

SEK connectors for flat cables enable simple and –, cost-optimized device configuration. SEK connectors are preferably used for connection within the device. HARTING offers a broad range of these cable-to-board connectors.

Assembly on the cable side takes place in one work step for all contacts via flat conductors. The SEK is an economical and reliable interface for data and signal applications in industry.

Application profile:

| CONNECTION TYPE | | ENVIRONMENT | | APPLICATION | | | | | | |
|------------------------|------------------------------|--------------------------|------------------------------|------------------------------|--------------------------|-------------------------|--------------------|---------------------------|-------------------------------------|--------------------------|
| Board to Board | Cable/Wire to Board | IP 20 | IP 65 / IP 67 | Data | Signal | Power | high performance | | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | Data transfer rate | Shielding | Number of contacts, contact density | Voltage, working current |
| Cable termination | | | PCB termination | | | Application standard | | | | |
| <i>Han-Quick Lock®</i> | <i>IDC</i> | <i>Crimp</i> | <i>THT</i> | <i>SMC</i> | <i>SMT</i> | | | | | |
| | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | |
| <i>Screw</i> | <i>Cage clamp</i> | <i>Axial screw</i> | <i>Press-in</i> | | | | | | | |
| | | | <input type="checkbox"/> | | | | | | | |
| | | | | | | Housing integration | | | | |
| | | | | | | <i>Separate housing</i> | | <i>Integrated housing</i> | | |
| | | | | | | | | | | |

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Tooling see chapter 20

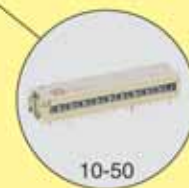
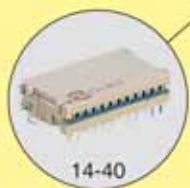
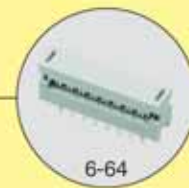
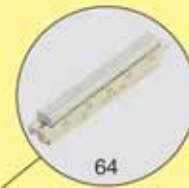
**IDC CONNECTOR SYSTEM [2.54 mm X 2.54 mm PITCH]
FOR FLAT CABLES**

HARTING's product range of flat cable connectors according to IEC 60 603-13 is designed for various cable-to-PCB applications. The HARTING SEK insulation displacement connector technology meets all IEC 60 352-4 and IEC 60 603-13 requirements.

HARTING assembles each SEK connector with the matching cable type according to customer specifications in order to simplify customer installation and storage.

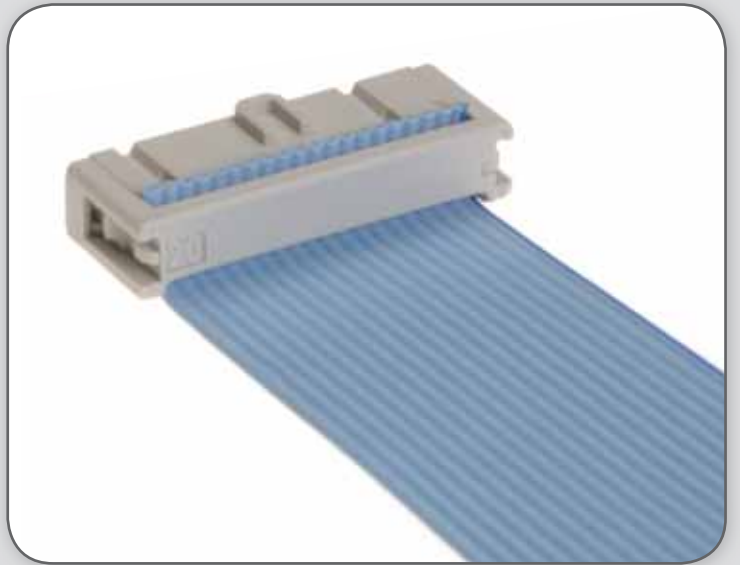
The different types of board connectors offer 6 to 64 pins in various terminations such as solder (manual, wave or reflow) or press-in.

The cable connectors are equally suited for indoor use as well as for outdoor applications and harsh environments.



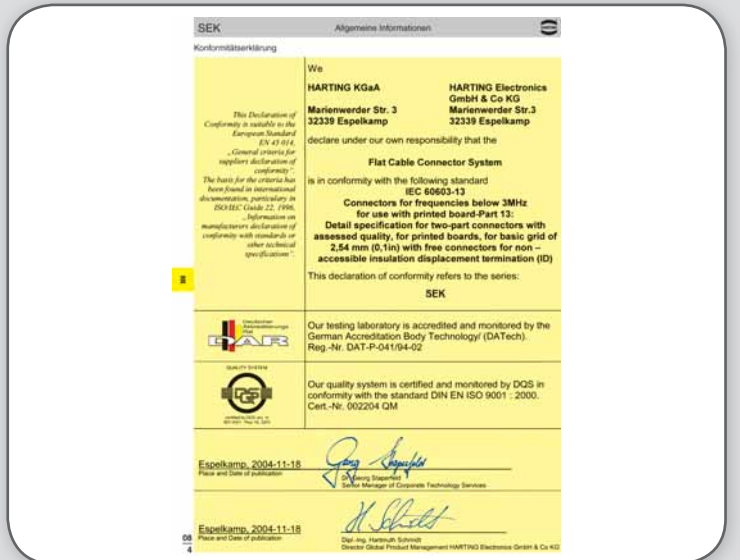
CABLE ASSEMBLIES

- HARTING can supply cable assemblies according to your specifications.
- A wide range of connector types available with various contact arrangements constitute the ideal solution to your wiring problems.
- Cables of all types in economic reel lengths are available.



QUALITY

- Cables professionally assembled on HARTING work stations ensure reliable connections.
- Finished harnesses are subject to 100% quality checks on a HARTING test device.
- Insulation test by 1000 V.
- Contact resistance test.



ECONOMY

- The tested assembly of connectors and flat cables from one manufacturer guarantees a high degree of economy and reliability.
- Investments for work stations and test devices are not required.
- Stocks of piece parts are reduced.



SEK

The HARTING Insulation Displacement Connector system

Economic and reliable connections

The flat cable and connector can be preassembled and used as a component with predetermined functional characteristics.

The HARTING insulation displacement contacts pierce the insulation on the flat cable to provide a durable gastight connection with the wire.

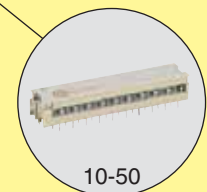
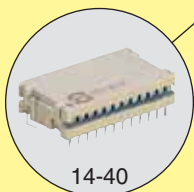
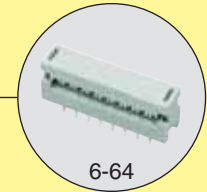
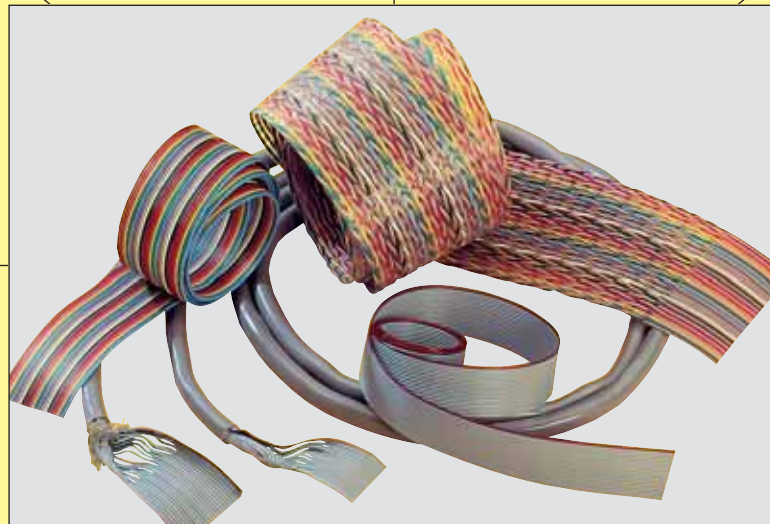
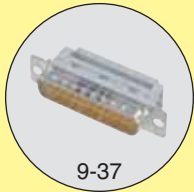
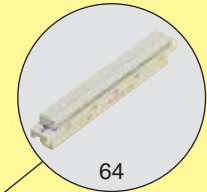
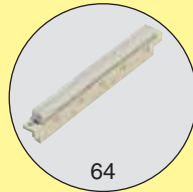
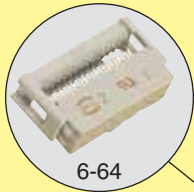
The HARTING¹⁾ insulation displacement technique constitutes the ideal solution to your wiring problems.

¹⁾ The HARTING insulation displacement system meets all the characteristics, specifications and test conditions of IEC 60352-4.

For "non standard applications" we can manufacture designs to match your requirements.

Please discuss requirements with us.

HARTING SEK connectors incorporate the latest design features and provide the assurance of high quality and reliability with economy.



Cable assemblies

- HARTING can supply cable assemblies to customer specifications.
- A wide range of connector types available with various contact arrangements constitute the ideal solution to your wiring problems.
- Cables of all types in economic reel lengths are available.

Quality

- Cables professionally assembled on HARTING work stations ensure reliable connections.
- Finished harnesses are subject to 100% quality checks on a HARTING test device.
- Insulation test.
- Contact resistance test.

Economy

- The tested assembly of connectors and flat cables from one manufacturer guarantees a high degree of economy and reliability.
- Investment for work stations and test devices are not required.
- Stocks of piece parts are reduced.

Number of contacts 6, 10, 14, 16, 20, 26, 30*, 34, 40, 50, 60, 64

Contact arrangement straight, angled

Contact length 2.9 mm, 4.5 mm

Approvals IEC 60603-13
DIN EN 60603-13
D 2632
BT 224
NFC 93-428 (HE 10)
UL recognized: E102079
comply with MIL DTL 83503



Pitch 2.54 mm [0.100"]

Working current 1 A

Working voltage 500 V
for pollution degree 1

Test voltage $U_{r.m.s.}$ 1 kV

Contact resistance $\leq 20 \text{ m}\Omega$
Insulation resistance $\geq 10^9 \Omega$

Temperature range -55 °C ... + 125 °C
The maximum temperature includes heating of contacts and ambient temperature

Terminations For pcb hole $\varnothing 1 \pm 0.1 \text{ mm}$
DIN IEC 52 141
Diagonal: 0.79 mm

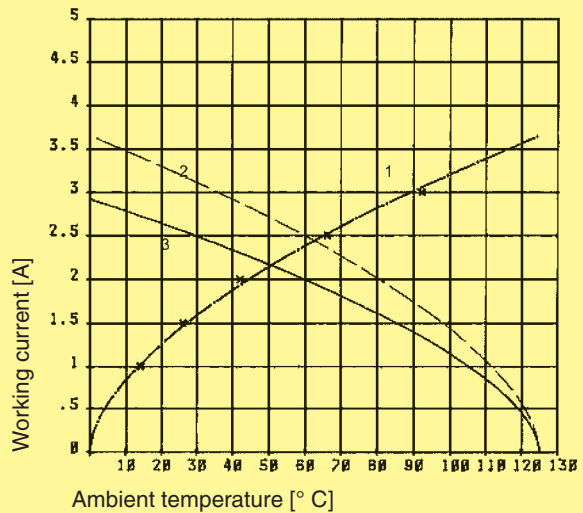
Materials Moulding Thermoplastic resin (PBTP)
UL 94-V0

Contact surface Contact zone gold-plated according to performance level¹⁾

Current carrying capacity

The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60512.



Example: 50 way connector

- ① Temperature rise
- ② Derating
- ③ Derating curve at $I_{max.} \times 0.8$ (IEC 60512-2)

Insertion and withdrawal forces

| Number of contacts | Maximum force [N] | |
|--------------------|---------------------------|---------------------|
| | Performance level 1 and 2 | Performance level 3 |
| 6 | 12 | 18 |
| 10 | 20 | 30 |
| 14 | 28 | 42 |
| 16 | 32 | 48 |
| 20 | 40 | 60 |
| 26 | 52 | 78 |
| 30 | 60 | 90 |
| 34 | 68 | 102 |
| 40 | 80 | 120 |
| 50 | 100 | 150 |
| 60 | 120 | 180 |
| 64 | 128 | 192 |

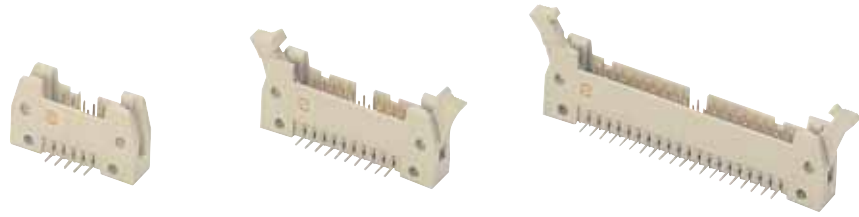
SEK

¹⁾ Performance level 3 as per IEC 60603-13, ≥ 50 mating cycles, no gas test
Performance level 2 as per IEC 60603-13, ≥ 250 mating cycles, 4 days gas test
as per MIL DTL 83503, $> 0.76 \mu\text{m Au}$ (30 μ inch), other performance levels on request

