



**niCONATIC**

CONNECTORS FOR  
FLEXIBLE CIRCUITS





# CRIMPFLEX® connectors for flexible circuits

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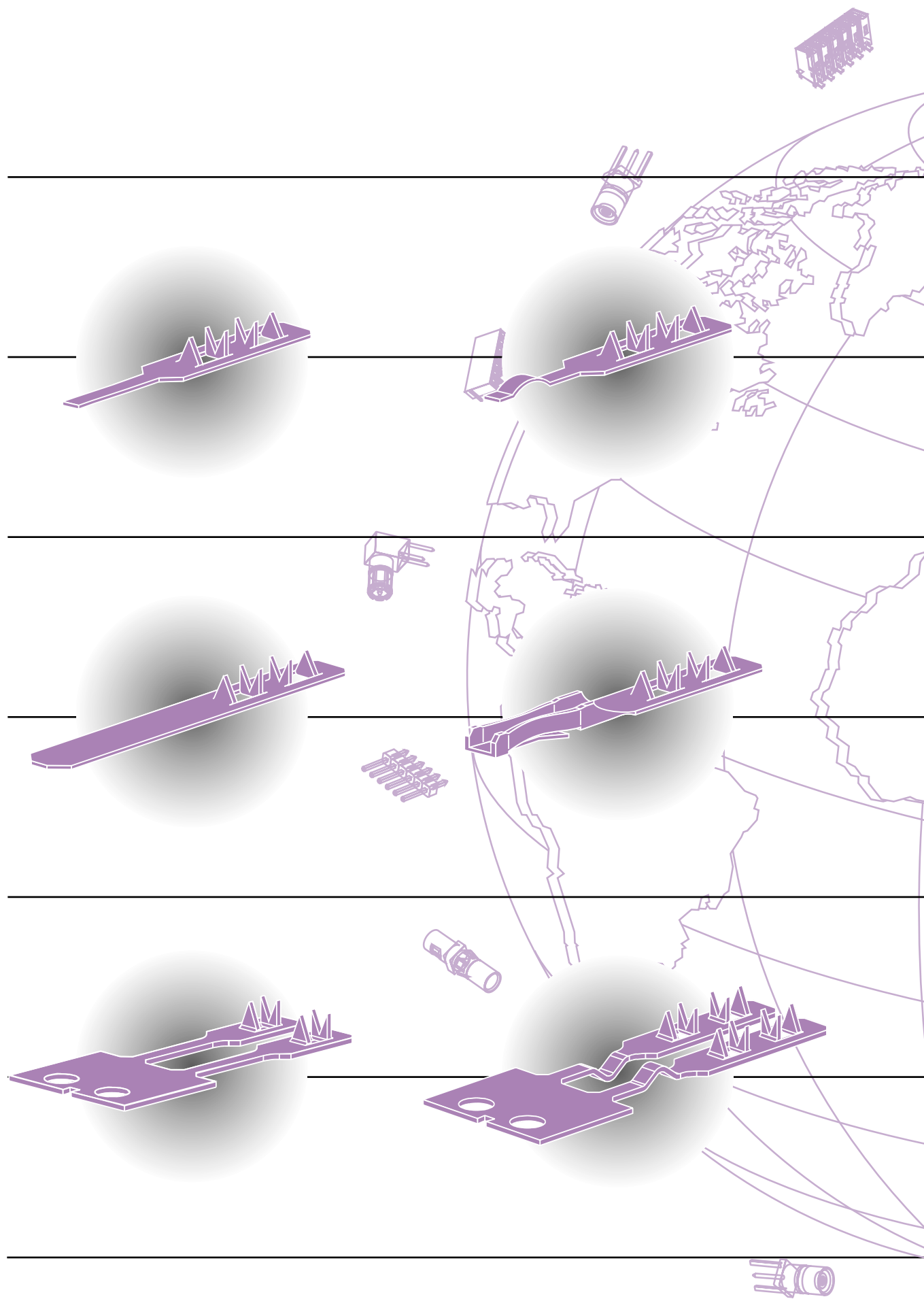
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## OTHER NICOMATIC PRODUCTS



# CRIMPFLEX<sup>®</sup> connectors

## TECHNICAL DATA

### MATERIAL

- Phosphor bronze

### MALE SOLDER TAB PLATING

- The standard connector is tin plated (thickness : 5  $\mu$  Sn Pb)
- Plain or selective gold plating on request

### 0.635 MM (.025") MALE AND FEMALE CONTACTS PLATING

- The standard connector is tin plated (thickness : 5  $\mu$  Sn Pb)
- Selective gold plating in mating area (thickness : 0.15  $\mu$  Au)
- Plain or selective gold plating on request

### CERTIFICATIONS

- UL : E 125469 (M)
- LNZ (CNET) : List n°6145 for tin plated version (HE14)  
List n°6160 for gold plated version (HE13)

## MECHANICAL SPECIFICATIONS

- Crimp strength to laminated cable :
  - ➔ 15 N min. (3.3 lbs) perpendicular to the tracks (breaking-up of the conductor)
  - ➔ 50 N min. (11.2 lbs) parallel to the tracks (breaking-up of the conductor)

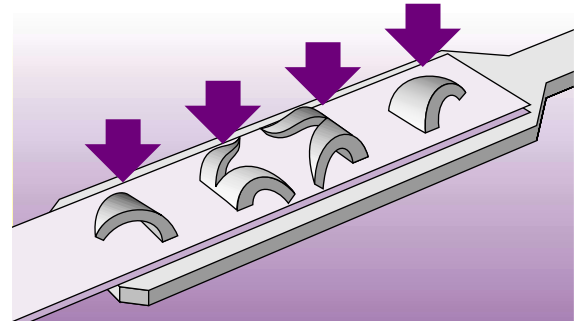
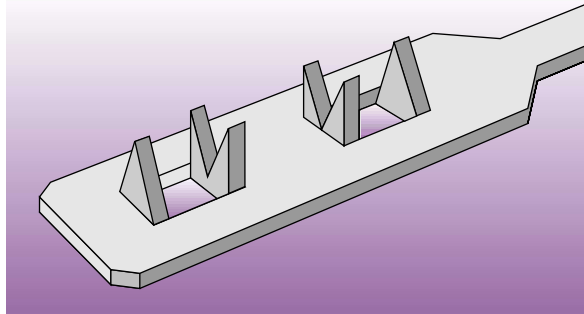
## ELECTRICAL SPECIFICATIONS

- Contact resistance 5 m  $\Omega$  max.
- Contact resistance after environmental tests 6 m  $\Omega$  max.
- Insulation resistance 5.10<sup>5</sup> M  $\Omega$  at 500 V
- Withstanding voltage 1 100 V RMS
- Capacitance between two contacts 4 pF max.
- Direct current rating per contact 3 A permanent
- Alternating current rating per contact 5 A permanent

## THERMIC SPECIFICATIONS

- Connectors operating temperature  
-55°C to +150°C -67°F to +302°F

# CRIMPFLEX® crimping



CRIMPFLEX® system patented by NICOMATIC

## DESCRIPTION

Developed and patented by NICOMATIC, the CRIMPFLEX® connection system complies with the most rigorous electrical and mechanical requirements. The crimping of the contacts is obtained by piercing the conductor in 6 points. This ensures excellent mechanical retention by 2 points and electrical contact by 4 points with the lowest possible contact resistance.

## CRIMPING ENVIRONMENT

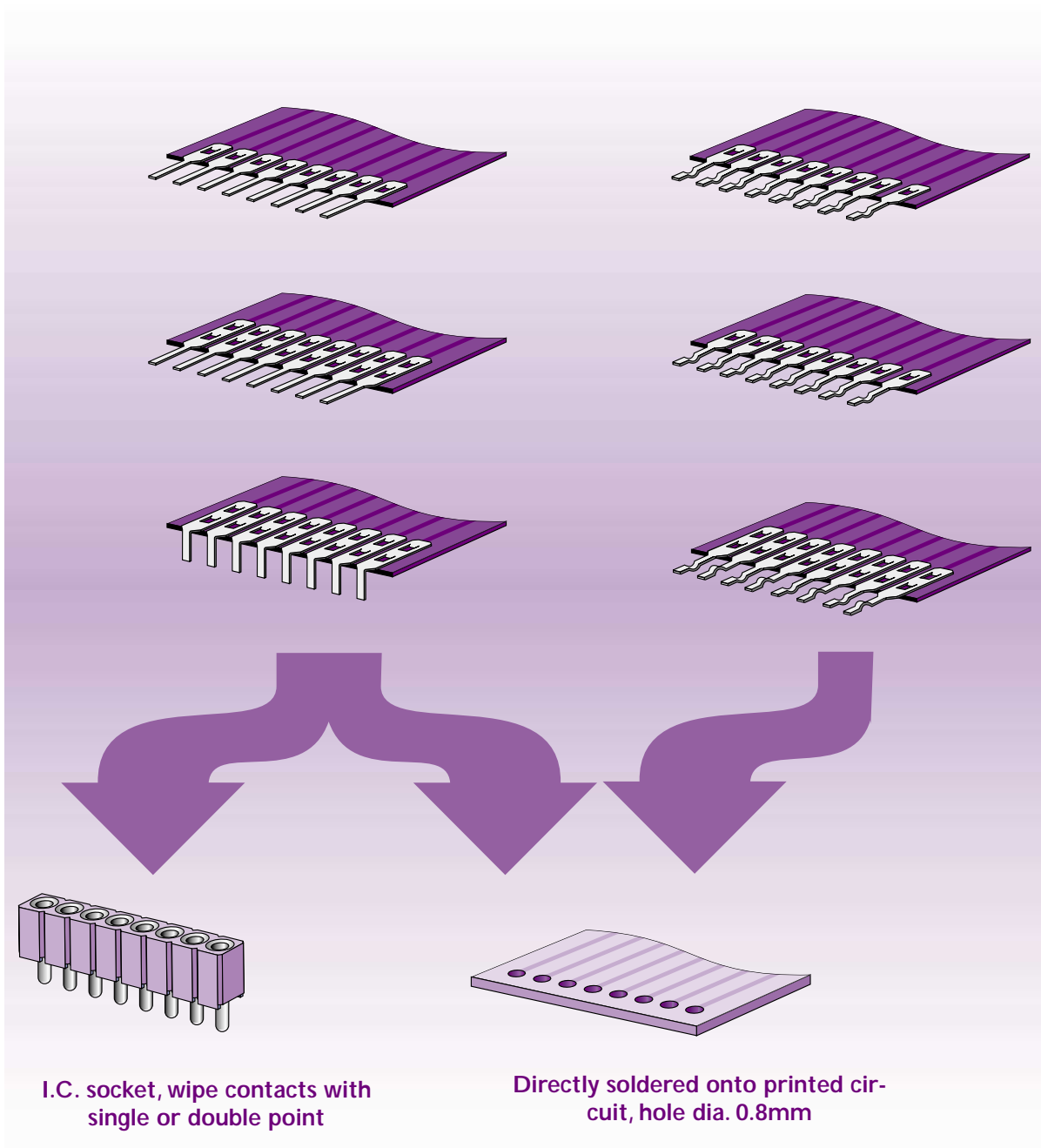
- Copper conductive, silver or carbon ink printing conductive, etc...
- All types of flexible circuits whose thickness ranges from 125  $\mu$  to 350  $\mu$  (0.005 " to 0.014") (for other dimensions, contact NICOMATIC).
- Can pierce all kinds of supports : polyester, FR4, polyimide, PTFE, etc...

## ADVANTAGES

- Use of contacts in reel at final pitch of 2.54 mm (0.100").
- Mass termination of all contacts in one press stroke which saves time and allows more accuracy.
- Crimp is easily inspected.
- The housing is assembled after crimping.
- The width of the circuit is not limited by the width of the housing.
- The housing can be removed.
- The broadest range of connector solutions in the industry.

# Male solder tabs

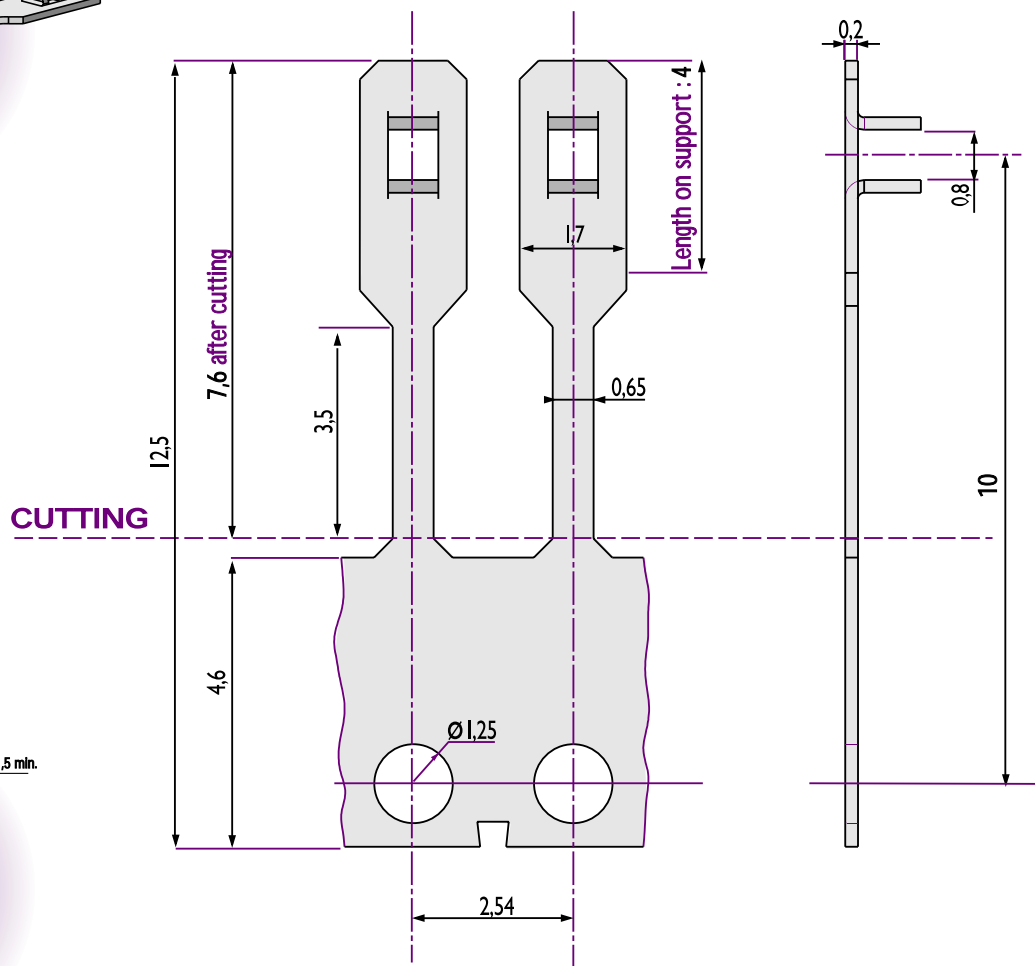
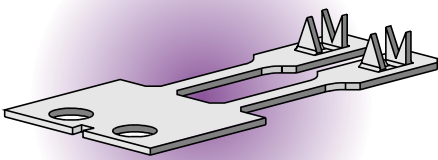
## SOLDER TABS ENVIRONMENT



# Male solder tabs

## STANDARD SHORT MALE SOLDER TAB REF. 10141

- Widely used in applications with restricted crimped areas requiring male soldertabs.
- To solder or to fit into I.C. sockets or wipe contacts.



