TECHNICAL DATA

MATERIAL
- Phosphor bronze

MALE SOLDER TAB PLATING
- The standard connector is tin plated
  (thickness: Ni 2µ + Sn 5µ)

MALE PINS AND FEMALE CONTACTS PLATING
- The standard connector is tin plated
  (thickness: Ni 2µ + Sn 5µ)
- Selective gold plating in mating area
  (thickness: Ni 2µ + Au 0.15µ)
- 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 mΩ max.
- Contact resistance after environmental tests 6 mΩ max.
- Insulation resistance 5.10^5 MΩ 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
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.

**DESCRIPTION**

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

**CRIMPING ENVIRONMENT**

- Use of contacts in reel at final pitch of 2.54 mm (0.100”) and mm (”)
- 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.
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](image)

**Dimensions in mm**

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>11506-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
<tr>
<td>11506-32</td>
<td>Selective gold plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

**OTHER PLATINGS ON REQUEST**
**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**

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>10025-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
<tr>
<td>10025-32</td>
<td>Selective gold plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>14106-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
<tr>
<td>14106-32</td>
<td>Selective gold plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

Dimensions in mm
TYPICAL MALE PINS APPLICATION

- OF xx + Female contacts
- Female Header
- OM xx + Female contacts
- OR
- OL xx + Female contacts
- 1L xx + 12410 or 13756
- OF xx + 12410
- 13595
- Female Header
The square male contact will mate with female connectors designed to accept a 0.635 mm (.025”) pin header.
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.

---

Dimensions in mm

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>13756-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
<tr>
<td>13756-32</td>
<td>Selective gold plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

OTHER PLATINGS ON REQUEST
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.

**SHORT SQUARE MALE PIN REF. 13595**

- Dimensions in mm

**Contact layout**

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>13595-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

Dimensions in mm
Male solder tabs

SOLDER TABS ENVIRONMENT

I.C. socket, wipe contacts with single or double point

Directly soldered onto printed circuit, hole dia. 0.8mm
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.

Dimensions in mm

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>10141-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

Contact lay out

CUTTING

Dimensions in mm

Other platings on request
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

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>10241-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

Contact lay out
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.

Dimensions in mm

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>10067-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

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

### Dimensions in mm

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>10167-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

**Retention Male Solder Tab**

**REF. 10167**

**CUTTING**

- Length on support: 6 mm
- 2.54 pitch
- 1.5 mm

**Contact lay out**

**Dimensions**

- 1.37 mm
- 1.4 mm
- 1.7 mm
- 2.54 mm
- 0.8 mm
- 0.4 mm
- 10 mm
- 4.6 mm
- 2.54 mm
- 1.02 after cutting
- 15.3 mm

**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.

Dimensions in mm

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>12887-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

OTHER PLATINGS ON REQUEST

NATIONAL

REF. PLATING REEL
12887-12 Tin plated 35 000 contacts
OTHER PLATINGS ON REQUEST
The long solder tab allows connection in screw terminal blocks.
Used for connections to EL lamps.

Dimensions in mm

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>REEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>11612-12</td>
<td>Tin plated</td>
<td>35 000 contacts</td>
</tr>
</tbody>
</table>

OTHER PLATINGS ON REQUEST
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

Dimensions in mm

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.

![Diagram of CRIMPFLEX® housing series](image)

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>NO</td>
<td>1</td>
<td>02 → 25 (on request: 26 → 51)</td>
</tr>
</tbody>
</table>

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.

![Diagram of CRIMPFLEX® housing series 4F](image)

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>NO</td>
<td>2</td>
<td>04 → 50</td>
</tr>
</tbody>
</table>

Dimensions in mm

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

Mates with headers (tin or gold plated)
ref. 16-17-111-xx-1
ref. 16-17-141-xx-1
(referto page 34)
CRIMPFLEX® housings

**HOUSING SERIES 2E xx**
- This housing is used with walled pin headers 1Y (refer to page 35).
- It allows polarization and locking.

