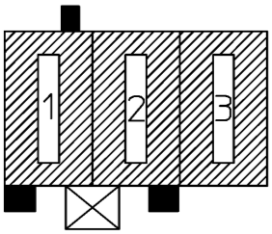
Connector basic type



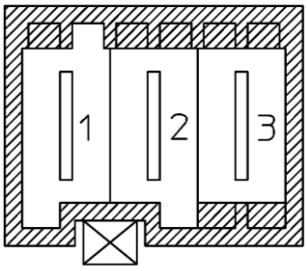
Example

P = 1b
K = 1c d2
V = 1/2

Connector 03 – 01



Tab header 03 - 01

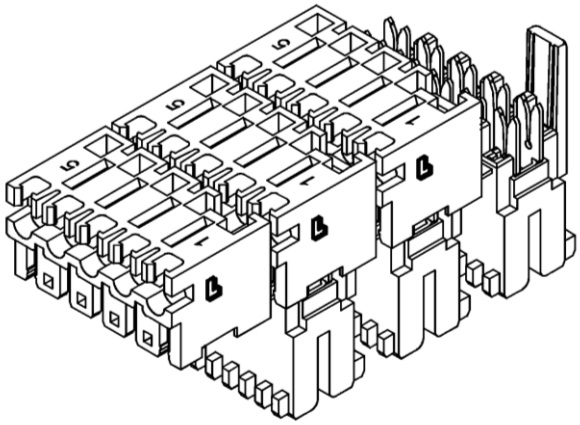


2.1 Cutting blades

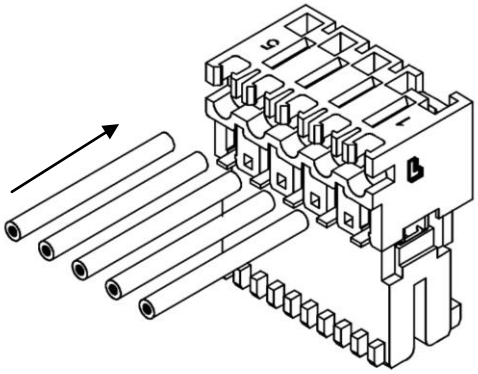
To ensure a good cutting-off of the coding keys, use only Lumberg cut-off blades. A minimal remaining cutting edge is possible.

3. System features

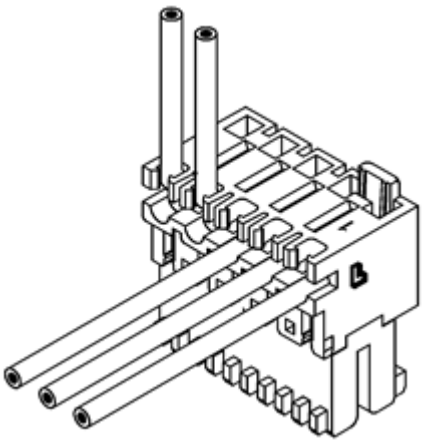
Two part moulded body
Supplied in following stacks