* on request

Number of contacts

6-64



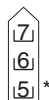
Male header with angled solder pins

| Identification | No. of contacts | Part No. | | | | | |
|--|-----------------|----------------|--------|-------------------|--------|------------------|--------|
| | | Without levers | | With short levers | | With long levers | |
| Male header with angled solder pins Length: 2.9 mm | | | | | | | |
| | 6 | 09 18 506 | └ 923 | 09 18 506 | └ 913 | 09 18 506 | └ 903 |
| | 10 | 09 18 510 | └ 923 | 09 18 510 | └ 913 | 09 18 510 | └ 903 |
| | 14 | 09 18 514 | └ 923 | 09 18 514 | └ 913 | 09 18 514 | └ 903 |
| | 16 | 09 18 516 | └ 923 | 09 18 516 | └ 913 | 09 18 516 | └ 903 |
| | 20 | 09 18 520 | └ 923 | 09 18 520 | └ 913 | 09 18 520 | └ 903 |
| | 26 | 09 18 526 | └ 923 | 09 18 526 | └ 913 | 09 18 526 | └ 903 |
| | 34 | 09 18 534 | └ 923 | 09 18 534 | └ 913 | 09 18 534 | └ 903 |
| | 40 | 09 18 540 | └ 923 | 09 18 540 | └ 913 | 09 18 540 | └ 903 |
| | 50 | 09 18 550 | └ 923 | 09 18 550 | └ 913 | 09 18 550 | └ 903 |
| | 60 | 09 18 560 | └ 923 | 09 18 560 | └ 913 | 09 18 560 | └ 903 |
| | 64 | 09 18 564 | └ 923 | 09 18 564 | └ 913 | 09 18 564 | └ 903 |
| 30 contacts and kinked version on request | | | | | | | |
| Male header with angled solder pins Length: 4.5 mm | | | | | | | |
| | 6 | 09 18 506 | └ 921* | 09 18 506 | └ 911* | 09 18 506 | └ 901* |
| | 10 | 09 18 510 | └ 921* | 09 18 510 | └ 911* | 09 18 510 | └ 901* |
| | 14 | 09 18 514 | └ 921* | 09 18 514 | └ 911* | 09 18 514 | └ 901* |
| | 16 | 09 18 516 | └ 921* | 09 18 516 | └ 911* | 09 18 516 | └ 901* |
| | 20 | 09 18 520 | └ 921* | 09 18 520 | └ 911* | 09 18 520 | └ 901* |
| | 26 | 09 18 526 | └ 921* | 09 18 526 | └ 911* | 09 18 526 | └ 901* |
| | 34 | 09 18 534 | └ 921* | 09 18 534 | └ 911* | 09 18 534 | └ 901* |
| | 40 | 09 18 540 | └ 921* | 09 18 540 | └ 911* | 09 18 540 | └ 901* |
| | 50 | 09 18 550 | └ 921* | 09 18 550 | └ 911* | 09 18 550 | └ 901* |
| | 60 | 09 18 560 | └ 921* | 09 18 560 | └ 911* | 09 18 560 | └ 901* |
| | 64 | 09 18 564 | └ 921* | 09 18 564 | └ 911* | 09 18 564 | └ 901* |
| 30 contacts and kinked version on request | | | | | | | |

SEK

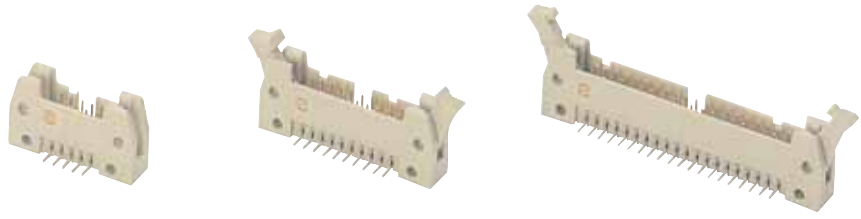
* Not normally kept in stock
 For accessories see page 08.18
 For dimensions see page 08.09

For performance level 3 please specify digit
 For performance level 2 please specify digit
 > 0.76 µm Au (30 µinch) on request



Number of contacts

6-64



Male header with angled solder pins

Identification

Drawing

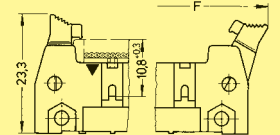
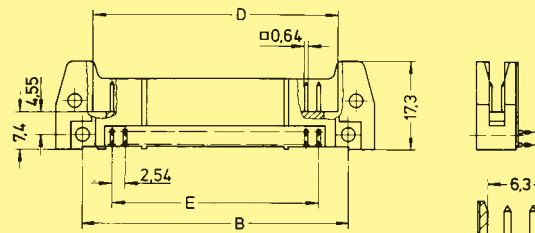
Dimensions in mm

Male header

| No. of contacts | A | B | D | E | F | G |
|-----------------|-------|-------|-------|-------------------|-------|-------|
| 6 | 26.9 | 16.76 | 12.45 | 2.54 x 2 = 5.08 | 36.9 | 40.3 |
| 10 | 32.0 | 21.84 | 17.53 | 2.54 x 4 = 10.16 | 42.0 | 45.4 |
| 14 | 37.1 | 26.92 | 22.61 | 2.54 x 6 = 15.24 | 47.1 | 50.4 |
| 16 | 39.6 | 29.46 | 25.15 | 2.54 x 7 = 17.78 | 49.6 | 53.0 |
| 20 | 44.7 | 34.54 | 30.23 | 2.54 x 9 = 22.86 | 54.7 | 58.1 |
| 26 | 52.3 | 42.16 | 37.85 | 2.54 x 12 = 30.48 | 62.3 | 65.7 |
| 34 | 62.5 | 52.32 | 48.01 | 2.54 x 16 = 40.64 | 72.5 | 75.8 |
| 40 | 70.1 | 59.94 | 55.63 | 2.54 x 19 = 48.26 | 80.1 | 83.5 |
| 50 | 82.8 | 72.64 | 68.33 | 2.54 x 24 = 60.96 | 92.8 | 96.2 |
| 60 | 95.5 | 85.34 | 81.03 | 2.54 x 29 = 73.66 | 105.5 | 108.9 |
| 64 | 100.6 | 90.42 | 86.11 | 2.54 x 31 = 78.74 | 110.6 | 113.9 |

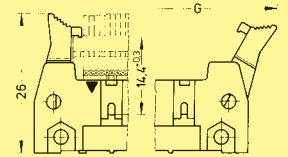
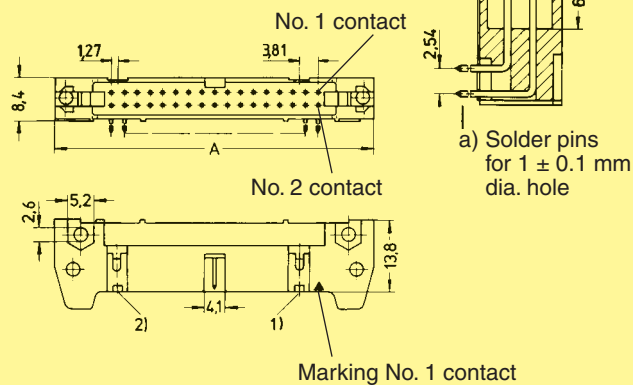
Short levers

for use with female connector without strain relief clamp

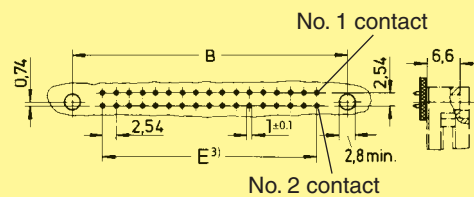


Long levers

for use with female connector with strain relief clamp



Board drillings



For accessories see page 08.18

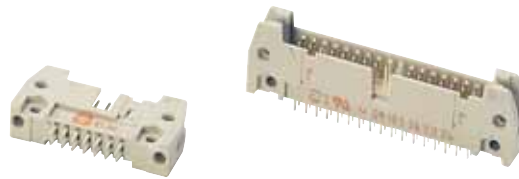
¹⁾ No polarization slot for 6, 10 or 14 way male header

²⁾ No polarization slot for 6 way male header

³⁾ Pitch tolerance: ± 0.1

Number of contacts

6-64



Male header with straight solder pins

| Identification | No. of contacts | Part No. | | | | | | |
|---|---|----------------|-----------|-------------------|-----------|------------------|-----------|--------|
| | | Without levers | | With short levers | | With long levers | | |
| Male header with straight solder pins Length: 2.9 mm | 6 | 09 18 506 | └ 924 | 09 18 506 | └ 914 | 09 18 506 | └ 904 | |
| | 10 | 09 18 510 | └ 924 | 09 18 510 | └ 914 | 09 18 510 | └ 904 | |
| | 14 | 09 18 514 | └ 924 | 09 18 514 | └ 914 | 09 18 514 | └ 904 | |
| | 16 | 09 18 516 | └ 924 | 09 18 516 | └ 914 | 09 18 516 | └ 904 | |
| | 20 | 09 18 520 | └ 924 | 09 18 520 | └ 914 | 09 18 520 | └ 904 | |
| | 26 | 09 18 526 | └ 924 | 09 18 526 | └ 914 | 09 18 526 | └ 904 | |
| | 34 | 09 18 534 | └ 924 | 09 18 534 | └ 914 | 09 18 534 | └ 904 | |
| | 40 | 09 18 540 | └ 924 | 09 18 540 | └ 914 | 09 18 540 | └ 904 | |
| | 50 | 09 18 550 | └ 924 | 09 18 550 | └ 914 | 09 18 550 | └ 904 | |
| | 60 | 09 18 560 | └ 924 | 09 18 560 | └ 914 | 09 18 560 | └ 904 | |
| | 64 | 09 18 564 | └ 924 | 09 18 564 | └ 914 | 09 18 564 | └ 904 | |
| | 30 contacts on request | | | | | | | |
| | Male header with straight solder pins Length: 4.5 mm | 6 | 09 18 506 | └ 922* | 09 18 506 | └ 912* | 09 18 506 | └ 902* |
| 10 | | 09 18 510 | └ 922* | 09 18 510 | └ 912* | 09 18 510 | └ 902* | |
| 14 | | 09 18 514 | └ 922* | 09 18 514 | └ 912* | 09 18 514 | └ 902* | |
| 16 | | 09 18 516 | └ 922* | 09 18 516 | └ 912* | 09 18 516 | └ 902* | |
| 20 | | 09 18 520 | └ 922* | 09 18 520 | └ 912* | 09 18 520 | └ 902* | |
| 26 | | 09 18 526 | └ 922* | 09 18 526 | └ 912* | 09 18 526 | └ 902* | |
| 34 | | 09 18 534 | └ 922* | 09 18 534 | └ 912* | 09 18 534 | └ 902* | |
| 40 | | 09 18 540 | └ 922* | 09 18 540 | └ 912* | 09 18 540 | └ 902* | |
| 50 | | 09 18 550 | └ 922* | 09 18 550 | └ 912* | 09 18 550 | └ 902* | |
| 60 | | 09 18 560 | └ 922* | 09 18 560 | └ 912* | 09 18 560 | └ 902* | |
| 64 | | 09 18 564 | └ 922* | 09 18 564 | └ 912* | 09 18 564 | └ 902* | |
| 30 contacts and kinked version on request | | | | | | | | |

SEK

08
10

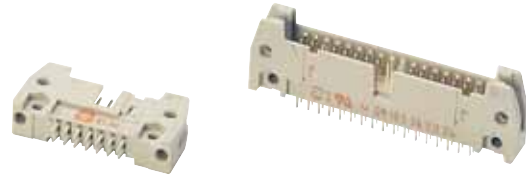
* Not normally kept in stock
 For accessories see page 08.18
 For dimensions see page 08.11

For performance level 3 please specify digit
 For performance level 2 please specify digit
 > 0.76 µm Au (30 µinch) on request



Number of contacts

6-64



Male header with straight solder pins

Identification

Drawing

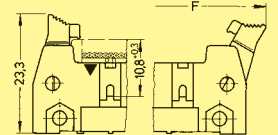
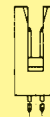
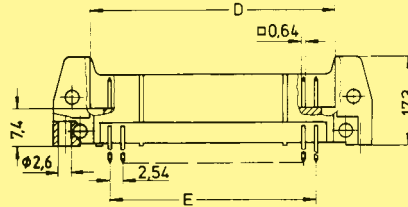
Dimensions in mm

Male header

| No. of contacts | A | C | D | E | F | G |
|-----------------|-------|-------|-------|-------------------|-------|-------|
| 6 | 26.9 | 22.86 | 12.45 | 2.54 x 2 = 5.08 | 36.9 | 40.3 |
| 10 | 32.0 | 27.94 | 17.53 | 2.54 x 4 = 10.16 | 42.0 | 45.4 |
| 14 | 37.1 | 33.02 | 22.61 | 2.54 x 6 = 15.24 | 47.1 | 50.4 |
| 16 | 39.6 | 35.56 | 25.15 | 2.54 x 7 = 17.78 | 49.6 | 53.0 |
| 20 | 44.7 | 40.64 | 30.23 | 2.54 x 9 = 22.86 | 54.7 | 58.1 |
| 26 | 52.3 | 48.26 | 37.85 | 2.54 x 12 = 30.48 | 62.3 | 65.7 |
| 34 | 62.5 | 58.42 | 48.01 | 2.54 x 16 = 40.64 | 72.5 | 75.8 |
| 40 | 70.1 | 66.04 | 55.63 | 2.54 x 19 = 48.26 | 80.1 | 83.5 |
| 50 | 82.8 | 78.74 | 68.33 | 2.54 x 24 = 60.96 | 92.8 | 96.2 |
| 60 | 95.5 | 91.44 | 81.03 | 2.54 x 29 = 73.66 | 105.5 | 108.9 |
| 64 | 100.6 | 96.52 | 86.11 | 2.54 x 31 = 78.74 | 110.6 | 113.9 |