Dimensions in mm

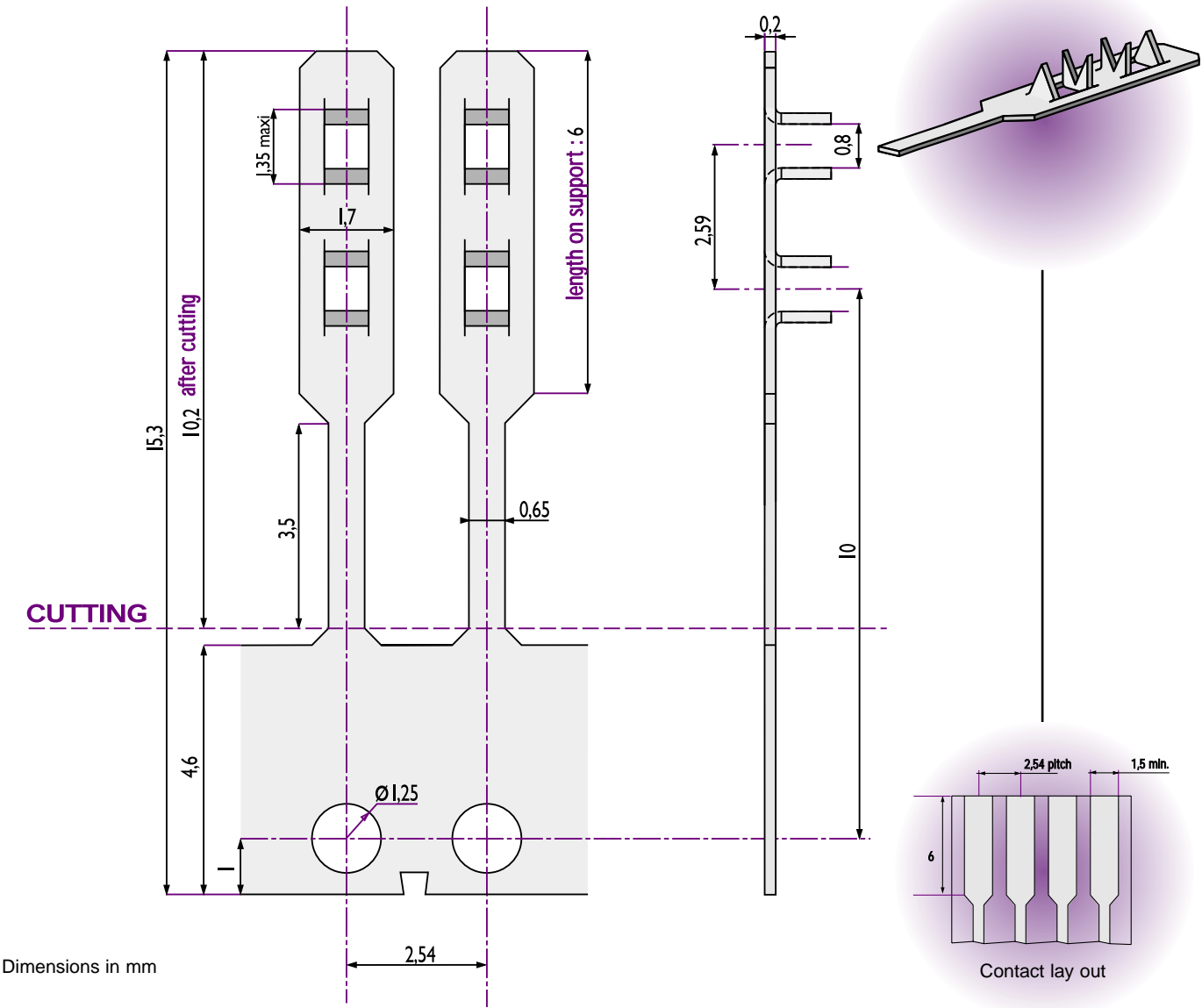
REF.	PLATING	REEL
10141-12	Tin plated	35 000 contacts
OTHER PLATINGS ON REQUEST		



# Male solder tabs

## STANDARD MALE SOLDER TAB REF. 10241

- Widely used in most applications on flexible supports requiring male soldertabs. To solder or to fit into I.C. sockets or wipe contacts.

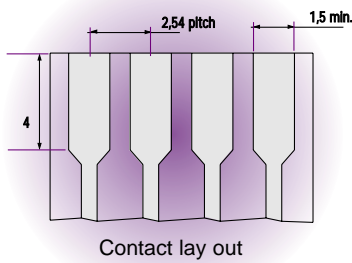
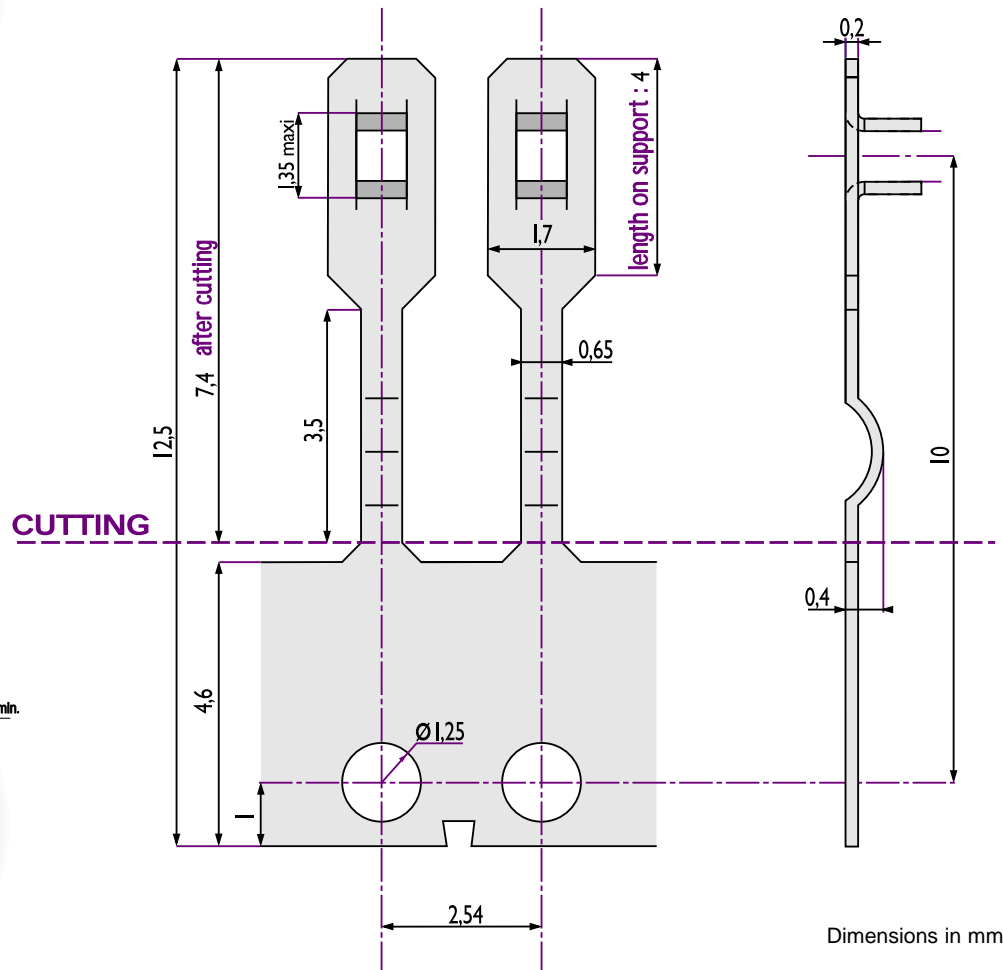
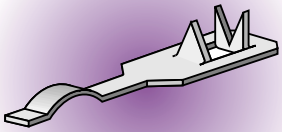


REF.	PLATING	REEL
10241-12	Tin plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

# Male solder tabs

## RETENTION SHORT MALE SOLDER TAB REF. 10067

- The crimped section is shorter to comply with high density packaging requirements.
- For use in tight fitting applications.

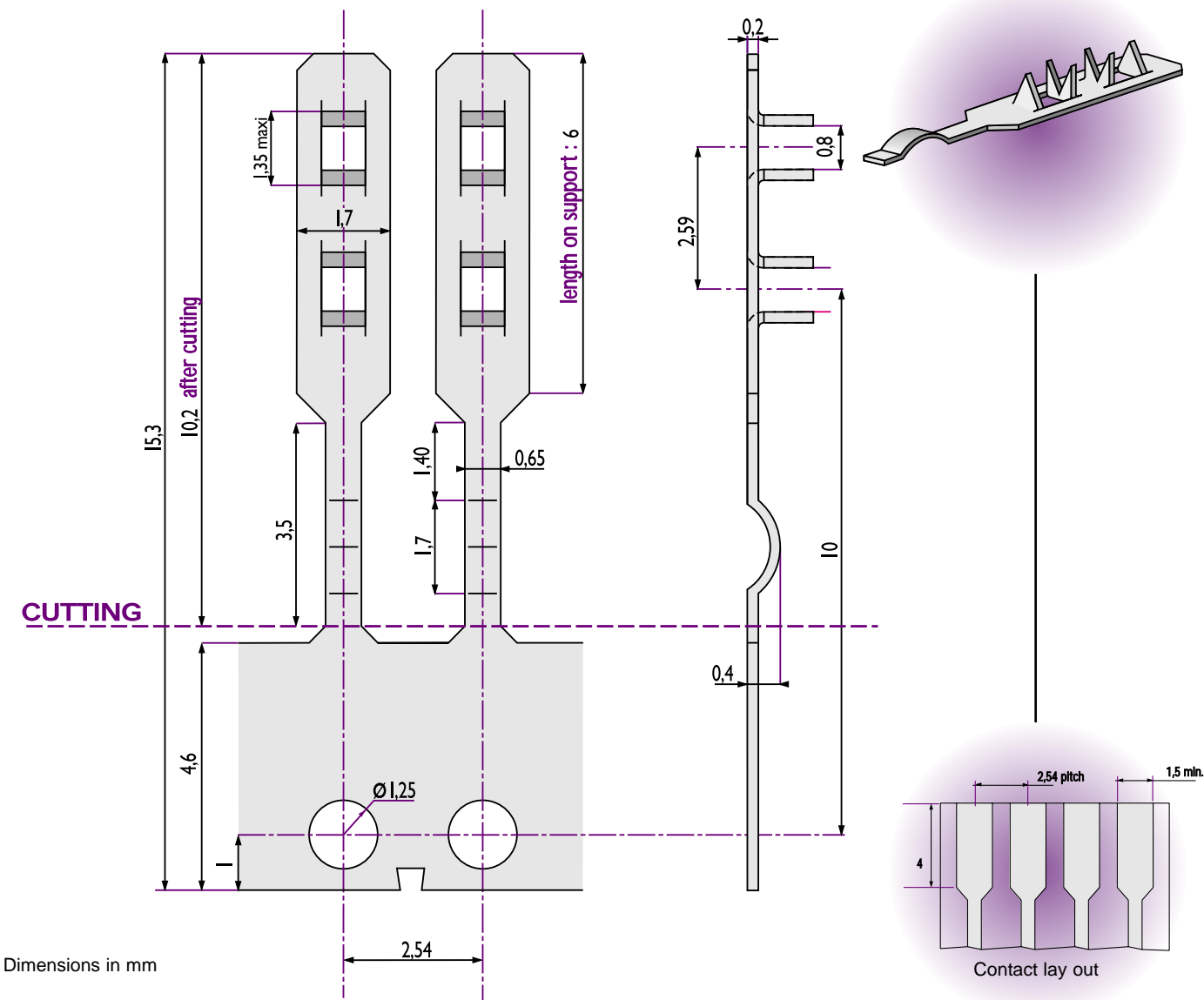


REF.	PLATING	REEL
10067-12	Tin plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

# Male solder tabs

## RETENTION MALE SOLDER TAB REF. 10167

■ The curved shape ensures firm holding of the contacts in the printed circuit and provides retention during wave-soldering.



Dimensions in mm

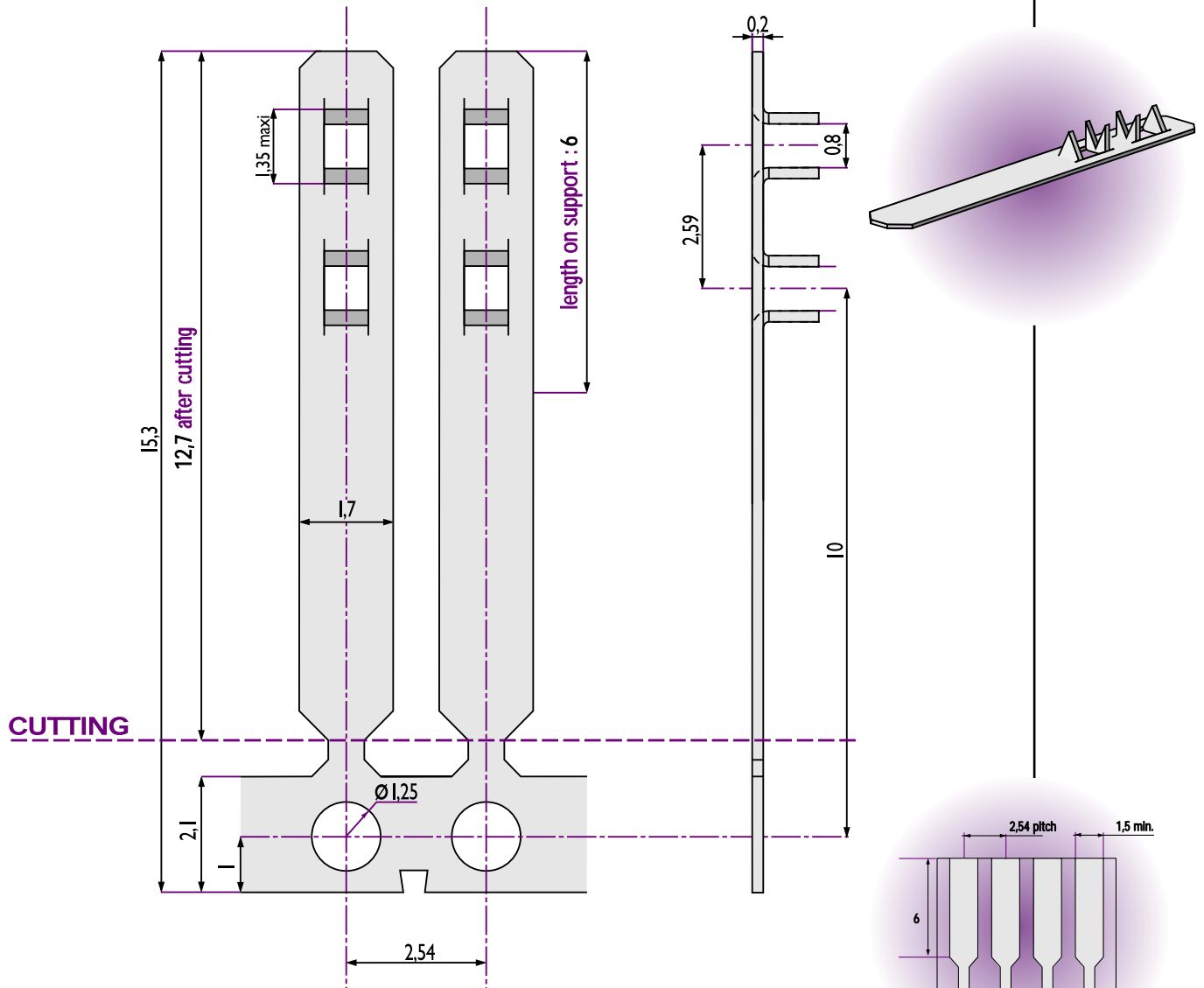
REF.	PLATING	REEL
10167-12	Tin plated	35 000 contacts
OTHER PLATINGS ON REQUEST		



# Male solder tabs

## LONG MALE SOLDER TAB REF. 11612

- The long solder tab allows connection in screw terminal blocks.
- Used for connections to EL lamps.