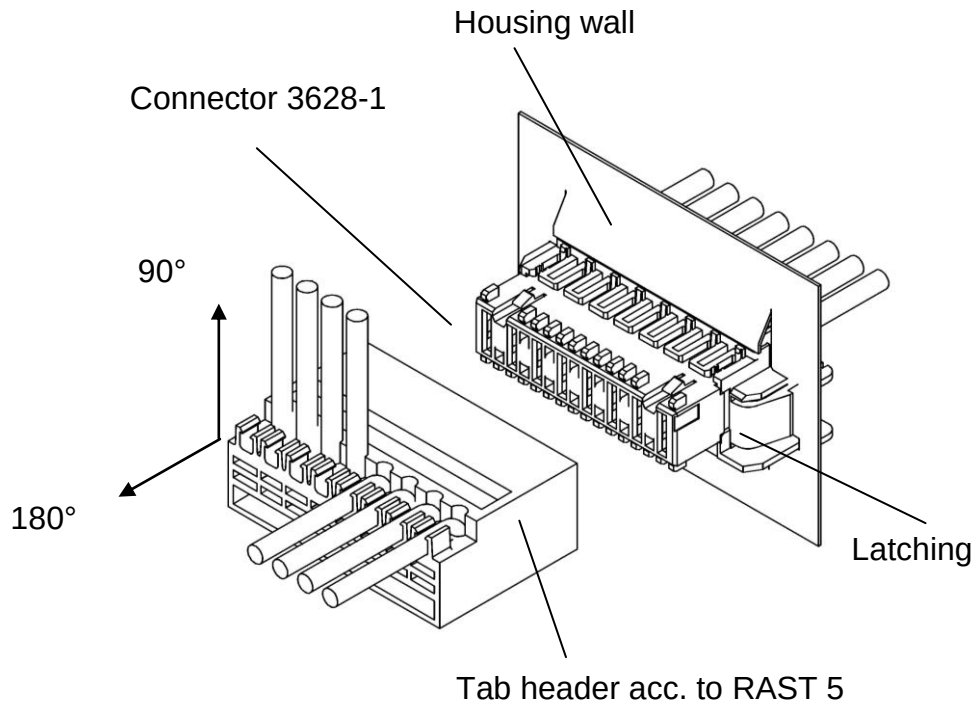
Wire termination



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

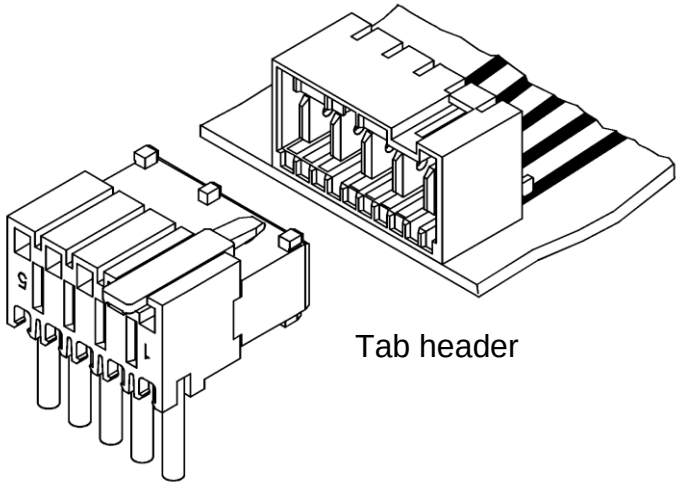


With the connector 3628-1 a wire exit of 180° is required



4. Contact principle

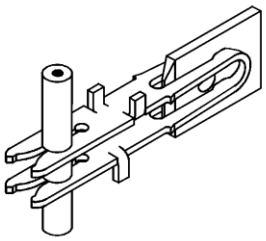
4.1 Indirect mating on the contacts



Tab header

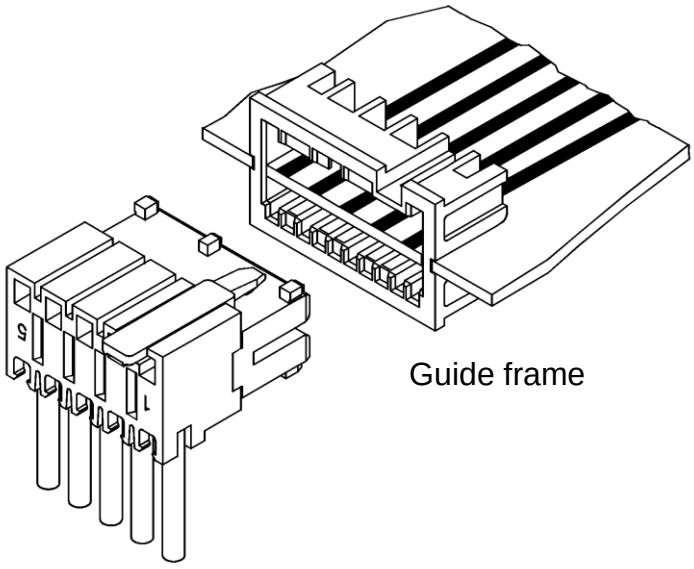
Indirect connector

Flat tab. acc.
DIN 46244
4,8 x 0,8 and 6,3 x 0,8



Insulation displacement connection acc. to DIN EN 60352-4

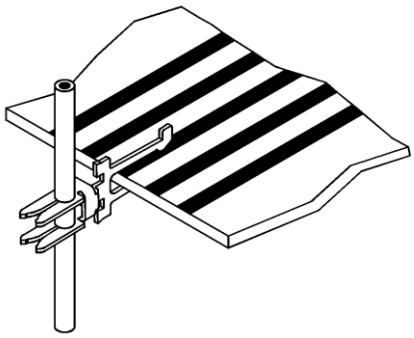
4.2 Direct mating on the PCB



Guide frame

Direct connector

PCB 1,5 mm



Insulation displacement connection acc. to DIN EN 60352-4

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 fitting single wires. For single and small series.

