



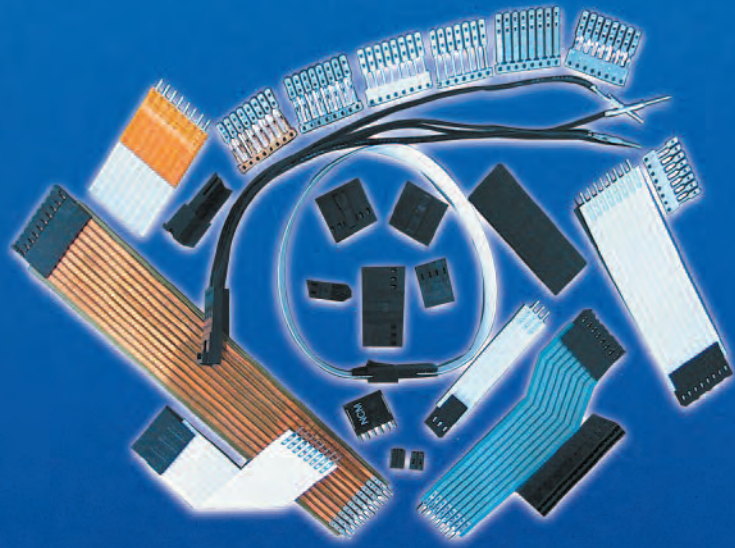
Australian Representatives

ROJONE, PTY LTD.

Tel: 02 9829 1555

E: sales@rojone.com.au

www.rojone.com.au



# HiCONATIC

C R I M P F L E X<sup>®</sup>  
C O N N E C T O R S





# CRIMPFLEX® connectors

## CRIMPFLEX® CONNECTORS

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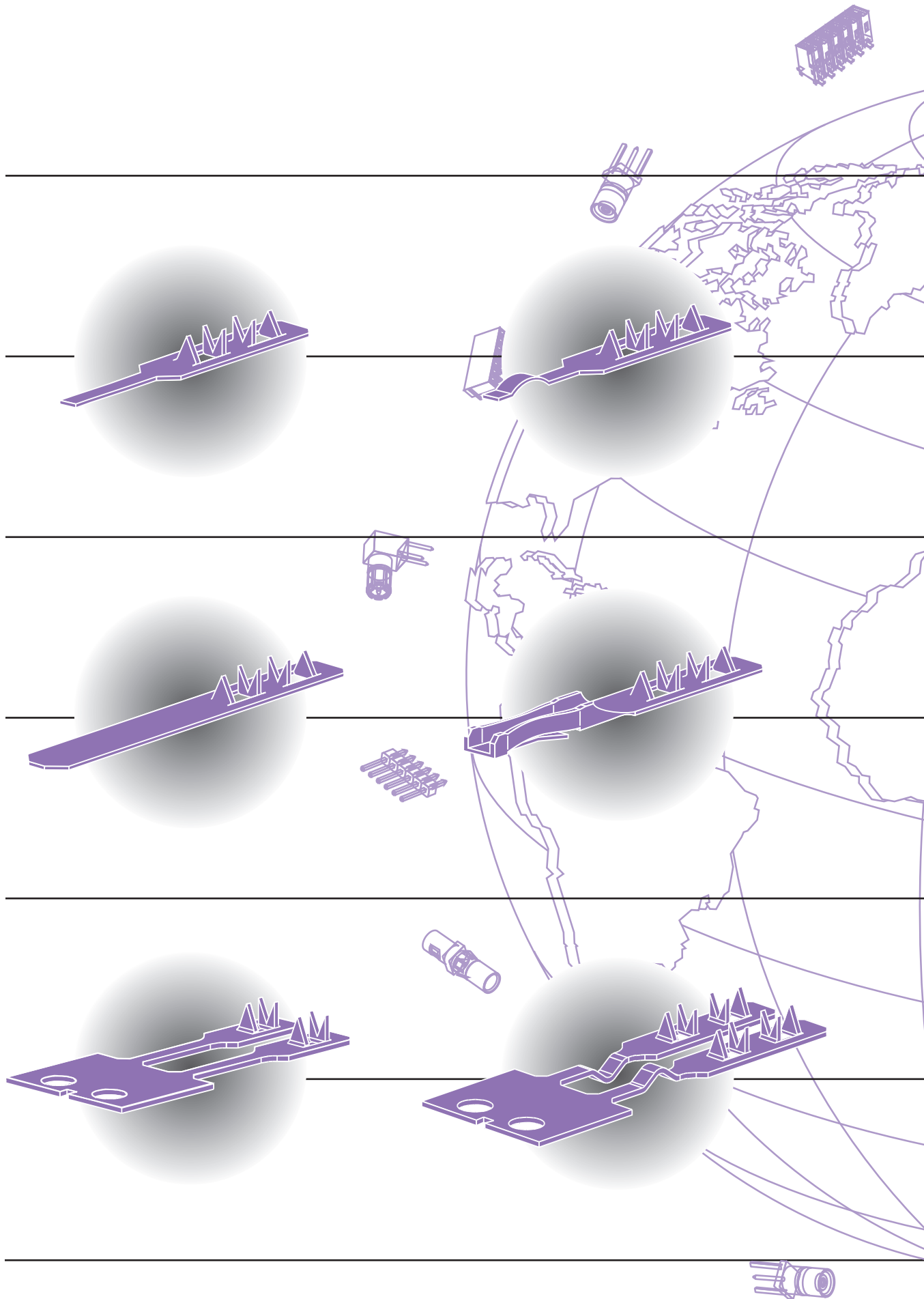
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## OTHER NICOMATIC PRODUCTS

**NEW 2009**  
**1.27mm PITCH**

Please, contact us !  
[www.nicomatic.com](http://www.nicomatic.com)



# CRIMPFLEX® connectors



## TECHNICAL DATA

### MATERIAL

- Phosphor bronze

### MALE SOLDER TAB PLATING

- The standard connector is tin plated (thickness : Ni  $2\mu$  + Sn  $5\mu$ )

### MALE PINS AND FEMALE CONTACTS PLATING

- The standard connector is tin plated (thickness : Ni  $2\mu$  + Sn  $5\mu$ )
- Selective gold plating in mating area (thickness : Ni  $2\mu$  + Au  $0.15\mu$ )
- Other thickness plating available

### CERTIFICATIONS

- UL : E 125469  
(Component - Connectors For Use In Data, Signal, Control And Power Applications)

## 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)

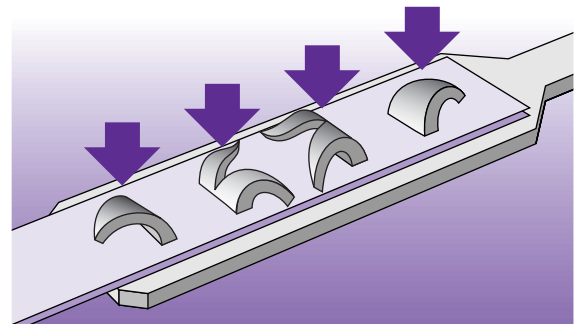
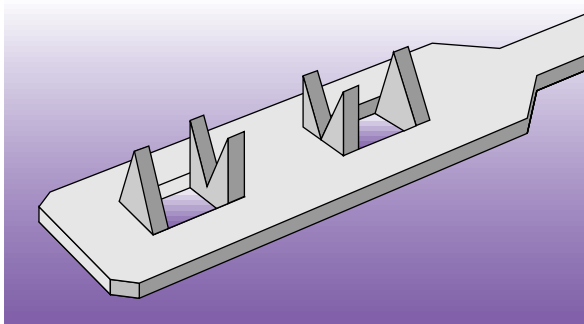
## ELECTRICAL SPECIFICATIONS

- |  |                                    |
|--|------------------------------------|
| ■ Contact resistance                           | 5 m $\Omega$ max.                  |
| ■ Contact resistance after environmental tests | 6 m $\Omega$ max.                  |
| ■ Insulation resistance                        | $5 \cdot 10^5$ M $\Omega$ at 500 V |
| ■ Withstanding voltage                         | 1 100 V RMS                        |
| ■ Capacitance between two contacts             | 4 pF max.                          |
| ■ DC current rating per contact                | 3 A Continuous                     |
| ■ AC current rating per contact                | 5 A Continuous                     |

## THERMAL SPECIFICATIONS

- Connectors operating temperature  
-55°C to +150°C

# 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 conductors, silver or carbon ink printed conductors, EL lamps.
- All types of flexible circuits whose thickness ranges from 75  $\mu$  to 350  $\mu$  (0.003 " to 0.014"). For other dimensions, contact NICOMATIC.
- Can pierce all kinds of supports : polyester, FR4, polyimide, PTFE, etc.

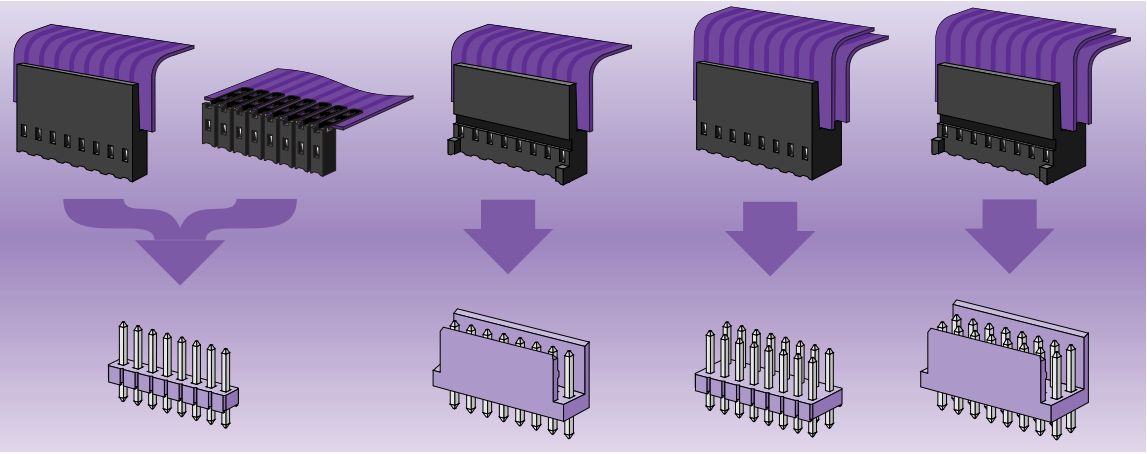
## ADVANTAGES

- Use of contacts in reel at final pitch of 2.54 mm (0.100") and 1.27mm (0.050")
- 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.

NEW 2009

# Female contacts

## TYPICAL CONTACT APPLICATION



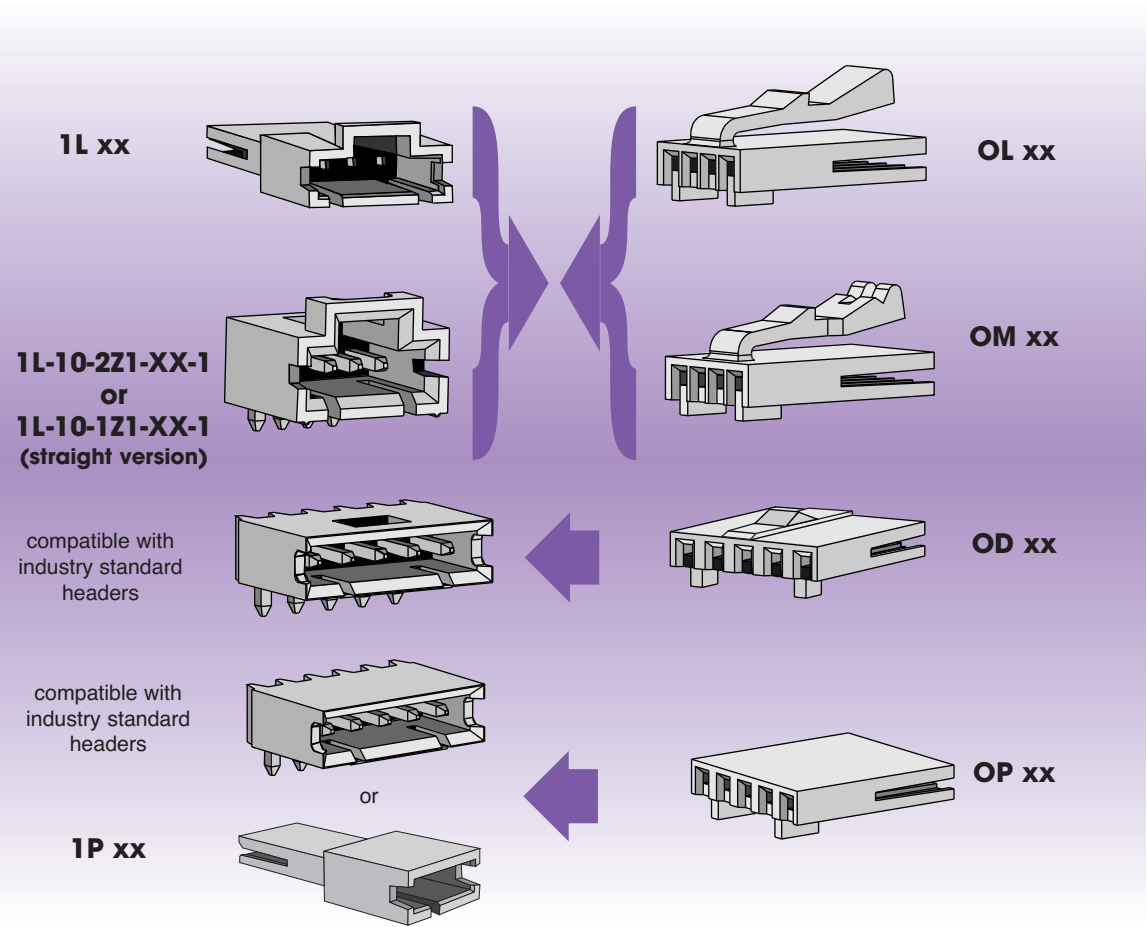
Straight single row standard header  
(refer to page 34)

Straight single row walled header  
(refer to page 35)

Straight double row standard header  
(refer to page 34)

Straight double row walled header  
(refer to page 35)

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

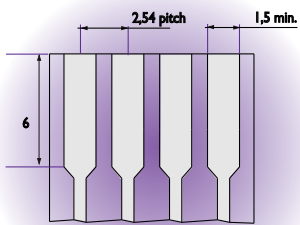
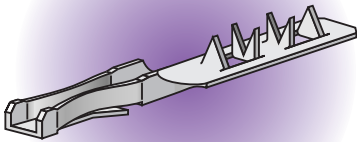