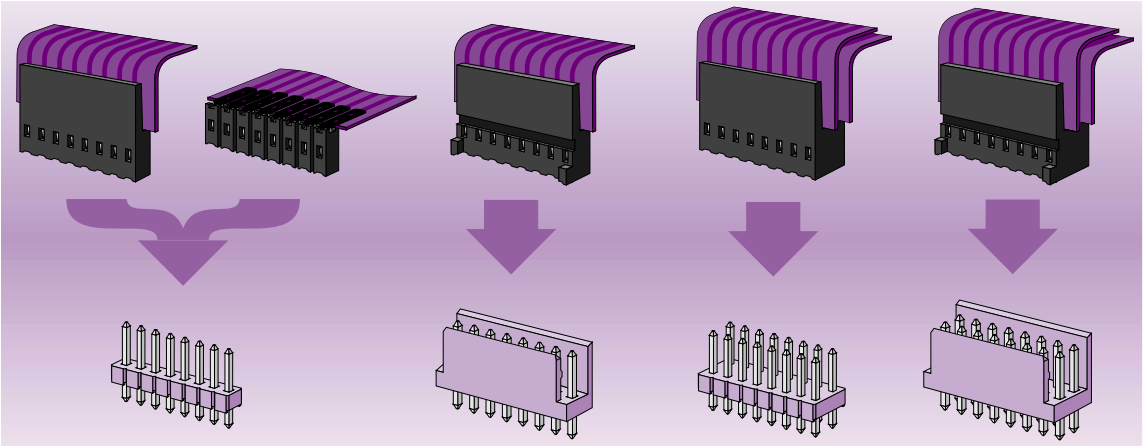


Dimensions in mm

REF.	PLATING	REEL
11612-12	Tin plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

# Male and female contacts

## TYPICAL CONTACT APPLICATION



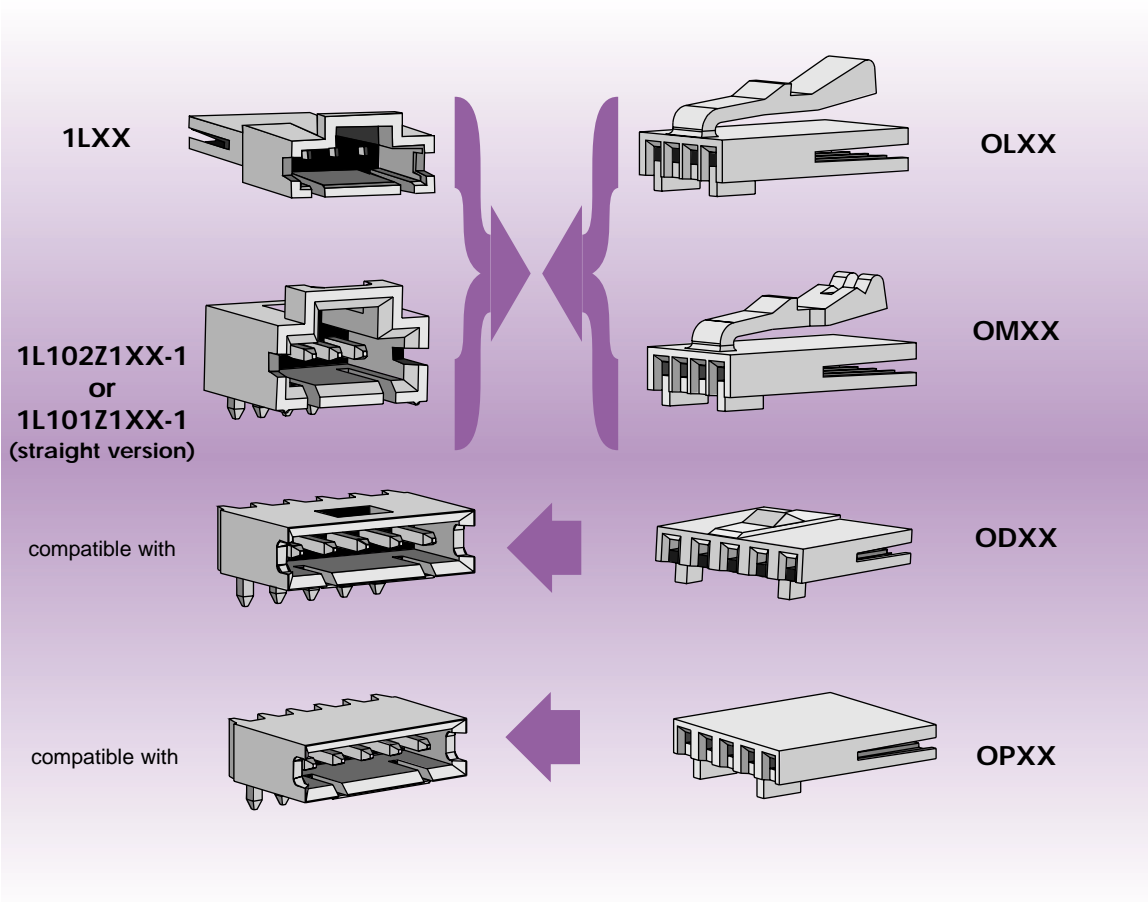
Straight single row standard header (cf p.30)

Straight single row walled header (cf p.31)

Straight double row standard header (cf p.30)

Straight double row walled header (cf p.31)

The length of the pin on mating side must range from 4.5 mm to 7 mm.



1LXX

OLXX

1L102Z1XX-1  
or  
1L101Z1XX-1  
(straight version)

OMXX

compatible with

ODXX

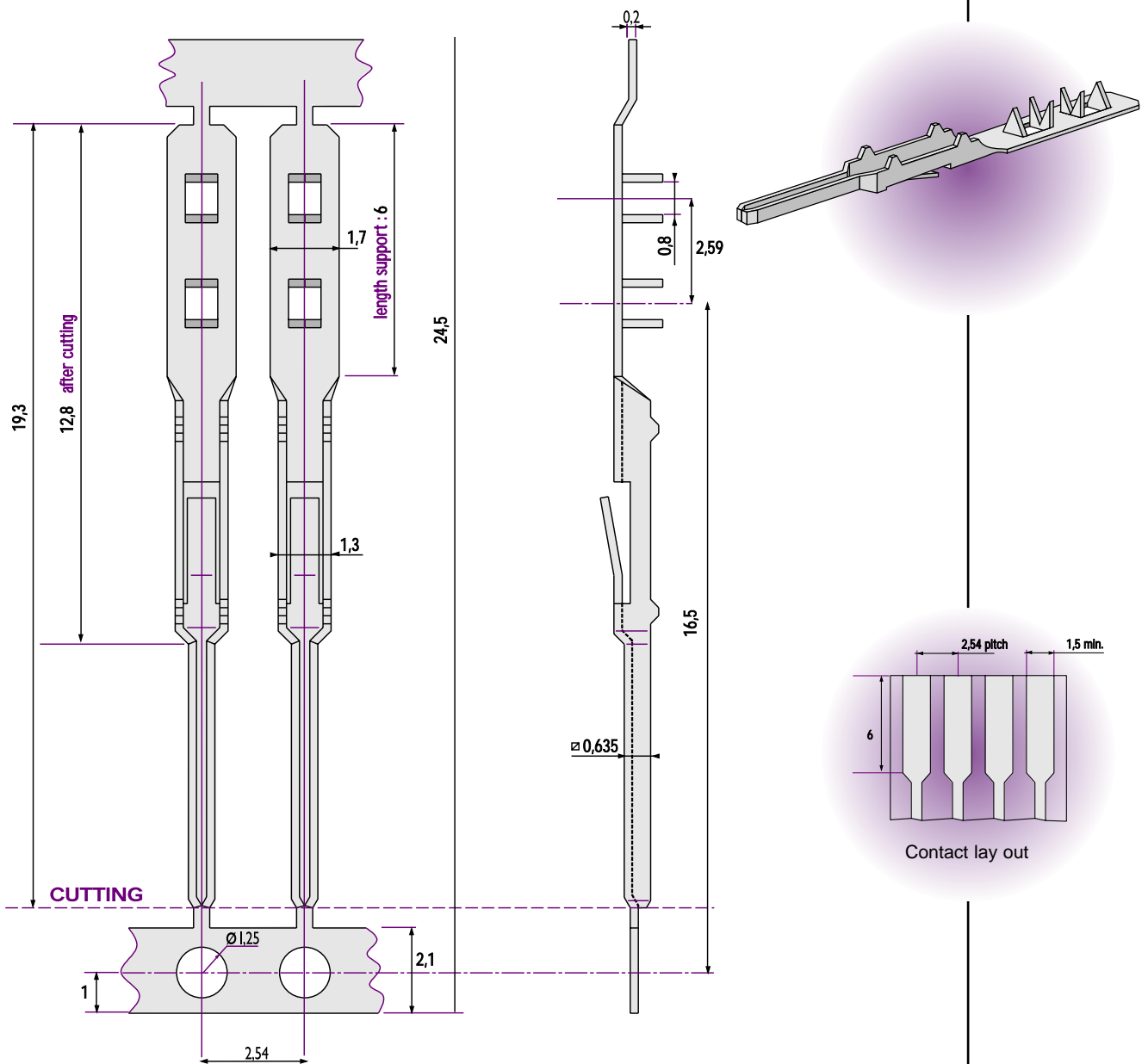
compatible with

OPXX

# Male contacts

## 0.635 MM (.025") SQUARE MALE REF. 12410

- The square male contact will mate with most female connectors designed to accept a 0.635 mm (.025") pin header.
- Crimped on specific equipment (please refer to p.26-27).



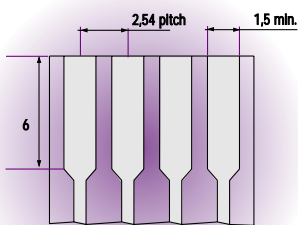
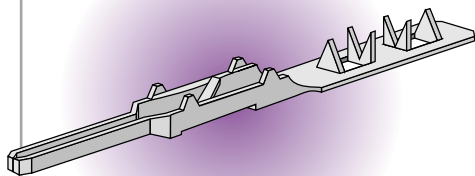
Dimensions in mm

REF.	PLATING	REEL
12410-12	Tin plated	35 000 contacts
12410-32	Selective gold plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

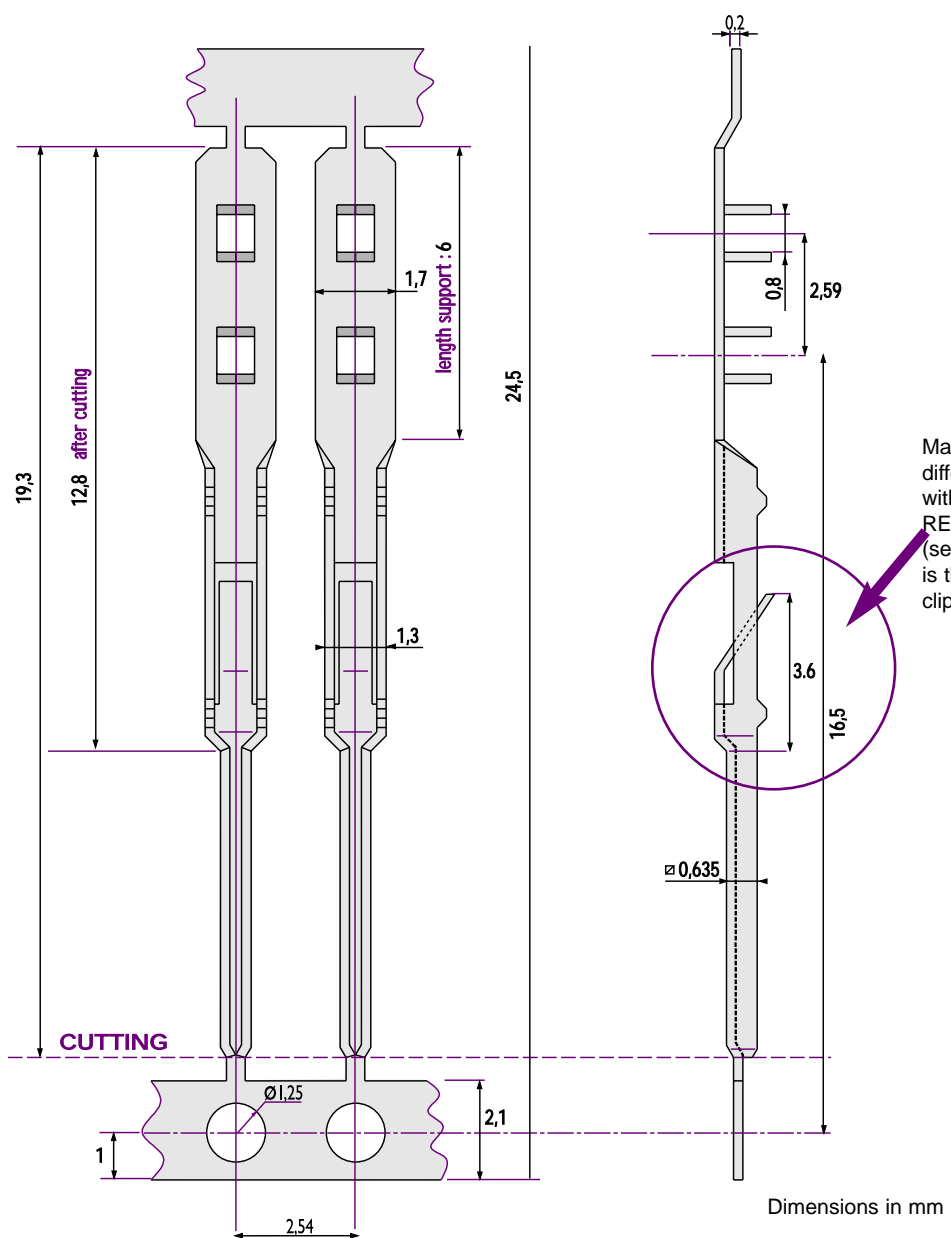
# Male contacts

## 0.635 MM (.025") REVERSE SQUARE MALE REF. 13756

- The square male contact will mate with most female connectors designed to accept a 0.635 mm (.025") pin header.
- Crimped on specific equipment (please refer to p.26).