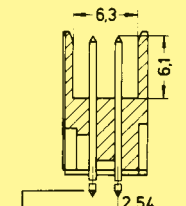
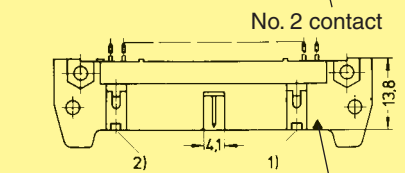
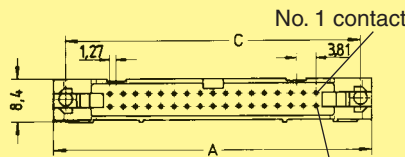
Short levers

for use with female connector without strain relief clamp

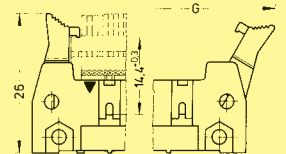


Long levers

for use with female connector with strain relief clamp

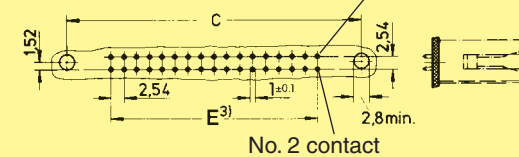


a) Solder pins for 1 ± 0.1 mm dia. hole



Marking No. 1 contact

No. 1 contact



No. 2 contact

Board drillings

For accessories see page 08.18

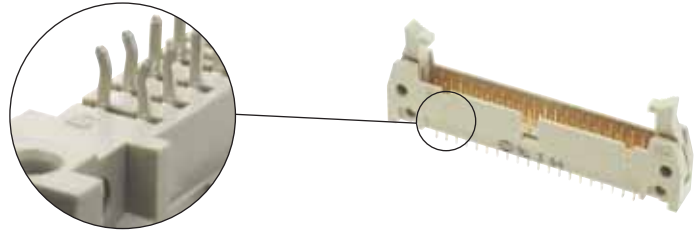
1) No polarization slot for 6, 10 or 14 way male header

2) No polarization slot for 6 way male header

3) Pitch tolerance: ± 0.1

Number of contacts

6-64



Male header with straight solder pins, kinked

| Identification | No. of contacts | Part No. | | | | | |
|---|-----------------|----------------|-------|-------------------|-------|------------------|-------|
| | | Without levers | | With short levers | | With long levers | |
| Male header with straight solder pins, kinked Length: 2.9 mm | 6 | 09 18 506 | └ 024 | 09 18 506 | └ 014 | 09 18 506 | └ 004 |
| | 10 | 09 18 510 | └ 024 | 09 18 510 | └ 014 | 09 18 510 | └ 004 |
| | 14 | 09 18 514 | └ 024 | 09 18 514 | └ 014 | 09 18 514 | └ 004 |
| | 16 | 09 18 516 | └ 024 | 09 18 516 | └ 014 | 09 18 516 | └ 004 |
| | 20 | 09 18 520 | └ 024 | 09 18 520 | └ 014 | 09 18 520 | └ 004 |
| | 26 | 09 18 526 | └ 024 | 09 18 526 | └ 014 | 09 18 526 | └ 004 |
| | 34 | 09 18 534 | └ 024 | 09 18 534 | └ 014 | 09 18 534 | └ 004 |
| | 40 | 09 18 540 | └ 024 | 09 18 540 | └ 014 | 09 18 540 | └ 004 |
| | 50 | 09 18 550 | └ 024 | 09 18 550 | └ 014 | 09 18 550 | └ 004 |
| | 60 | 09 18 560 | └ 024 | 09 18 560 | └ 014 | 09 18 560 | └ 004 |
| | 64 | 09 18 564 | └ 024 | 09 18 564 | └ 014 | 09 18 564 | └ 004 |

SEK

08
12

30 contacts on request

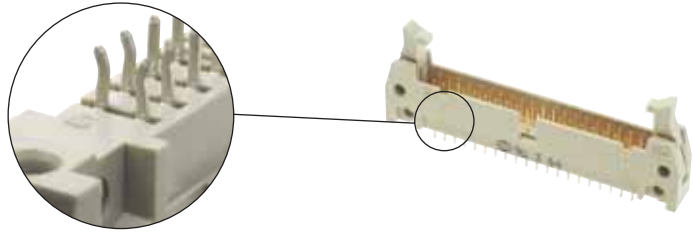
* Not normally kept in stock
 For accessories see page 08.18
 For dimensions see page 08.13

For performance level 3 please specify digit
 For performance level 2 please specify digit
 > 0.76 µm Au (30 µinch) on request



Number of contacts

6-64



Male header with straight solder pins, kinked

Identification

Drawing

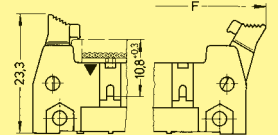
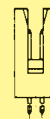
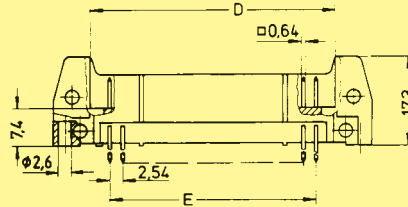
Dimensions in mm

Male header

| No. of contacts | A | C | D | E | F | G |
|-----------------|-------|-------|-------|-------------------|-------|-------|
| 6 | 26.9 | 22.86 | 12.45 | 2.54 x 2 = 5.08 | 36.9 | 40.3 |
| 10 | 32.0 | 27.94 | 17.53 | 2.54 x 4 = 10.16 | 42.0 | 45.4 |
| 14 | 37.1 | 33.02 | 22.61 | 2.54 x 6 = 15.24 | 47.1 | 50.4 |
| 16 | 39.6 | 35.56 | 25.15 | 2.54 x 7 = 17.78 | 49.6 | 53.0 |
| 20 | 44.7 | 40.64 | 30.23 | 2.54 x 9 = 22.86 | 54.7 | 58.1 |
| 26 | 52.3 | 48.26 | 37.85 | 2.54 x 12 = 30.48 | 62.3 | 65.7 |
| 34 | 62.5 | 58.42 | 48.01 | 2.54 x 16 = 40.64 | 72.5 | 75.8 |
| 40 | 70.1 | 66.04 | 55.63 | 2.54 x 19 = 48.26 | 80.1 | 83.5 |
| 50 | 82.8 | 78.74 | 68.33 | 2.54 x 24 = 60.96 | 92.8 | 96.2 |
| 60 | 95.5 | 91.44 | 81.03 | 2.54 x 29 = 73.66 | 105.5 | 108.9 |
| 64 | 100.6 | 96.52 | 86.11 | 2.54 x 31 = 78.74 | 110.6 | 113.9 |

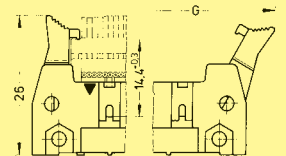
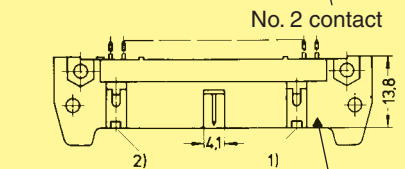
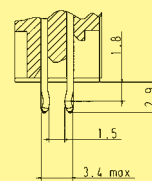
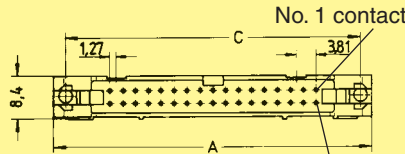
Short levers

for use with female connector without strain relief clamp



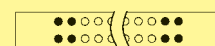
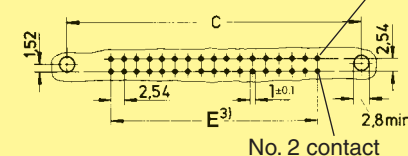
Long levers

for use with female connector with strain relief clamp



Marking No. 1 contact

No. 1 contact



No. 2 contact

Board drillings

● Kinked contact: pcb thickness from 1.50 to 1.94 mm after Cu + Sn plating with non-remelted through holes \varnothing 0.80 to \varnothing 0.95 mm. Max. insertion force = 125 N. Min. retention force = 6 N.

○ Non-kinked contact: Solder pins for pcb connections \varnothing 1 ± 0.1 mm as per IEC 60603-13.

For accessories see page 08.18

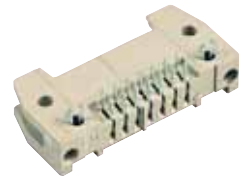
¹⁾ No polarization slot for 6, 10 or 14 way male header

²⁾ No polarization slot for 6 way male header

³⁾ Pitch tolerance: ± 0.1

Number of contacts

6-64



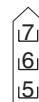
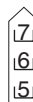
Male header with angled solder pins and board lock

| Identification | No. of contacts | Part No. | | | | | |
|--|-----------------|----------------|--------|-------------------|--------|------------------|--------|
| | | Without levers | | With short levers | | With long levers | |
| <p>Male header with angled solder pins and pcb board lock</p> <p>Length: 2.9 mm for 1.6 mm pcb thickness</p> <p>To hold the connector on the pcb before the soldering process, two board locks have been added on the male header with angled solder pins.</p> | 6 | 09 18 506 | └ 973* | 09 18 506 | └ 963* | 09 18 506 | └ 953* |
| | 10 | 09 18 510 | └ 973* | 09 18 510 | └ 963* | 09 18 510 | └ 953* |
| | 14 | 09 18 514 | └ 973* | 09 18 514 | └ 963* | 09 18 514 | └ 953* |
| | 16 | 09 18 516 | └ 973* | 09 18 516 | └ 963* | 09 18 516 | └ 953* |
| | 20 | 09 18 520 | └ 973* | 09 18 520 | └ 963* | 09 18 520 | └ 953* |
| | 26 | 09 18 526 | └ 973* | 09 18 526 | └ 963* | 09 18 526 | └ 953* |
| | 34 | 09 18 534 | └ 973* | 09 18 534 | └ 963* | 09 18 534 | └ 953* |
| | 40 | 09 18 540 | └ 973* | 09 18 540 | └ 963* | 09 18 540 | └ 953* |
| | 50 | 09 18 550 | └ 973* | 09 18 550 | └ 963* | 09 18 550 | └ 953* |
| | 60 | 09 18 560 | └ 973* | 09 18 560 | └ 963* | 09 18 560 | └ 953* |
| | 64 | 09 18 564 | └ 973* | 09 18 564 | └ 963* | 09 18 564 | └ 953* |

SEK

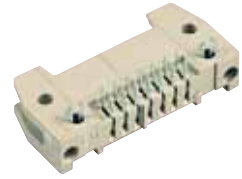
* Not normally kept in stock
30 contacts on request

For performance level 3 please specify digit
For performance level 2 please specify digit
> 0.76 µm Au (30 µinch) on request



Number of contacts

6-64



Male header with angled solder pins and board lock

Identification

Drawing

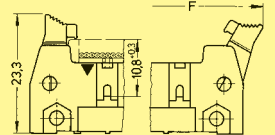
Dimensions in mm

Male header

| No. of contacts | A | B | D | E | F | G |
|-----------------|-------|-------|-------|-------------------|-------|-------|
| 6 | 26.9 | 16.76 | 12.45 | 2.54 x 2 = 5.08 | 36.9 | 40.3 |
| 10 | 32.0 | 21.84 | 17.53 | 2.54 x 4 = 10.16 | 42.0 | 45.4 |
| 14 | 37.1 | 26.92 | 22.61 | 2.54 x 6 = 15.24 | 47.1 | 50.4 |
| 16 | 39.6 | 29.46 | 25.15 | 2.54 x 7 = 17.78 | 49.6 | 53.0 |
| 20 | 44.7 | 34.54 | 30.23 | 2.54 x 9 = 22.86 | 54.7 | 58.1 |
| 26 | 52.3 | 42.16 | 37.85 | 2.54 x 12 = 30.48 | 62.3 | 65.7 |
| 34 | 62.5 | 52.32 | 48.01 | 2.54 x 16 = 40.64 | 72.5 | 75.8 |
| 40 | 70.1 | 59.94 | 55.63 | 2.54 x 19 = 48.26 | 80.1 | 83.5 |
| 50 | 82.8 | 72.64 | 68.33 | 2.54 x 24 = 60.96 | 92.8 | 96.2 |
| 60 | 95.5 | 85.34 | 81.03 | 2.54 x 29 = 73.66 | 105.5 | 108.9 |
| 64 | 100.6 | 90.42 | 86.11 | 2.54 x 31 = 78.74 | 110.6 | 113.9 |

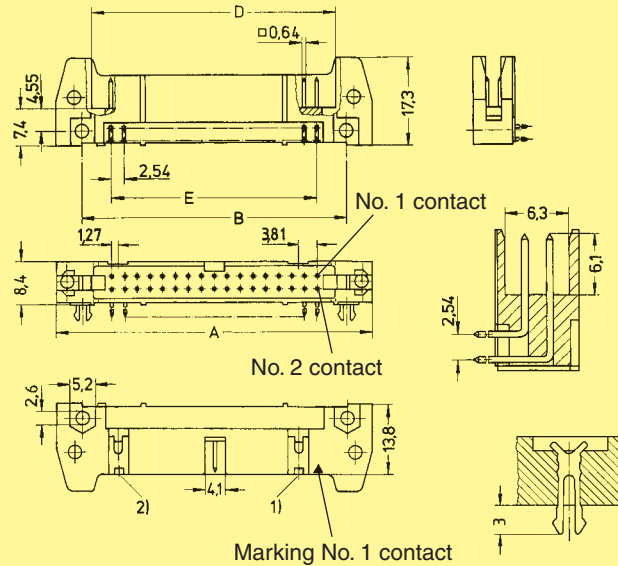
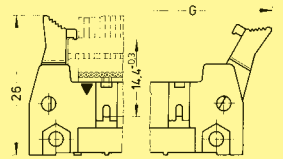
Short levers

for use with female connector without strain relief clamp

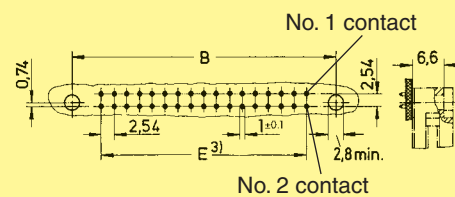


Long levers

for use with female connector with strain relief clamp



Board drillings



For accessories see page 08.18

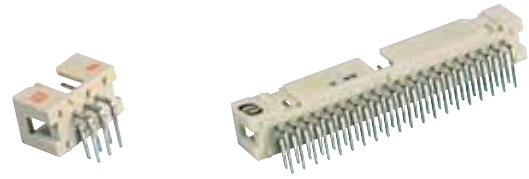
¹⁾ No polarization slot for 6, 10 or 14 way male header

