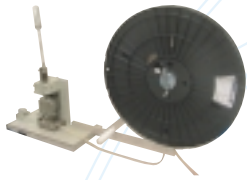


# Crimping machines & Services

The machines aim at selecting and crimping male or female NICOMATIC contacts CRIMPFLEX® type on jumpers or flexible circuits manually or automatically.

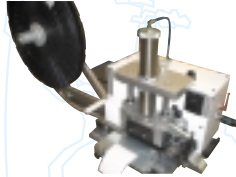
## MANUAL PRESS P/N 10025-MO (-M), 10025-SP



- Easy set up
- Reliable and cost effective
- Easy to use
- Simple & quick change of tooling
- From 1 to 25 contacts crimped at once
- Up to 7 cycles per minute

The contacts are moved forward from stop to stop by hand via the side loader and the crimping is operated via the upper lever. 10025-MO (male & female tooling) / 10025-MO-F (female tooling) / 10025-MO-M (male tooling) / 10025-SP (special press for square male contacts 12410 & 13756).

## PNEUMATIC PRESS P/N 10500-SA(P)



- Even more reliable and cost effective
- Easy to use
- No electrical requirement
- 6 bar dry air
- From 1 to 36 contacts crimped at once
- Up to 30 cycles per minute

The contacts are moved into the tool automatically according to graduated positions on the rotative cylinder, corresponding to the required number of contacts to be crimped. This machine is also equipped with a downcounter, which allows pre-selecting a precise number of operations and stops automatically once it is back to zero. The press is operated by foot pedal. 10500-SA (male and female tooling) / 10500-SAP (male, female and square male tooling).

## SERVICES

Crimping on flexible circuits

## OTHER

NICOMATIC also manufactures :

- FCC CARD CABLE with a 0.5 / 1 / 1.25 / 1.27 / 2.54 mm pitch
- Metal domes and UltraThin LEDs for your membranes
- PCB connectors (headers, sockets, test terminals...)

Fastest machines on the market!



# Technical Features

**CRIMPFLEX® is a 2.54 mm pitch interconnection system developed and patented by NICOMATIC**  
**TECHNICAL DATA**

## MATERIAL :

Polyester cable with flat copper conductors AWG26 (jumpers)  
 Phosphor bronze (contacts)  
 Thermoplastic filled with glass fiber ( housings)

## MALE SOLDER TAB PLATING :

Ni 2µ + Sn 5µ

## 0.635 MM MALE AND FEMALE CONTACTS PLATING :

Ni 2µ + Sn 5µ  
 Selective gold plating in mating area (thickness 0,15µ Au)

## Certificates :

UL : E125469 (M), E125657 (F), E 235596, E 232912, E 203388 (Jumpers)

## MECHANICAL SPECIFICATION

- Pull force : - ⊥ to conductor 15N min.  
 - = to conductor 50N min.

## ELECTRICAL SPECIFICATION

Withstanding Voltage	1100V RMS
DC Current Rating Per Contact	3 A continuous
AC Current Rating Per Contact	5 A continuous
Contact Resistance	5 m Ω max.
Contact Resistance after environmental	6 m Ω max.
Capacitance between two contacts	4 pF max.
Insulation Resistance (at 500V)	5,000 MΩ

## THERMAL SPECIFICATION

- 55°C to + 150°C withstanding temperature
- 55°C to + 105°C operating temperature
- UL 94-V0 flammability rating

## NICOMATIC Advantages

- Broadest product range on the market  
 1 application = 1 solution
- Cost effective (crimping method, economy on weight)
- NICOMATIC manufactures : flat cables, contacts & housings, machines
- CRIMPFLEX® patent
- Compatible with industry standards
- Standard & custom products
- Available from stock



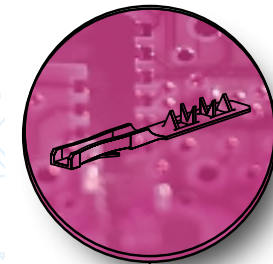
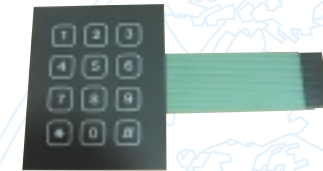
NICOMATIC FRANCE  
 is certified ISO 9001:2000



04/2006-C-CRIMP Leaf



specialized in  
**electronic connectors**



**CRIMPFLEX®**  
 connectors for  
 flexible  
 circuits



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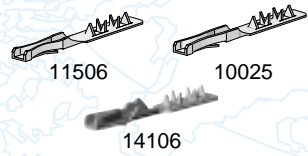
<http://www.nicomatic.com>

# Contacts & Solder tabs

The NICOMATIC contacts are available at a 2.54mm pitch

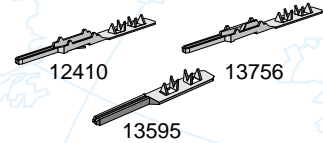
## Female contacts

- Low insertion force 11506
- High insertion force 10025
- Hi-Flex 14106



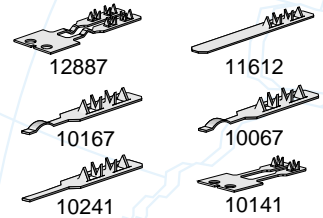
## Male contacts

- Square male 12410
- Reverse square male 13756
- Short square male 13595



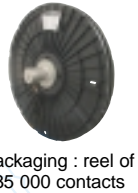
## Male solder tabs

- Double retention 12887
- Long 11612
- Retention 10167
- Short retention 10067
- Standard 10241
- Standard short 10141



## Summary

all contacts & solder tabs are produced in-house by NICOMATIC. The products comply with most rigorous mechanical, electrical and thermal specifications. Quality is a major issue at NICOMATIC.