Contact lay out



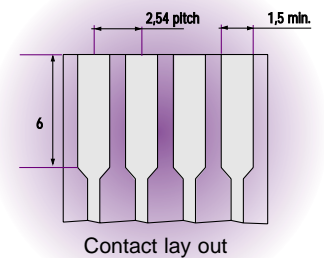
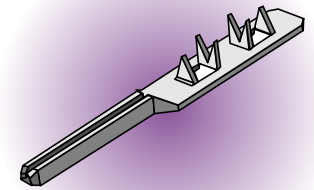
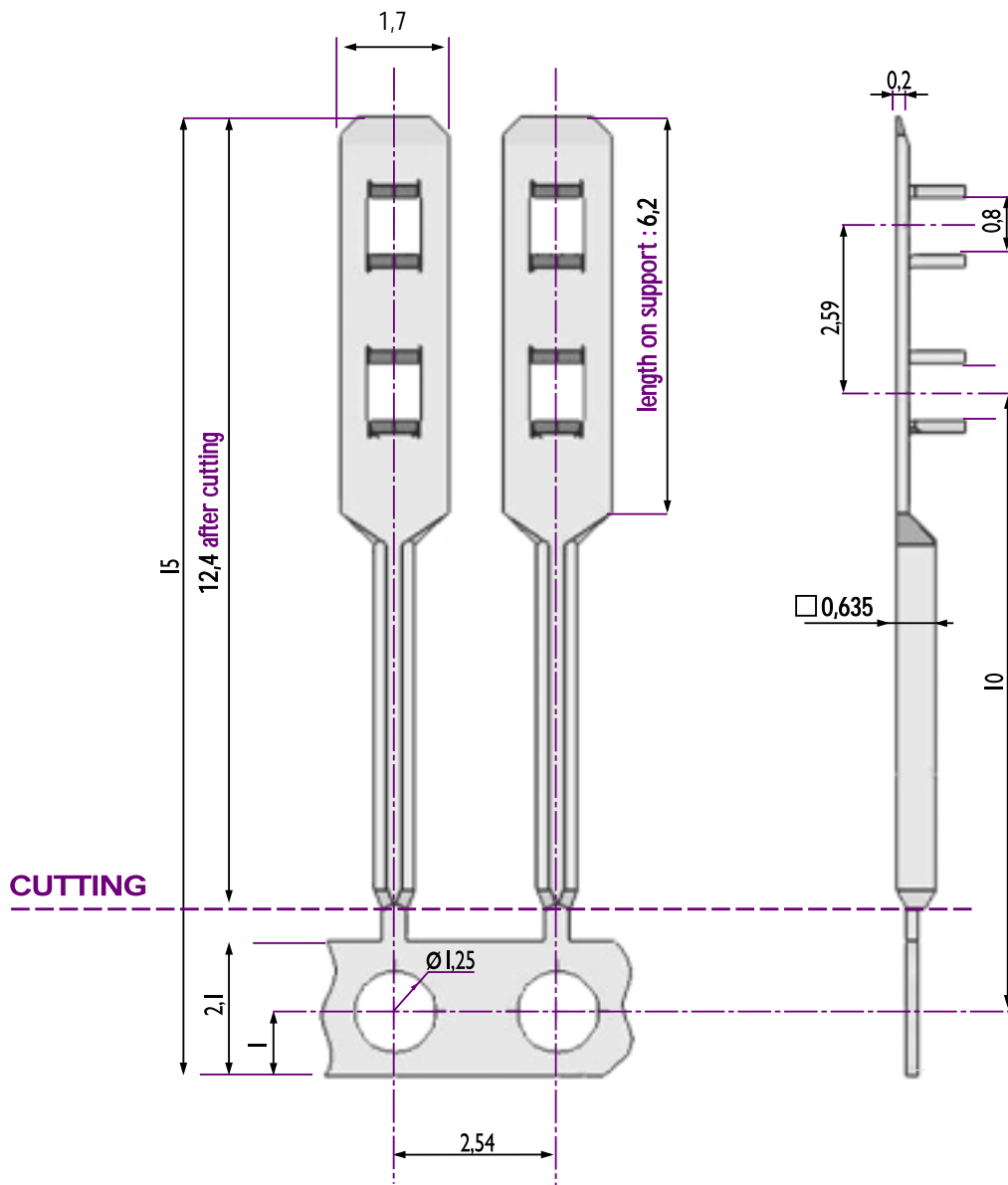
REF.	PLATING	REEL
13756-12	Tin plated	35 000 contacts
13756-32	Selective gold plated	35 000 contacts
OTHER PLATINGS ON REQUEST		



# Male contacts

## SHORT SQUARE MALE PIN REF. 13595

- This new square male pin allows for the cost effective mating to a female connector or header for use with 0.0025" square pins without the use of a housing.



Dimensions in mm

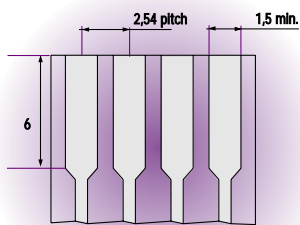
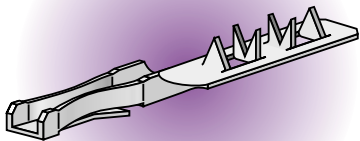
REF.	PLATING	REEL
13595-12	Tin plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

# Female contacts

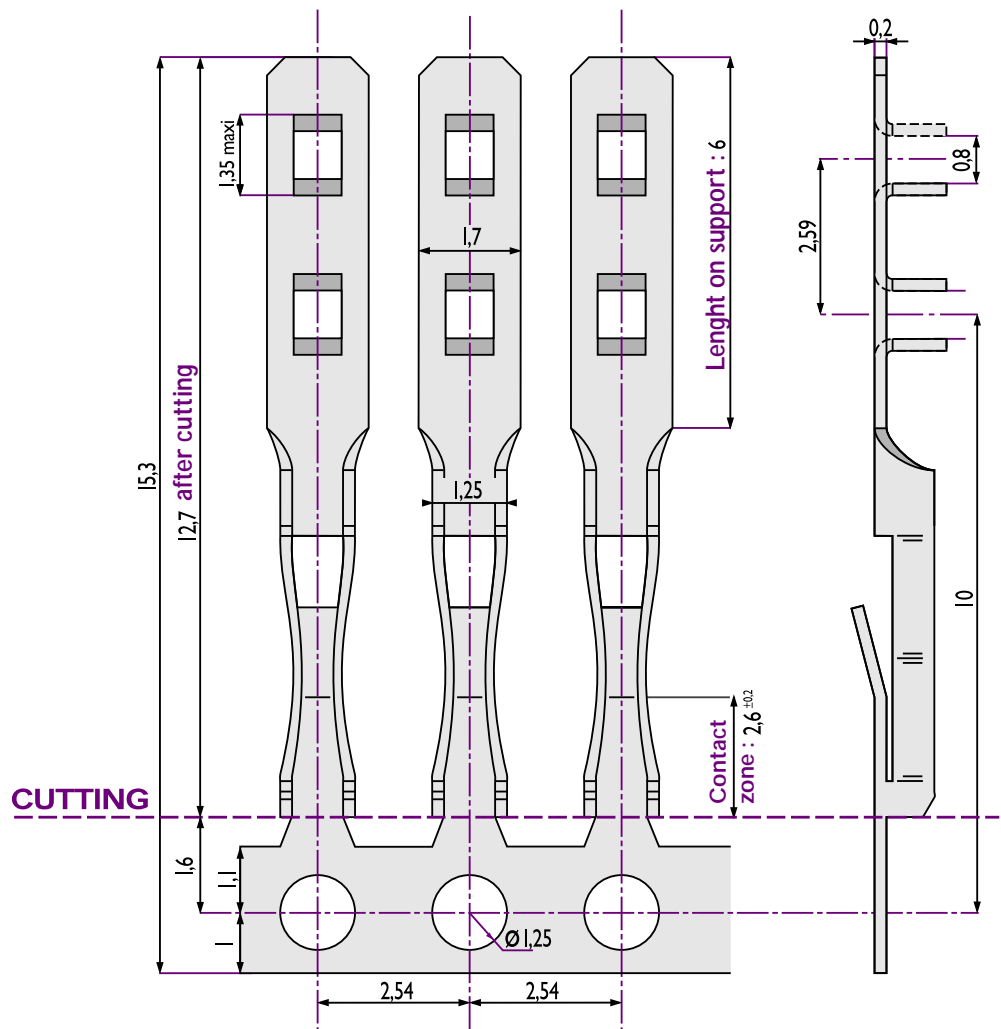
## LOW INSERTION FORCE REF. 11506

- HE 13 (Au) = 1.5 N max (5.5 oz)
- HE 14 (Sn) = 3 N max (11 oz)

Number of mating cycles = 500  
Number of mating cycles = 50



Contact lay out



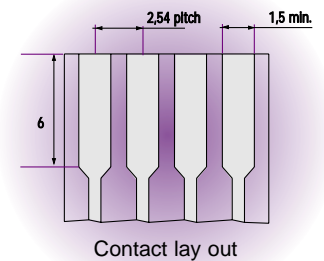
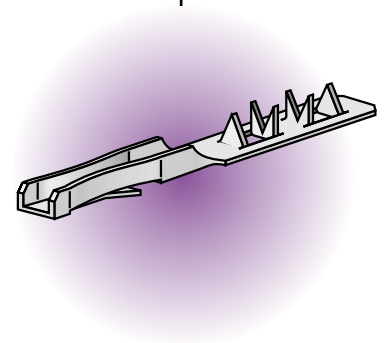
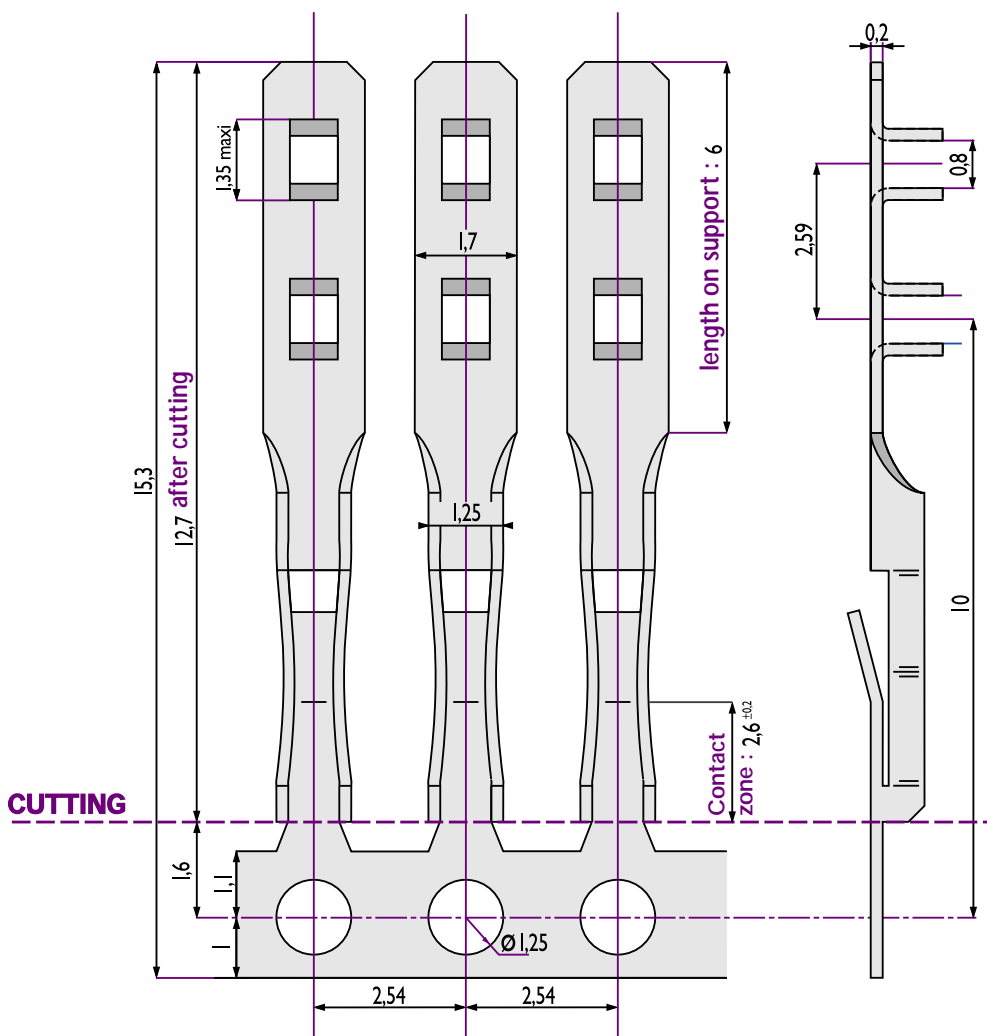
Dimensions in mm

REF.	PLATING	REEL
11506-12	Tin plated	35 000 contacts
11506-32	Selective gold plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

# Female contacts

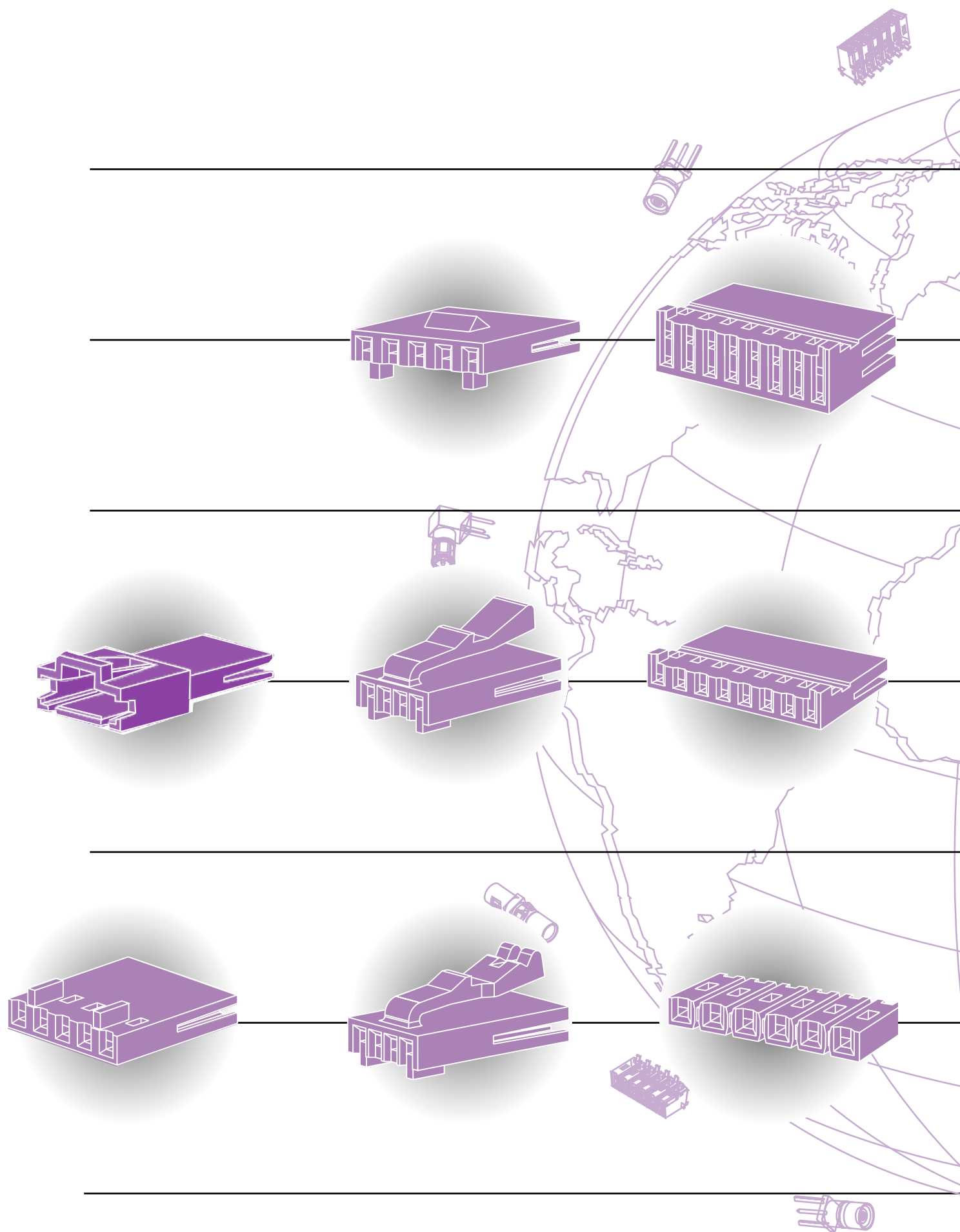
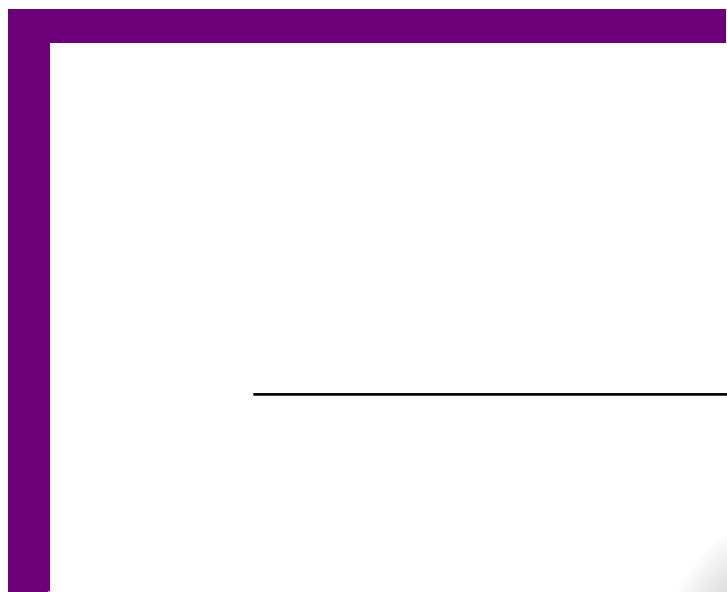
## HIGH INSERTION FORCE REF. 10025