²⁾ No polarization slot for 6 way male header

³⁾ Pitch tolerance: ± 0.1

Number of contacts

6-64



Low-profile male header, angled solder pins

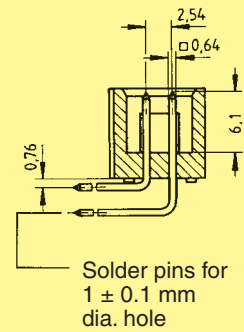
Identification No. of contacts Part No. Drawing Dimensions in mm

Male header with angled solder pins

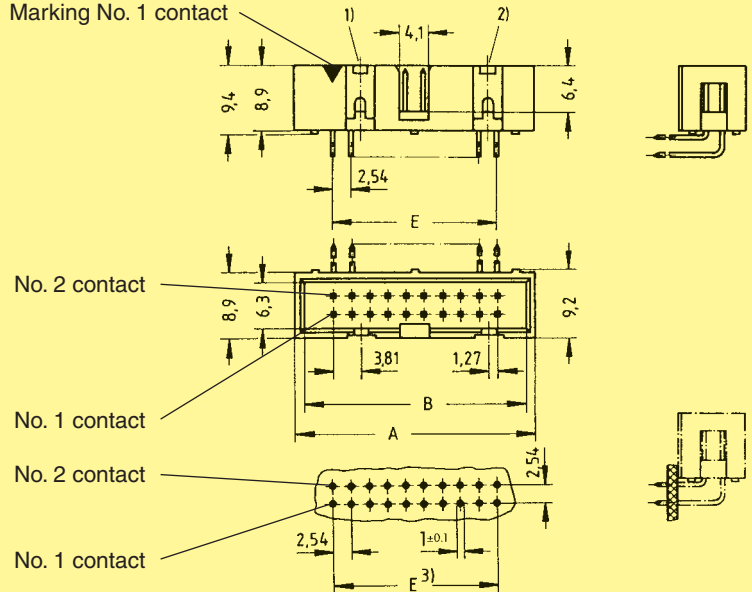
Length: 2.9 mm

| | | |
|----|-----------|-------|
| 6 | 09 18 506 | □ 323 |
| 10 | 09 18 510 | □ 323 |
| 14 | 09 18 514 | □ 323 |
| 16 | 09 18 516 | □ 323 |
| 20 | 09 18 520 | □ 323 |
| 26 | 09 18 526 | □ 323 |
| 34 | 09 18 534 | □ 323 |
| 40 | 09 18 540 | □ 323 |
| 50 | 09 18 550 | □ 323 |
| 60 | 09 18 560 | □ 323 |
| 64 | 09 18 564 | □ 323 |

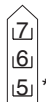
| No. of contacts | A | B | E |
|-----------------|------|-------|-------------------|
| 6 | 15.2 | 12.78 | 2.54 x 2 = 5.08 |
| 10 | 20.3 | 17.86 | 2.54 x 4 = 10.16 |
| 14 | 25.4 | 22.94 | 2.54 x 6 = 15.24 |
| 16 | 27.9 | 25.48 | 2.54 x 7 = 17.78 |
| 20 | 33.0 | 30.56 | 2.54 x 9 = 22.86 |
| 26 | 40.6 | 38.18 | 2.54 x 12 = 30.48 |
| 34 | 50.8 | 48.34 | 2.54 x 16 = 40.64 |
| 40 | 58.4 | 55.96 | 2.54 x 19 = 48.26 |
| 50 | 71.3 | 68.66 | 2.54 x 24 = 60.96 |
| 60 | 84.0 | 81.36 | 2.54 x 29 = 73.66 |
| 64 | 89.1 | 86.44 | 2.54 x 31 = 78.74 |



Marking No. 1 contact



For performance level 3 please specify digit
For performance level 2 please specify digit
> 0.76 µm Au (30 µinch) on request

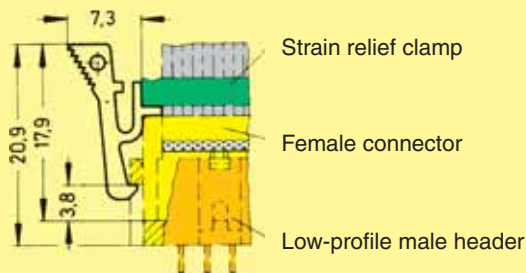


Identification No. of contacts Part No. Drawing Dimensions in mm

Locking lever for female connector with strain relief in conjunction with low-profile male header

When the security of latching is required and space is a premium, these locking levers can be fitted onto the strain relief of the HARTING female connector.

09 18 000 9905⁴⁾



* Not normally kept in stock

¹⁾ No polarization slot for 6, 10 or 14 way male header
²⁾ No polarization slot for 6 way male header

³⁾ Pitch tolerance: ± 0.1
⁴⁾ Order 2 per female connector

Number of contacts

6-64



Low-profile male header, straight solder pins

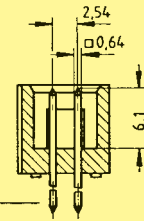
Identification No. of contacts Part No. Drawing Dimensions in mm

Male header with straight solder pins

Length: 2.9 mm

| | | |
|----|-----------|-------|
| 6 | 09 18 506 | └ 324 |
| 10 | 09 18 510 | └ 324 |
| 14 | 09 18 514 | └ 324 |
| 16 | 09 18 516 | └ 324 |
| 20 | 09 18 520 | └ 324 |
| 26 | 09 18 526 | └ 324 |
| 34 | 09 18 534 | └ 324 |
| 40 | 09 18 540 | └ 324 |
| 50 | 09 18 550 | └ 324 |
| 60 | 09 18 560 | └ 324 |
| 64 | 09 18 564 | └ 324 |

| No. of contacts | A | B | E |
|-----------------|------|-------|-------------------|
| 6 | 15.2 | 12.78 | 2.54 x 2 = 5.08 |
| 10 | 20.3 | 17.86 | 2.54 x 4 = 10.16 |
| 14 | 25.4 | 22.94 | 2.54 x 6 = 15.24 |
| 16 | 27.9 | 25.48 | 2.54 x 7 = 17.78 |
| 20 | 33.0 | 30.56 | 2.54 x 9 = 22.86 |
| 26 | 40.6 | 38.18 | 2.54 x 12 = 30.48 |
| 34 | 50.8 | 48.34 | 2.54 x 16 = 40.64 |
| 40 | 58.4 | 55.96 | 2.54 x 19 = 48.26 |
| 50 | 71.3 | 68.66 | 2.54 x 24 = 60.96 |
| 60 | 84.0 | 81.36 | 2.54 x 29 = 73.66 |
| 64 | 89.1 | 86.44 | 2.54 x 31 = 78.74 |



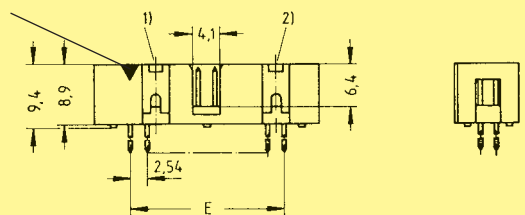
Solder pins for 1 ± 0.1 mm dia. hole

Male header with straight solder pins

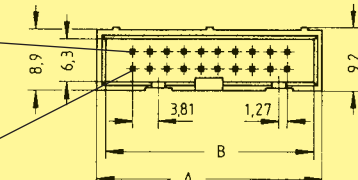
Length: 4.5 mm

| | | |
|----|-----------|--------|
| 6 | 09 18 506 | └ 322* |
| 10 | 09 18 510 | └ 322* |
| 14 | 09 18 514 | └ 322* |
| 16 | 09 18 516 | └ 322* |
| 20 | 09 18 520 | └ 322* |
| 26 | 09 18 526 | └ 322* |
| 34 | 09 18 534 | └ 322* |
| 40 | 09 18 540 | └ 322* |
| 50 | 09 18 550 | └ 322* |
| 60 | 09 18 560 | └ 322* |
| 64 | 09 18 564 | └ 322* |

Marking No. 1 contact

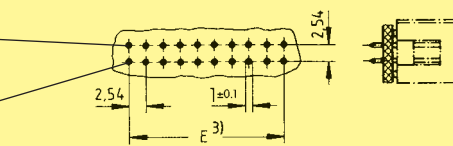


No. 2 contact



No. 1 contact

No. 2 contact



No. 1 contact

For performance level 3 please specify digit 7
For performance level 2 please specify digit 6
> 0.76 µm Au (30 µinch) on request

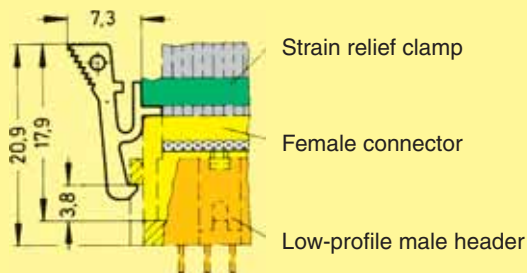


Identification No. of contacts Part No. Drawing Dimensions in mm

Locking lever for female connector with strain relief in conjunction with low-profile male header

When the security of latching is required and space is a premium, these locking levers can be fitted onto the strain relief of the HARTING female connector.

| |
|------------------------------|
| 09 18 000 9905 ⁴⁾ |
|------------------------------|



* Not normally kept in stock

¹⁾ No polarization slot for 6, 10 or 14 way male header
²⁾ No polarization slot for 6 way male header

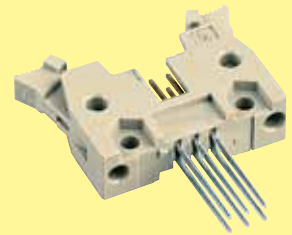
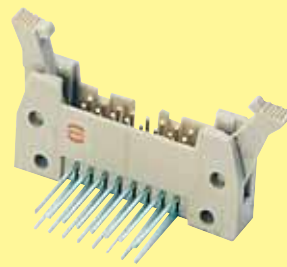
³⁾ Pitch tolerance: ± 0.1
⁴⁾ Order 2 per female connector

Accessories

| Identification | Part No. | Drawing | Dimensions in mm |
|--|--|--|------------------|
| <p>Polarization key</p> <p>1) Part No. comprises 2 keys</p> | <p>09 18 500 9902¹⁾</p> | | |
| <p>Locking lever (snaps into place, can be fitted whenever required)</p> <p>2) Order 2 per male header</p> | <p>Long: 09 18 000 9903²⁾</p> <p>Short: 09 18 000 9904²⁾</p> | <p>Long</p> <p>Short</p> <p>For use with female connector <u>with</u> strain relief clamp</p> <p>For use with female connector <u>without</u> strain relief clamp</p> | |
| <p>Fixing screws for 1.6 mm P.C. board</p> <p>3) Part No. comprises 50 pieces</p> | <p>09 18 000 9906³⁾</p> | | |
| <p>Coding system with loss of contact</p> <p>4) Part No. comprises 6 code pins</p> | <p>Code pin 09 18 000 9901⁴⁾</p> <p>Removal tool for male contacts 09 99 000 0133</p> | <p>To avoid cross-plugging adjacent connectors a coding system is required. A code pin is inserted into the appropriate cavity in the female connector. The corresponding male contact is removed by a special removal tool.</p> | |

SEK

| | |
|---------------------------|--|
| Number of contacts | 6, 10, 14, 16, 20, 26, 34, 40, 50, 60, 64 |
| Contact arrangement | straight, angled |
| Contact length | 15 mm |
| Approvals | IEC 60603-13 DIN EN 60603-13 D 2632 BT 224 NFC 93-428 (HE 10) comply with MIL DTL 83503 |
| Pitch | 2.54 mm [0.100"] |
| Working current | 1 A |
| Working voltage | 500 V for pollution degree 1 |
| Test voltage $U_{r.m.s.}$ | 1 kV |
| Contact resistance | $\leq 20 \text{ m}\Omega$ |
| Insulation resistance | $\geq 10^9 \Omega$ |
| Temperature range | -55 °C ... + 125 °C The maximum temperature includes heating of contacts and ambient temperature |
| Terminations | 0.6 mm x 0.6 mm Diagonal: 0.86 mm |
| Materials | |
| Moulding | Thermoplastic resin (PBTP) UL 94-V0 |
| Contact surface | |
| Contact zone | gold-plated according to performance level ¹⁾ |



¹⁾ Performance level 3 as per IEC 60603-13, ≥ 50 mating cycles, no gas test
Performance level 2 as per IEC 60603-13, ≥ 250 mating cycles, 4 days gas test
as per MIL DTL 83503, $> 0.76 \mu\text{m Au}$ (30 μ inch), other performance levels on request

Number of contacts

6-64



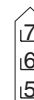
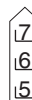
Male header with wrap posts

| Identification | No. of contacts | Part No. | | | | | | |
|--|--|----------------|-----------|-------------------|-----------|------------------|-----------|--------|
| | | Without levers | | With short levers | | With long levers | | |
| Male header with angled wrap posts Length: 15 mm □ 0.6 mm | 6 | 09 18 506 | └ 926* | 09 18 506 | └ 916* | 09 18 506 | └ 906* | |
| | 10 | 09 18 510 | └ 926* | 09 18 510 | └ 916* | 09 18 510 | └ 906* | |
| | 14 | 09 18 514 | └ 926* | 09 18 514 | └ 916* | 09 18 514 | └ 906* | |
| | 16 | 09 18 516 | └ 926* | 09 18 516 | └ 916* | 09 18 516 | └ 906* | |
| | 20 | 09 18 520 | └ 926* | 09 18 520 | └ 916* | 09 18 520 | └ 906* | |
| | 26 | 09 18 526 | └ 926* | 09 18 526 | └ 916* | 09 18 526 | └ 906* | |
| | 34 | 09 18 534 | └ 926* | 09 18 534 | └ 916* | 09 18 534 | └ 906* | |
| | 40 | 09 18 540 | └ 926* | 09 18 540 | └ 916* | 09 18 540 | └ 906* | |
| | 50 | 09 18 550 | └ 926* | 09 18 550 | └ 916* | 09 18 550 | └ 906* | |
| | 60 | 09 18 560 | └ 926* | 09 18 560 | └ 916* | 09 18 560 | └ 906* | |
| | 64 | 09 18 564 | └ 926* | 09 18 564 | └ 916* | 09 18 564 | └ 906* | |
| | Male header with straight wrap posts Length: 15 mm □ 0.6 mm | 6 | 09 18 506 | └ 927* | 09 18 506 | └ 917* | 09 18 506 | └ 907* |
| | | 10 | 09 18 510 | └ 927* | 09 18 510 | └ 917* | 09 18 510 | └ 907* |
| 14 | | 09 18 514 | └ 927* | 09 18 514 | └ 917* | 09 18 514 | └ 907* | |
| 16 | | 09 18 516 | └ 927* | 09 18 516 | └ 917* | 09 18 516 | └ 907* | |
| 20 | | 09 18 520 | └ 927* | 09 18 520 | └ 917* | 09 18 520 | └ 907* | |
| 26 | | 09 18 526 | └ 927* | 09 18 526 | └ 917* | 09 18 526 | └ 907* | |
| 34 | | 09 18 534 | └ 927* | 09 18 534 | └ 917* | 09 18 534 | └ 907* | |
| 40 | | 09 18 540 | └ 927* | 09 18 540 | └ 917* | 09 18 540 | └ 907* | |
| 50 | | 09 18 550 | └ 927* | 09 18 550 | └ 917* | 09 18 550 | └ 907* | |
| 60 | | 09 18 560 | └ 927* | 09 18 560 | └ 917* | 09 18 560 | └ 907* | |
| 64 | | 09 18 564 | └ 927* | 09 18 564 | └ 917* | 09 18 564 | └ 907* | |

