LUMBERG (GMB	CONNECT H	Pr	oces	sing	instr	uctio	n	Lumb passion	erg l
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				36	23				
				36	25				
	Date	Name	Edition	7	8	9	10	11	12







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Alteration Description

Edition	Alteration 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
7	Storage text updated, measurement note for shut height added to point 7.3, added in section 8.8 Electrical testing, general text corrections
8	general text corrections
9	Terms of storage replaced by reference to website

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1. Product description

1.1. Product types

Connector for direct and indirect mating in ID technology, pitch 5,0 mm

Indirect Connector 3623

acc. to data sheet 3623...

colour marking for insulation displacement termination S01





Indirect Connector 3626

acc. to data sheet 3626...

colour marking for insulation displacement termination S01





Direct Connector 3633

acc. to data sheet 3633...

colour marking for insulation displacement termination S01





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Indirect Connector 3625

acc. to data sheet 3625...

Indirect Connector 3627

acc. to data sheet 3627...

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2. System features

Two part body Supplied in following stacks



Wire termination



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





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3. Contact principle

3.1. Indirect mating on the contacts



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

indirect connector

3.2. Direct mating on the PCB



PCB 1,5 mm



insulation displacement connection acc. to DIN EN 60352-4

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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 !

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



4.1. Cutting blades

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

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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-effecitve 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.

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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 03 stranded wire	= 0,50 mm ²
Technical data sheet 908 15 stranded wire	= 0,50 mm ²
Technical data sheet 908 06 stranded wire	= 0,75 mm ²
Technical data sheet 908 13 stranded wire	= 0,75 mm ²

6.2. Wire specifications cross section for connection 1,0...1,5 mm²

Technical data sheet 908 83 stranded wire	= 1,0 mm ²
Technical data sheet 909 479 stranded wire	= 1,0 mm ²
Technical data sheet 909 480 stranded wire	= 1,0 mm ²
Technical data sheet 908 12 stranded wire	= 1,5 mm²
Technical data sheet 908 16 stranded wire	= 1,5 mm²

Other approved wire see Lumberg release list in the internet at <u>www.lumberg.com</u>

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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 machine. 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.



following stacks

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



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7.2. Termination head

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



7.3. Setting dimension of the termination head

An important feature for the function of the connector is the connector height, measured after assembling. As a result of the restoring force of the connector housing and wires, the setting 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 3627 Indirect connector 3628-1

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

locking hooks

locking features



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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 terminated connector must mate with the male header (functional test). The contacts must be in correct position in the housing (visual check).



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7.6. Wire

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.

0,2	

Ribbon cables must be punched out

	\rangle
min.16	

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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 ± 0.1 , is guaranteed by the body.

8.5. Wire quality

The wire must meet Lumberg specification.

8.6. 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.

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8.7. Retention force of the wire



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

8.8. 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 <u>www.lumberg.com</u>. The specified terms of storage must be complied with.