# Female contacts

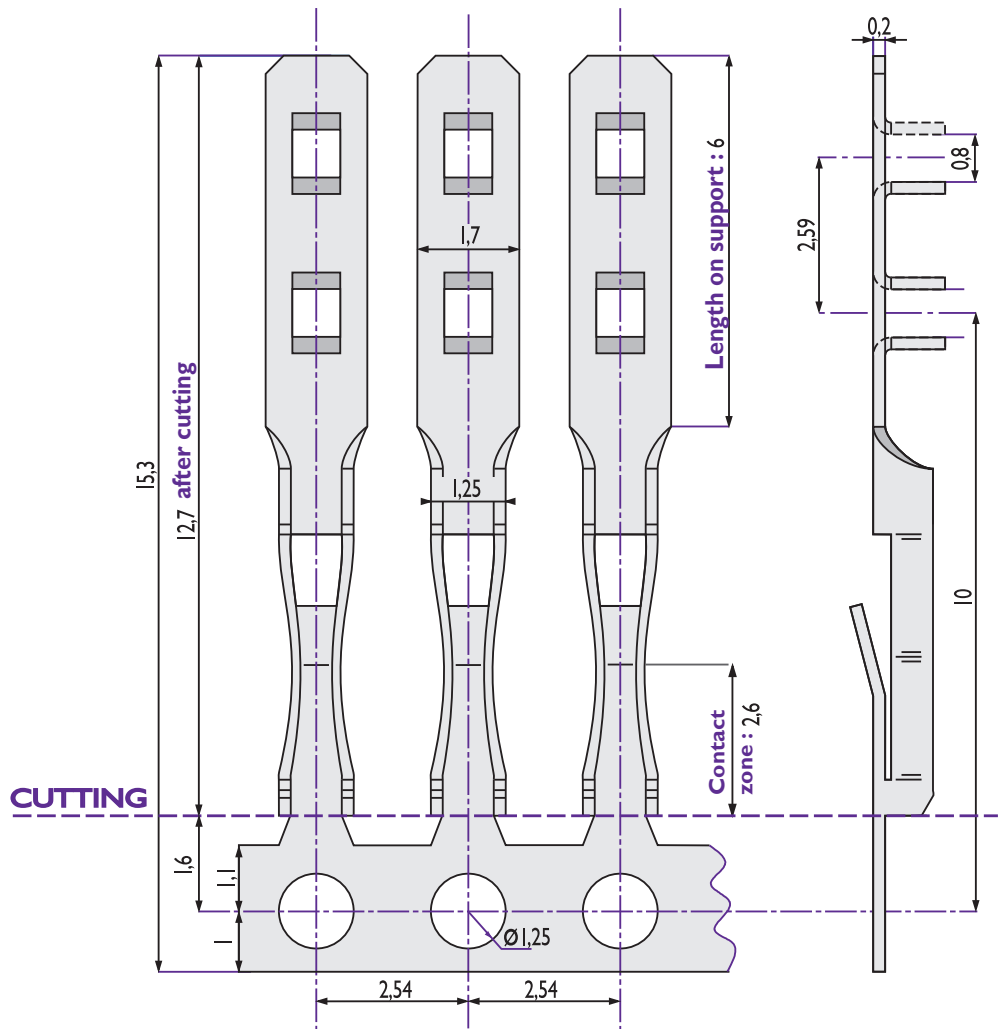
## LOW INSERTION FORCE REF. 11506

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

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



Contact lay out



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

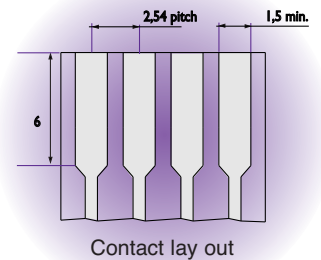
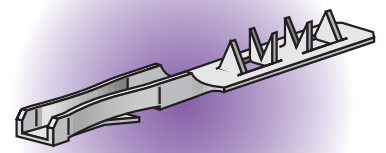
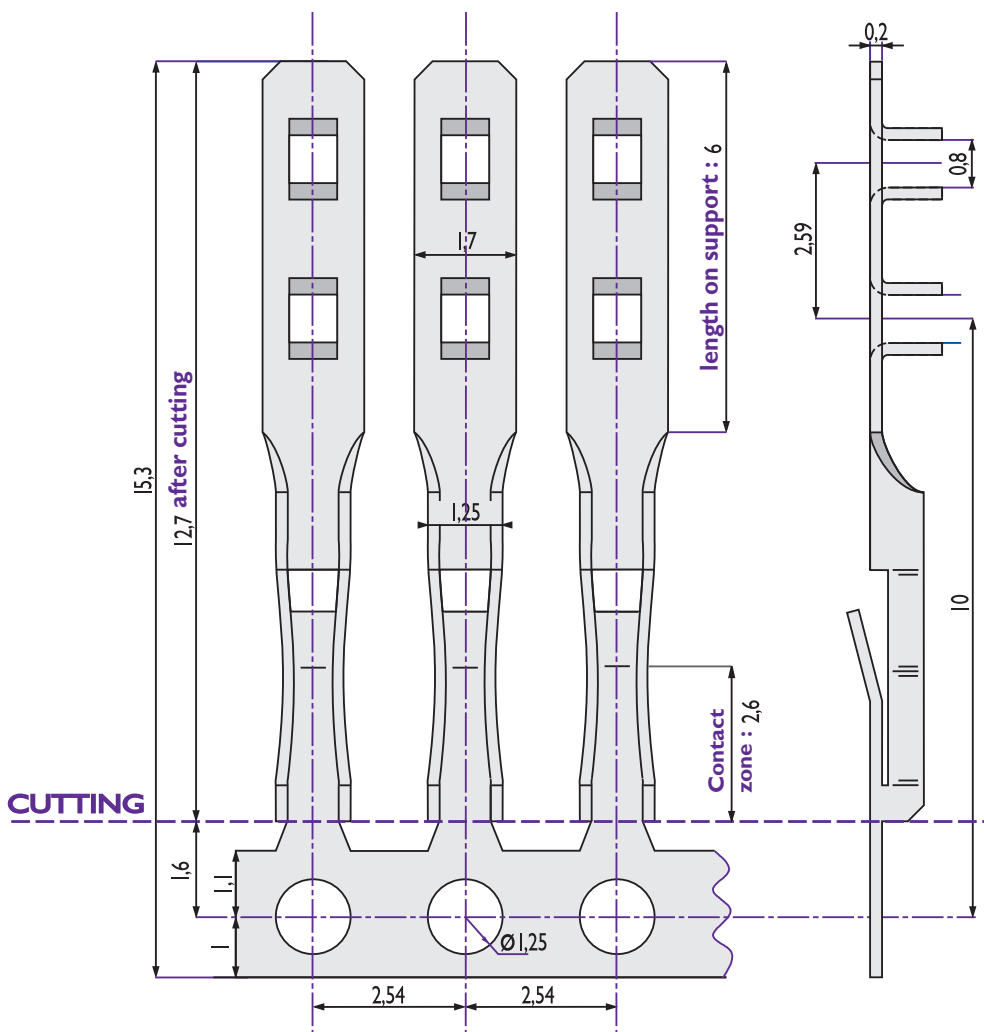
Dimensions in mm



# Female contacts

## HIGH INSERTION FORCE REF. 10025

- Increased retention for high vibration applications.
- Recommended for a small amount of contacts (2 to 10 contacts).



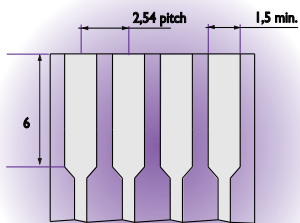
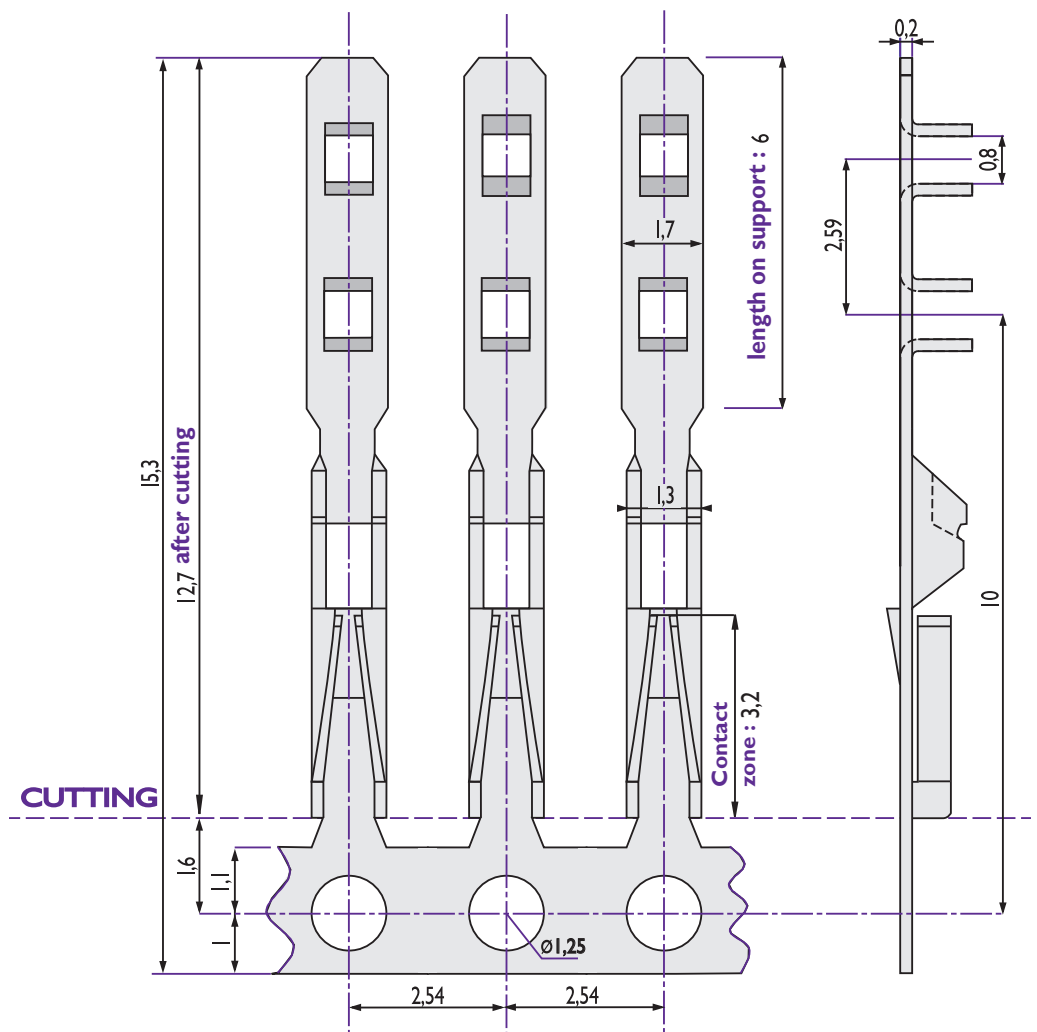
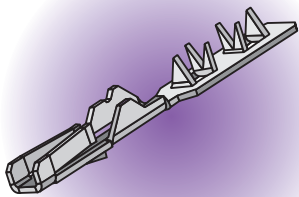
Dimensions in mm

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

# Female contacts

## HI-FLEX REF. 14106

- The Hi-Flex female contact is designed to offer a stable insertion force and low contact resistance over a larger number of mating cycles.
- More resistant to damage by bent or angled pins, primarily on test devices.



Contact lay out

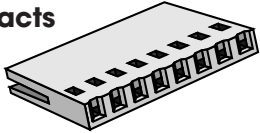
REF.	PLATING	REEL
14106-12	Tin plated	35 000 contacts
14106-32	Selective gold plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

Dimensions in mm

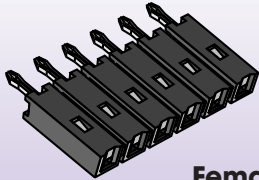
# Male pins

## TYPICAL MALE PINS APPLICATION

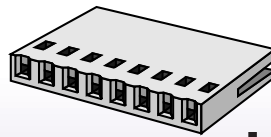
OF xx + Female contacts



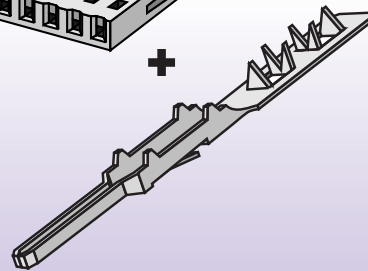
+



Female Header

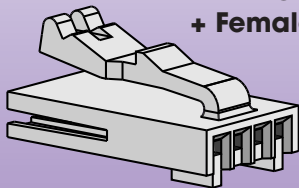


+

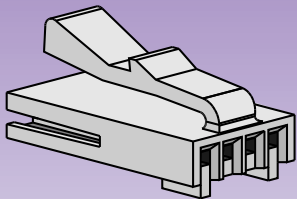


OF xx + 12410

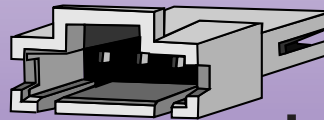
OM xx + Female contacts



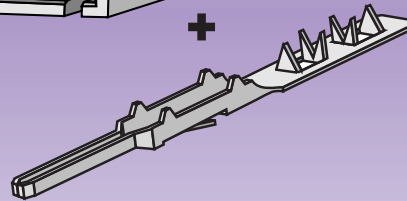
OR



OL xx + Female contacts

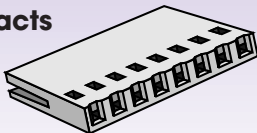


+

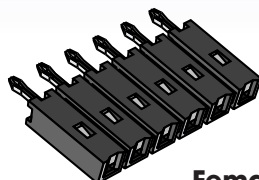


1L xx + 12410 or 13756

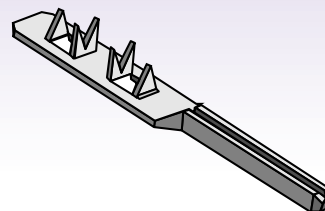
OF xx + Female contacts



+



Female Header

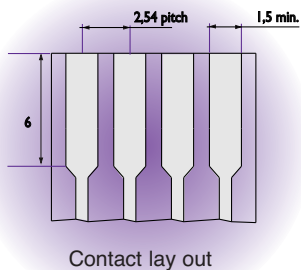
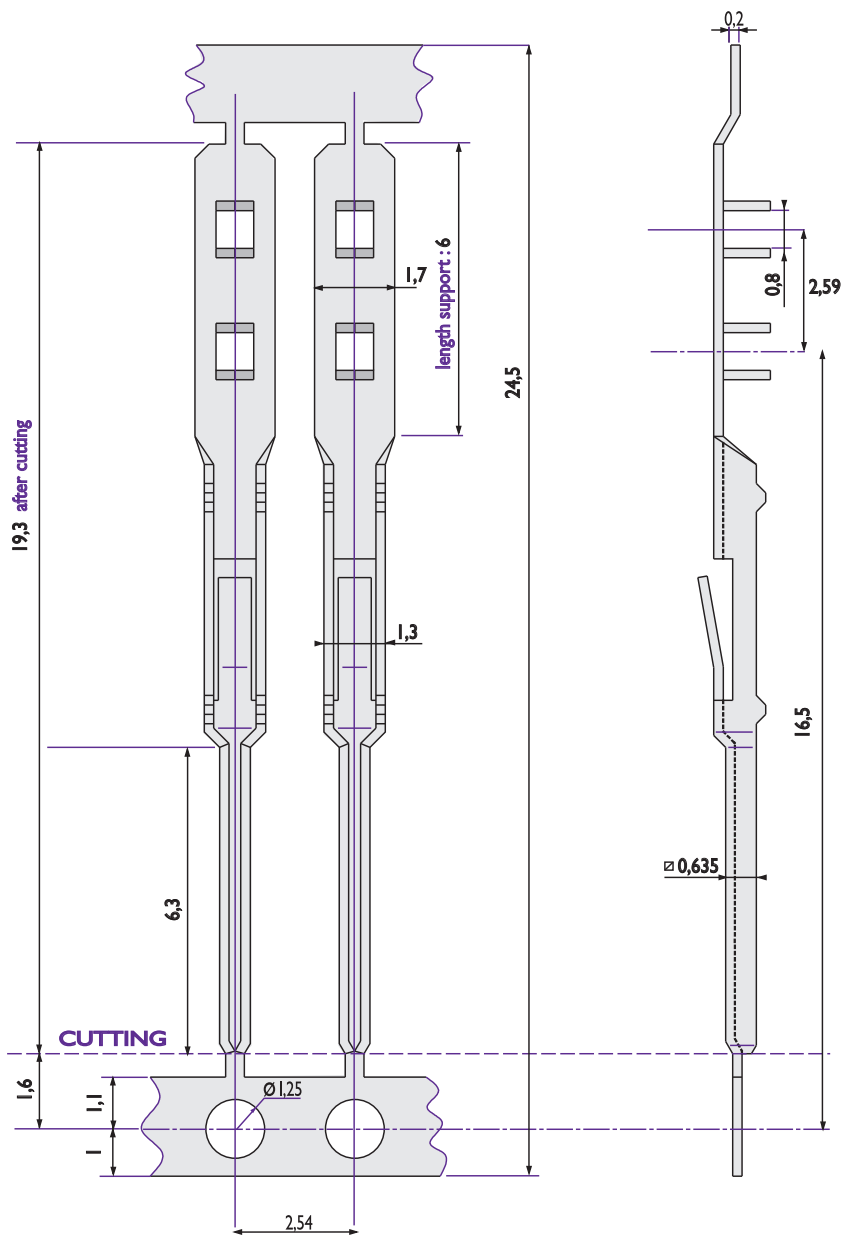
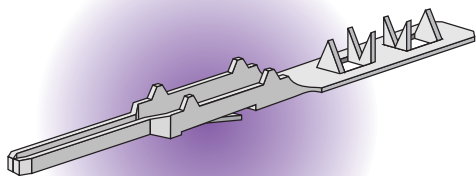


13595

# Male pins

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

- The square male contact will mate with female connectors designed to accept a 0.635 mm (.025") pin header.