SEK

* Not normally kept in stock
 For accessories see page 08.22
 For dimensions see page 08.21

For performance level 3 please specify digit
 For performance level 2 please specify digit
 > 0.76 µm Au (30 µinch) on request



Number of contacts

6-64



Male header with wrap posts

Identification

Drawing

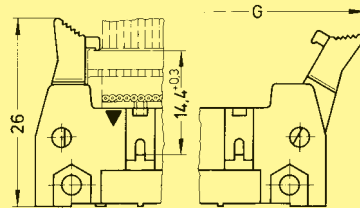
Dimensions in mm

Male header

| No. of contacts | A | B | C | D | E | F | G |
|-----------------|-------|-------|-------|-------|-------------------|-------|-------|
| 6 | 26.9 | 16.76 | 22.86 | 12.45 | 2.54 x 2 = 5.08 | 36.9 | 40.3 |
| 10 | 32.0 | 21.84 | 27.94 | 17.53 | 2.54 x 4 = 10.16 | 42.0 | 45.4 |
| 14 | 37.1 | 26.92 | 33.02 | 22.61 | 2.54 x 6 = 15.24 | 47.1 | 50.4 |
| 16 | 39.6 | 29.46 | 35.56 | 25.15 | 2.54 x 7 = 17.78 | 49.6 | 53.0 |
| 20 | 44.7 | 34.54 | 40.64 | 30.23 | 2.54 x 9 = 22.86 | 54.7 | 58.1 |
| 26 | 52.3 | 42.16 | 48.26 | 37.85 | 2.54 x 12 = 30.48 | 62.3 | 65.7 |
| 34 | 62.5 | 52.32 | 58.42 | 48.01 | 2.54 x 16 = 40.64 | 72.5 | 75.8 |
| 40 | 70.1 | 59.94 | 66.04 | 55.63 | 2.54 x 19 = 48.26 | 80.1 | 83.5 |
| 50 | 82.8 | 72.64 | 78.74 | 68.33 | 2.54 x 24 = 60.96 | 92.8 | 96.2 |
| 60 | 95.5 | 85.34 | 91.44 | 81.03 | 2.54 x 29 = 73.66 | 105.5 | 108.9 |
| 64 | 100.6 | 90.42 | 96.52 | 86.11 | 2.54 x 31 = 78.74 | 110.6 | 113.9 |

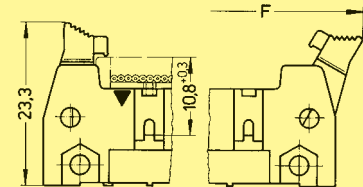
Long levers

for use with female connector with strain relief clamp

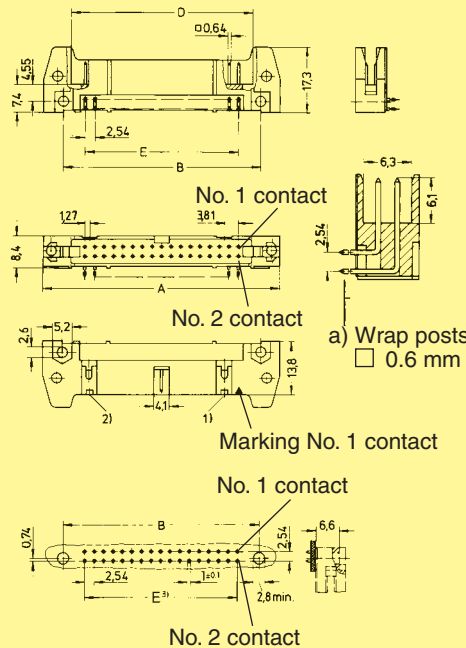


Short levers

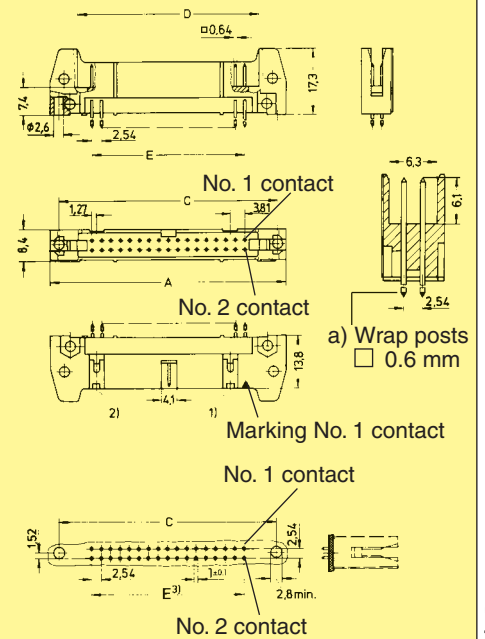
for use with female connector without strain relief clamp



Angled versions



Straight versions



Board drillings

For accessories see page 08.22

¹⁾ No polarization slot for 6, 10 or 14 way male header

²⁾ No polarization slot for 6 way male header
³⁾ Pitch tolerance: ± 0.1

Accessories

| Identification | Part No. | Drawing | Dimensions in mm |
|--|--|--|------------------|
| <p>Polarization key</p> <p>1) Part No. comprises 2 keys</p> | 09 18 500 9902 ¹⁾ | | |
| <p>Locking lever (snaps into place, can be fitted whenever required)</p> <p>2) Order 2 per male header</p> | <p>Long: 09 18 000 9903²⁾</p> <p>Short: 09 18 000 9904²⁾</p> | <p>Long</p> <p>Short</p> <p>For use with female connector <u>with</u> strain relief clamp</p> <p>For use with female connector <u>without</u> strain relief clamp</p> | |
| <p>Fixing screws for 1.6 mm P.C. board</p> <p>3) Part No. comprises 50 pieces</p> | 09 18 000 9906 ³⁾ | | |
| <p>Coding system with loss of contact</p> <p>Code pin</p> <p>4) Part No. comprises 6 code pins</p> | 09 18 000 9901 ⁴⁾ | <p>To avoid cross-plugging adjacent connectors a coding system is required. A code pin is inserted into the appropriate cavity in the female connector. The corresponding male contact is removed by a special removal tool.</p> <p>Removal tool for male contacts</p> | |
| | 09 99 000 0133 | | |

SEK

Number of contacts 6, 10, 14, 16, 20, 26, 30*, 34, 40, 50, 60, 64

Approvals IEC 60 603-13
DIN EN 60 603-13
D 2632
BT 224
NFC 93-428 (HE 10)

UL recognized: E102079
comply with MIL DTL 83 503



Pitch 2.54 mm [0.100"]

Working current 1 A

Working voltage 320 V
for pollution degree 1

Test voltage $U_{r.m.s.}$ 1 kV

Contact resistance $\leq 20 \text{ m}\Omega$
Insulation resistance $\geq 10^9 \Omega$

Temperature range -55 °C ... + 125 °C
The maximum temperature includes heating of contacts and ambient temperature

Terminations IDC flat cable
1.27 mm [0.050"] pitch:
AWG 26/7 – AWG 28/7

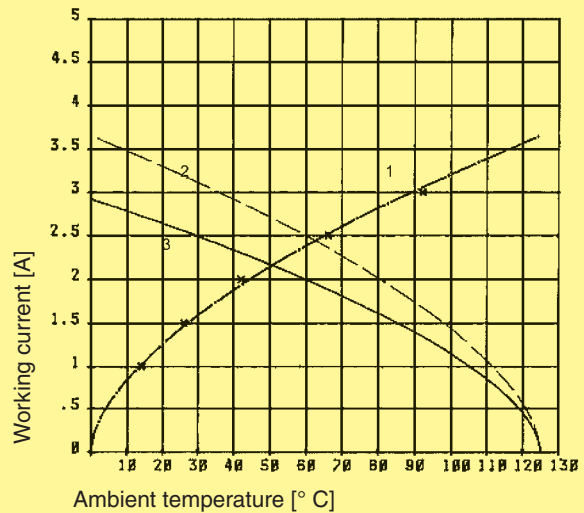
Materials Moulding Thermoplastic resin (PBTP)
UL 94-V0

Contact surface Contact zone gold-plated according to performance level¹⁾

Current carrying capacity

The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60 512.



Example: 50 way connector

- ① Temperature rise
- ② Derating
- ③ Derating curve at $I_{max.} \times 0.8$ (IEC 60512-2)

Insertion and withdrawal forces

| Number of contacts | Maximum force [N] | |
|--------------------|---------------------------|---------------------|
| | Performance level 1 and 2 | Performance level 3 |
| 6 | 12 | 18 |
| 10 | 20 | 30 |
| 14 | 28 | 42 |
| 16 | 32 | 48 |
| 20 | 40 | 60 |
| 26 | 52 | 78 |
| 30 | 60 | 90 |
| 34 | 68 | 102 |
| 40 | 80 | 120 |
| 50 | 100 | 150 |
| 60 | 120 | 180 |
| 64 | 128 | 192 |

¹⁾ Performance level 3 as per IEC 60 603-13, ≥ 50 mating cycles, no gas test
Performance level 2 as per IEC 60 603-13, ≥ 250 mating cycles, 4 days gas test
as per MIL DTL 83 503, $> 0.76 \mu\text{m Au}$ (30 μ inch), other performance levels on request


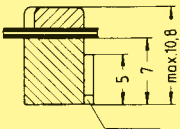
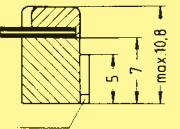
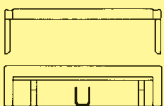
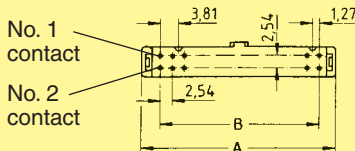
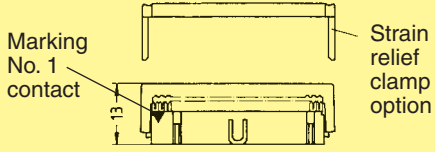

* on request

Number of contacts

6-64

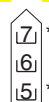


Female connector

| Identification | No. of contacts | Part No. | | Drawing | Dimensions in mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|------------------|-----------------------------------|--|---|-------|----|----|----|----|----|---|-------|-------|-------|-------|-------|-------|---|------|-------|-------|-------|-------|-------|-----------------|----|----|----|----|----|---|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|--|
| Female connector with central polarization without strain relief clamp  | | open end cover | closed end cover | open end cover | closed end cover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | |  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | 09 18 506 □ 803 | 09 18 506 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | 09 18 510 □ 803 | 09 18 510 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 | 09 18 514 □ 803 | 09 18 514 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 16 | 09 18 516 □ 803 | 09 18 516 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 20 | 09 18 520 □ 803 | 09 18 520 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 26 | 09 18 526 □ 803 | 09 18 526 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 34 | 09 18 534 □ 803 | 09 18 534 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 40 | 09 18 540 □ 803 | 09 18 540 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 50 | 09 18 550 □ 803 | 09 18 550 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 60 | 09 18 560 □ 803 | 09 18 560 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 64 | 09 18 564 □ 803 | 09 18 564 □ 804 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | without strain relief clamp with bulk packaging 2) Packaging unit 5,000 pieces 3) Packaging unit 3,000 pieces | 6 | 09 18 506 □ 803 58U ²⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 10 | 09 18 510 □ 803 58U ²⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 14 | 09 18 514 □ 803 58U ²⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 16 | 09 18 516 □ 803 58U ²⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 20 | 09 18 520 □ 803 58U ²⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 26 | 09 18 526 □ 803 58U ²⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 40 | 09 18 540 □ 803 58U ³⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| with strain relief clamp  | 6 | 09 18 506 □ 813 | 09 18 506 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | 09 18 510 □ 813 | 09 18 510 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 | 09 18 514 □ 813 | 09 18 514 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 16 | 09 18 516 □ 813 | 09 18 516 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 20 | 09 18 520 □ 813 | 09 18 520 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 26 | 09 18 526 □ 813 | 09 18 526 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 34 | 09 18 534 □ 813 | 09 18 534 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 40 | 09 18 540 □ 813 | 09 18 540 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 50 | 09 18 550 □ 813 | 09 18 550 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 60 | 09 18 560 □ 813 | 09 18 560 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 64 | 09 18 564 □ 813 | 09 18 564 □ 814* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | |  No. 1 contact No. 2 contact Marking No. 1 contact  Strain relief clamp option  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | <table border="1"> <thead> <tr> <th>No. of contacts</th> <th>6</th> <th>10</th> <th>14</th> <th>16</th> <th>20</th> <th>26</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>12.20</td> <td>17.30</td> <td>22.40</td> <td>24.90</td> <td>30.00</td> <td>37.60</td> </tr> <tr> <td>B</td> <td>5.08</td> <td>10.16</td> <td>15.24</td> <td>17.78</td> <td>22.86</td> <td>30.48</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>No. of contacts</th> <th>34</th> <th>40</th> <th>50</th> <th>60</th> <th>64</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>47.80</td> <td>55.40</td> <td>68.10</td> <td>80.80</td> <td>85.90</td> </tr> <tr> <td>B</td> <td>40.64</td> <td>48.26</td> <td>60.96</td> <td>73.66</td> <td>78.74</td> </tr> </tbody> </table> | No. of contacts | 6 | 10 | 14 | 16 | 20 | 26 | A | 12.20 | 17.30 | 22.40 | 24.90 | 30.00 | 37.60 | B | 5.08 | 10.16 | 15.24 | 17.78 | 22.86 | 30.48 | No. of contacts | 34 | 40 | 50 | 60 | 64 | A | 47.80 | 55.40 | 68.10 | 80.80 | 85.90 | B | 40.64 | 48.26 | 60.96 | 73.66 | 78.74 | |
| No. of contacts | 6 | 10 | 14 | 16 | 20 | 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | 12.20 | 17.30 | 22.40 | 24.90 | 30.00 | 37.60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | 5.08 | 10.16 | 15.24 | 17.78 | 22.86 | 30.48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No. of contacts | 34 | 40 | 50 | 60 | 64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | 47.80 | 55.40 | 68.10 | 80.80 | 85.90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | 40.64 | 48.26 | 60.96 | 73.66 | 78.74 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