Semi-automatic processing device

For cost-effective termination of single wires to automatic-feed connectors. For series manufacture.

Automatic processing device

Up to 20 single wires are fed simultaneously and parallel to each other from reels, cut to length, and terminated both ends with connectors. After termination there is an electrical continuity and short-circuit test. The goods are sorted according to the test result (OK or reject). For large-scale industrial series production.

6. Cable specification

Cables used to terminate RAST5 connectors must be according to Lumberg specification. Any deviation must be discussed and approved by Lumberg.

6.1 Cable specifications cross section for connection 0,5…075 mm²

Technical data sheet 908 03 stranded wire = 0,50 mm²

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

Technical data sheet 908 06 stranded wire = 0,75 mm²

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

6.2 Cable specifications cross section for connection 1,0…1,5 mm²

Technical data sheet 908 83 stranded wire = 1,0mm²

Technical data sheet 909 479 stranded wire = 1,0mm²

Technical data sheet 909 480 stranded wire = 1,0mm²

Technical data sheet 908 12 stranded wire = 1,5mm²

Technical data sheet 908 16 stranded wire = 1,5mm²

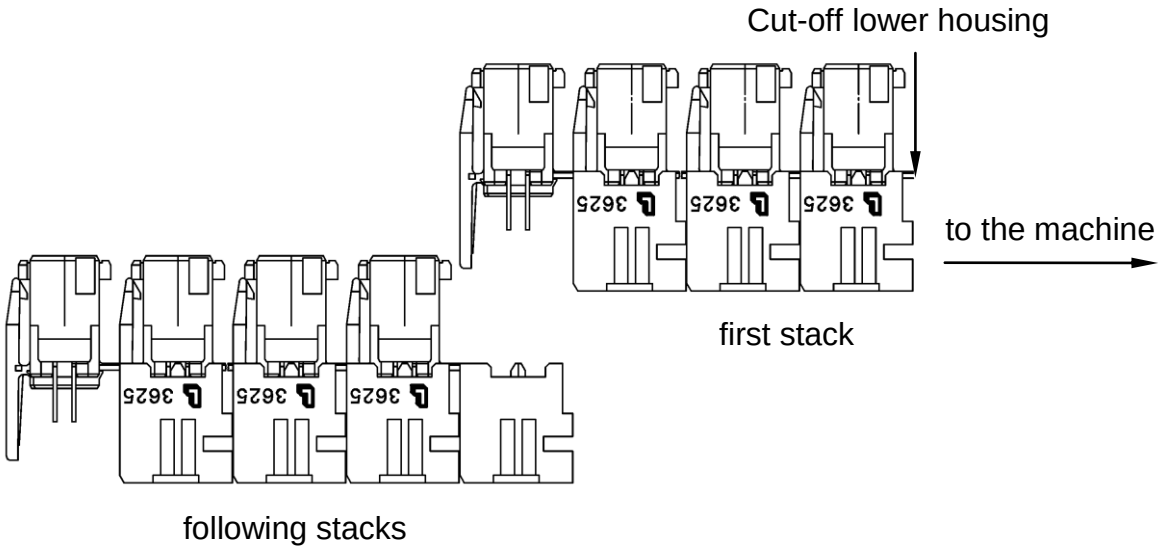
Other approved cable see Lumberg release list in the internet at www.lumberg.com

7. Assembly

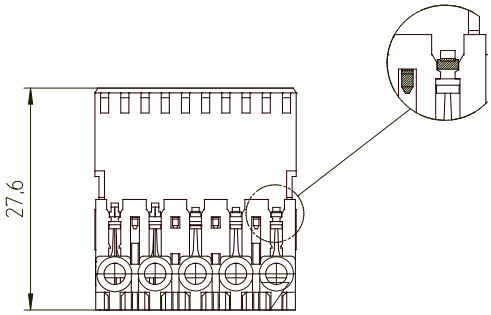
Connector and cross section for connection have to correspond.