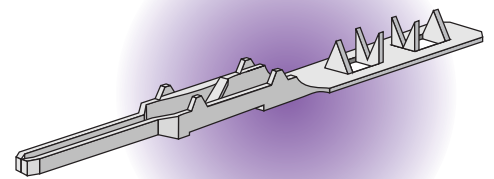
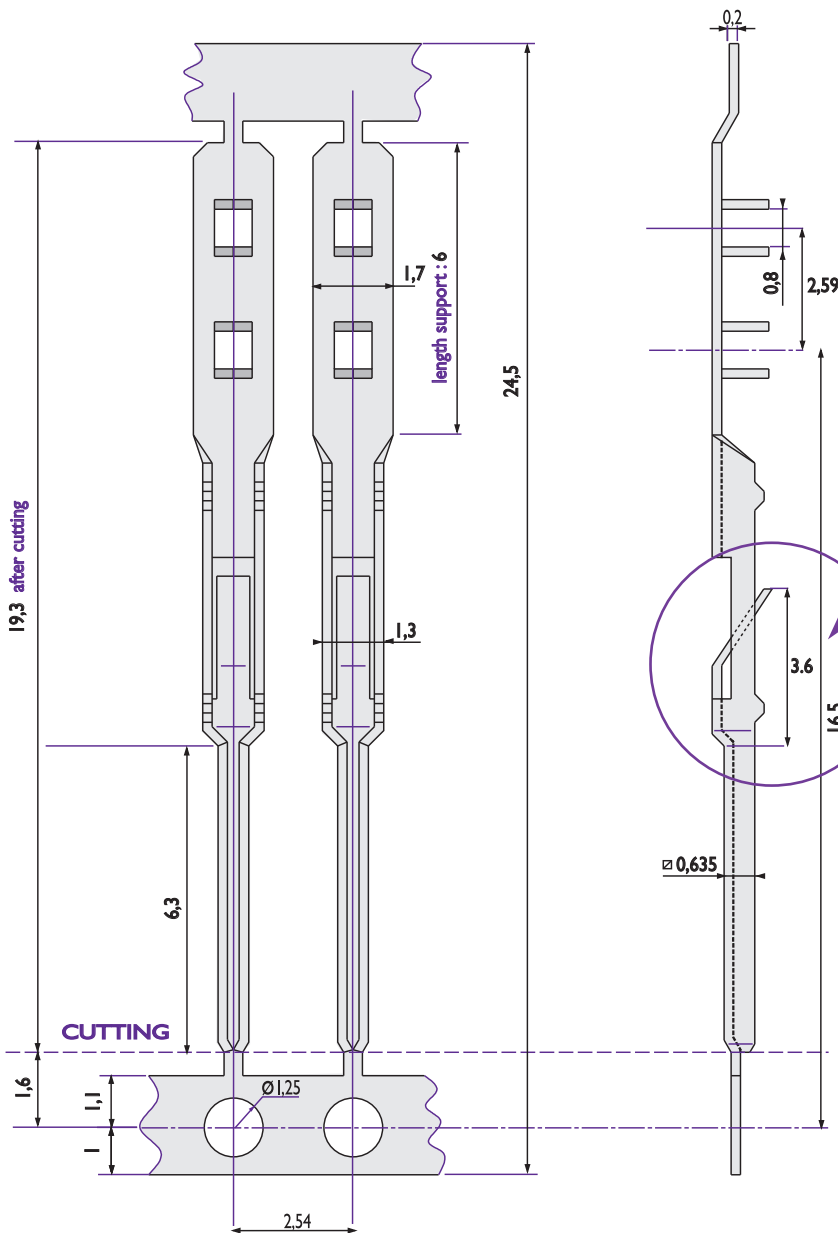
REF.	PLATING	REEL
12410-12	Tin plated	35 000 contacts
12410-32	Selective gold plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

Dimensions in mm

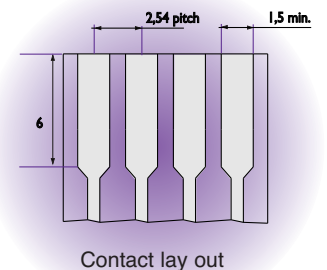
# Male pins

## 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.
- This contact is available by special order only.



Male pin difference with REF. 12410 (see page 13) is the reverse clip



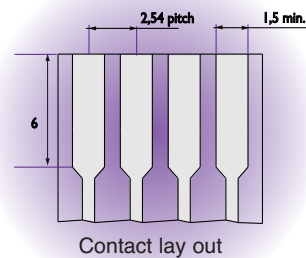
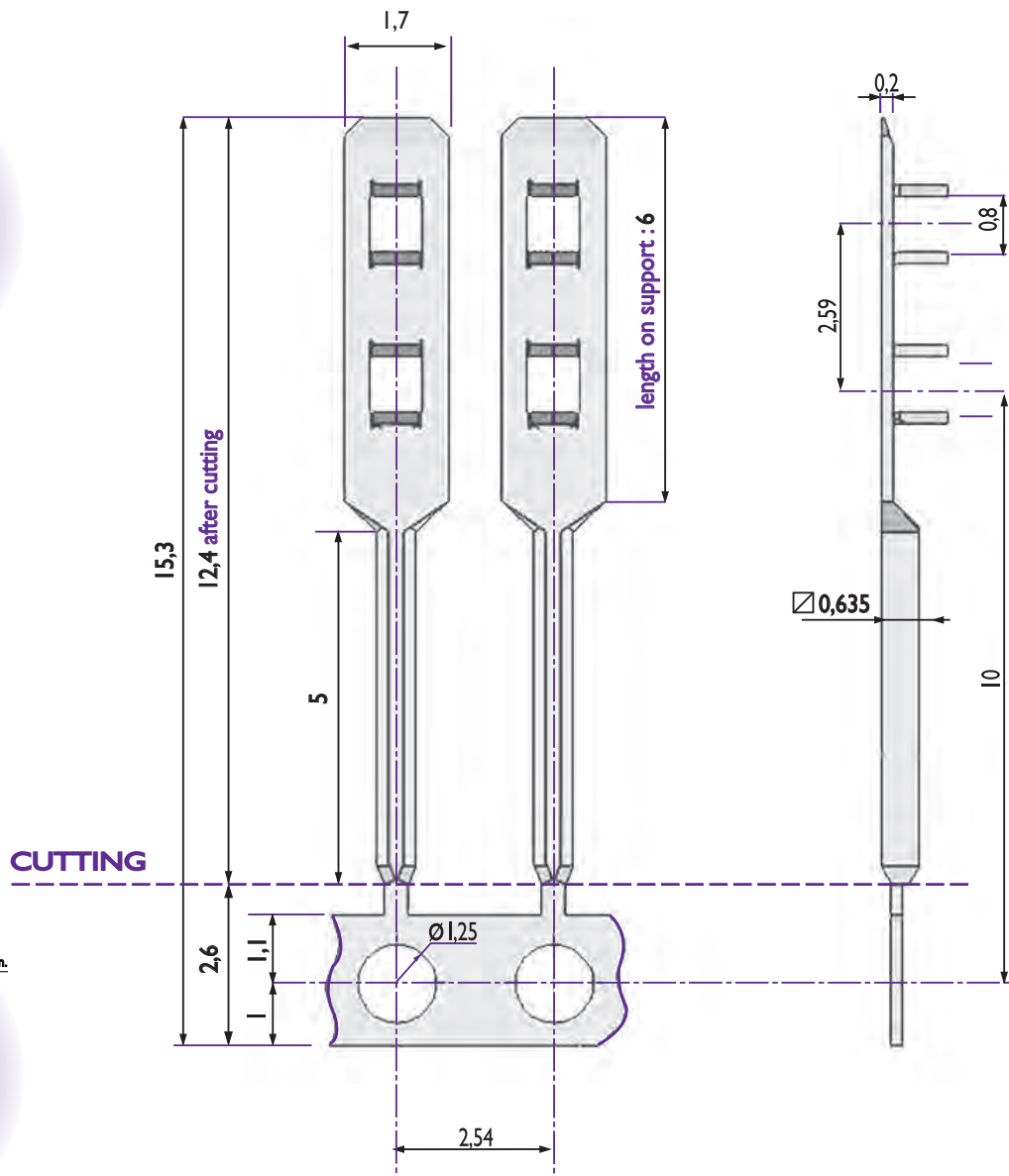
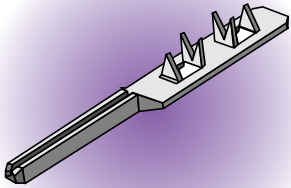
Dimensions in mm

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

# Male pins

## SHORT SQUARE MALE PIN REF. 13595

- This square male pin allows for the cost effective mating to a female connector or header for use with 0.025" square pins without the use of a housing.

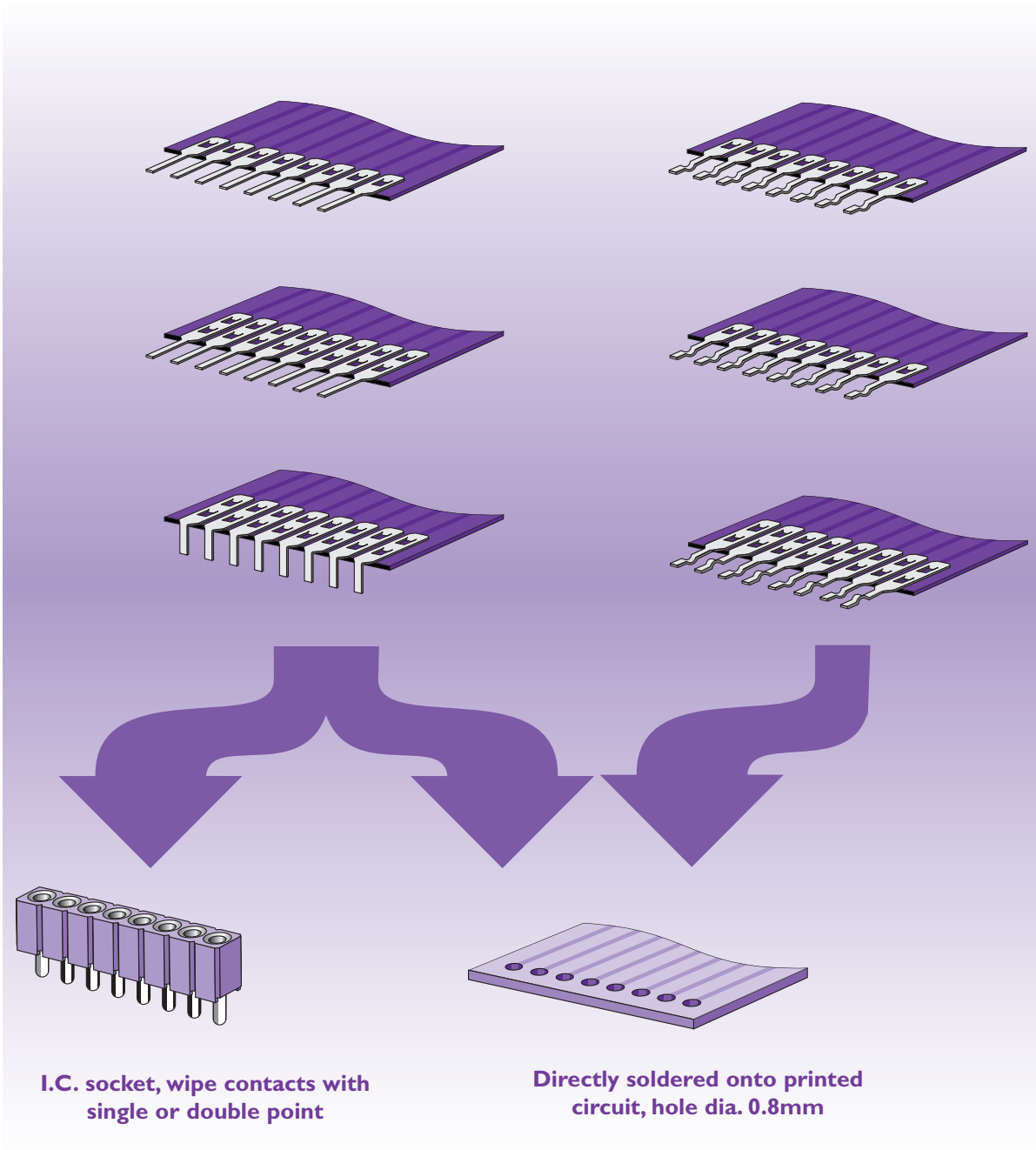


REF.	PLATING	REEL
13595-12	Tin plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

Dimensions in mm

# Male solder tabs

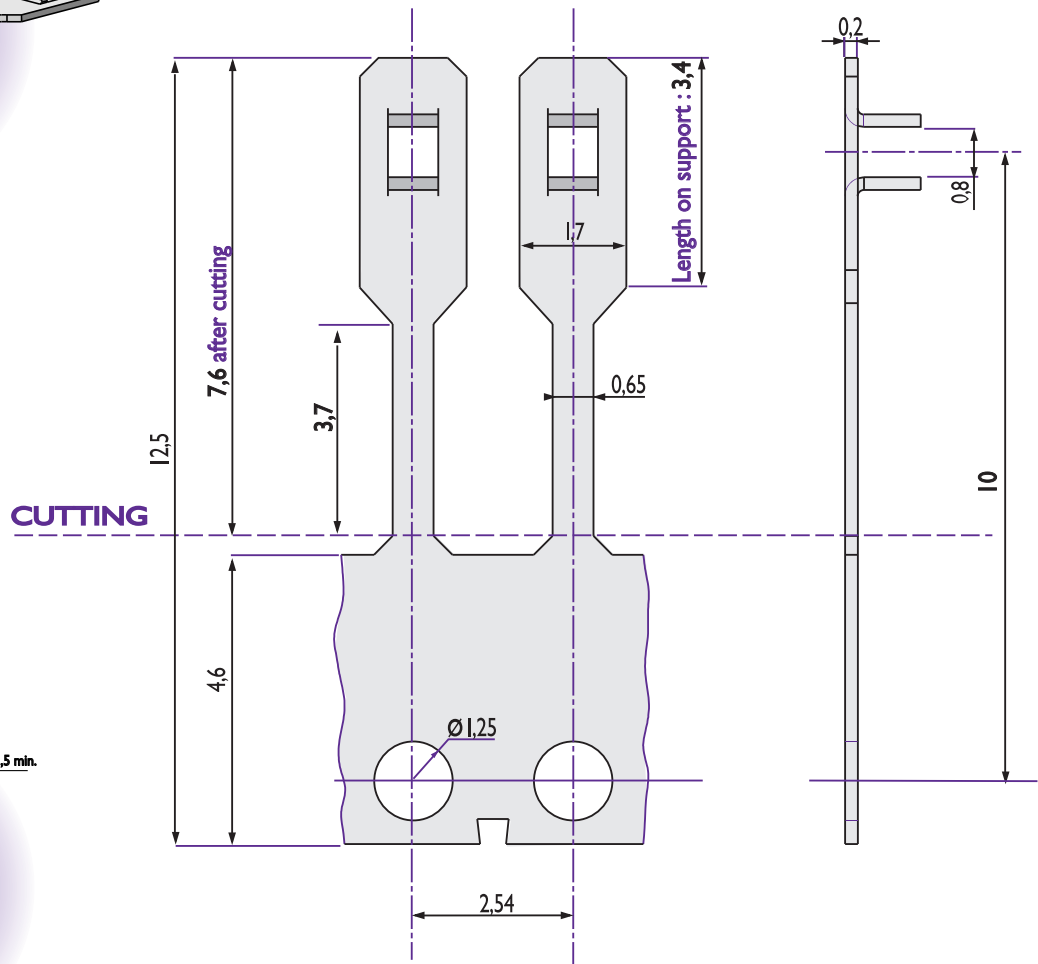
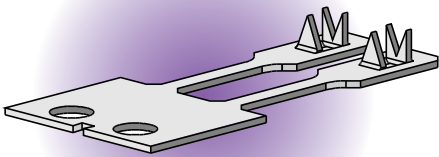
## SOLDER TABS ENVIRONMENT