30 contacts on request

For performance level 3 please specify digit
 For performance level 2 please specify digit
 > 0.76 µm Au (30 µinch) on request



¹⁾ Pitch tolerance: ± 0.1
 * Not normally kept in stock

Number of contacts

6-64



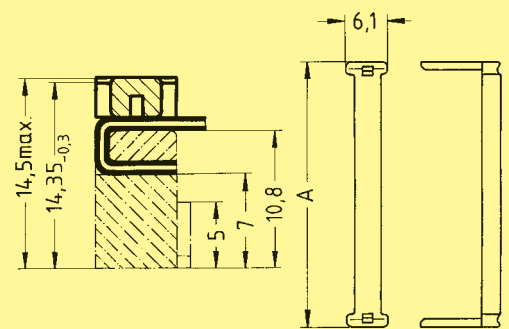
Strain relief clamp/Locking lever

| Identification | No. of contacts | Part No. | Drawing | Dimensions in mm |
|----------------|-----------------|----------|---------|------------------|
|----------------|-----------------|----------|---------|------------------|

Strain relief clamp

| | |
|----|----------------|
| 6 | 09 18 506 9002 |
| 10 | 09 18 510 9002 |
| 14 | 09 18 514 9002 |
| 16 | 09 18 516 9002 |
| 20 | 09 18 520 9002 |
| 26 | 09 18 526 9002 |
| 34 | 09 18 534 9002 |
| 40 | 09 18 540 9002 |
| 50 | 09 18 550 9002 |
| 60 | 09 18 560 9002 |
| 64 | 09 18 564 9002 |

| No. of contacts | A |
|-----------------|------|
| 6 | 12.2 |
| 10 | 17.3 |
| 14 | 22.4 |
| 16 | 24.9 |
| 20 | 30.0 |
| 26 | 37.6 |
| 34 | 47.8 |
| 40 | 55.4 |
| 50 | 68.1 |
| 60 | 80.8 |
| 64 | 85.9 |



with bulk packaging

| | |
|----|----------------------------------|
| 6 | 09 18 506 9002 58U ²⁾ |
| 10 | 09 18 510 9002 58U ²⁾ |
| 14 | 09 18 514 9002 58U ²⁾ |
| 16 | 09 18 516 9002 58U ²⁾ |
| 20 | 09 18 520 9002 58U ²⁾ |
| 26 | 09 18 526 9002 58U ²⁾ |
| 34 | 09 18 534 9002 58U ³⁾ |
| 40 | 09 18 540 9002 58U ³⁾ |

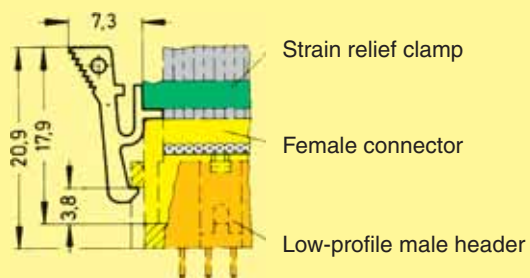
| | |
|----|------|
| 6 | 12.2 |
| 10 | 17.3 |
| 14 | 22.4 |
| 16 | 24.9 |
| 20 | 30.0 |
| 26 | 37.6 |
| 34 | 47.8 |
| 40 | 55.4 |

²⁾ Packaging unit 5,000 pieces
³⁾ Packaging unit 3,000 pieces

30 contacts on request

Locking lever for female connector
Only in conjunction with low-profile male header and strain relief

09 18 000 9905¹⁾

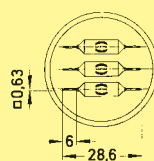


When the security of latching is required and space is a premium, these locking levers can be fitted onto the strain relief of the HARTING female connector. This can then be used in conjunction with male low-profile headers (see pages 08.16 and 08.17).

Coding system with loss of contact

Code pin

09 18 000 9901²⁾



To avoid cross-plugging adjacent connectors a coding system is required. A code pin is inserted into the appropriate cavity in the female connector. The corresponding male contact is removed by a special removal tool.

Removal tool for male contacts

09 99 000 0133



¹⁾ Order 2 per female connector
²⁾ Part No. comprises 6 code pins

Number of contacts 6, 8, 10, 14, 16, 20, 24, 26, 30, 34, 40, 50, 60, 64

Pitch
On pcb side: 2.54 mm [0.100"]
On cable side: 1.27 mm [0.050"]

Working current 1 A

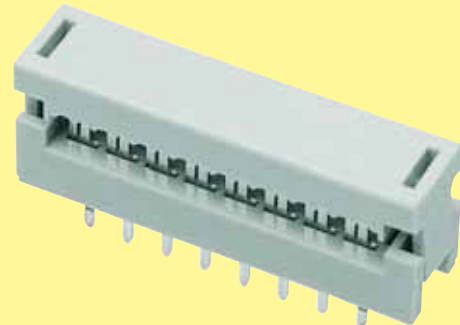
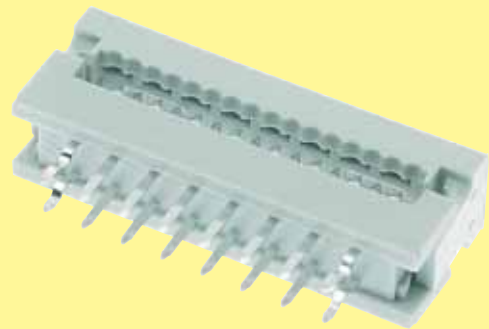
Test voltage $U_{r.m.s.}$ 1 kV AC – 1 minute

Contact resistance 15 m Ω max. mated
Insulation resistance $\geq 10^9 \Omega$

Temperature range -55 °C ... + 105 °C
The maximum temperature includes heating of contacts and ambient temperature

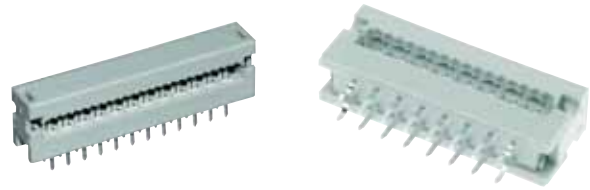
Terminations
Solder pins:
0.635 mm x 0.3 mm
Dimensions for pcb hole:
Standard version: $\varnothing 0.9^{\pm 0.10}$ mm
Kinked version: $\varnothing 1.0^{\pm 0.05}$ mm
Diagonal: 0.71 mm
IDC flat cable
1.27 mm [0.050"] pitch: AWG 28/7

Materials
Moulding Thermoplastic resin (PBT)
UL 94-V0



Number of contacts

6-64



Pcb transition connector, 2 rows, 7.45 mm height

Identification No. of contacts Part No. Drawing Dimensions in mm

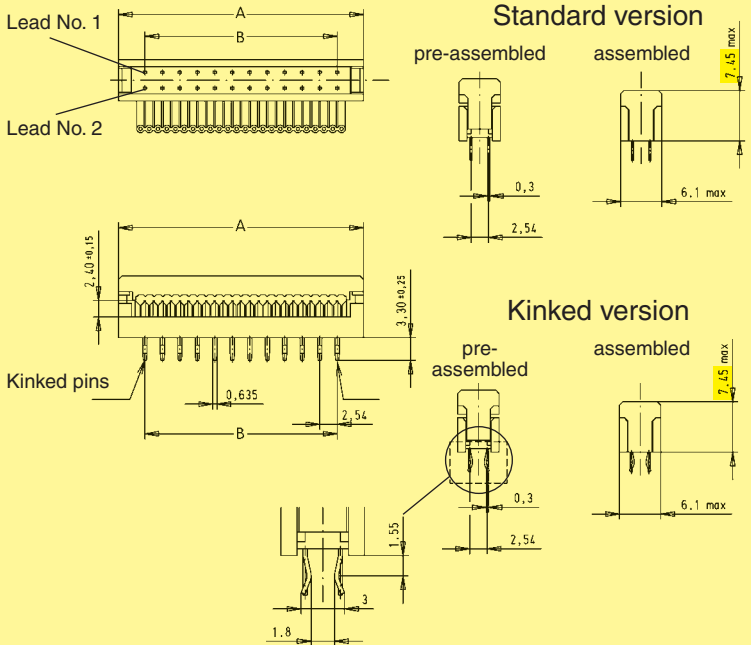
Pcb transition connector
2 rows
Standard version

| No. of contacts | Part No. |
|-----------------|-----------------|
| 6 | 09 18 106 9621 |
| 8 | 09 18 108 9621* |
| 10 | 09 18 110 9621 |
| 14 | 09 18 114 9621 |
| 16 | 09 18 116 9621 |
| 20 | 09 18 120 9621 |
| 24 | 09 18 124 9621* |
| 26 | 09 18 126 9621 |
| 30 | 09 18 130 9621* |
| 34 | 09 18 134 9621 |
| 40 | 09 18 140 9621 |
| 50 | 09 18 150 9621 |
| 60 | 09 18 160 9621 |
| 64 | 09 18 164 9621 |

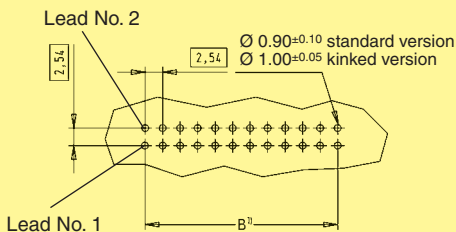
| No. of contacts | A±0.38 | B±0.10 |
|-----------------|--------|-------------------|
| 6 | 12.92 | 2.54 x 2 = 5.08 |
| 8 | 15.46 | 2.54 x 3 = 7.62 |
| 10 | 18.00 | 2.54 x 4 = 10.16 |
| 14 | 23.08 | 2.54 x 6 = 15.24 |
| 16 | 25.62 | 2.54 x 7 = 17.78 |
| 20 | 30.74 | 2.54 x 9 = 22.86 |
| 24 | 35.78 | 2.54 x 11 = 27.94 |
| 26 | 38.32 | 2.54 x 12 = 30.48 |
| 30 | 43.40 | 2.54 x 14 = 35.56 |
| 34 | 48.48 | 2.54 x 16 = 40.64 |
| 40 | 56.10 | 2.54 x 19 = 48.26 |
| 50 | 68.80 | 2.54 x 24 = 60.96 |
| 60 | 81.50 | 2.54 x 29 = 73.66 |
| 64 | 86.58 | 2.54 x 31 = 78.74 |

Pcb transition connector
2 rows
Kinked version
2 kinked pins at each extremity

| No. of contacts | Part No. |
|-----------------|-----------------|
| 6 | 09 18 106 9421* |
| 8 | 09 18 108 9421* |
| 10 | 09 18 110 9421* |
| 14 | 09 18 114 9421* |
| 16 | 09 18 116 9421* |
| 20 | 09 18 120 9421* |
| 24 | 09 18 124 9421* |
| 26 | 09 18 126 9421* |
| 30 | 09 18 130 9421* |
| 34 | 09 18 134 9421* |
| 40 | 09 18 140 9421* |
| 50 | 09 18 150 9421* |
| 60 | 09 18 160 9421* |
| 64 | 09 18 164 9421* |



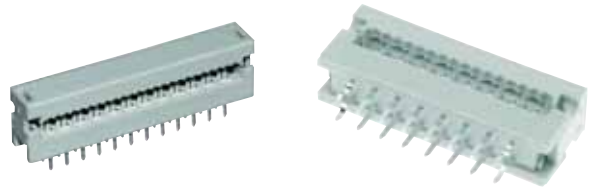
Board drillings



* Not normally kept in stock
1) Pitch tolerance: ± 0.05

Number of contacts

6-40



Pcb transition connector, 2 rows, low-profile with 5.5 mm height

Identification No. of contacts Part No. Drawing Dimensions in mm

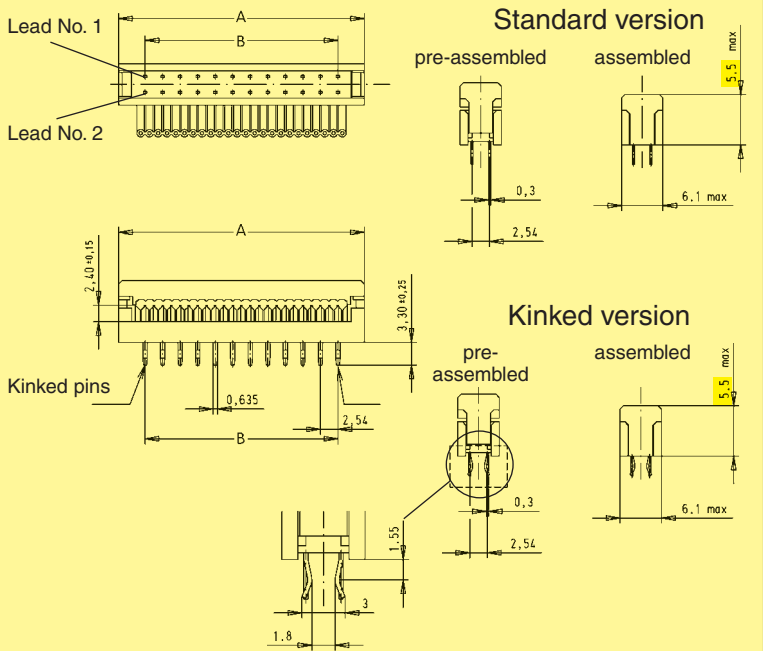
Pcb transition connector
2 rows
Standard low-profile version

| No. of contacts | Part No. |
|-----------------|----------------|
| 6 | 09 18 106 9622 |
| 10 | 09 18 110 9622 |
| 14 | 09 18 114 9622 |
| 16 | 09 18 116 9622 |
| 20 | 09 18 120 9622 |
| 26 | 09 18 126 9622 |
| 34 | 09 18 134 9622 |
| 40 | 09 18 140 9622 |