## Highlight

Contacts	Specifications	Curves
10025 HIGH INSERTION FORCE	<ul style="list-style-type: none"> <li>- Resistance : &lt; 5m Ohm</li> <li>- Initial Force : 3.5N</li> <li>- Operating Force : 2.5N</li> <li>- Max cycles : 20</li> </ul> Recommended for up to 10 contacts	
11506 LOW INSERTION FORCE	<ul style="list-style-type: none"> <li>- Resistance : &lt; 10m Ohm</li> <li>- Initial Force : 1.5N</li> <li>- Operating Force : 1.5N</li> <li>- Max cycles : 100</li> </ul>	
14106 HI-FLEX	<ul style="list-style-type: none"> <li>- Resistance : &lt; 15m Ohm</li> <li>- Initial Force : 2.5N</li> <li>- Operating Force : 1N</li> <li>- Max cycles : 500 and +</li> </ul>	

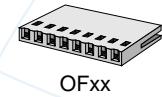


# Housings for female contacts

Polarized, with locking	Polarized, without locking	Not polarized no locking
2E : 1 row	OP : 1 row	OF : 1 row
4E : 2 rows		4F : 2 rows
OL/OM : 1 row		7F10 : 1 row
OD : 1 row		
1L : 1 row		

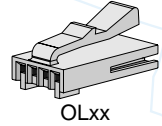
## Typical housings

- Standard OFxx for removable connection with all types of 0.635 mm square or round pin headers. Housings are side to side and end to end stackable.



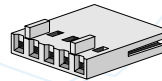
OFxx

- Latching housing OLxx/OMxx for easy mating and unmating to a walled pin header (industry standard locking system).



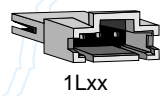
OLxx

- Detent style housing ODxx with retention feature.



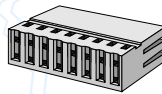
ODxx

- Latching receptacle housing 1Lxx for the locking of OMxx/OLxx (with 12410 square male contact only).



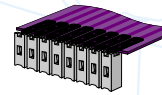
1Lxx

- Dual row housing 4Fxx for connection of a double row flexcable jumper onto a 2 rows, 0.635 mm square or round pin header.



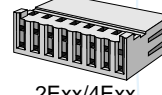
4Fxx

- Low profile housing 7F10xx for right angle connections in high density packaging.



7F10xx

- Low profile housing 2E/4Exx for single/double row walled pin headers.



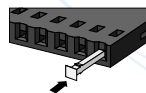
2Exx/4Exx

- **Summary** : all housings have been designed in-house by NICOMATIC. Made of thermoplastic filled with glass fiber and classified UL 94-V0, the housings are known for an excellent resistance to thermal changes and high temperatures.

- **Optional features** : the latch/polarization feature can be oriented either up or down thanks to thru holes, different plastic, material...

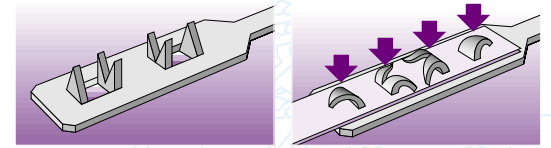
## Accessories :

- Polarization keys



# Flexcable jumpers

For board-to-board connections (pitch 2.54 mm)



CRIMP FLEX\* system patented by NICOMATIC

The crimping of the contacts is obtained by piercing the conductor in 6 points, which ensures excellent mechanical retention by 2 points and electrical contact by 4 points with the lowest possible contact resistance.

EXCLUSIVE !

## Crimping environment

- copper conductive, silver or carbon ink printing, ...
- all types of flexible circuits with thickness from 75 μ to 350 μ (other also possible : thinner & thicker !).
- can pierce most supports : polyester, FR4, polyimide, PTFE, ...

## Jumpers

- single and double row
- straight or 90°
- cable with up to 36 conductors
- with tin or gold contacts
- to be soldered or as a removable connection
- insulation possible with polyimide adhesive
- custom configurations



## Standard Part Numbering system

254 PW 14 E 0305 - S1 (P) (F2L) (R)

**Pitch**  
254 - 2.54 mm

**Style**  
PW - Standard White Polyester

**Number of Conductors**  
14

**Conductor Size (Bare)**  
E - 0.076 mm x 1.57 mm

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

**Connector Style Examples**

**Soldertab**

- S1 - Standard Soldertab, P/N 10241-12
- S5 - Double Retention Soldertab, 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