# Male solder tabs

## STANDARD SHORT MALE SOLDER TAB REF. 10141

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



Contact lay out

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

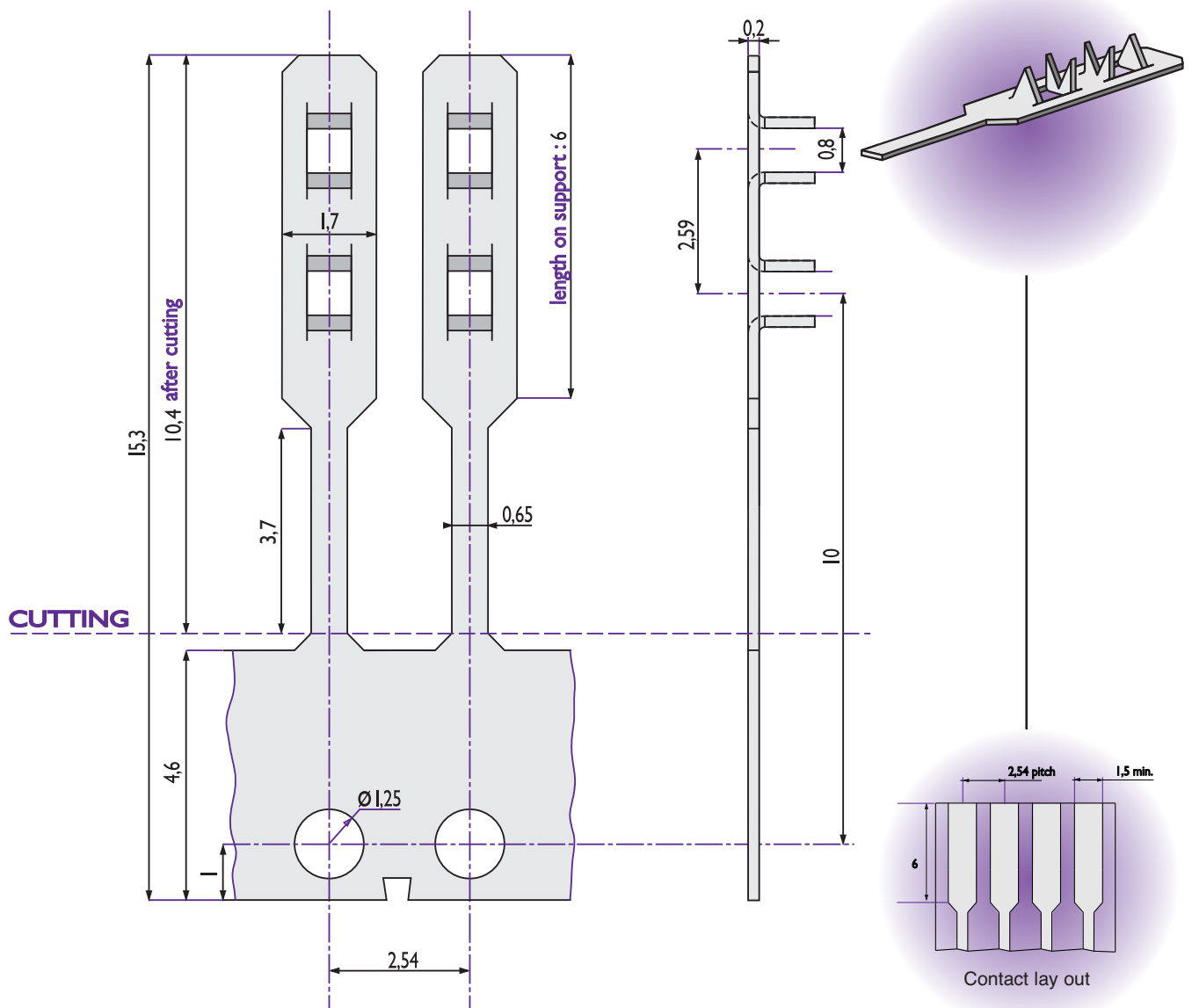
Dimensions in mm



# Male solder tabs

## STANDARD MALE SOLDER TAB REF. 10241

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



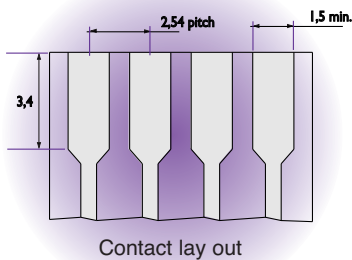
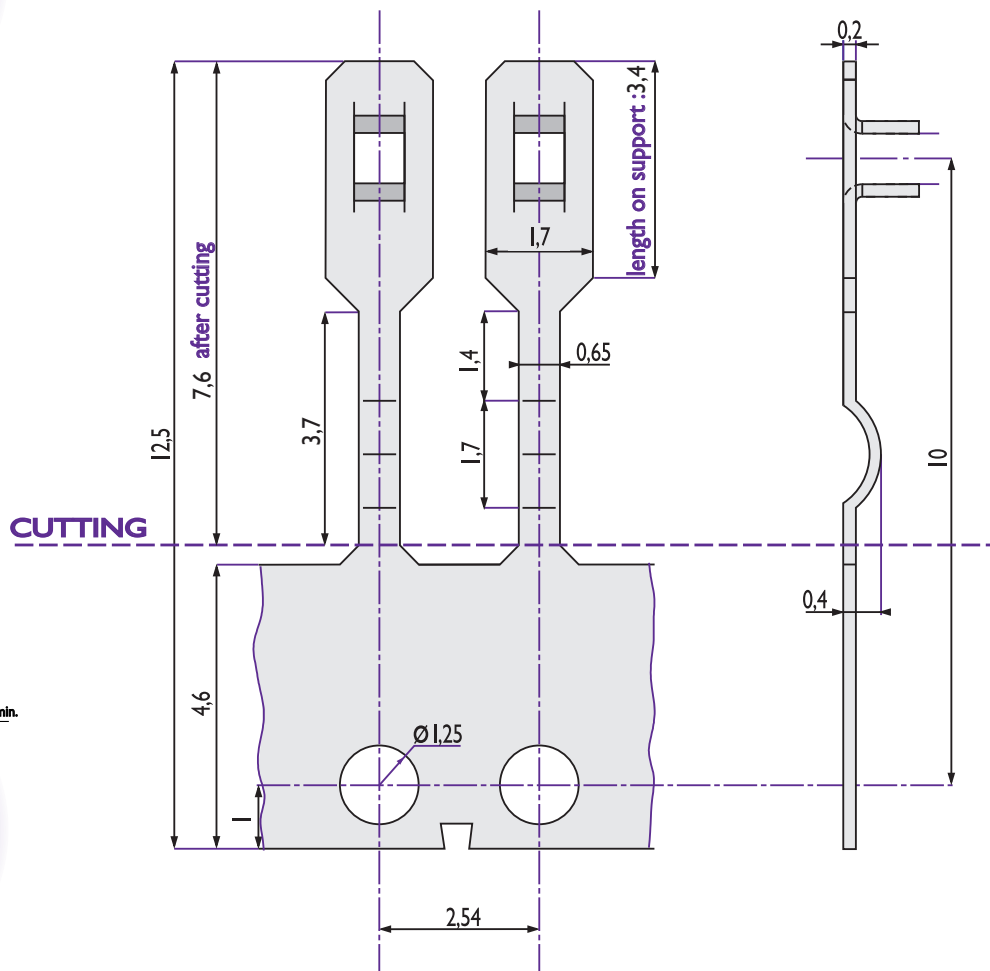
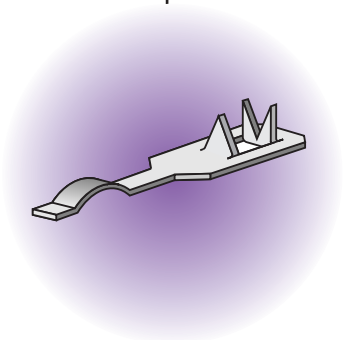
Dimensions in mm

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.



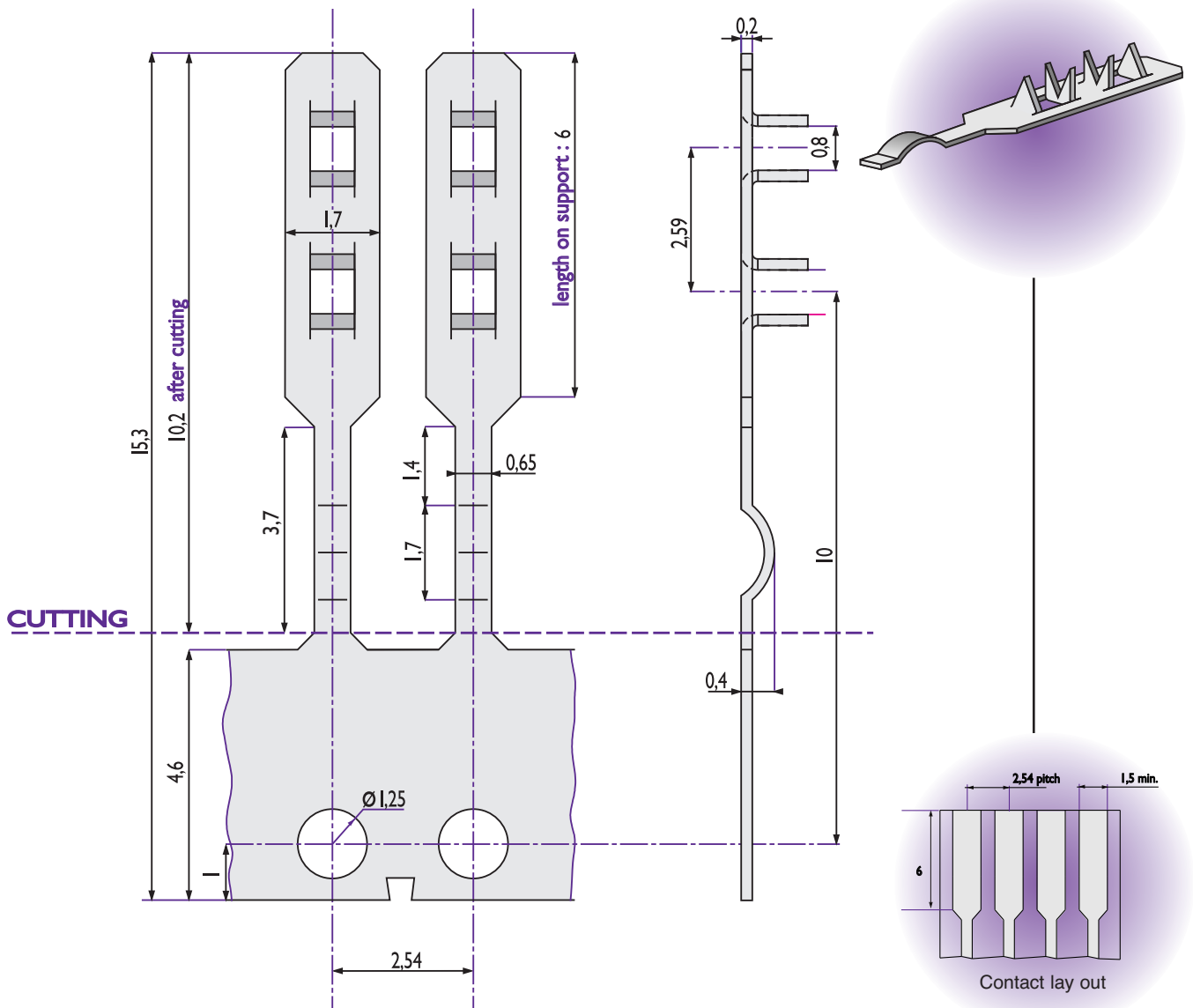
REF.	PLATING	REEL
10067-12	Tin plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

Dimensions in mm

# 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.



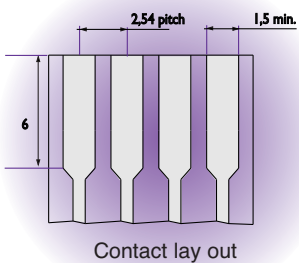
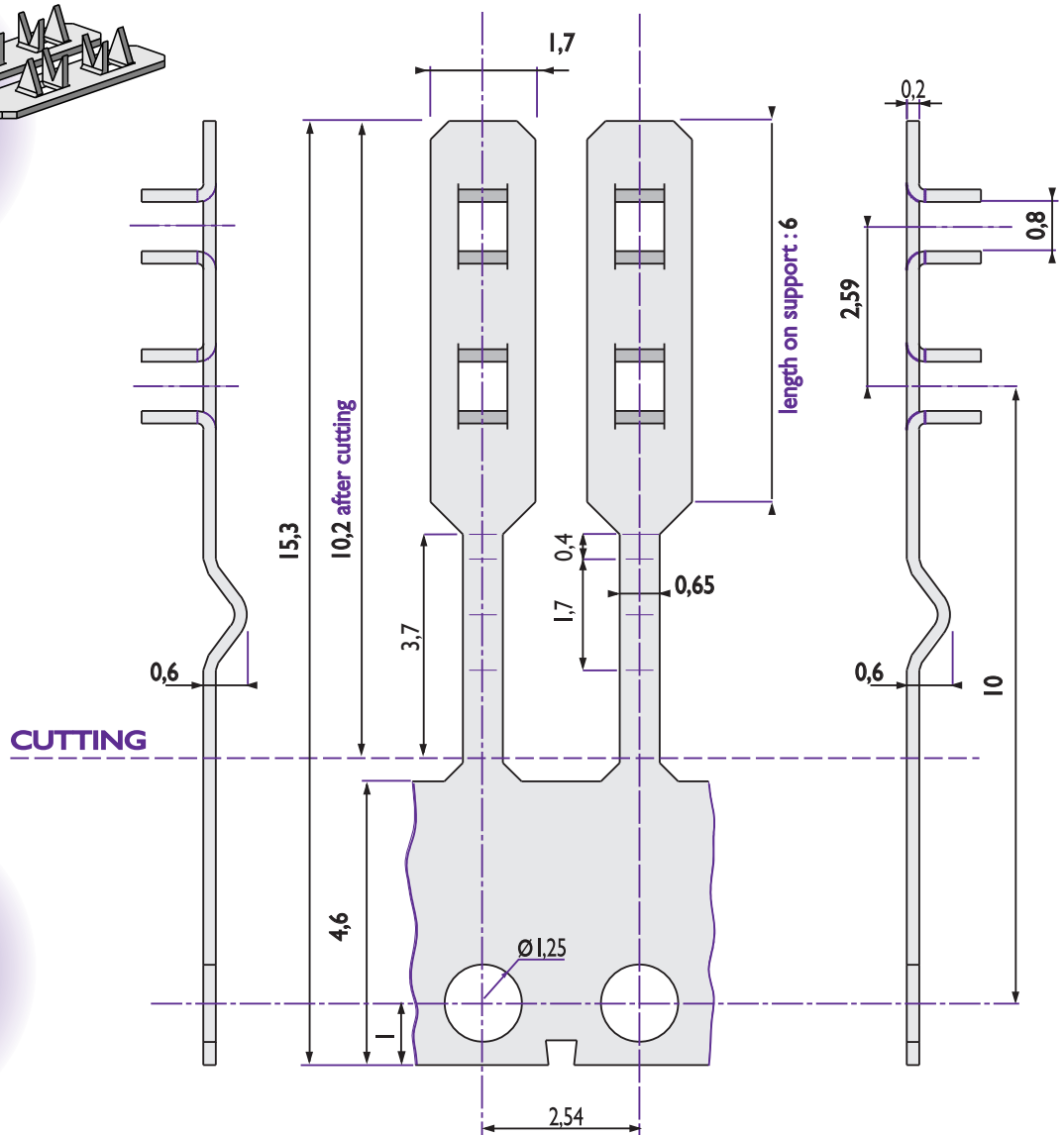
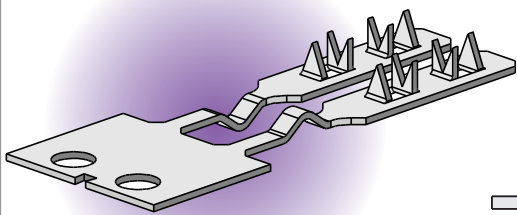
Dimensions in mm

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

# Male solder tabs

## DOUBLE RETENTION MALE SOLDER TAB REF. 12887

- Each pin is formed in an opposite direction to give excellent retention during soldering.