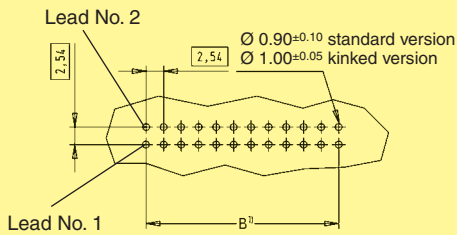
| No. of contacts | A±0.38 | B±0.10 |
|-----------------|--------|-------------------|
| 6 | 12.92 | 2.54 x 2 = 5.08 |
| 10 | 18.00 | 2.54 x 4 = 10.16 |
| 14 | 23.08 | 2.54 x 6 = 15.24 |
| 16 | 25.62 | 2.54 x 7 = 17.78 |
| 20 | 30.74 | 2.54 x 9 = 22.86 |
| 26 | 38.32 | 2.54 x 12 = 30.48 |
| 34 | 48.48 | 2.54 x 16 = 40.64 |
| 40 | 56.10 | 2.54 x 19 = 48.26 |

Pcb transition connector
2 rows
Kinked low-profile version
2 kinked pins at each extremity

| No. of contacts | Part No. |
|-----------------|-----------------|
| 6 | *09 18 106 9422 |
| 10 | *09 18 110 9422 |
| 14 | *09 18 114 9422 |
| 16 | *09 18 116 9422 |
| 20 | *09 18 120 9422 |
| 26 | *09 18 126 9422 |
| 34 | *09 18 134 9422 |
| 40 | *09 18 140 9422 |



Board drillings



¹⁾ Pitch tolerance: ± 0.05

Number of contacts* 10, 16, 20, 26, 34, 40, 50

Pitch
 On pcb side: 2.54 mm [0.100"]
 On cable side: 1.27 mm [0.050"]

Working current 1 A

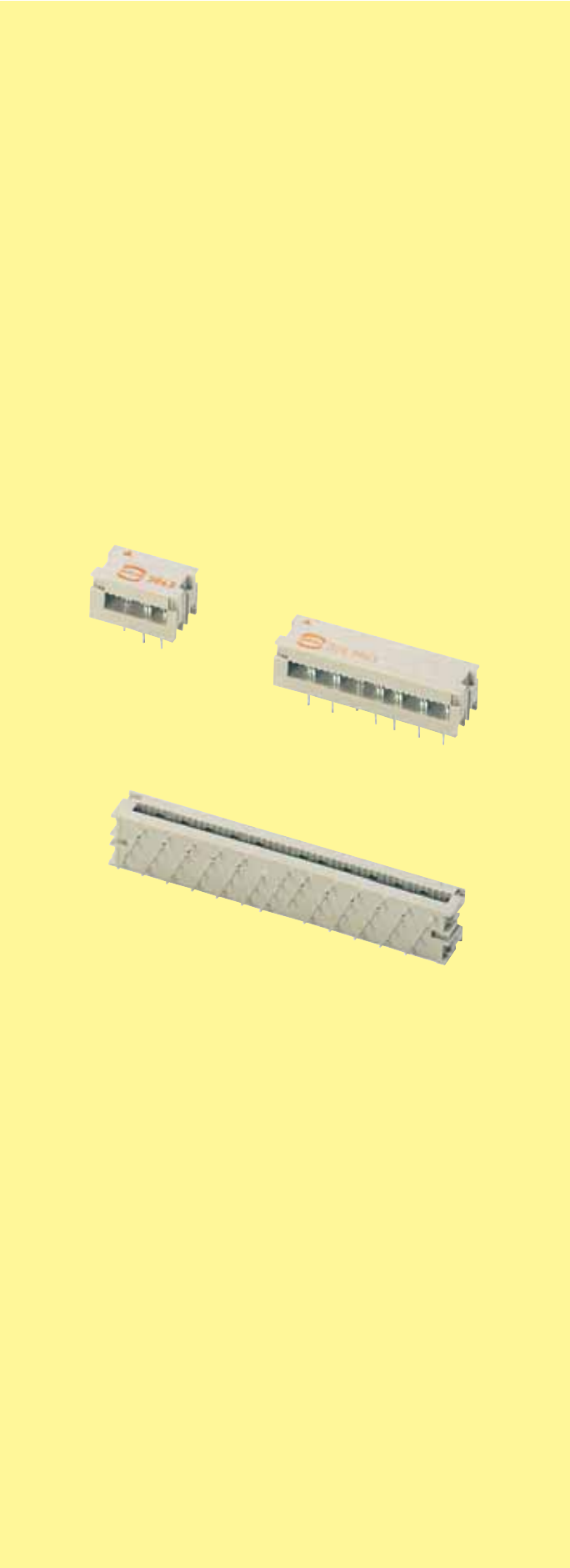
Test voltage $U_{r.m.s.}$ 500 V

Contact resistance $\leq 20 \text{ m}\Omega$
 Insulation resistance $\geq 10^{12} \Omega$

Temperature range -40 °C ... + 125 °C
 The maximum temperature includes heating of contacts and ambient temperature

Terminations
 Solder pins
 0.45 mm x 0.35 mm
 for pcb hole $\varnothing 0.8 \text{ mm}$
 Diagonal: 0.58 mm
 IDC flat cable
 1.27 mm [0.050"] pitch:
 AWG 26/7 – AWG 28/7 – AWG 30/1

Materials
 Moulding Thermoplastic resin (PC)
 UL 94-V0



SEK

* Others on request

Number of contacts

10-50



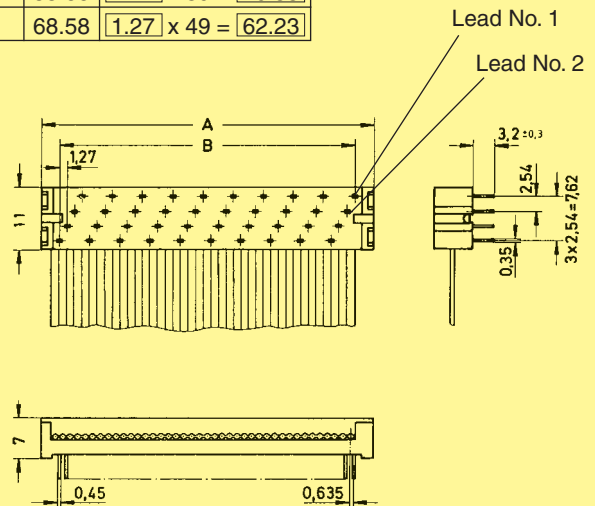
Pcb transition connector, 4 rows

Identification No. of contacts Part No. Drawing Dimensions in mm

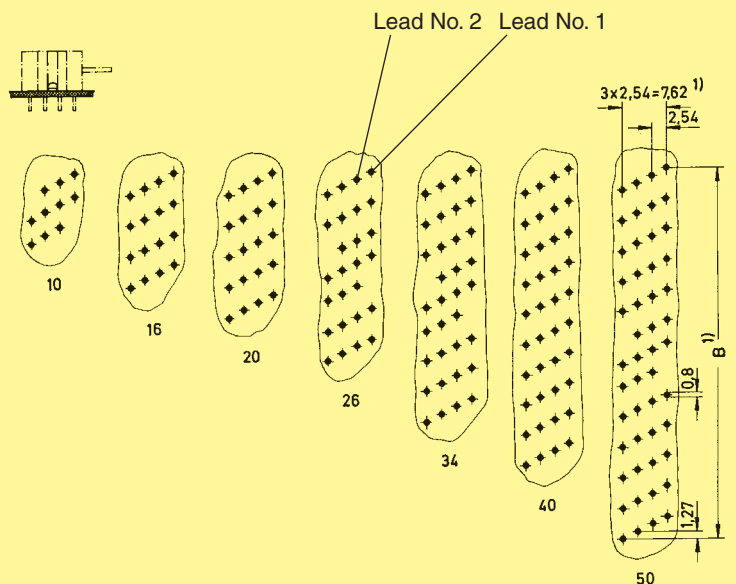
Pcb transition connector
4 rows

| | |
|----|-----------------|
| 10 | 09 19 010 9643* |
| 16 | 09 19 016 9643* |
| 20 | 09 19 020 9643* |
| 26 | 09 19 026 9643* |
| 34 | 09 19 034 9643* |
| 40 | 09 19 040 9643* |
| 50 | 09 19 050 9643* |

| No. of contacts | A | B |
|-----------------|-------|-------------------|
| 10 | 17.78 | 1.27 x 9 = 11.43 |
| 16 | 25.40 | 1.27 x 15 = 19.05 |
| 20 | 30.48 | 1.27 x 19 = 24.13 |
| 26 | 38.10 | 1.27 x 25 = 31.75 |
| 34 | 48.26 | 1.27 x 33 = 41.91 |
| 40 | 55.88 | 1.27 x 39 = 49.53 |
| 50 | 68.58 | 1.27 x 49 = 62.23 |

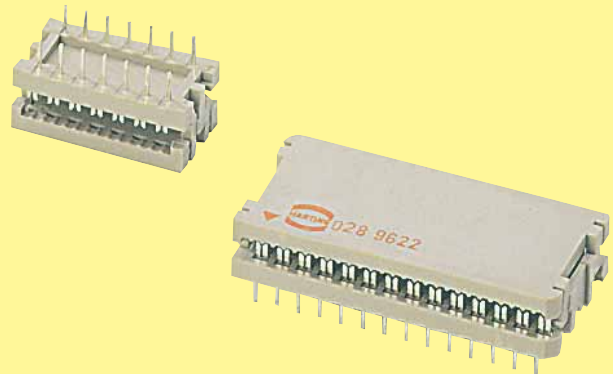


Board drillings



* Not normally kept in stock.
1) Pitch tolerance: ± 0.1

| | |
|---|--|
| Number of contacts* | 14, 16, 24, 28, 40 |
| Pitch | On pcb side: 2.54 mm [0.100"] On cable side: 1.27 mm [0.050"] |
| Working current | 1 A |
| Test voltage $U_{r.m.s.}$ | 500 V |
| Contact resistance Insulation resistance | $\leq 20 \text{ m}\Omega$ $\geq 10^{12} \Omega$ |
| Temperature range | -40 °C ... + 125 °C The maximum temperature includes heating of contacts and ambient temperature |
| Terminations | Solder pins 0.45 mm x 0.35 mm for pcb hole \varnothing 0.8 mm Diagonal: 0.58 mm IDC flat cable 1.27 mm [0.050"] pitch: AWG 26/7 – AWG 28/7 |
| Materials Moulding | Thermoplastic resin (PC) UL 94-V0 |

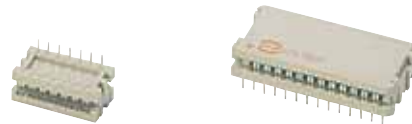


SEK

* Others on request

Number of contacts

14-40



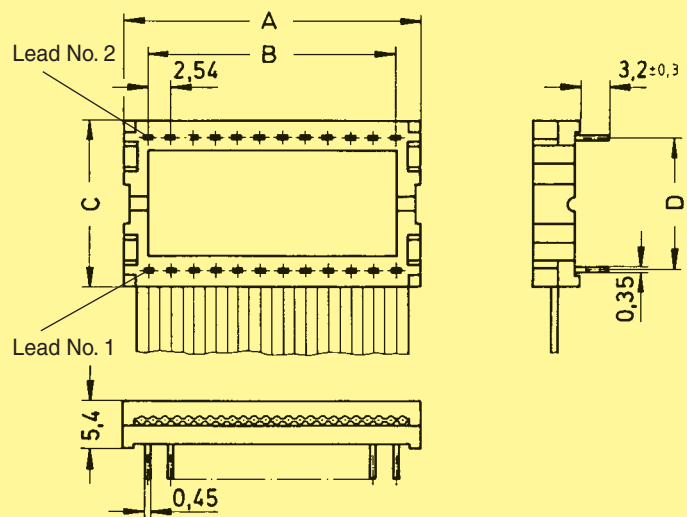
DIP connector for IC base or for soldering into pcb