7.1 Connector feed

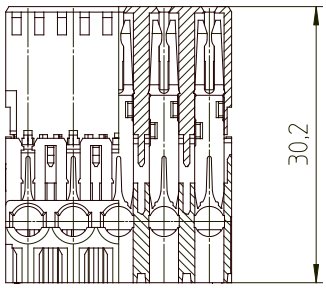
The lower housing must be cut-off before the first stack of connectors is fed into the termination head. To feed a new stack into the machine the upper housing of the stack in the machine must be placed into the lower housing of the new stack.



The stacks are securely linked if locking features are visible in the upper windows. The cutting-off of the single connector from the stack is done by the machine, the links will remain on the connector.



Indirect connector 3623; 3623…S01
Indirect connector 3626; 3626…S01
Direct connector 3633; 3633…S01
Direct connector 3636; 3636…S01



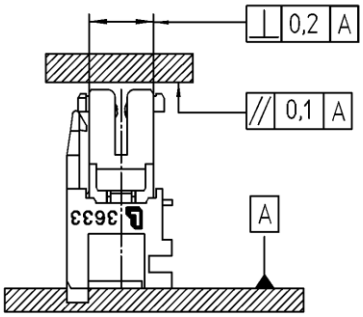
Indirect connector 3625
Indirect connector 3627
Indirect connector 3628-1

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.

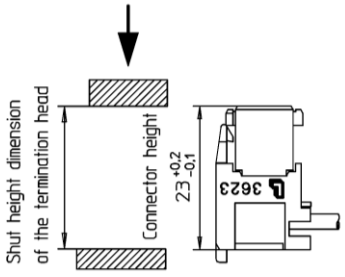
Termination head

Base

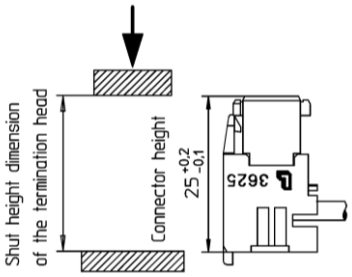


7.3 Shut height dimension of the termination head and connector height after termination

An important feature for the correct function of harness is the connector height after termination. As a result of the pull-back spring force of the connector housing and cables, the shut height dimension of termination head must be slightly less than the connector height. This difference in height must be kept as small as possible in order to prevent damage to the component.

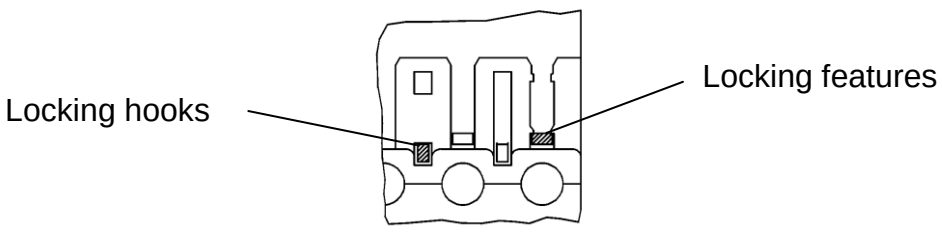


Indirect connector 3623; 3623…S01
Indirect connector 3626; 3626…S01
Direct connector 3633; 3633…S01
Direct connector 3636; 3636…S01