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>1</td>
<td>02 → 25</td>
</tr>
</tbody>
</table>

Dimensions in mm

**HOUSING SERIES 4E xx**
- This housing is used with double row walled headers (refer to page 35).
- It allows polarization and locking.

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>2</td>
<td>04 → 50</td>
</tr>
</tbody>
</table>

Dimensions in mm
CRIMPFLEX® housings

**HOUSING SERIES 1E xx**

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

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>1</td>
<td>02 → 25</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>NO</td>
<td>1</td>
<td>02 → 25</td>
</tr>
</tbody>
</table>

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](image1)

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>1</td>
<td>02 → 25</td>
</tr>
</tbody>
</table>

For ref. OL02 and OL03, only one guide

**Dimensions in mm**

- 1,27
- 2,5
- 3,3
- 3,2
- 2,5

**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](image2)

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>1</td>
<td>02 → 25</td>
</tr>
</tbody>
</table>

For ref. OM02 and OM03: only one guide

**Dimensions in mm**

- 1,27
- 2,5
- 3,3
- 2,5

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

![Diagram of OP03 housing series]

For ref. OP03, only one guide

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>NO</td>
<td>1</td>
<td>02 → 25</td>
</tr>
</tbody>
</table>

### 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.

![Diagram of OD02 housing series]

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>1</td>
<td>03 → 25</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>1</td>
<td>02 → 25</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>POLARIZATION</th>
<th>LOCKING SYSTEM</th>
<th>NUMBER OF ROWS</th>
<th>NUMBER OF WAYS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>NO</td>
<td>1</td>
<td>02 → 25</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>PRESS</th>
<th>TOOLING</th>
<th>PART NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10025-MO</td>
<td>MALE</td>
<td>10141 – 10241 – 10067 – 10167 – 12887</td>
</tr>
<tr>
<td>10025-MOF</td>
<td>FEMALE</td>
<td>10025 – 11506 – 11612 – 13595 – 14106</td>
</tr>
<tr>
<td>10025-SP</td>
<td>SQUARE MALE</td>
<td>12410 – 13756</td>
</tr>
</tbody>
</table>
**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.

---

<table>
<thead>
<tr>
<th>PRESS</th>
<th>TOOLING</th>
<th>PART NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10500-SA</td>
<td>MALE</td>
<td>10141 – 10241 – 10067 – 10167 – 12887</td>
</tr>
<tr>
<td></td>
<td>FEMALE</td>
<td>10025 – 11506 – 11612 – 13595 – 14106</td>
</tr>
<tr>
<td>10500-SAP</td>
<td>SQUARE MALE</td>
<td>12410 – 13756</td>
</tr>
<tr>
<td></td>
<td>MALE</td>
<td>10141 – 10241 – 10067 – 10167 – 12887</td>
</tr>
<tr>
<td></td>
<td>FEMALE</td>
<td>10025 – 11506 – 11612 – 13595 – 14106</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>CODE</th>
<th>PART NUMBER</th>
<th>CODE</th>
<th>PART NUMBER</th>
<th>CODE</th>
<th>PART NUMBER</th>
<th>CODE</th>
<th>PART NUMBER</th>
<th>CODE</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>10025-12</td>
<td>M4</td>
<td>12410-32</td>
<td>V</td>
<td>IL xx</td>
<td>D</td>
<td>OD xx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>10025-32</td>
<td>S1</td>
<td>10241-12</td>
<td>H</td>
<td>OF xx</td>
<td>2</td>
<td>2E xx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td>11506-12</td>
<td>S2</td>
<td>10141-12</td>
<td>N</td>
<td>OM xx</td>
<td>7</td>
<td>7F10 xx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4</td>
<td>11506-32</td>
<td>S3</td>
<td>10167-12</td>
<td>L</td>
<td>OL xx</td>
<td>1</td>
<td>IE xx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F5</td>
<td>14106-12</td>
<td>S4</td>
<td>10067-12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F6</td>
<td>14106-32</td>
<td>S5</td>
<td>12887-12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1</td>
<td>13395-12</td>
<td>S6</td>
<td>11612-12</td>
<td></td>
<td></td>
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<tr>
<td>M3</td>
<td>12410-12</td>
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</tr>
</tbody>
</table>