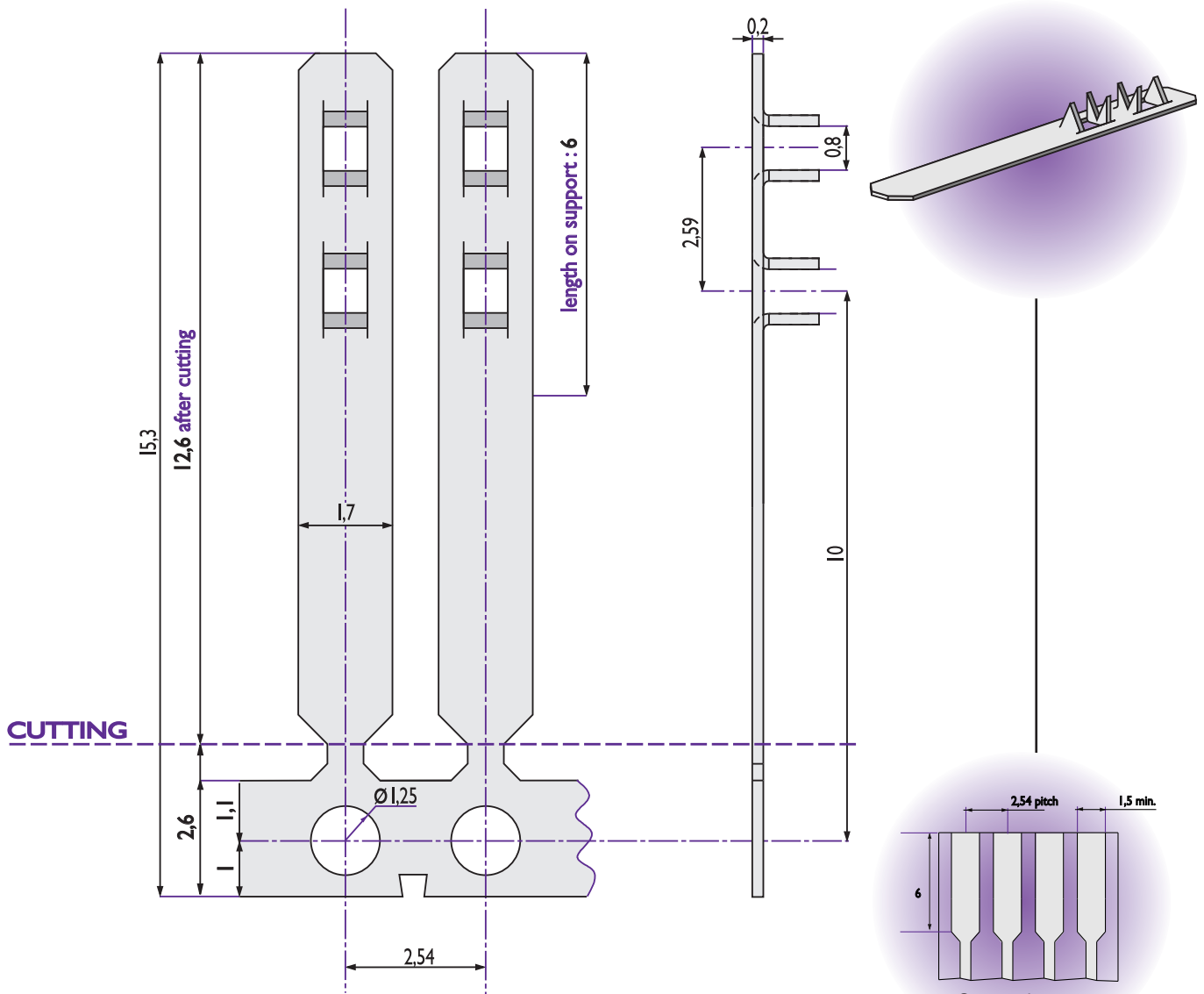
REF.	PLATING	REEL
12887-12	Tin plated	35 000 contacts
OTHER PLATINGS ON REQUEST		

Dimensions in mm

# Male solder tabs

## LONG MALE SOLDER TAB REF. 11612

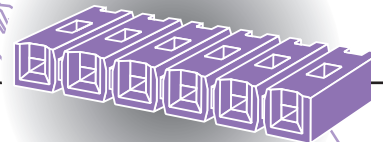
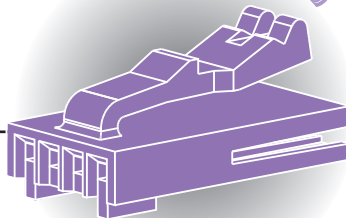
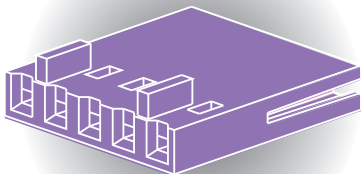
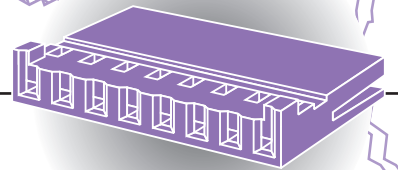
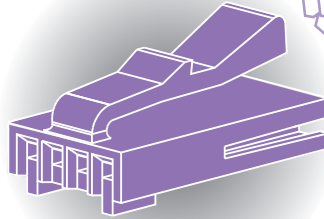
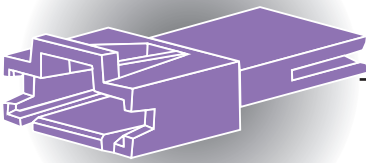
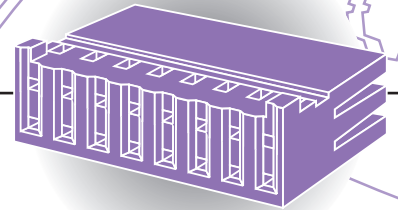
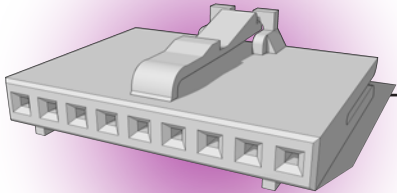
- The long solder tab allows connection in screw terminal blocks.
- Used for connections to EL lamps.



Dimensions in mm

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

**NEW 2009  
OJ xx housing**



# CRIMPFLEX® housings



## TECHNICAL DATA

### MATERIAL

- Thermoplastic w/glass fiber
- Classified UL 94V-0

### CERTIFICATIONS

- UL : E 125469  
(Component - Connectors For Use In Data, Signal, Control And Power Applications)

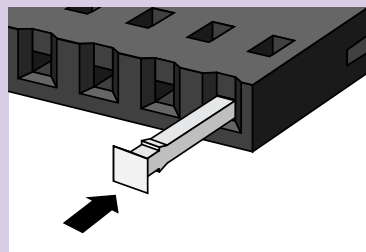
## THERMAL SPECIFICATIONS

- Operating temperature  
- 55° C to + 150° C

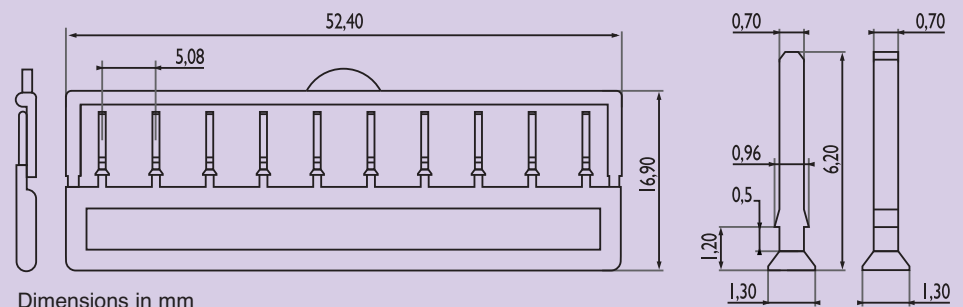
## ACCESSORIES

### POLARIZATION KEYS

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



- Keys to plug into the housings to ensure polarization.
- Can be used with the NICOMATIC PCB Connector female range. (refer to page 34)
- Available in black or in white colour

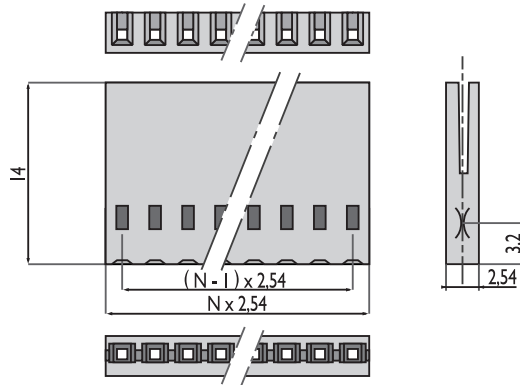
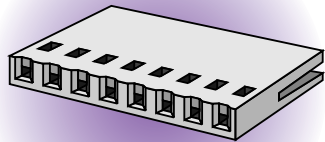


**Information :** All female housings are end to end stackable. OF xx and 7F10 xx housings are side to side and end to end stackable.

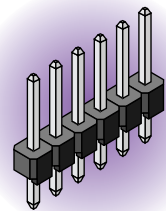
# CRIMPFLEX® housings

## 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.
- Standard single housing for use with all female contacts or long male pins.



→ Mates with headers (tin or gold plated)  
ref. 12-17-111-xx-1  
ref. 12-17-141-xx-1  
(refer to page 34)

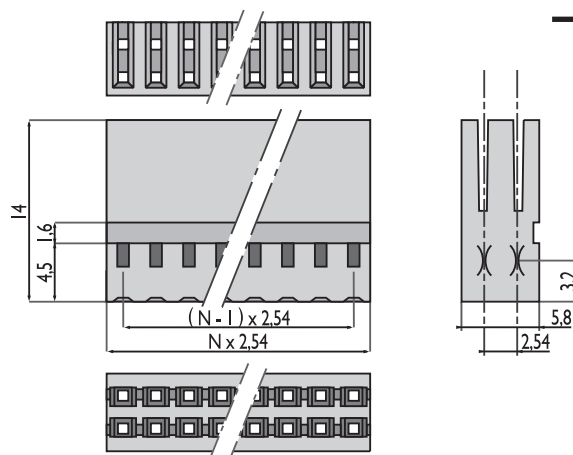
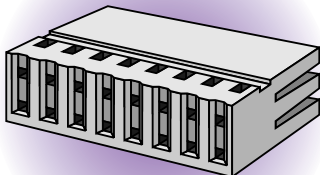


POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
NO	NO	1	02 → 25 (on request : 26 → 51)

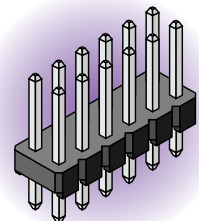
Dimensions in mm

## HOUSING SERIES 4F xx

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



→ Mates with headers (tin or gold plated)  
ref. 16-17-111-xx-1  
ref. 16-17-141-xx-1  
(refer to page 34)



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

Dimensions in mm

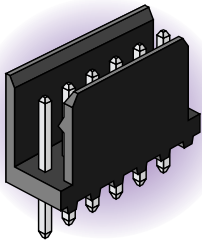


# CRIMPFLEX® housings

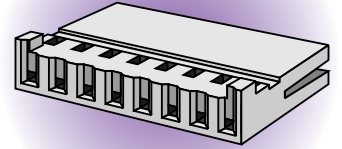
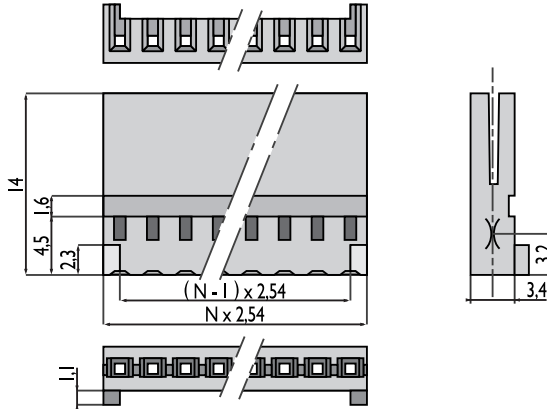
## HOUSING SERIES 2E xx

- This housing is used with walled pin headers 1Y (refer to page 35).
- It allows polarization and locking.

→ Mates with walled headers  
ref. 1Y-10-111-xx-1  
ref. 1Y-10-141-xx-1  
(refer to page 35)



Dimensions in mm

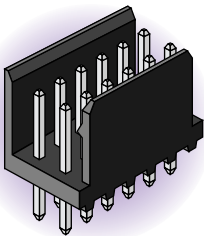


POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	1	02 → 25

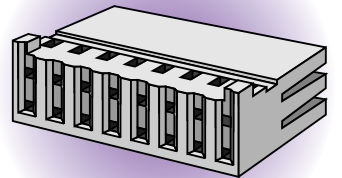
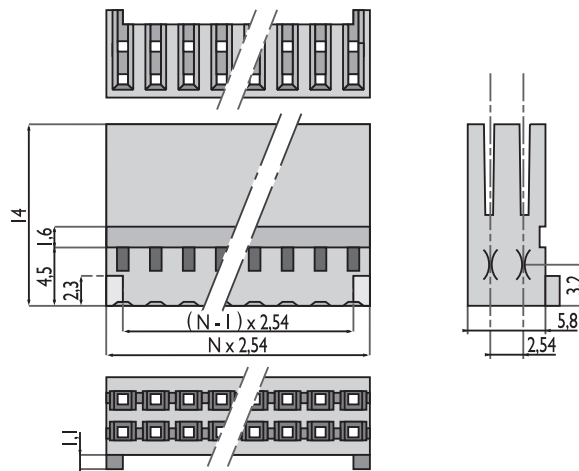
## HOUSING SERIES 4E xx

- This housing is used with double row walled headers (refer to page 35).
- It allows polarization and locking.