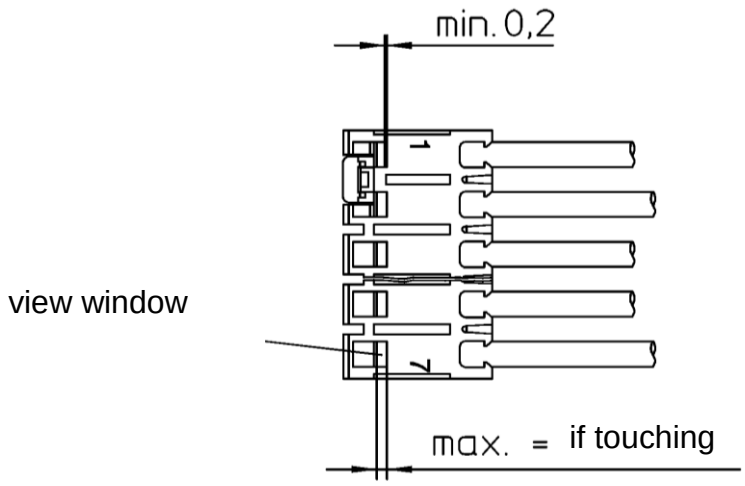
Indirect connector 3625
Indirect connector 3627
Indirect connector 3628-1

After termination the locking features are visible in the lower windows and locked under the hooks.



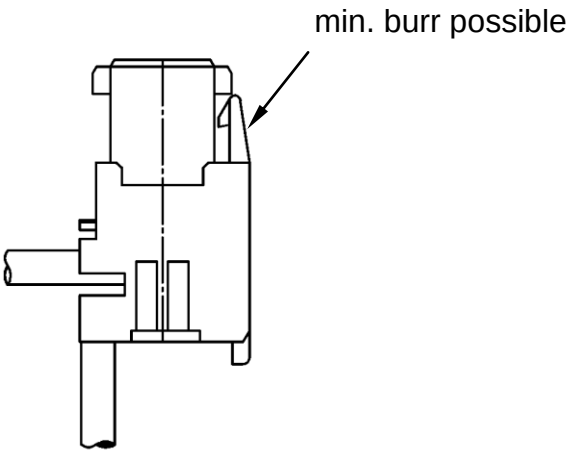
7.4 Cable protrusion

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



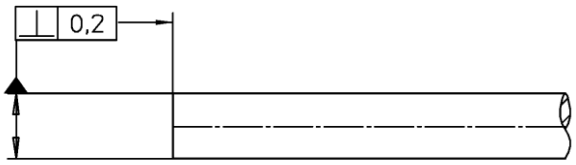
7.5 Housing

No damage of the connector is allowed after termination (visual check).
The terminated connector must mate with the male header (functional test).
The contacts must be in correct position in the housing (visual check).



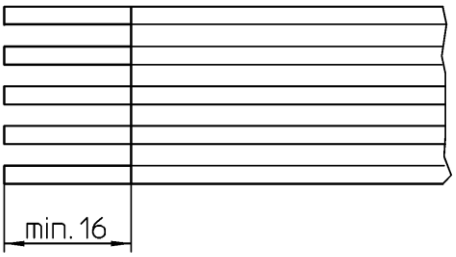
7.6 Cable

The cables 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.

Flat cables must be punched out.



8. Quality assurance

For all working and 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 take care for appropriate quality assurance steps.

8.1 Quality features

The following features must be taken into consideration:

8.2 Quality features / IDC

- ID slot width
- Symmetry of ID slot
- Cable quality
- Cable inseration depth
- Cable protrusion

8.3 ID slot width

Lumberg guarantees correct ID slot.

8.4 Symmetry of the ID slot

Symmetry of the ID slot and cable tolerance ±0,1 is guaranteed by the moulded body.

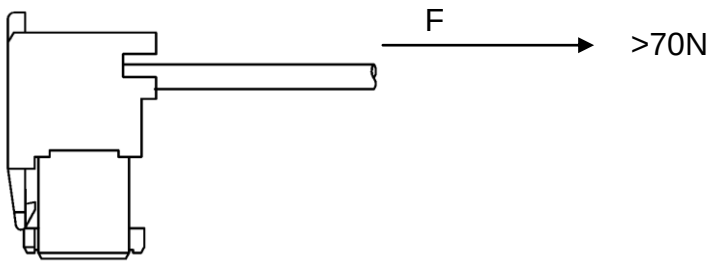
8.5 Cable quality

The cable must meet Lumberg specification.

8.6 Cable protrusion

The minimum cable protrusion must be kept, because shorter cable protrusions do not guarantee correct contact.

8.7 Retention force of the wire



The stated value for the conductor's pull-out forceis the typical value established during a test carried out with a standard 0,75 mm² line. Allvalues were determined under laboratory conditions and serve as a reference.

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 :

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.