CONTACTS TABLE

HOUSINGS TABLE

OTHERS ALSO POSSIBLE

For Flex to discrete wire connection, please consult us.
### Jumper Cables

**Part Numbering System Using the CRIMPFLEX® Connector System**

- **Pitch**: 254 – 2.54 mm
- **Style**: PW – Standard White Polyester
- **Number of Conductors**
- **Conductor Size (Bare)**: E – 0.076 mm x 1.57 mm
- **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)  
  - Bending to the crimping direction
- **C** (+90° bending)  
  - Bending to the opposite side
- **K** (polyimide insulator)  
- **R** (crimping on the opposite side to the left)  
- **W** (polyester insulator)  

### HOUSING - X

- **H** – Standard Housing, P/N OF-XX
- **L** – Latching Housing, P/N OL-XX
- **4** – Dual Row Housing, P/N 4F-XX
- **D** – Detent Style Housing, P/N OD-XX
- **7** – Low Profile Housing, P/N 7F10-XX
- **V** – Latching Receptacle Housing, P/N 1L-XX

---

*Other Options are Available, Please Contact the Factory or see page 30*
# FFC Card Cable

## TECHNICAL DATA

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

*All dimensions in mm*

- Style P3 Shown

![Diagram](image)
**FFC Card Cable**

**Part Numbering System**

- **Style**
  - P3
  - P5
  - P7
  - P8

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

- **Exposed length in mm**

- **Stiffener length in mm**

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

- **Conductor Size (Tinned)**
  - 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

- **Number of Conductors**

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Headers and Sockets

STANDARD

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

STRAIGHT SINGLE AND DOUBLE ROW

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>NUMBER OF CONTACTS XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-17-111-XX-1</td>
<td>Tin plated</td>
<td>02 ≤ XX ≤ 40</td>
</tr>
<tr>
<td>12-17-141-XX-1</td>
<td>Gold plated</td>
<td>02 ≤ XX ≤ 40</td>
</tr>
<tr>
<td>16-17-111-XX-1</td>
<td>Tin plated</td>
<td>04 ≤ XX ≤ 80</td>
</tr>
<tr>
<td>16-17-141-XX-1</td>
<td>Gold plated</td>
<td>04 ≤ XX ≤ 80</td>
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</table>

Dimensions in mm

RIGHT ANGLE SINGLE AND DOUBLE ROW

<table>
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<th>REF.</th>
<th>PLATING</th>
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<tbody>
<tr>
<td>12-21-211-XX-1</td>
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<td>02 ≤ XX ≤ 40</td>
</tr>
<tr>
<td>12-21-241-XX-1</td>
<td>Gold plated</td>
<td>02 ≤ XX ≤ 40</td>
</tr>
<tr>
<td>16-52-211-XX-1</td>
<td>Tin plated</td>
<td>04 ≤ XX ≤ 80</td>
</tr>
<tr>
<td>16-52-241-XX-1</td>
<td>Gold plated</td>
<td>04 ≤ XX ≤ 80</td>
</tr>
</tbody>
</table>

Dimensions in mm

TECHNICAL DATA

PLATING
- Ni Au + 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 mΩ
- AC current rating per contact: 3 A
- Min. withstanding voltage: 500V eff.
- Min. insulation resistance: 1000MΩ

THERMAL SPECIFICATIONS

- Operating temperature: -40°C to +150°C
**Headers and Sockets**

**WALLED HEADERS**

**STRAIGHT SINGLE AND DOUBLE ROW**

Dimensions in mm

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>NUMBER OF CONTACTS XX</th>
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</thead>
<tbody>
<tr>
<td>IY-10-111-XX-1</td>
<td>Tin plated</td>
<td>02 ≤ XX ≤ 20</td>
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<tr>
<td>IY-10-141-XX-1</td>
<td>Gold plated</td>
<td>02 ≤ XX ≤ 20</td>
</tr>
<tr>
<td>IY-20-111-XX-1</td>
<td>Tin plated</td>
<td>04 ≤ XX ≤ 40</td>
</tr>
<tr>
<td>IY-20-141-XX-1</td>
<td>Gold plated</td>
<td>04 ≤ XX ≤ 40</td>
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</table>