- Increased retention for high vibration applications, which results in a reduced number of mating cycles.
- Recommended for a small amount of contacts (2 to 10 contacts).



Dimensions in mm

REF.	PLATING	REEL
10025-12	Tin plated	35 000 contacts
10025-32	Selective gold plated	35 000 contacts
OTHER PLATINGS ON REQUEST		



# CRIMPFLEX® housings

## TECHNICAL DATA

### MATERIAL

- Thermoplastic filled with glass fiber
- Classified UL 94 VO

### CERTIFICATIONS

- UL : E 125469 (M)
- LNZ(CNET) : list n°6145 for tin plated version (HE14)  
list n°6160 for gold plated version (HE13)

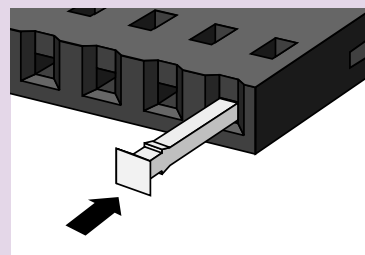
## THERMIC SPECIFICATIONS

- Operating temperature  
- 55° C to + 150° C      - 67° F to + 302° F

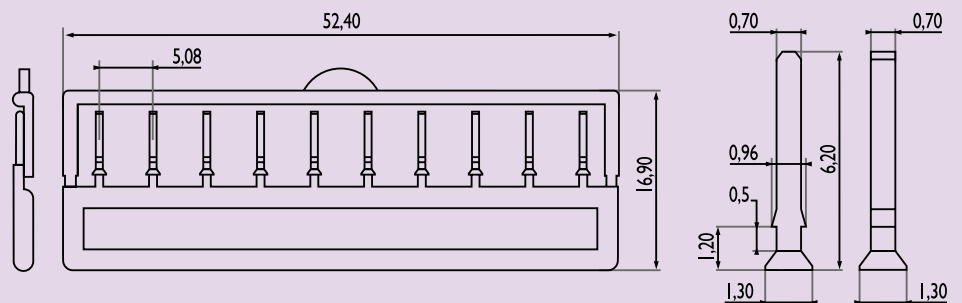
## ACCESSORIES

### POLARIZATION KEYS

REF. PHK-10 (BLACK) OR PHK-101 (WHITE)



- Keys to plug into the housings to ensure polarization.
- Can be used with the HE13/HE14 female range. (refer to p. 32)
- Available in black or in white colour

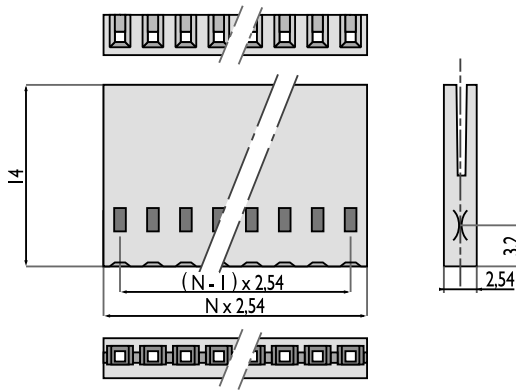
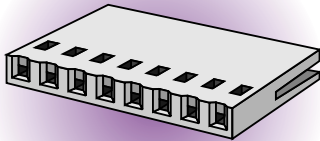


Dimensions in mm

# CRIMPFLEX® housings

## HOUSING SERIES OF XX

- Removable connection with all types of 0.635 mm (.025") square or round pin headers.
- Housings are side to side and end to end stackable.

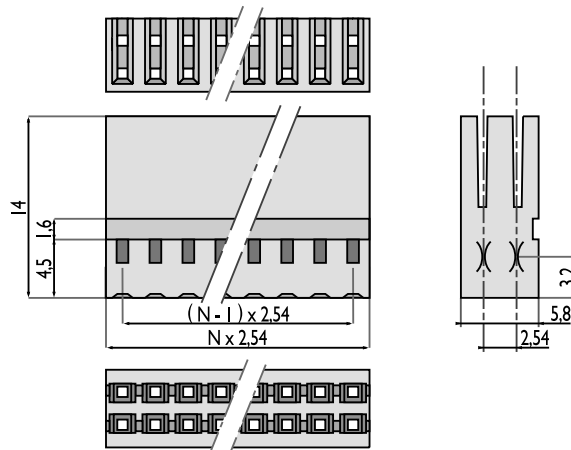
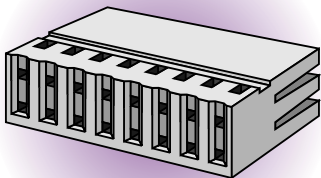


Dimensions in mm

POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
NO	NO	1	02 → 25 (on request : 26 → 51)

## HOUSING SERIES 4F XX

- This housing allows connection of a double row flexible jumper onto a 2 rows, 0.635 mm (.025") square or round pin header.
- Housings are side to side and end to end stackable.



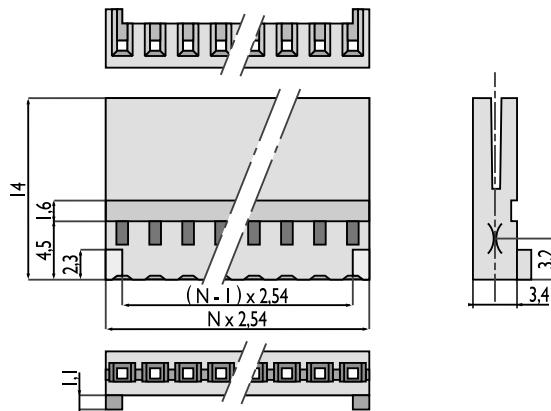
Dimensions in mm

POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
NO	NO	2	04 → 50

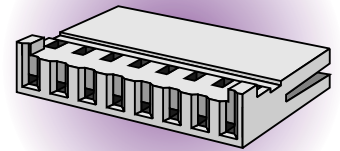
# CRIMPFLEX® housings

## HOUSING SERIES 2E xx

- This housing is used with HE13/HE14 walled pin headers 1Y (refer to page 31).
- It allows polarization and locking.



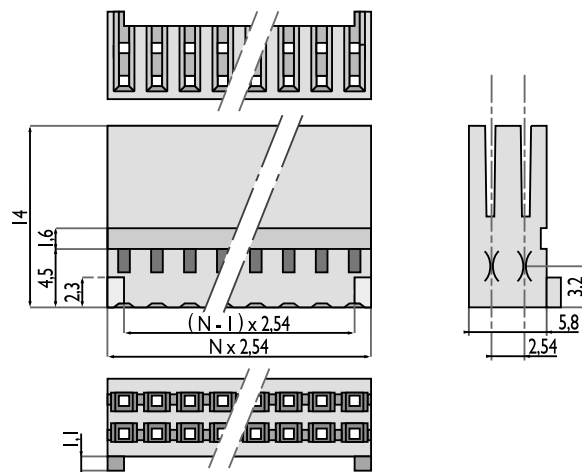
Dimensions in mm



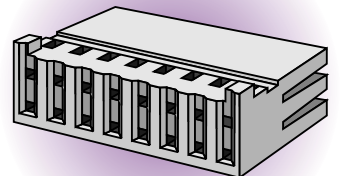
POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	1	02 → 25

## HOUSING SERIES 4E xx

- This housing is used with double row HE13/HE14 walled headers (refer to page 31).
- It allows polarization and locking.



Dimensions in mm

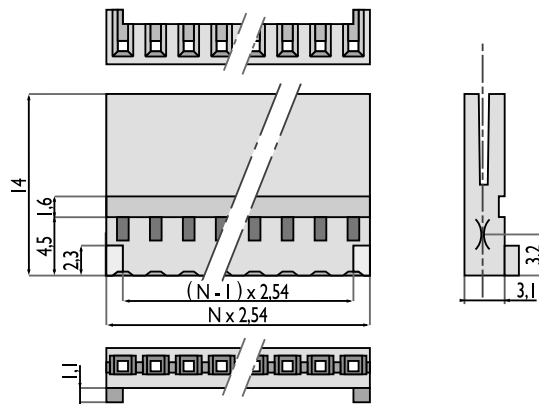
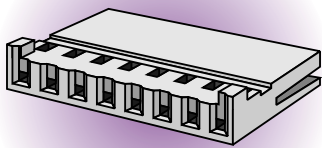


POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	2	04 → 50

# CRIMPFLEX® housings

## HOUSING SERIES 1E xx

- This housing is designed to mate to industry standard walled connectors.
- It allows polarization and locking.

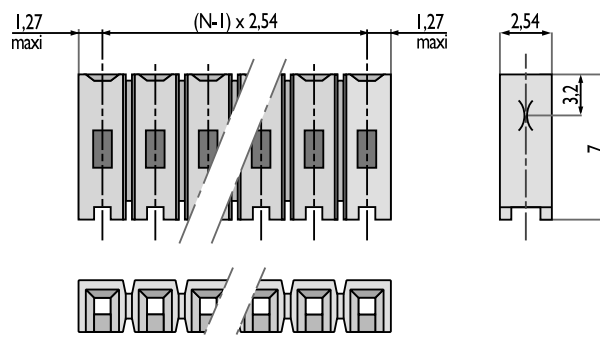
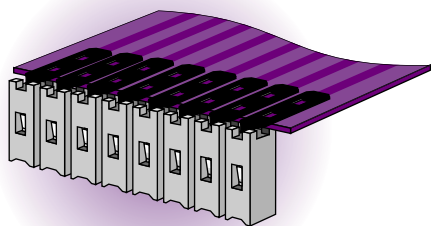


Dimensions in mm

POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	1	02 → 25

## HOUSING SERIES 7F xx

- The low height of this housing allows right angle connection in high density packaging.



Dimensions in mm

POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
NO	NO	1	02 → 25

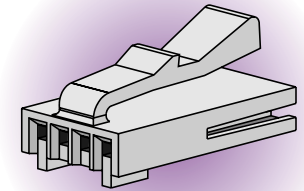
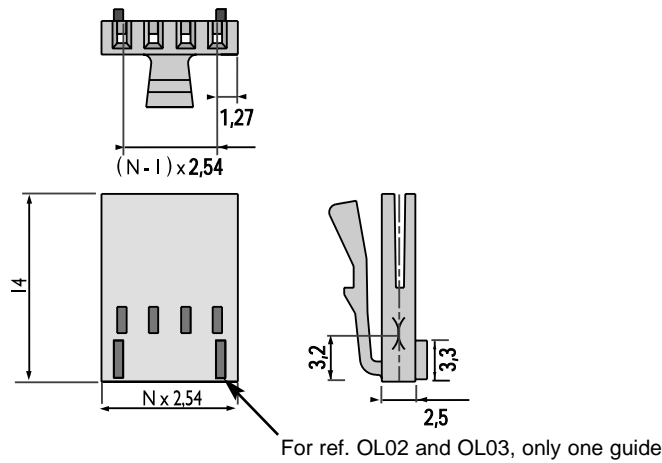


# CRIMPFLEX® housings

Optional features : the latch/polarization feature can be oriented either up or down (Thru holes have been added).

## HOUSING SERIES OL xx

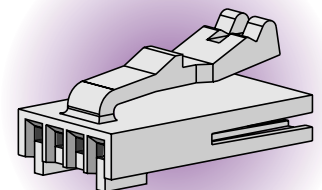
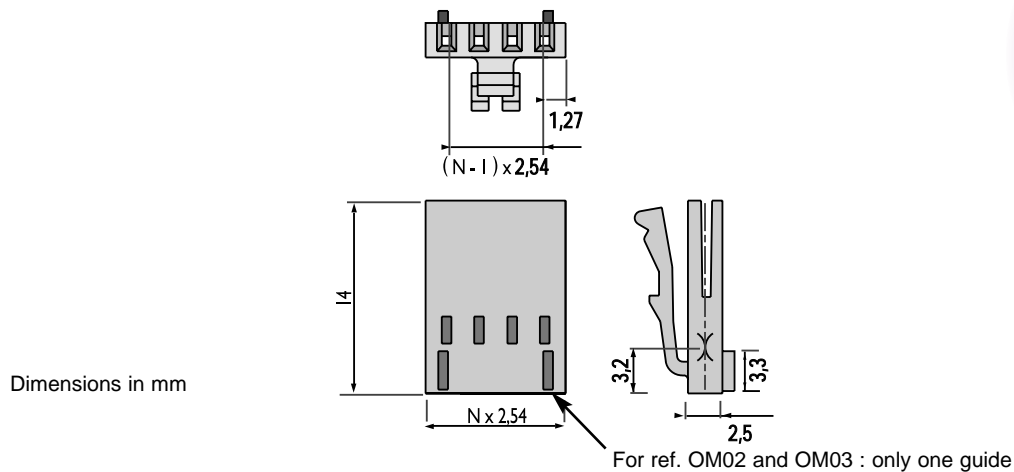
- Industry standard locking system that allows for easy mating and unmating to a walled pin header.
- Optional : contacts can be inserted on the opposite side to the latch, from 2 to 25 ways.



POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	1	02 → 25

## HOUSING SERIES OM xx

- Industry standard locking system that allows for easy mating and unmating to a walled pin header.
- The location of the latch is different from housing series OL in order to ensure a total compatibility with the different versions available on the market.
- Optional : contacts can be inserted on the opposite side to the latch, from 4 to 25 ways.