→ Mates with walled headers  
ref. 1Y-20-111-xx-1  
ref. 1Y-20-141-xx-1  
(refer to page 35)



Dimensions in mm

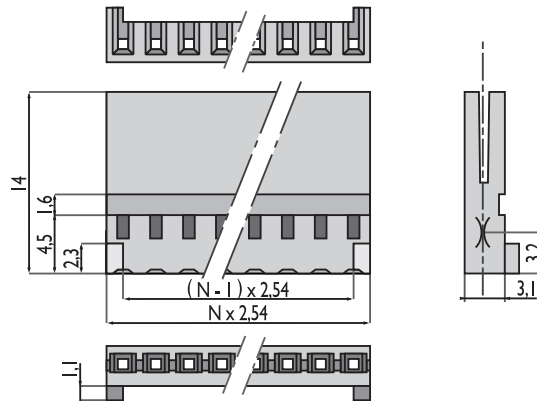
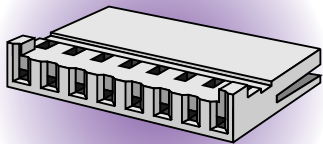


POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	2	04 → 50

# CRIMPFLEX® housings

## HOUSING SERIES 1E xx

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

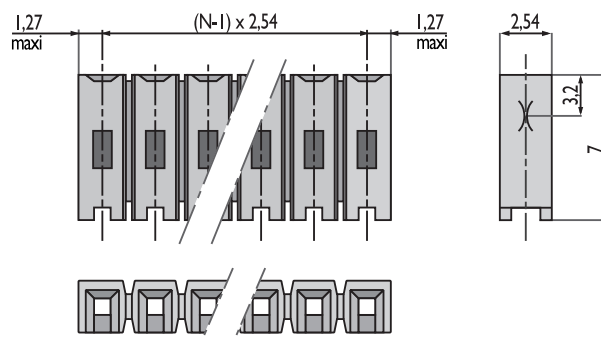
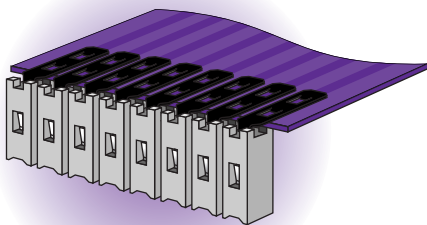


POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	I	02 → 25

Dimensions in mm

## HOUSING SERIES 7F10 xx

- The low height of this housing allows right angle connection in high density packaging.
- Housings are side to side and end to end stackable.



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

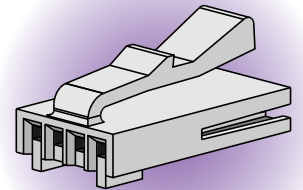
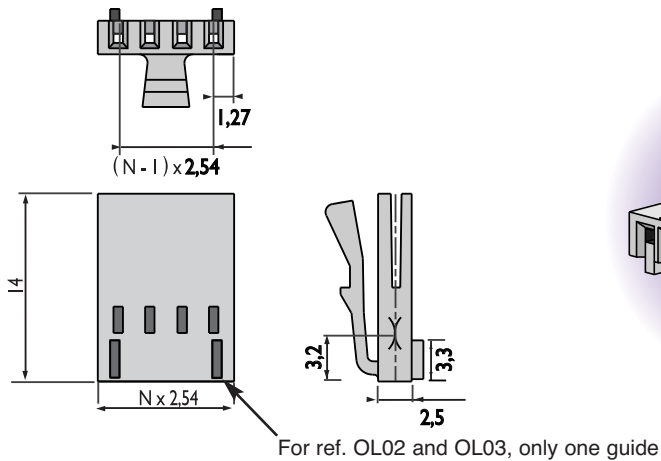
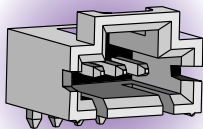
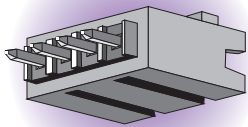
Dimensions in mm

# CRIMPFLEX® housings

## HOUSING SERIES OL xx

- Industry standard locking system that allows easy mating and unmating to a walled pin header.
- Optional : alternate part available on request to allow for latch to be oriented in either direction.

→ Mates with Male headers  
 ref. 1L-10-111-xx-1  
 ref. 1L-10-141-xx-1  
 (refer to page 37)



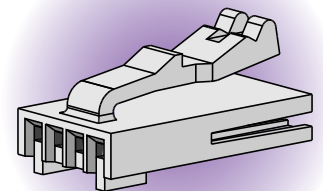
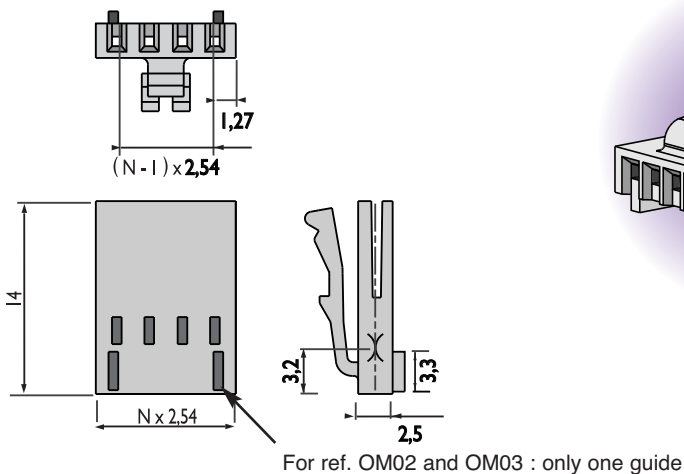
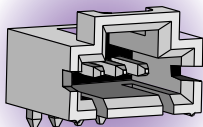
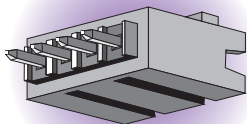
Dimensions in mm

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 : alternate part available on request to allow for latch to be oriented in either direction.

→ Mates with Male headers  
 ref. 1L-10-111-xx-1  
 ref. 1L-10-141-xx-1  
 (refer to page 37)



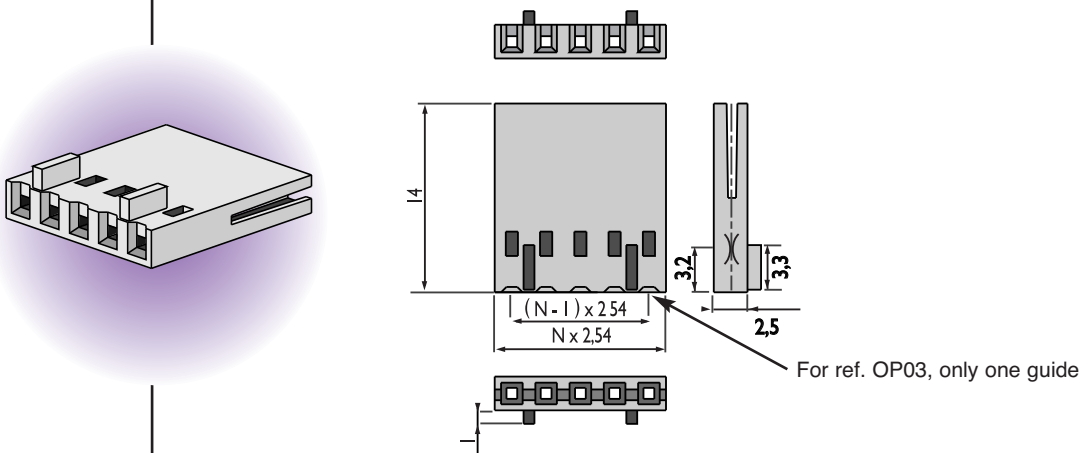
Dimensions in mm

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

# CRIMPFLEX® housings

## 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 4 to 25 ways.

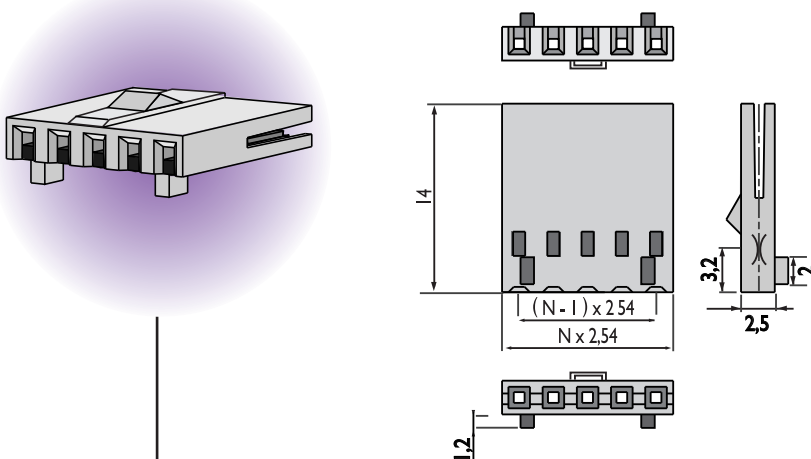


POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	NO	1	02 → 25

Dimensions in mm

## HOUSING SERIES OD xx

- Industry standard polarization feature.
- Optional : contacts can be inserted on the opposite side to the latch, from 4 to 25 ways.



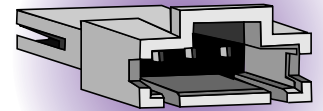
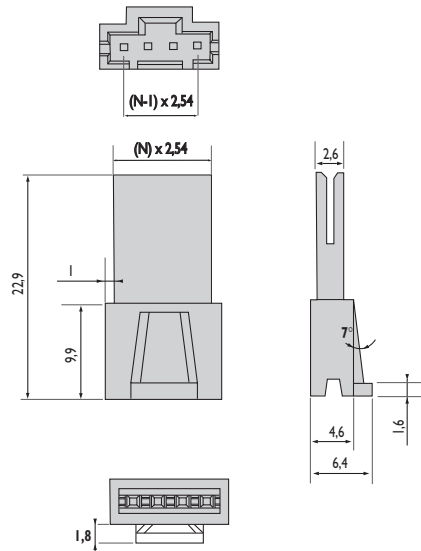
POLARIZATION	LOCKING SYSTEM	NUMBER OF ROWS	NUMBER OF WAYS XX
YES	YES	1	03 → 25

Dimensions in mm

# CRIMPFLEX® housings

## HOUSING SERIES 1L xx

- This housing allows industry standard polarization.
- It allows the locking of OM/OL xx female references (refer to page 25).
- Use with all square male pins.

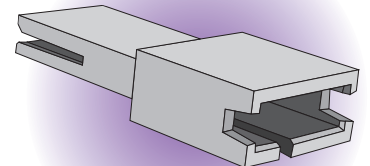
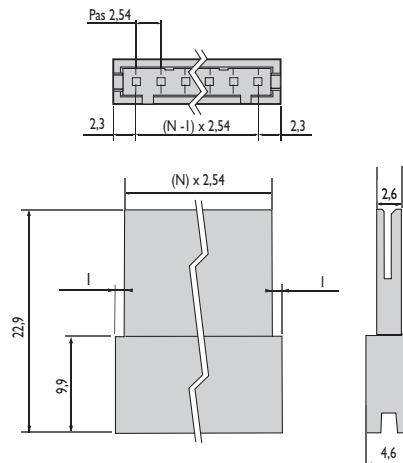


Dimensions in mm

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

## HOUSING SERIES 1P xx

- This housing allows the locking of OP xx industry standard polarized housing (refer to page 26).
- This housing is available by special order only.



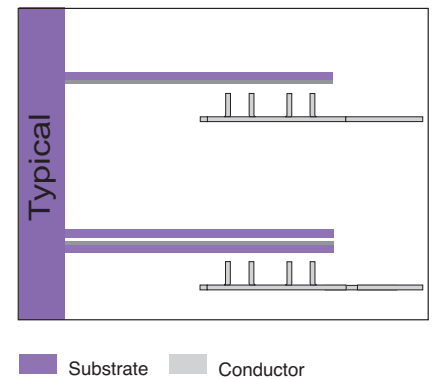
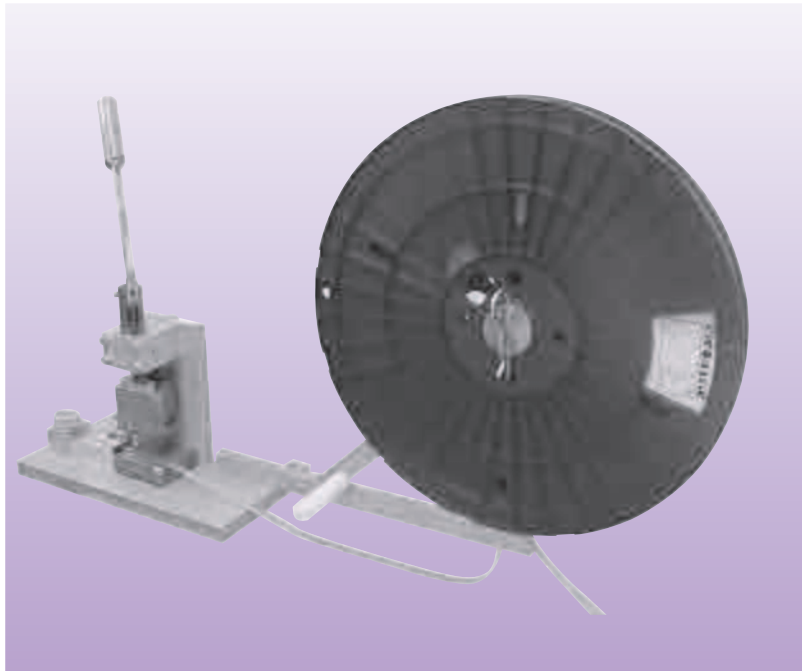
Dimensions in mm

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

# CRIMPFLEX® presses

Other documents : product data sheet & CrimpFlex® Crimping Guidelines

## MANUAL PRESS REF. 10025-MO



### GENERAL DATA

- Dimensions without reel (L x w x h) : 79 x 40 x 54 cm.
- Dimensions with reel (L x w x h) : 99 x 40 x 61 cm.
- Net weight : 27 kg, Gross weight : 38 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

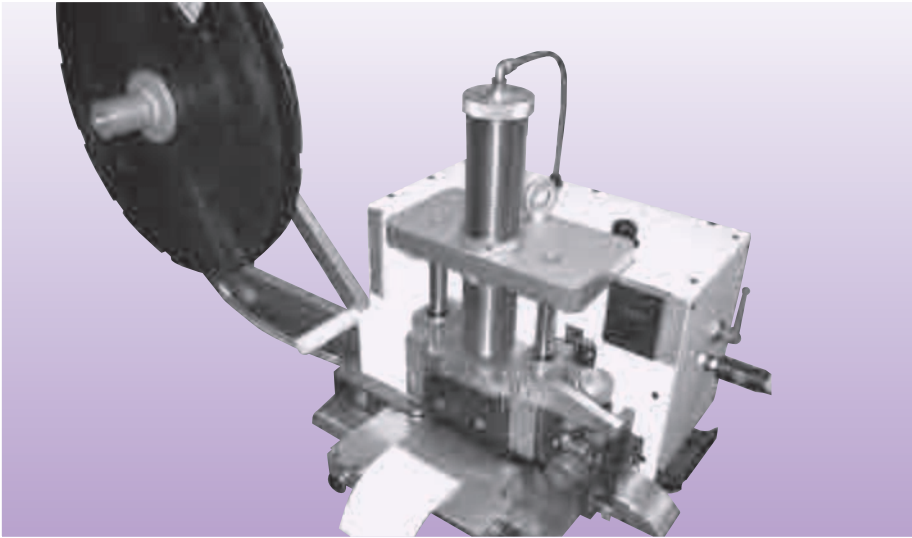
- This machine is delivered with 2 different toolings for solder tabs, male and female contacts. The change of tooling is simple and quick.
- 10025-MO (male & female tooling) - 10025-MO-F (female tooling) - 10025-MO-M (male tooling)
- Manual Press ref. 10025-SP is especially made for square male contacts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

PRESS		TOOLING	PART NUMBERS
10025-MO	10025-MOM	MALE	10141 – 10241 – 10067 – 10167 – 12887
	10025-MOF	FEMALE	10025 – 11506 – 11612 – 13595 – 14106
10025-SP		SQUARE MALE	12410 – 13756

# CRIMPFLEX® presses

Other documents : product data sheet & CrimpFlex® Crimping Guidelines

## PNEUMATIC PRESS REF. 10500-SA(P)



### GENERAL DATA

- Dimensions without reel (L x w x h) : 83 x 44 x 61 cm.
- Dimensions with reel (L x w x h) : 103 x 44 x 61 cm.
- Packaging dimensions (L x w x h) : 84 x 40 x 57 cm.
- Net weight : 57 kg, Gross weight : 85 kg.
- Air pressure of 6 bars : dry air recommended, gauge G1/4.
- No electrical requirement.
- Approximate capacity : 30 cycles / minute.