**RIGHT ANGLE SINGLE AND DOUBLE ROW**

Dimensions in mm

<table>
<thead>
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<th>REF.</th>
<th>PLATING</th>
<th>NUMBER OF CONTACTS XX</th>
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</thead>
<tbody>
<tr>
<td>IY-10-211-XX-1</td>
<td>Tin plated</td>
<td>02 ≤ XX ≤ 20</td>
</tr>
<tr>
<td>IY-10-241-XX-1</td>
<td>Gold plated</td>
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<tr>
<td>IY-20-211-XX-1</td>
<td>Tin plated</td>
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<tr>
<td>IY-20-241-XX-1</td>
<td>Gold plated</td>
<td>04 ≤ XX ≤ 40</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>REF.</th>
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<tbody>
<tr>
<td>8Y-10-111-XX-1</td>
<td>Tin plated</td>
<td>02 ≤ XX ≤ 40</td>
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<tr>
<td>8Y-10-131-XX-1</td>
<td>Selective gold plated</td>
<td>02 ≤ XX ≤ 40</td>
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<tr>
<td>8Y-20-111-XX-1</td>
<td>Tin plated</td>
<td>04 ≤ XX ≤ 80</td>
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<tr>
<td>8Y-20-131-XX-1</td>
<td>Selective gold plated</td>
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**DOUBLE ROW DUAL ENTRY**

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<td>3Y-20-311-XX-1</td>
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<td>3Y-20-331-XX-1</td>
<td>Selective gold plated</td>
<td>04 ≤ XX ≤ 80</td>
<td>7.62</td>
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Dimensions in mm
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).

<table>
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<th>REF.</th>
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<td>02 ≤ XX ≤ 25</td>
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<tr>
<td>1L-10-141-XX-1</td>
<td>gold plated</td>
<td>02 ≤ XX ≤ 25</td>
</tr>
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</table>

**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).

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLATING</th>
<th>NUMBER OF CONTACTS XX</th>
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<tbody>
<tr>
<td>1L-10-211-XX-1</td>
<td>tin plated</td>
<td>02 ≤ XX ≤ 25</td>
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<tr>
<td>1L-10-241-XX-1</td>
<td>gold plated</td>
<td>02 ≤ XX ≤ 25</td>
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### Numerical search

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### Alphabetic search

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<td>OM</td>
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<tr>
<td>OP</td>
<td>25</td>
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</tbody>
</table>

38 NICOMATIC
YEARS OF EXPERTISE IN THE CONNECTOR INDUSTRY AT YOUR DISPOSAL

From its origin in 1976 as a micro screw machining manufacturer, NICOMATIC has taken advantage of its precision know-how to specialize in the development, design and manufacture of electronic connectors and metal dome switching technology for membrane switches and mobile phones.

Activity sector : Electronic Passive Components
Specialties : Connectors and metal domes.
Our production capabilities include everything from low volume high technology products to mass production of precision components for the consumer markets.

CMM MICRO-CONNECTORS

2 mm pitch connectors CMM series
100/200/220/320/340 (signal, high power, coax, connected shieldings, backpotting shapes...)
Special contact series HF/HP 30 and 22
High frequency coax contacts
High power contacts

CONNECTORS FOR PRINTED CIRCUIT BOARDS

Headers and Sockets
SMD test points
Discrete wire to flat cable connection
Pins, shunts and eyelets

SWITCH’AIR® DOMES AND ARRAYS OF DOMES

Four-legged non-stick domes and round domes
Semi-automatic and automatic dome placement machines (up to 5 000 domes per hour)
UltraThin LEDs & adhesive spacers for membrane switches

SPECIFIC DEVELOPMENTS

All parts requiring screw machining, cutting, moulding, and assembly know-how.

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