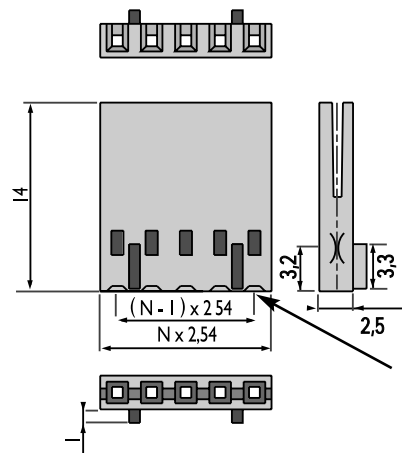
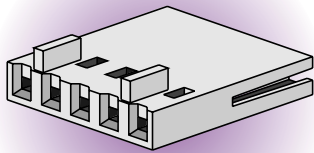
POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	1	02 → 25

# CRIMPFLEX® housings

Optional features : the latch/polarization feature can be oriented either up or down (Thru holes have been added).

## HOUSING SERIES OP xx

- Industry standard polarization feature.
- Optional : contacts can be inserted on the guide side and on the opposite side to the guide, from 2 to 25 ways.

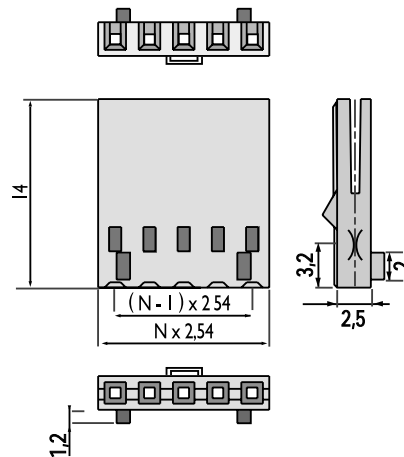
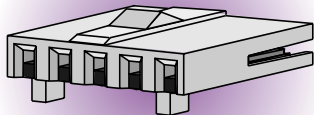


Dimensions in mm

POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	NO	1	02 → 25

## HOUSING SERIES OD xx

- Industry standard polarization feature.
- Optional : contacts can be inserted on the opposite side to the latch, from 2 to 25 ways. Insertion of the contacts on the latch side, from 3 to 25 ways.



Dimensions in mm

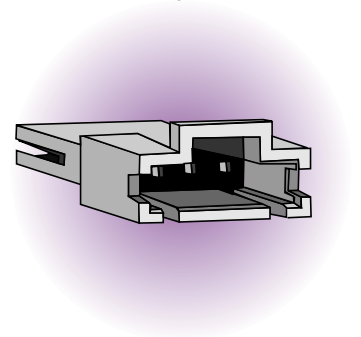
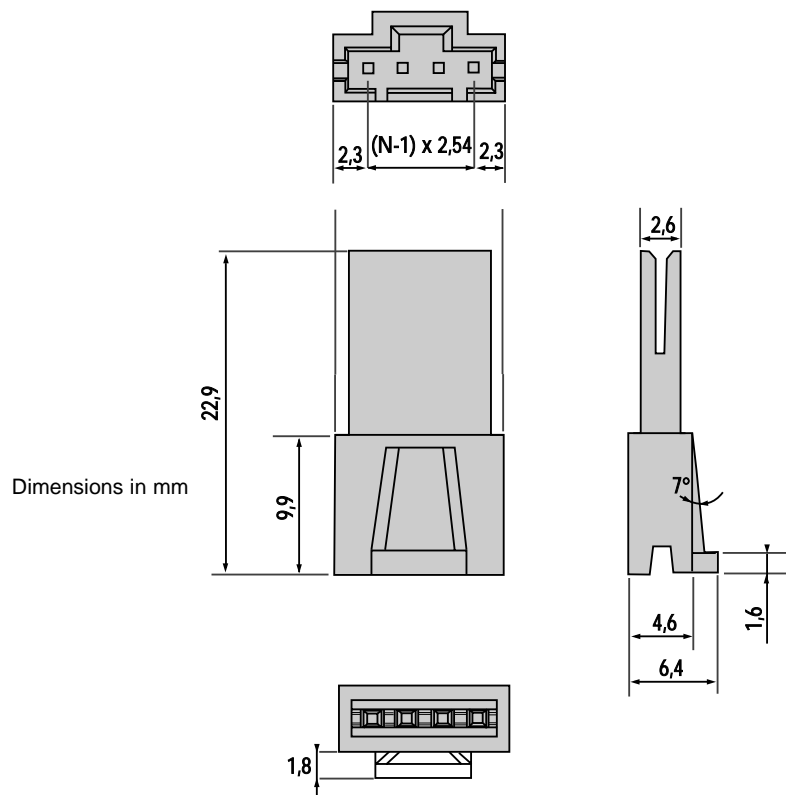
POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	1	03 → 25

# CRIMPFLEX® housings

contact for ref. 12410 only

## HOUSING - SERIES 1L xx

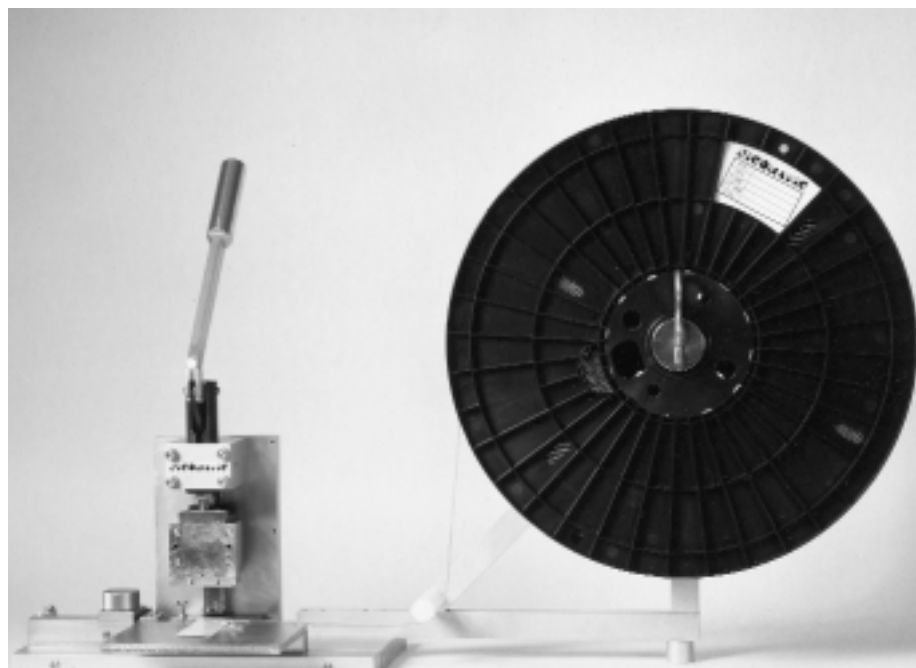
- This housing allows industry standard polarization.
- It allows the locking of OM/OL female references



POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	1	02 → 25

# CRIMPFLEX® presses

## MANUAL PRESS REF. 10025 - MOM



### GENERAL DATA

- Dimensions without reel (L x w x h) : 79 x 40 x 54 cm (31"x 16"x 21").
- Dimensions with reel (L x w x h) : 99 x 40 x 61 cm (39"x 16"x 24").
- Net weight: 22 kg.
- Approximate capacity : 7 cycles / minute.

### OPERATION

- The contacts are moved forward from stop to stop by hand via the side loader.
- The graduated positions correspond to the number of contacts to crimp (1 to 25 points).
- The crimping is operated manually via the upper lever.

### TOOLING

- This machine is delivered with 2 different toolings for solder tabs, male and female contacts. The change of tooling is simple and quick.
- Manual Press ref. 10025-SP is especially made for square male contacts 12410 and 13756.

TOOLING	CONTACTS
MALE	10041 - 10241 - 10067 - 10167 - 12887
FEMALE	10025 - 11506 - 11612 - 13595

# CRIMPFLEX® presses

## PNEUMATIC PRESS – REF 10125-SA



### GENERAL DATA

- Dimensions without reel (L x w x h) : 76 x 60 x 48 cm (30" x 24" x 25").
- Dimensions with reel (L x w x h) : 96 x 60 x 63 cm (38" x 24" x 25").
- Net weight : 70 kg.
- Air pressure of 6 bars : dry air recommended, gauge G1/4.
- No electrical requirement.
- Approximate capacity : 30 cycles / minute.

### OPERATION

- From 2 to 25 contacts are crimped at one time. The number of contacts to be crimped is determined by turning a dial on the front of the machine.
- This machine is also equipped with a downcounter which allows to pre-select a precise number of operations and stops automatically once it is back to zero.
- The press is operated by foot pedal.
- Crimping of 2 to 25 points in one press stroke.

### TOOLING

- This machine is delivered with 2 different toolings for solder tabs, male and female contacts.
- The change of tooling is simple and quick.

TOOLING	CONTACTS
MALE	10041 – 10241 – 10067 – 10167 – 12887
FEMALE	10025 – 11506 – 11612 – 13595

### OTHER DEVELOPMENTS : (please contact us)

- Machine with adjustable pitch, multiple of 2.54 mm (0.100") or pre-programmed
- Crimping machine up to 36 contacts on request.

# HE13/HE14 connectors and related

## TECHNICAL DATA

### PLATING

- **Electrolytic tin plating** Sn/Pb 90/10 5  $\mu$
- **Gold plating** Au 0.2  $\mu$
- **Under plating** Ni 2 à 3  $\mu$

### INSULATOR

- **Glass filled plastic, UL 94VO rated**

## MECHANICAL SPECIFICATIONS

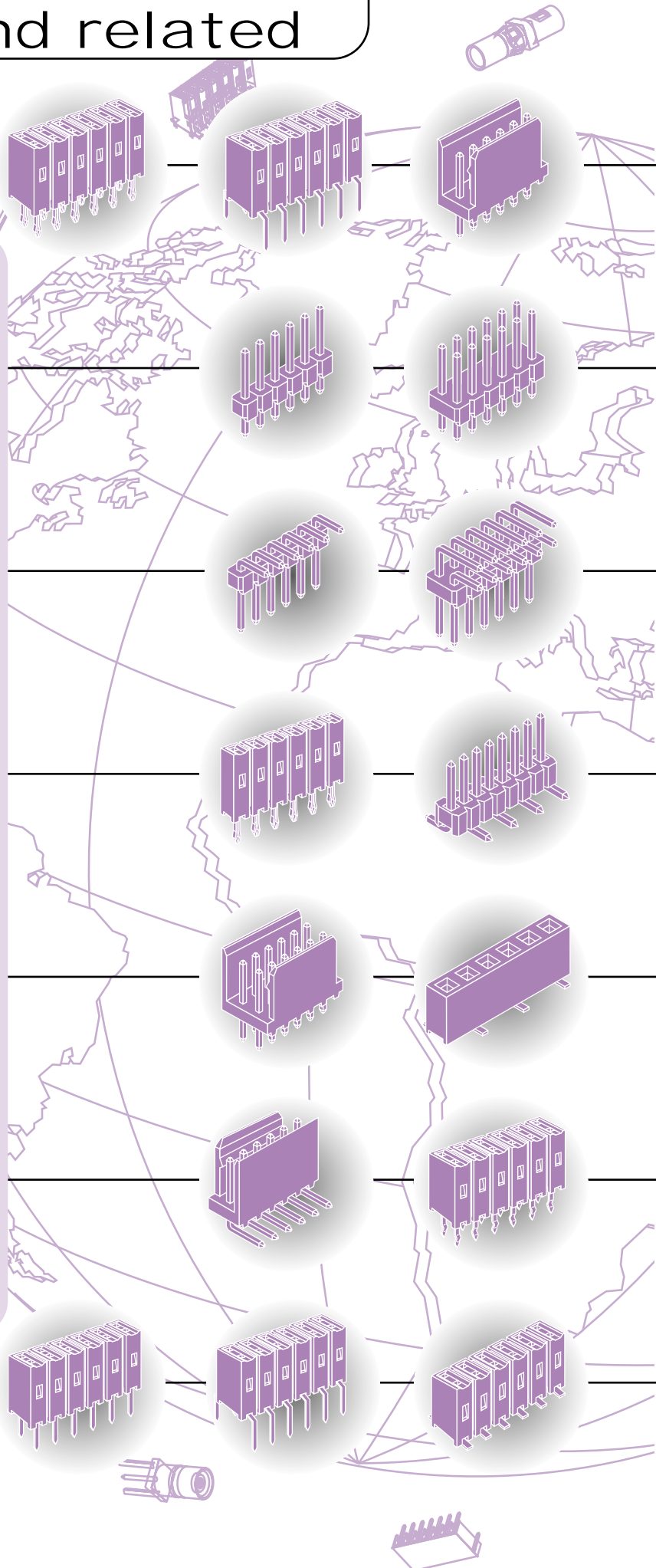
- **Mechanical endurance**  
HE13 500 connections/disconnections  
HE14 50 connections/disconnections
- **Insertion and extraction force**  
HE13 1.5 N max.  
HE14 3 N max.