### OPERATION

- From 1 to 36 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.

### TOOLING

- The machine can be delivered with three different tooling : one for male solder tabs, one for female contacts and one for square male pins.
- The change of tooling is simple and quick.

PRESS	TOOLING	PART NUMBERS
10500-SA	MALE	10141 - 10241 - 10067 - 10167 - 12887
	FEMALE	10025 - 11506 - 11612 - 13595 - 14106
10500-SAP	SQUARE MALE	12410 - 13756
	MALE	10141 - 10241 - 10067 - 10167 - 12887
	FEMALE	10025 - 11506 - 11612 - 13595 - 14106

# Jumper Cables



## TECHNICAL DATA

- The flat cables used for NICOMATIC flexcable jumpers equipped with CRIMPFLEX® connectors, are made of two flat copper conductor laminated between two layers of polyester / adhesive insulation.

## DIMENSIONS

- Bare copper conductors, section 1.57mm (width) x 0.076mm (thickness).
- Pitch : 2.54 mm.
- Number of conductors : 2 to 36\*.
- Insulators thickness : 0.1 mm.

\* Higher number of conductors are available by special request



## ELECTRICAL SPECIFICATIONS

- Operating voltage 300 V RMS
- Withstand voltage 1100 V RMS
- AC current rating per conductor 3 A
- Resistance 160 Ω /Km

## CERTIFICATES

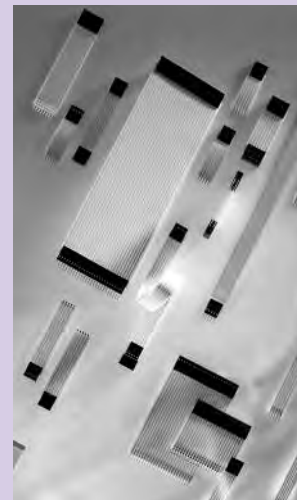
- UL E 235596 / UL E 232912 / UL E 203388  
(Appliance Wiring Material - Component)

## THERMAL SPECIFICATIONS

- CABLE - 55° C to + 105° C
- UL Flame rating VW-1

## MECHANICAL SPECIFICATIONS

- Flex life 0 = once  
25 mm = 10 million cycles



## JUMPER CABLE CODES FOR PART NUMBERING SYSTEM ON PAGE 31

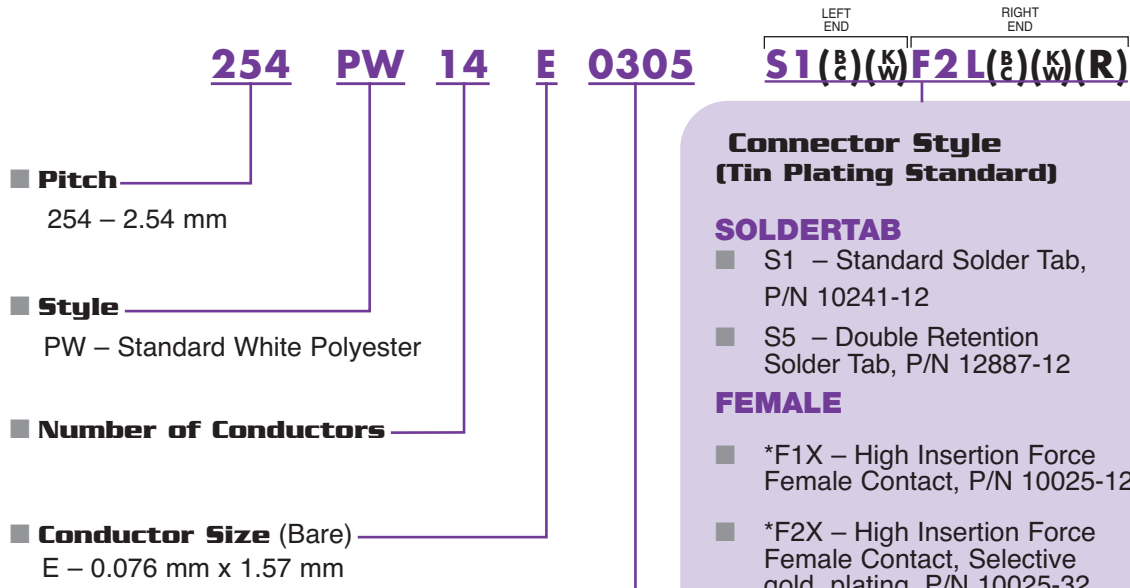
CONTACTS TABLE				HOUSINGS TABLE			
CODE	PART NUMBER	CODE	PART NUMBER	CODE	PART NUMBER	CODE	PART NUMBER
F1	I0025-12	M4	I2410-32	V	IL xx	D	OD xx
F2	I0025-32	S1	I0241-12	H	OF xx	2	2E xx
F3	I1506-12	S2	I0141-12	N	OM xx	7	7F10 xx
F4	I1506-32	S3	I0167-12	L	OL xx	I	IE xx
F5	I4106-12	S4	I0067-12	P	OP xx	OTHERS ALSO POSSIBLE	
F6	I4106-32	S5	I2887-12				
M1	I3595-12	S6	I1612-12	OTHERS ALSO POSSIBLE			
M3	I2410-12	OTHERS ALSO POSSIBLE					

*For Flex to discrete wire connection, please consult us.*

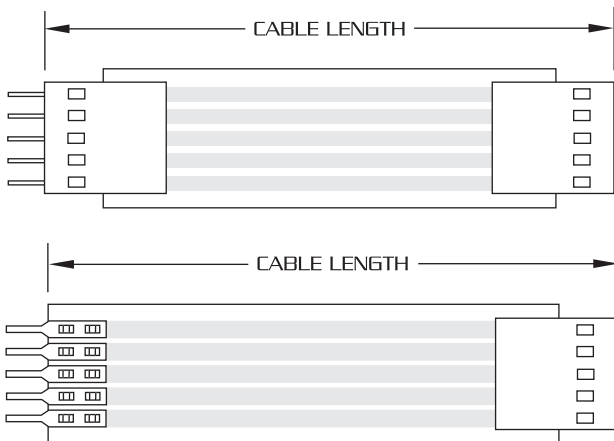


# Jumper Cables

## Part Numbering System Using the CRIMPFLEX® Connector System



■ **Length in mm**  
(Measured from End to End)



### Connector Style (Tin Plating Standard)

#### SOLDERTAB

- S1 – Standard Solder Tab, P/N 10241-12
- S5 – Double Retention Solder Tab, P/N 12887-12

#### FEMALE

- \*F1X – High Insertion Force Female Contact, P/N 10025-12
- \*F2X – High Insertion Force Female Contact, Selective gold plating, P/N 10025-32
- \*F3X – Low Insertion Force Female Contact, P/N 11506-12
- \*F5X – Hi Flex Female Contact, P/N 14106-12

#### MALE PIN

- \*M1 – Short Square Male Pin, P/N 13595-12
- \*M3X – Long Square Male Pin, P/N 12410-12
- \*M4X – Long Square Male Pin, Selective gold plating, P/N 12410-32

**\*housing style must be specified, see below**

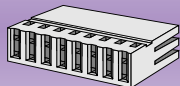
**Options : B (-90° bending), C (+90° bending), K (polyimide insulator), R (crimping on the opposite side to the left), W (polyester insulator)**

## HOUSING - X

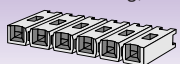
■ H – Standard Housing, P/N OF-XX



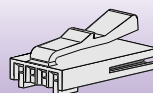
■ 4 – Dual Row Housing, P/N 4F-XX



■ 7 – Low Profile Housing, P/N 7F10-XX



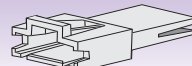
■ L – Latching Housing, P/N OL-XX



■ D – Detent Style Housing, P/N OD-XX



■ V – Latching Receptacle Housing, P/N 1L-XX



B : Bending to the crimping direction



C : Bending to the opposite side

— Other Options are Available, Please Contact the Factory or see page 30 —

# FFC Card Cable

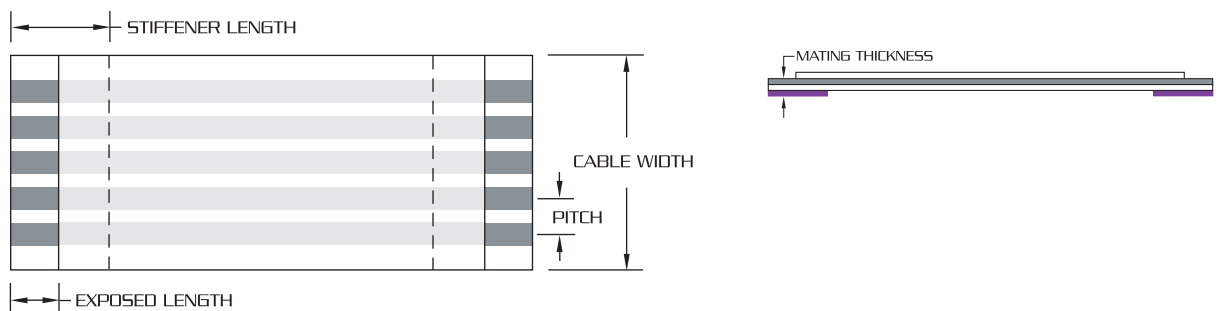


## TECHNICAL DATA

<b>Pitch</b>	0.5 mm	1.00 mm	1.25 mm	1.27 mm	2.54 mm
<b>Cable Width</b>	(N+1) 0.50	(N+1)	(N+1) 1.25	(N+1) 1.27	(N+1) 2.54
<b>Cable Thickness</b>	0.22	0.25	0.25	0.25	0.25
<b>Conductor Width</b>	0.28	0.66	0.80	0.80	1.57
<b>Conductor Thickness</b>	0.035	0.076	0.076	0.076	0.076
<b>Exposed Length</b>	4	5 (4 for P8)	5 (4 for P8)	5 (4 for P8)	5 (4 for P8)
<b>Stiffener Length</b>	6 (2 for P8)	10 (2 for P8)	10 (2 for P8)	10 (2 for P8)	10 (2 for P8)
<b>Mating Thickness (P3, P5)</b>	0.30	0.30	0.30	0.30	0.30
<b>Insulation</b>	Polyester	Polyester	Polyester	Polyester	Polyester
<b>Voltage</b>	90 V	90 V	300 V	300 V	300 V
<b>Temperature</b>	-55°C to 105°C	-55°C to 105°C	-55°C to 105°C	-55°C to 105°C	-55°C to 105°C
<b>UL Flame Rating</b>	VW-I	VW-I	VW-I	VW-I	VW-I
<b>Dielectric Strength</b>	5,000 V	5,000 V	5,000 V	5,000 V	5,000 V
<b>Insulation Resistance</b>	5,000 MΩ	5,000 MΩ	5,000 MΩ	5,000 MΩ	5,000 MΩ

• All dimensions in mm •

### ■ Style P3 Shown



# FFC Card Cable

## Part Numbering System

**100    P3    14    D    0305   -   <sup>LEFT END</sup>5 10   <sup>RIGHT END</sup>5 10**

**■ Pitch**  
 050 – 0.50 mm  
 100 – 1.00 mm  
 125 – 1.25 mm  
 127 – 1.27 mm  
 254 – 2.54 mm

**■ Style**

**P3**

**P5**

**P7**

**P8**

**■ Number of Conductors**

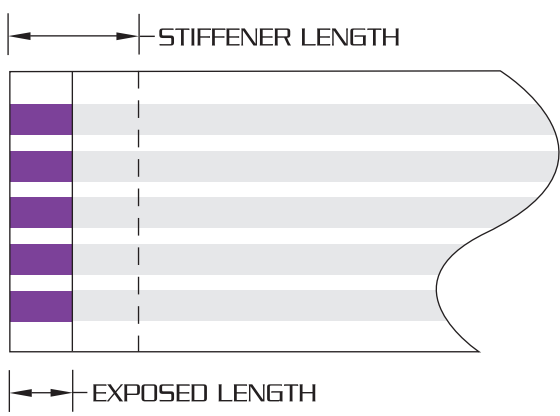
**■ Exposed length in mm**

**■ Stiffener length in mm**

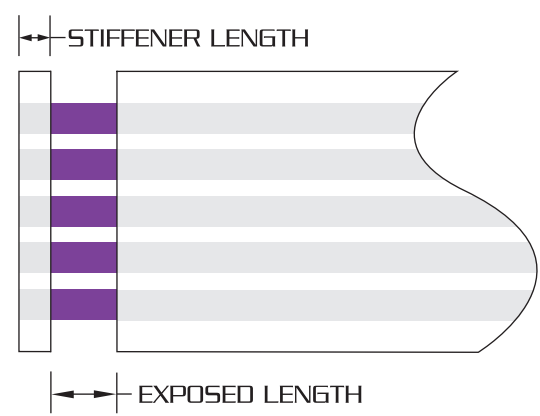
**■ Length in mm (Measured from End to End)**

Conductor Size (Tinned)	Pitch (mm)
A – 0.076 mm x 1.57 mm	2.54
C – 0.076 mm x 0.80 mm	1.25/1.27
D – 0.076 mm x 0.66 mm	1.00
K – 0.035 mm x 0.28 mm	0.50

**■ Style P3, P5**



**■ Style P7, P8**



— Other Options are Available, Please Contact the Factory —

# Headers and Sockets

## STANDARD

- 0.635 mm (.025") square pin header
- 2.54 mm (.100") pitch and multiple
- Number of ways on request

### TECHNICAL DATA

#### PLATING

■ Ni 2μ + Sn 5μ or gold plated

#### INSULATOR

■ Glass filled plastic UL 94V-0

#### MECHANICAL ENDURANCE

■ Au = 500  
■ Sn = 50

#### INSERTION FORCE

■ 1.5 max.  
■ 3N max.