## ELECTRICAL SPECIFICATIONS

- **Contact resistance**  
< 20 m  $\Omega$
- **Current rating per contact**  
3 A
- **Min. withstanding voltage**  
500 V eff.
- **Min. insulation resistance**  
1 000 M  $\Omega$

## THERMIC SPECIFICATIONS

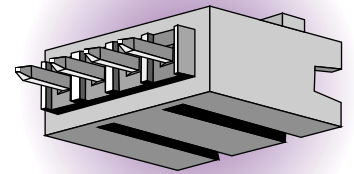
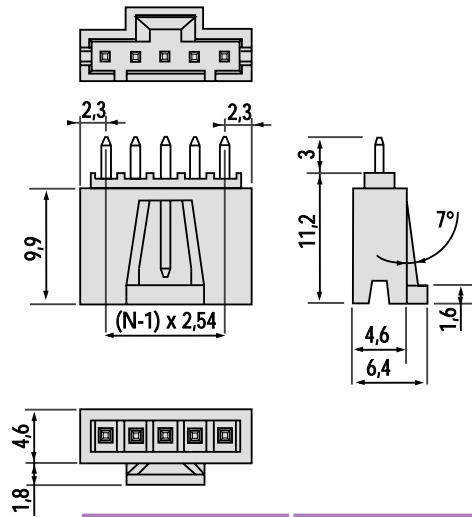
- **Operating temperature**  
HE13/HE14 - 40° C to + 150° C  
- 40° F to + 302° F



# Male Headers

## STRAIGHT HEADER 1L 10 1Z1XX-1

- It allows the locking of OLxx and OMxx housings

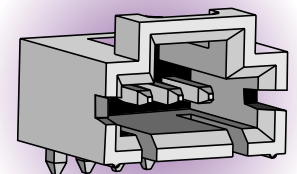
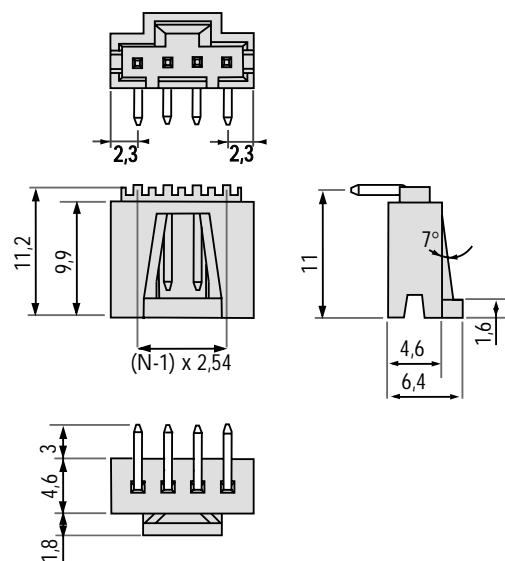


Dimensions in mm

REF.	PLATING	NUMBER OF CONTACTS XX
1L-10-111-XX-1	tin plated	$02 \leq XX \leq 25$
1L-10-141-XX-1	gold plated	$02 \leq XX \leq 25$
1L-10-131-XX-1	Selective gold plated (on request)	$02 \leq XX \leq 25$

## RIGHT ANGLE HEADER 1L 10 2Z1XX-1

- It allows the locking of OLxx and OMxx housings



Dimensions in mm

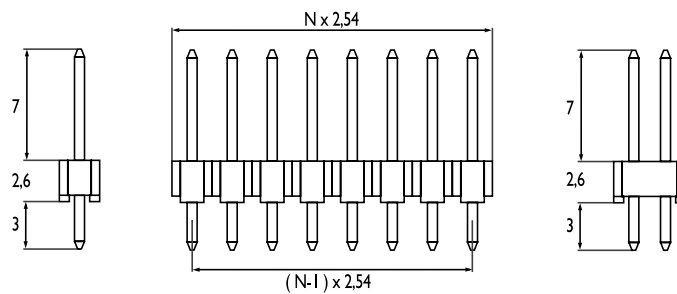
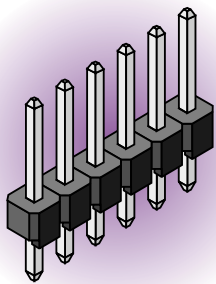
REF.	PLATING	NUMBER OF CONTACTS XX
1L-10-211-XX-1	tin plated	$02 \leq XX \leq 25$
1L-10-241-XX-1	gold plated	$02 \leq XX \leq 25$
1L-10-231-XX-1	Selective gold plated (on request)	$02 \leq XX \leq 25$

# HE13/HE14 headers

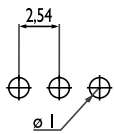
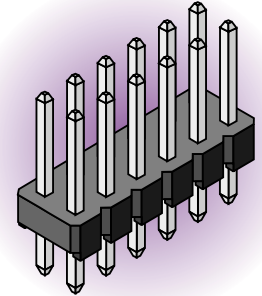
## STANDARD

- 0.635 mm (.025") square pin header
- 40 contacts per row male headers, stackable and without any contact loss
- 2.54 mm (.100") pitch and multiple
- Number of ways on request
- LNZ certification HE13 : 6160  
HE14 : 6145
- GAM T1 certification

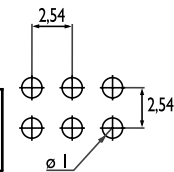
## STRAIGHT SINGLE AND DOUBLE ROW



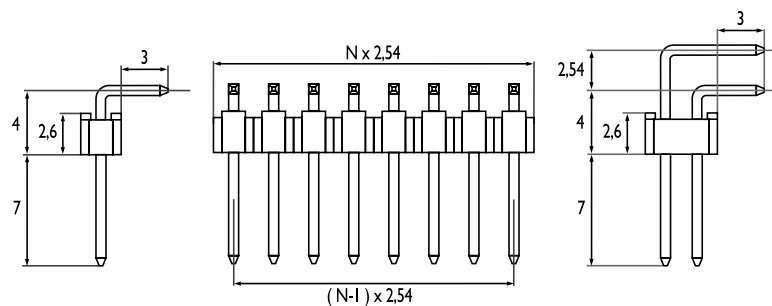
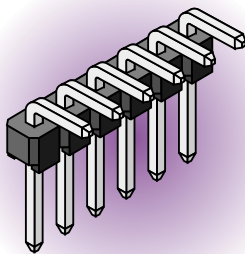
Dimensions in mm



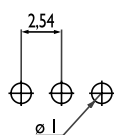
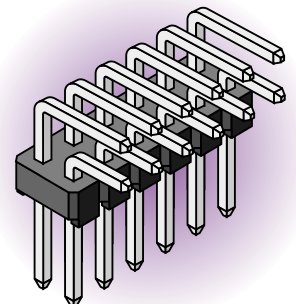
REF.	PLATING	NUMBER OF CONTACTS XX
12-17-111-XX-1	Tin plated	02 ≤ XX ≤ 40
12-17-141-XX-1	Gold plated	02 ≤ XX ≤ 40
16-17-111-XX-1	Tin plated	04 ≤ XX ≤ 80
16-17-141-XX-1	Gold plated	04 ≤ XX ≤ 80



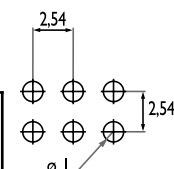
## RIGHT ANGLE SINGLE AND DOUBLE ROW



Dimensions in mm



REF.	PLATING	NUMBER OF CONTACTS XX
12-19-211-XX-1	Tin plated	02 ≤ XX ≤ 40
12-19-241-XX-1	Gold plated	02 ≤ XX ≤ 40
16-52-211-XX-1	Tin plated	04 ≤ XX ≤ 80
16-52-241-XX-1	Gold plated	04 ≤ XX ≤ 80



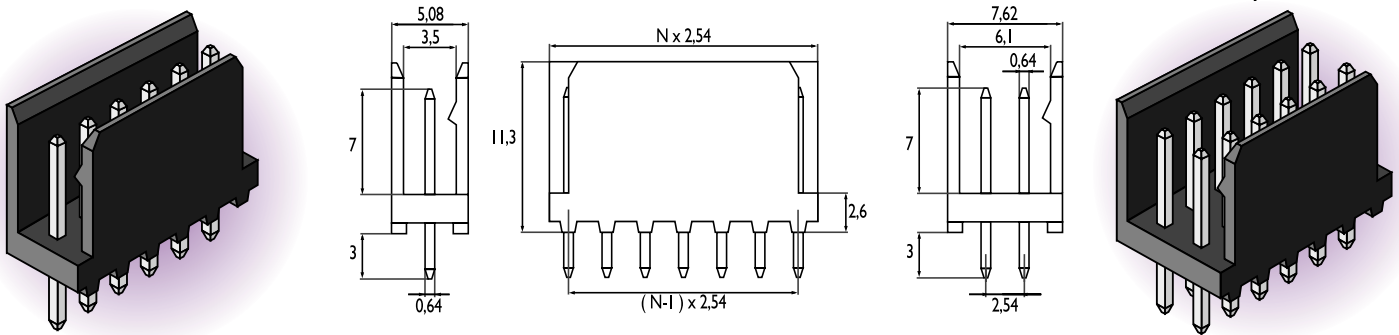


# HE13/HE14 headers

## WALLED HEADERS

■ LNZ certification HE13 : 6160  
HE14 : 6145  
GAM T1 certification

### STRAIGHT SINGLE AND DOUBLE ROW

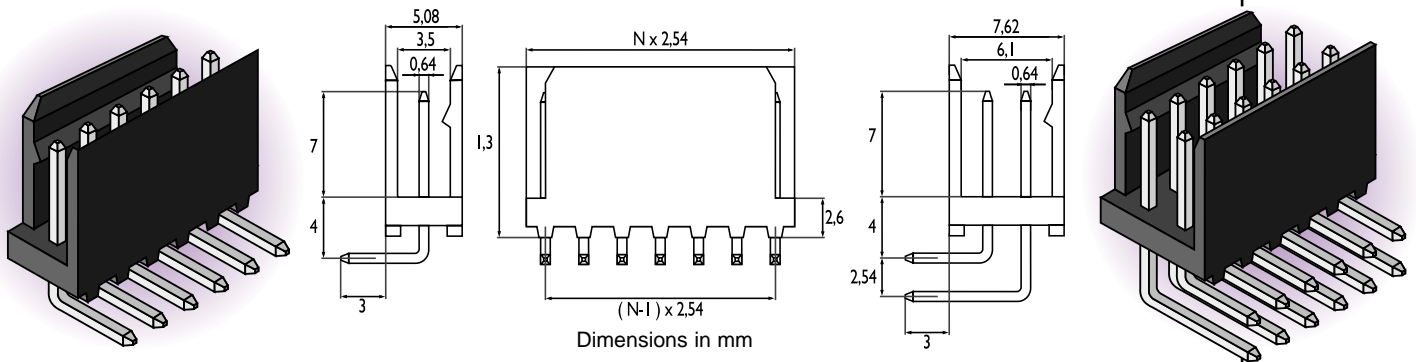


Dimensions in mm

REF.	PLATING	NUMBER OF CONTACTS XX
1Y-10-111-XX-1	Tin plated	$02 \leq XX \leq 20$
1Y-10-141-XX-1	Gold plated	$02 \leq XX \leq 20$
1Y-10-131-XX-1	Selective gold plated*	$02 \leq XX \leq 20$
1Y-20-111-XX-1	Tin plated	$04 \leq XX \leq 40$
1Y-20-141-XX-1	Gold plated	$04 \leq XX \leq 40$
1Y-20-131-XX-1	Selective gold plated*	$04 \leq XX \leq 40$

\* (on request)

### RIGHT ANGLE SINGLE AND DOUBLE ROW



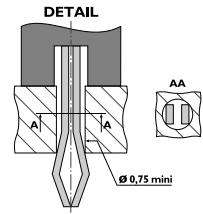
Dimensions in mm

REF.	PLATING	NUMBER OF CONTACTS XX
1Y-10-211-XX-1	Tin plated	$02 \leq XX \leq 20$
1Y-10-241-XX-1	Gold plated	$02 \leq XX \leq 20$
1Y-10-231-XX-1	Selective gold plated*	$02 \leq XX \leq 20$
1Y-20-211-XX-1	Tin plated	$04 \leq XX \leq 40$
1Y-20-241-XX-1	Gold plated	$04 \leq XX \leq 40$
1Y-20-231-XX-1	Selective gold plated*	$04 \leq XX \leq 40$

\* (on request)

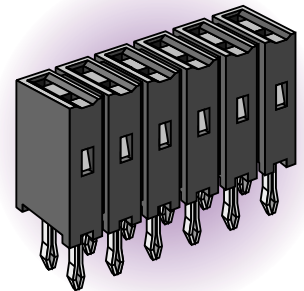
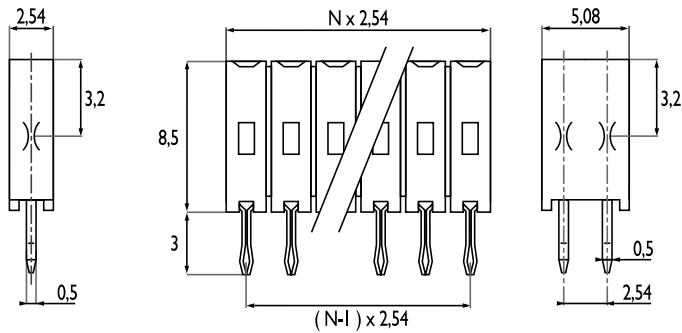
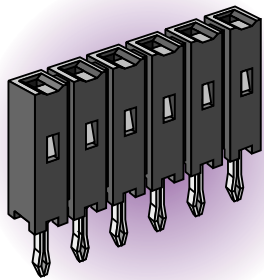
# HE13/HE14 sockets

- Strong tails : the contact is firmly retained in the PCB holes thus allowing the solder to ascend.
- LNZ certification HE13 : 6160  
HE14 : 6145
- GAM T1 certification



## STANDARD AND LOW PROFILE

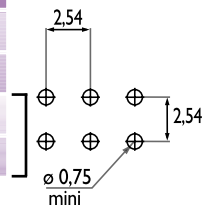
### SINGLE AND DOUBLE ROW



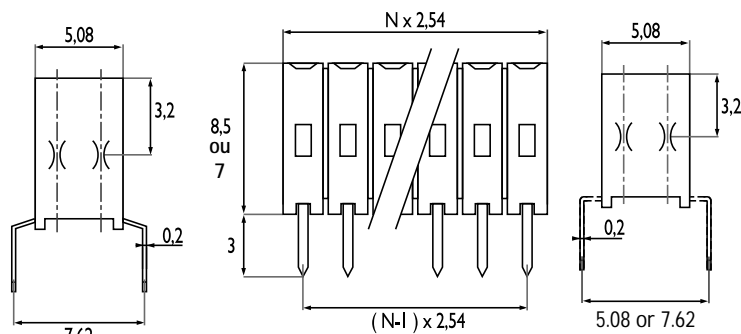
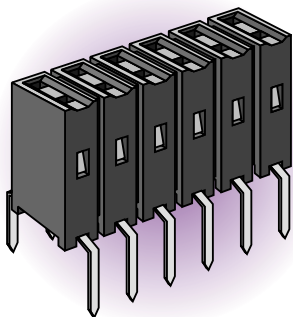
Dimensions in mm



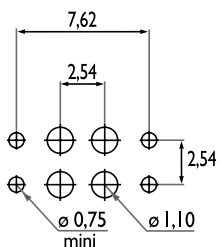
REF.	PLATING	NUMBER OF CONTACTS XX
8Y-10-111-XX-1	Tin plated	02 ≤ XX ≤ 40
8Y-10-131-XX-1	Selective gold plated	02 ≤ XX ≤ 40
8Y-20-111-XX-1	Tin plated	04 ≤ XX ≤ 80
8Y-20-131-XX-1	Selective gold plated	04 ≤ XX ≤ 80



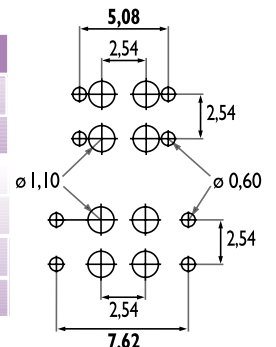
### DOUBLE ROW DUAL ENTRY



Dimensions in mm

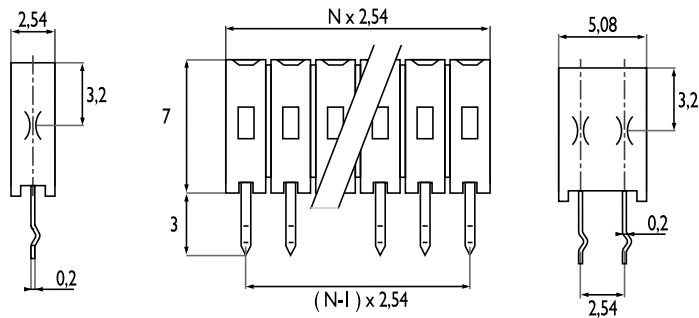
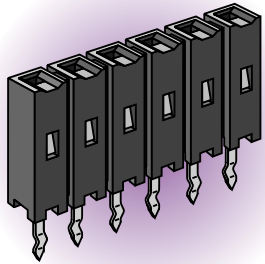


REF.	PLATING	NUMBER OF CONTACTS XX	PITCH
3Y-20-311-XX-1	Tin plated	04 ≤ XX ≤ 80	7.62
3Y-20-331-XX-1	Selective gold plated	04 ≤ XX ≤ 80	7.62
7Y-20-211-XX-1	Tin plated	04 ≤ XX ≤ 80	5.08
7Y-20-231-XX-1	Selective gold plated	04 ≤ XX ≤ 80	5.08
7Y-20-311-XX-1	Tin plated	04 ≤ XX ≤ 80	7.62
7Y-20-331-XX-1	Selective gold plated	04 ≤ XX ≤ 80	7.62

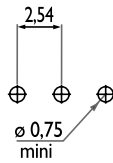
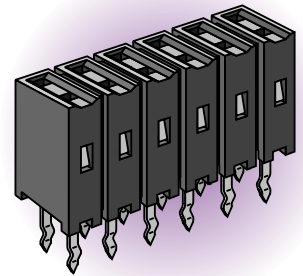


# HE13/HE14 sockets and related

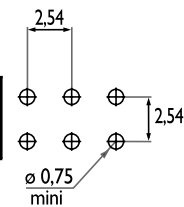
## STANDARD AND LOW PROFILE SINGLE AND DOUBLE ROW



Dimensions in mm



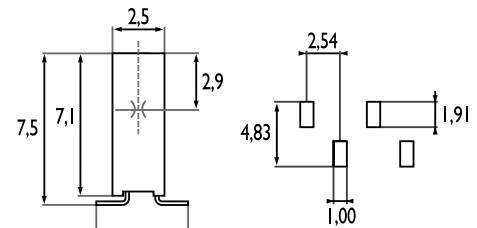
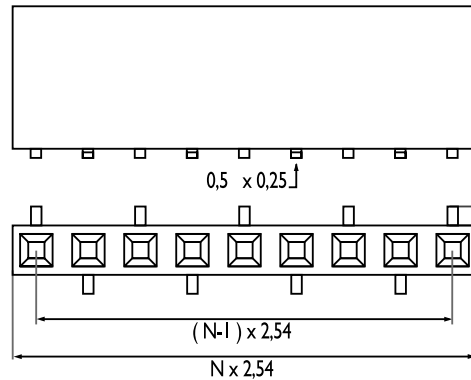
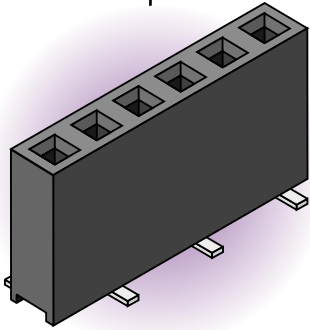
REF.	PLATING	NUMBER OF CONTACTS XX
7Y-10-111-XX-1	Tin plated	$02 \leq XX \leq 40$
7Y-10-131-XX-1	Selective gold plated	$02 \leq XX \leq 40$
7Y-20-111-XX-1	Tin plated	$04 \leq XX \leq 80$
7Y-20-131-XX-1	Selective gold plated	$04 \leq XX \leq 80$



# SMD female connectors Pitch of 2.54 mm

## STRAIGHT SOCKETS

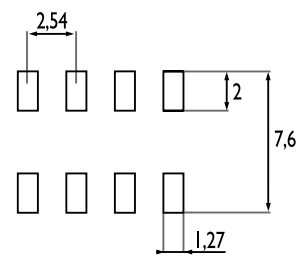
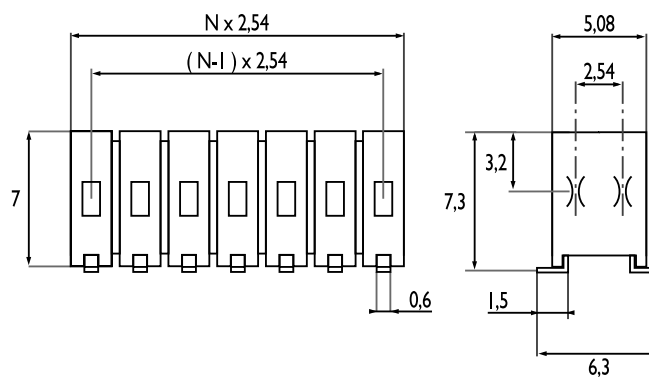
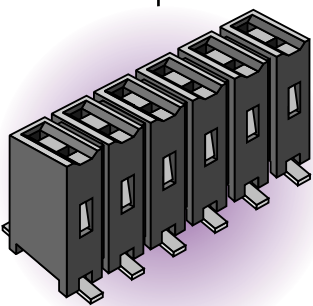
### SINGLE ROW



Dimensions in mm

REF.	PLATING	NUMBER OF CONTACTS XX
7S-10-011-XX-9	Tin plated	$03 \leq XX \leq 40$
7S-10-031-XX-9	Selective gold plated	$03 \leq XX \leq 40$

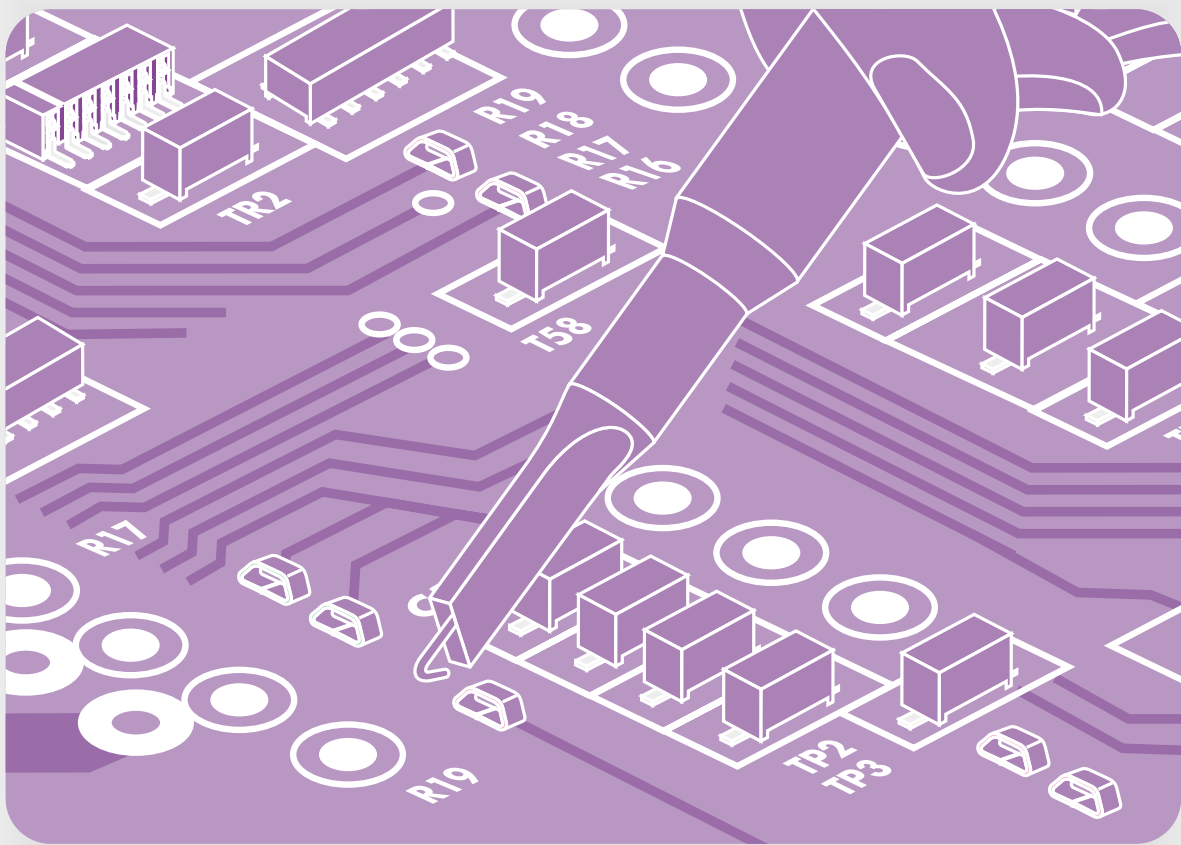
### DOUBLE ROW



Dimensions in mm

REF.	PLATING	NUMBER OF CONTACTS XX
7S-20-011-XX-9	Tin plated	$04 \leq XX \leq 80$
7S-20-031-XX-9	Selective gold plated	$04 \leq XX \leq 80$

# SMD test terminals

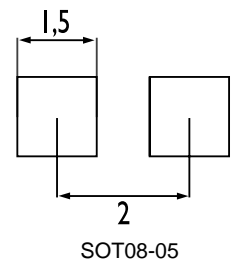
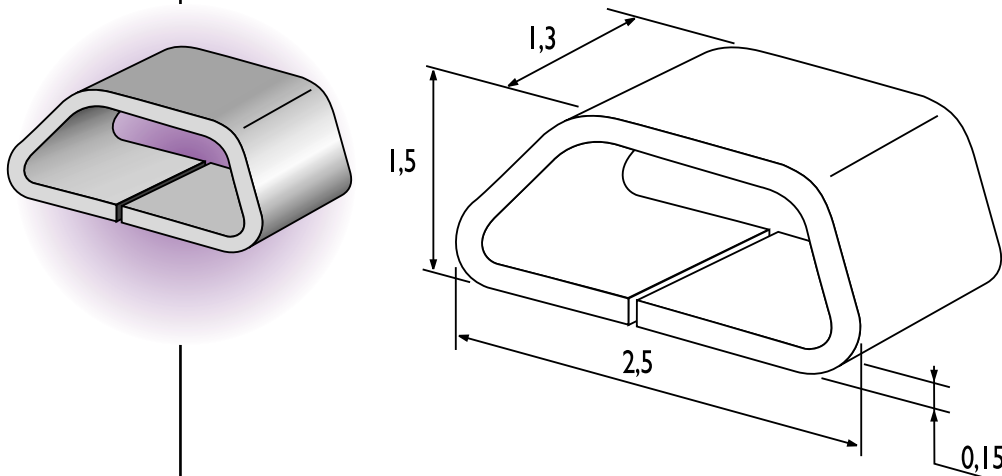


# SMD test terminals

## Ref. C12000-10-90

### GENERAL FEATURES

The PCB industry has moved irresistibly towards surface mounted components technology. The components are mounted on the circuit board without piercing it. NICOMATIC SMD test terminals are supplied on reeled tapes specifically designed for distribution by an auto-placing machine like any other SMD components.



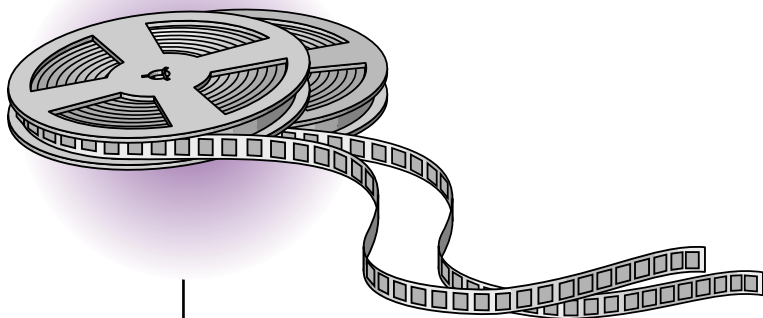
Dimensions in mm

### FUNCTION

SMD test terminals are used to test zones on printed circuit boards, separately or by comparison with another. They are designed to attach a large range of probes, test probes, oscilloscope probes at key points.

### TECHNICAL DATA

- Material : copper alloy.
- Plating : tin plating over nickel and copper.

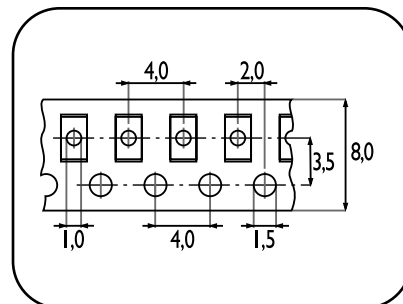
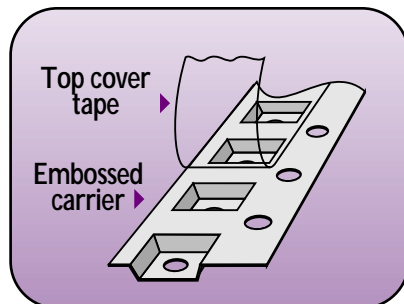
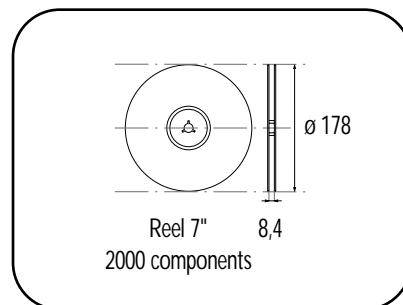
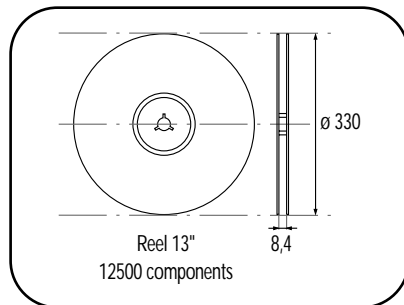


# SMD test terminals

## Ref. C12000-10-90

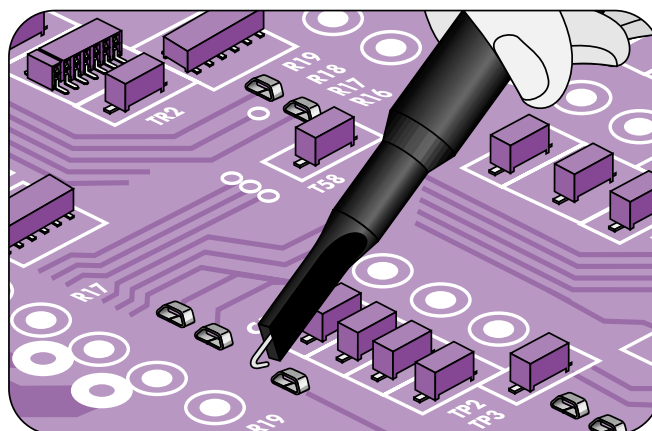
### PACKAGING

#### REEL OF 2000 AND 12500 COMPONENTS



### ADVANTAGES

- ▶ **Substantial time saving on mounting.** With NICOMATIC SMD test terminals, the following operations usually required for traditional mounting are eliminated :
  - PCB piercing,
  - hole plating,
  - manual insertion and soldering of traditional test pins.
- ▶ **No specific test probe is needed.** Tests are made with standard test probes.
- ▶ **Can be used as zero resistance.**
- ▶ **No special compartment is needed on auto-placing machine.**



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# Specialized in electronic connectors

## Years of expertise in the connector industry at your disposal

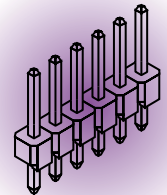
From its origin in 1974 as a micro screw machining manufacturer, NICOMATIC has taken advantage of its precision know how to specialize in connectors for the electronic industry.

Located in the center of Europe next to Geneva, we offer you an extensive and innovative range of passive components and assembly equipment.

Our production capabilities include everything from low volume high technology products to mass production of precision components for the consumer markets.

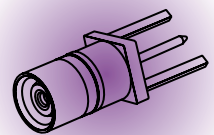
## CONNECTORS FOR PRINTED CIRCUIT BOARDS

HE13/HE14 connectors and related  
HE10 connectors  
Jumpers  
SMD test terminals  
Terminal pins, test terminals and eyelets  
Z.I.F connectors



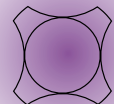
## HIGH FREQUENCY MICRO-CONNECTORS

CMM 100/200/220/300  
2 mm pitch connectors  
Special contacts, high power, connected shieldings  
COAXMATIC 30® et 22®  
1 mm metric pitch range  
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