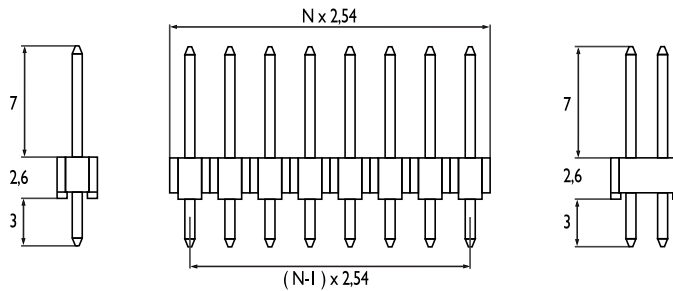
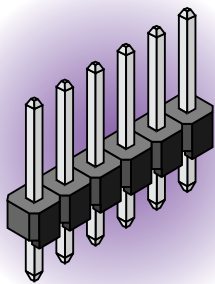
### ELECTRICAL SPECIFICATIONS

■ Contact resistance 20 m Ω  
■ AC current rating per contact 3 A  
■ Min. withstanding voltage 500V eff.  
■ Min. insulation resistance 1000M Ω

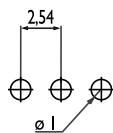
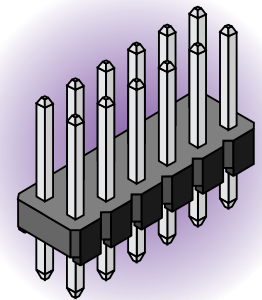
### THERMAL SPECIFICATIONS

■ Operating temperature -40°C to +150°C

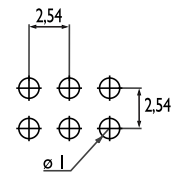
## STRAIGHT SINGLE AND DOUBLE ROW



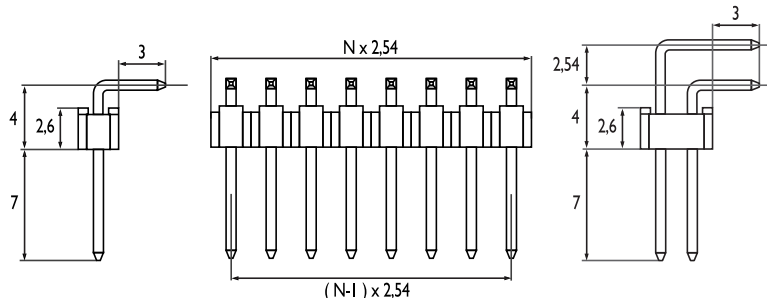
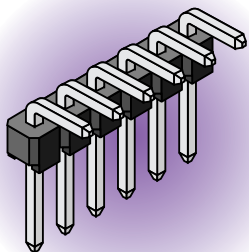
Dimensions in mm



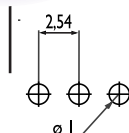
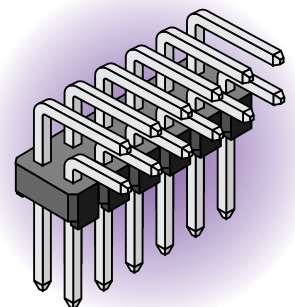
REF.	PLATING	NUMBER OF CONTACTS XX
12-17-111-XX-1	Tin plated	02 ≤ XX ≤ 40
12-17-141-XX-1	Gold plated	02 ≤ XX ≤ 40
16-17-111-XX-1	Tin plated	04 ≤ XX ≤ 80
16-17-141-XX-1	Gold plated	04 ≤ XX ≤ 80



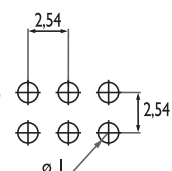
## RIGHT ANGLE SINGLE AND DOUBLE ROW



Dimensions in mm



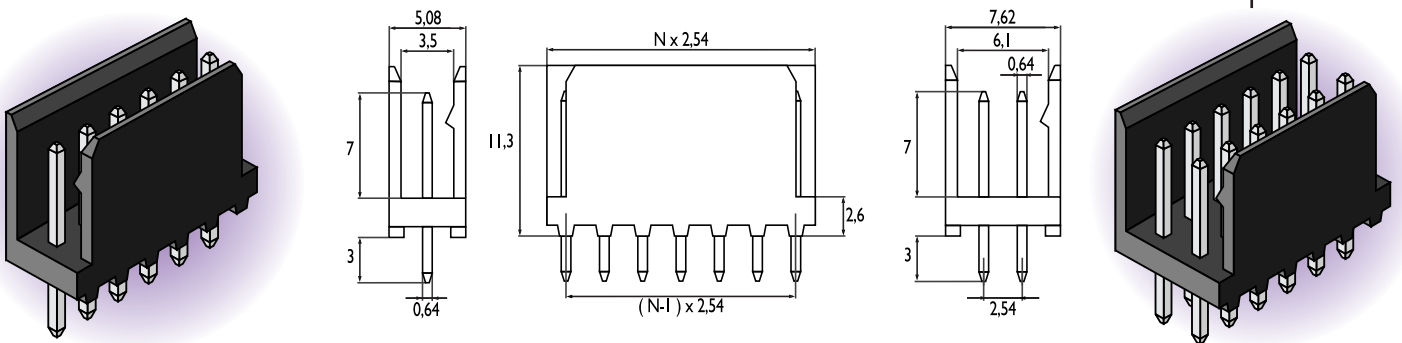
REF.	PLATING	NUMBER OF CONTACTS XX
12-21-211-XX-1	Tin plated	02 ≤ XX ≤ 40
12-21-241-XX-1	Gold plated	02 ≤ XX ≤ 40
16-52-211-XX-1	Tin plated	04 ≤ XX ≤ 80
16-52-241-XX-1	Gold plated	04 ≤ XX ≤ 80



# Headers and Sockets

## WALLED HEADERS

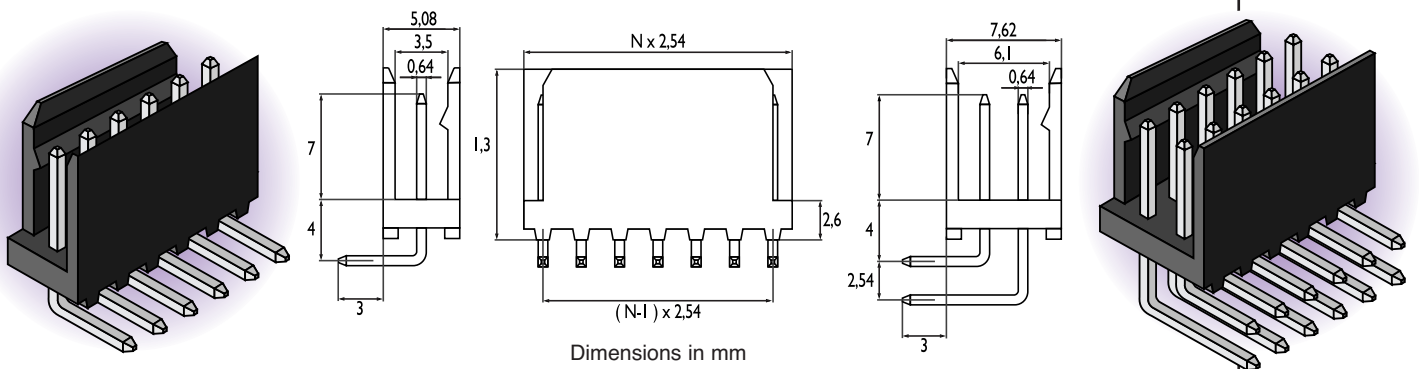
### STRAIGHT SINGLE AND DOUBLE ROW



Dimensions in mm

REF.	PLATING	NUMBER OF CONTACTS XX
IY-10-111-XX-1	Tin plated	$02 \leq XX \leq 20$
IY-10-141-XX-1	Gold plated	$02 \leq XX \leq 20$
IY-20-111-XX-1	Tin plated	$04 \leq XX \leq 40$
IY-20-141-XX-1	Gold plated	$04 \leq XX \leq 40$

### RIGHT ANGLE SINGLE AND DOUBLE ROW

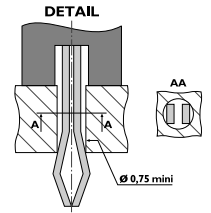


Dimensions in mm

REF.	PLATING	NUMBER OF CONTACTS XX
IY-10-211-XX-1	Tin plated	$02 \leq XX \leq 20$
IY-10-241-XX-1	Gold plated	$02 \leq XX \leq 20$
IY-20-211-XX-1	Tin plated	$04 \leq XX \leq 40$
IY-20-241-XX-1	Gold plated	$04 \leq XX \leq 40$

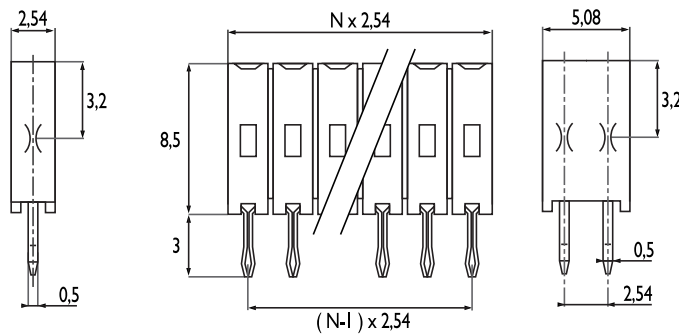
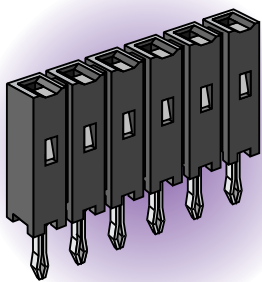
# Headers and Sockets

■ Strong tails : the contact is firmly retained in the PCB holes thus allowing the solder to ascend.

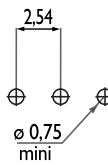
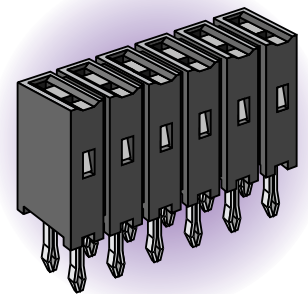


## STANDARD AND LOW PROFILE

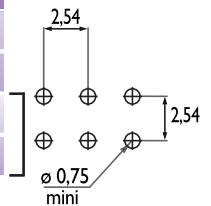
### SINGLE AND DOUBLE ROW



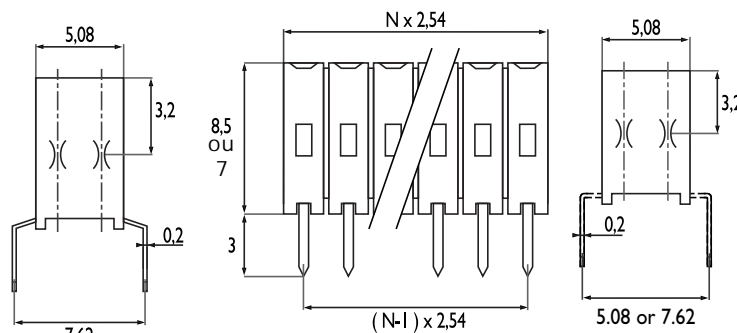
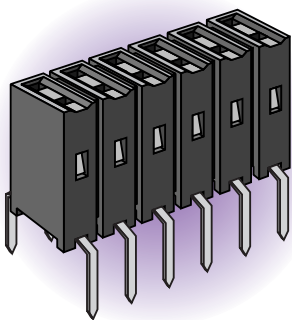
Dimensions in mm



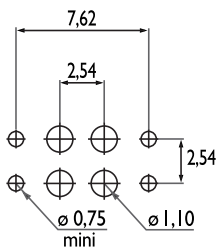
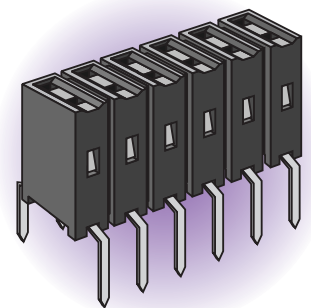
REF.	PLATING	NUMBER OF CONTACTS XX
8Y-10-111-XX-1	Tin plated	02 ≤ XX ≤ 40
8Y-10-131-XX-1	Selective gold plated	02 ≤ XX ≤ 40
8Y-20-111-XX-1	Tin plated	04 ≤ XX ≤ 80
8Y-20-131-XX-1	Selective gold plated	04 ≤ XX ≤ 80



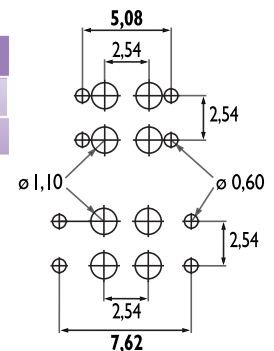
### DOUBLE ROW DUAL ENTRY



Dimensions in mm



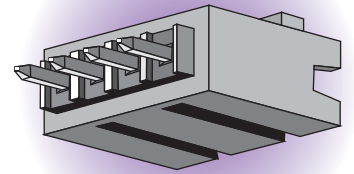
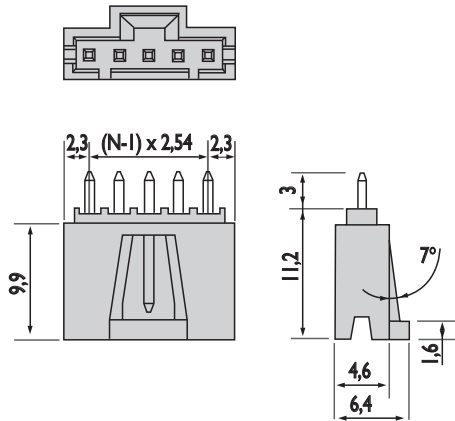
REF.	PLATING	NUMBER OF CONTACTS XX	PITCH
3Y-20-311-XX-1	Tin plated	04 ≤ XX ≤ 80	7.62
3Y-20-331-XX-1	Selective gold plated	04 ≤ XX ≤ 80	7.62



# Male Headers

## STRAIGHT HEADER 1L-10-1Z1-XX-1

■ It allows the locking of OL xx, OM xx and OP xx housings (refer to page 25 and 26).

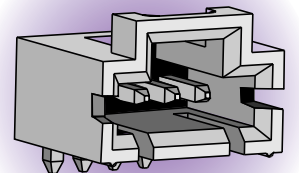
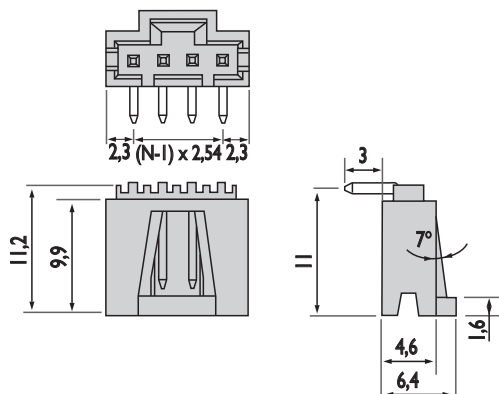


Dimensions in mm

REF.	PLATING	NUMBER OF CONTACTS XX
1L-10-111-XX-1	tin plated	02 ≤ XX ≤ 25
1L-10-141-XX-1	gold plated	02 ≤ XX ≤ 25

## RIGHT ANGLE HEADER 1L-10-2Z1-XX-1

■ It allows the locking of OL xx, OM xx and OP xx housings (refer to page 25 and 26).



Dimensions in mm

REF.	PLATING	NUMBER OF CONTACTS XX
1L-10-211-XX-1	tin plated	02 ≤ XX ≤ 25
1L-10-241-XX-1	gold plated	02 ≤ XX ≤ 25

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# Notes

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.

# Notes

A large grid of graph paper for taking notes, consisting of 30 columns and 40 rows of small squares.

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## **NICOMATIC - FRANCE**

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**Headquarters :**  
**NICOMATIC SA**

173, rue des Fougères - Zone Industrielle les Bracots - F-74890 BONS-EN-CHABLAIS

Tel. (33) (0)4 50 36 13 85 - Fax (33) (0)4 50 36 11 33

<http://www.nicomatic.com> - Email : [nicomatic@nicomatic.fr](mailto:nicomatic@nicomatic.fr)

## **NICOMATIC - SUBSIDIARIES**

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**NICOMATIC HONG-KONG**  
**CHINA - TAIWAN - HONG-KONG**  
38-44, D'Aguillon Street  
Ho Lee Commercial Building  
5 th Floor  
Central HONG-KONG  
Tel. (886) 42201-6456  
Fax (886) 42202-6456  
Email :  
[viragetw@tcts.seed.net.tw](mailto:viragetw@tcts.seed.net.tw)

**NICOMATIC KOREA**  
9F Saehan Venture World.  
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Kumchun-Ku  
SEOUL  
Tel. (82) 2 804 3206  
Fax (82) 2 806 3206  
Email :  
[nicoree@unitel.co.kr](mailto:nicoree@unitel.co.kr)

**NICOMATIC SOUTH AMERICA**  
Rua Hungria, 574 cj. 51 Jd.  
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Tel : (55) 11 3815-4411  
Fax : (55) 11 3814-6133  
Email :  
[nicomatic@nicomatic.com.br](mailto:nicomatic@nicomatic.com.br)

**NICOMATIC NORTH AMERICA**  
**USA - CANADA - MEXICO**  
165 Veterans Way, Unit 200  
WARMINSTER, PA 18974 USA  
Tel. (1) 215 444-9580  
Fax (1) 215 444-9581  
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