Identification No. of contacts Part No. Drawing Dimensions in mm

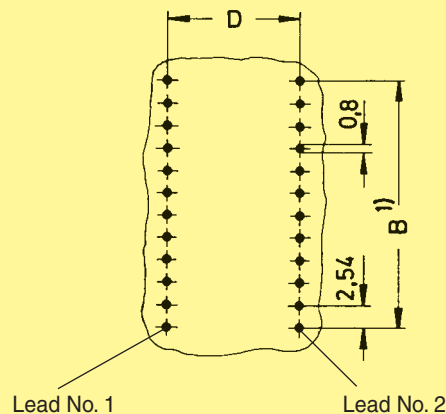
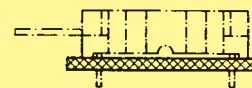
DIP connector

| | |
|----|-----------------|
| 14 | 09 17 014 9622* |
| 16 | 09 17 016 9622* |
| 24 | 09 17 024 9622* |
| 28 | 09 17 028 9622* |
| 40 | 09 17 040 9622* |

| No. of contacts | A | B | C | D |
|-----------------|------|-------------------|------|-------|
| 14 | 20.5 | 2.54 x 6 = 15.24 | 11 | 7.62 |
| 16 | 23.0 | 2.54 x 7 = 17.78 | 11 | 7.62 |
| 24 | 33.0 | 2.54 x 11 = 27.94 | 18.7 | 15.24 |
| 28 | 38.1 | 2.54 x 13 = 33.02 | 18.7 | 15.24 |
| 40 | 53.3 | 2.54 x 19 = 48.26 | 18.7 | 15.24 |

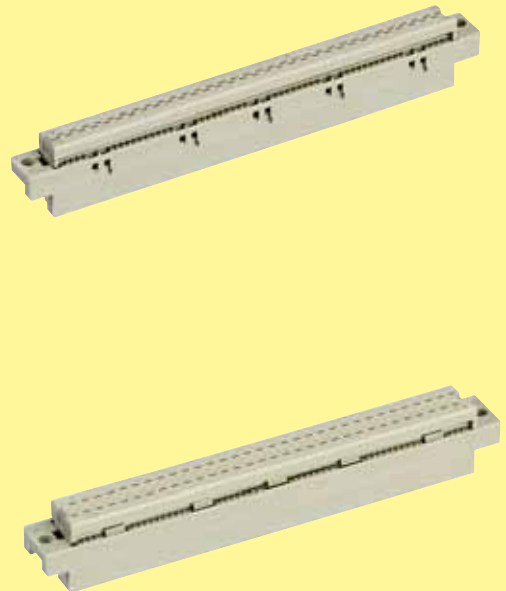


Board drillings



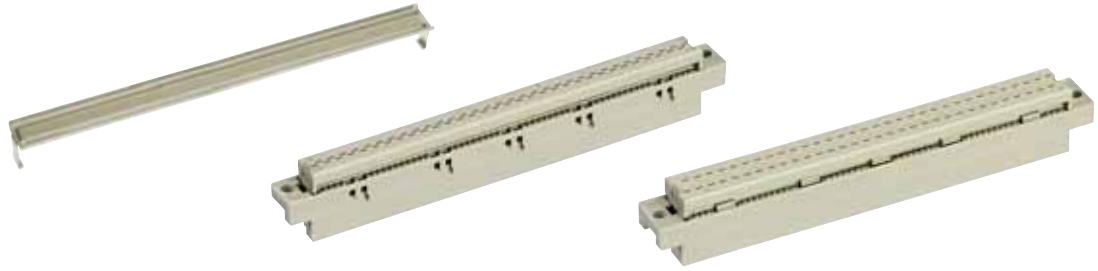
* Not normally kept in stock
 1) Pitch tolerance: ± 0.1

| | |
|---|---|
| Number of contacts | 64 |
| Pitch | 2.54 mm [0.100"] |
| Working current | 1 A max. |
| Clearance Creepage | ≥ 1.2 mm ≥ 1.2 mm |
| Working voltage | according to the safety regulations of the equipment |
| <p>The working voltage also depends on the clearance and creepage dimensions of the pcb itself, and the associated wiring</p> | |
| Test voltage $U_{r.m.s.}$ | 1 kV |
| Contact resistance | ≤ 20 mΩ |
| Insulation resistance | ≥ 10 ¹² Ω |
| Temperature range | -55 °C ... + 125 °C The maximum temperature includes heating of contacts and ambient temperature |
| Termination | |
| Female connector | Insulation displacement: AWG 28/7 |
| Insertion and withdrawal force | ≤ 60 N |
| Materials | |
| Moulding | Thermoplastic resin, glass-fibre filled, UL 94-V0 |
| Contacts | Copper alloy |
| Contact surface | |
| Contact zone | selectively plated according to performance level |



Number of contacts

64



Female connectors for insulation displacement

| Identification | No. of contacts | Part No. | Drawing | Dimensions in mm |
|----------------|-----------------|----------|---------|------------------|
|----------------|-----------------|----------|---------|------------------|

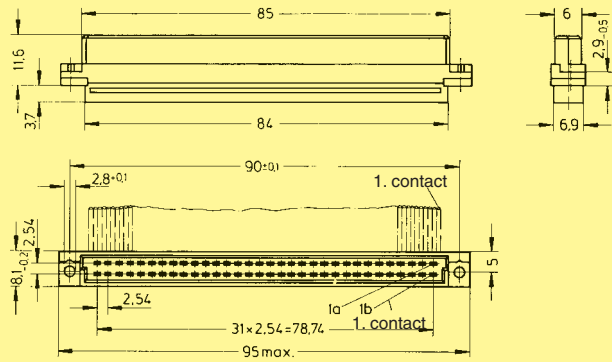
Female connector for insulation displacement

Type B

64

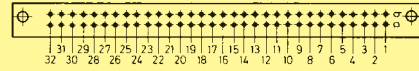
performance level 2
09 02 264 6828

performance level 3
09 02 264 7828



Lead number 1 of flat cable on contact 1 b

Contact arrangement View from termination side

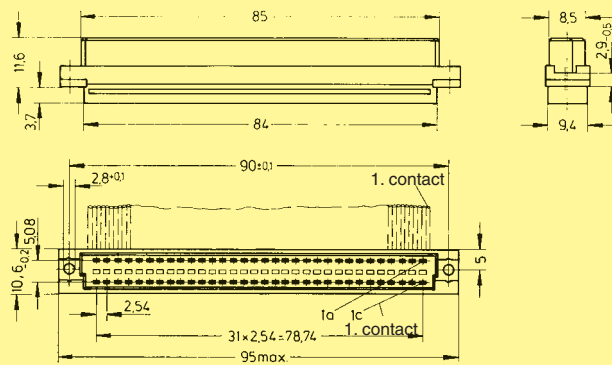


Type C

64

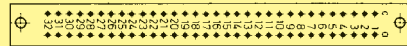
performance level 2
09 03 264 6828
09 03 764 6828^{c)}

performance level 3
09 03 264 7828



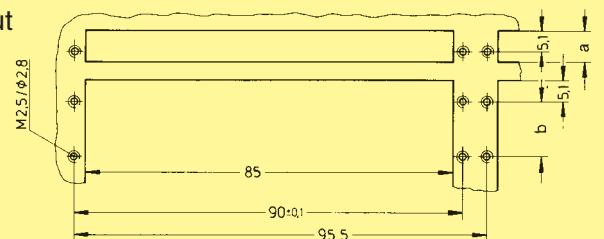
Lead number 1 of flat cable on contact 1 c

Contact arrangement View from termination side



Mateable with 3-row male connector Type C.
No female contact in middle row.

Panel cut out



| | a | b |
|--------|------|-------|
| Type B | 8.3 | 10.16 |
| Type C | 10.8 | 12.7 |

Strain relief for types B and C

09 03 000 9940

Number of contacts 10, 14, 16, 20, 26, 34, 40, 50, 60, 64

Contact arrangement straight

Contact length 4.5 mm

Approvals IEC 60603-13

Design acc. to D 2632
BT 224
BS 9525
NFC 93-428 (HE 10)
MIL DTL 83503

Pitch 2.54 mm [0.100"]

Working current 1 A

Working voltage 350 V DC or AC peak

Test voltage $U_{r.m.s.}$ 1 kV

Contact resistance $\leq 20 \text{ m}\Omega$
Insulation resistance $\geq 10^9 \Omega$

Temperature range $-55 \text{ }^\circ\text{C} \dots + 125 \text{ }^\circ\text{C}$
The maximum temperature includes heating of contacts and ambient temperature

Materials
Moulding PBT
UL 94-V0
Contacts Phosphor bronze

Contact surface
Contact zone gold-plated according to performance level¹⁾

Terminations Recommended PCB through holes

| | | |
|--|-------------|-------------------------|
| <i>Tin-lead plated PCB</i> | Hole | $1.15^{\pm 0.025}$ |
| | Cu | min. 25 μm |
| | Sn | max. 15 μm |
| | Plated hole | 0.94-1.09 mm |
| <i>Chemical tin-plated PCB</i> | Hole | $1.15^{\pm 0.025}$ |
| | Cu | min. 25 μm |
| | Sn | min. 0.8 μm |
| | Plated hole | 1.00-1.10 mm |
| <i>Au / Ni plated PCB</i> | Hole | $1.15^{\pm 0.025}$ |
| | Cu | min. 25 μm |
| | Ni | 3-7 μm |
| | Au | 0.05-0.12 μm |
| | Plated hole | 1.00-1.10 mm |
| <i>Silver plated PCB</i> | Hole | $1.15^{\pm 0.025}$ |
| | Cu | min. 25 μm |
| | Ag | 0.1-0.3 μm |
| | Plated hole | 1.00-1.10 mm |
| <i>OSP copper plated PCB</i> | Hole | $1.15^{\pm 0.025}$ |
| | Cu | min. 25 μm |
| | Plated hole | 1.00-1.10 mm |
| PCB board thickness: $\geq 1.6 \text{ mm}$ | | |

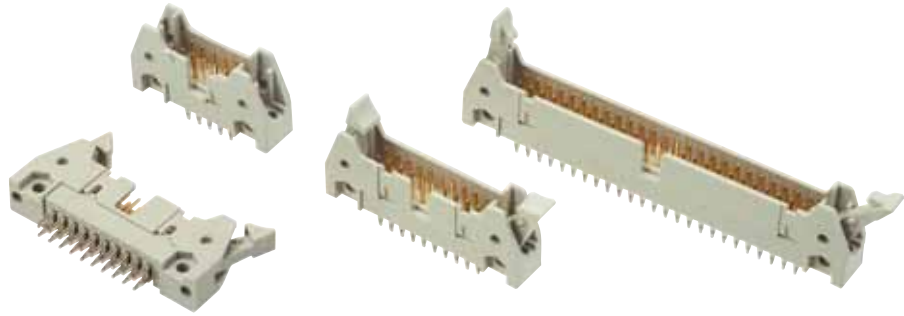
Insertion and withdrawal forces

| Number of contacts | Maximum force [N] |
|--------------------|---------------------|
| | Performance level 1 |
| 10 | 20 |
| 14 | 28 |
| 16 | 32 |
| 20 | 40 |
| 26 | 52 |
| 34 | 68 |
| 40 | 80 |
| 50 | 100 |
| 60 | 120 |
| 64 | 128 |

Number of contacts

10-64

Male header,
straight press-in pins



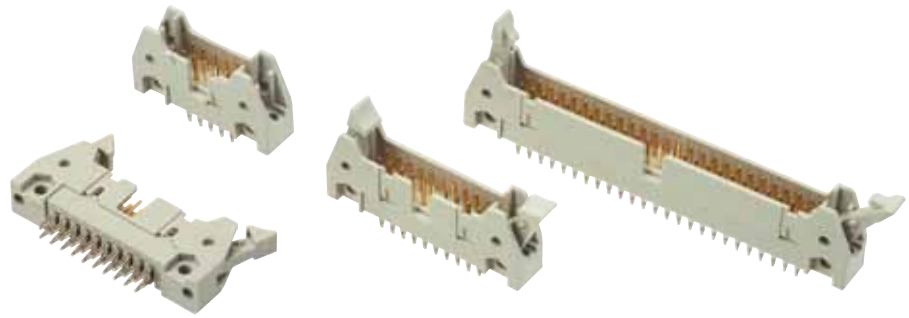
| Identification | No. of contacts | Part No. | | |
|--|-----------------|----------------|-------------------|------------------|
| | | Without levers | With short levers | With long levers |
| Male header with straight press-in terminations Length: 4.5 mm | 10 | 09 18 510 5929 | 09 18 510 5919 | 09 18 510 5909 |
| | 14 | 09 18 514 5929 | 09 18 514 5919 | 09 18 514 5909 |
| | 16 | 09 18 516 5929 | 09 18 516 5919 | 09 18 516 5909 |
| | 20 | 09 18 520 5929 | 09 18 520 5919 | 09 18 520 5909 |
| | 26 | 09 18 526 5929 | 09 18 526 5919 | 09 18 526 5909 |
| | 34 | 09 18 534 5929 | 09 18 534 5919 | 09 18 534 5909 |
| | 40 | 09 18 540 5929 | 09 18 540 5919 | 09 18 540 5909 |
| | 50 | 09 18 550 5929 | 09 18 550 5919 | 09 18 550 5909 |
| | 60 | 09 18 560 5929 | 09 18 560 5919 | 09 18 560 5909 |
| | 64 | 09 18 564 5929 | 09 18 564 5919 | 09 18 564 5909 |

SEK

Number of contacts

10-64

Male header,
straight press-in pins



Identification

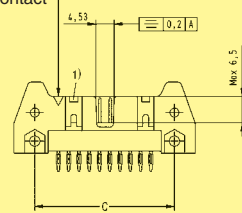
Drawing

Dimensions in mm

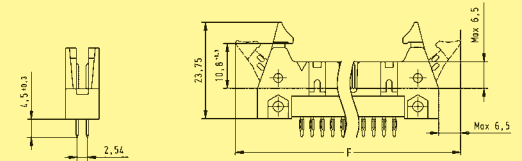
Male header

| No. of contacts | A | C | D | E | F | G |
|-----------------|--------|-------|-------|-------------------|--------|--------|
| 10 | 32.11 | 21.84 | 17.91 | 2.54 x 4 = 10.16 | 45.11 | 50.11 |
| 14 | 37.19 | 26.92 | 22.99 | 2.54 x 6 = 15.24 | 50.19 | 55.19 |
| 16 | 39.73 | 29.46 | 25.53 | 2.54 x 7 = 17.78 | 52.73 | 57.73 |
| 20 | 44.81 | 34.54 | 30.61 | 2.54 x 9 = 22.86 | 57.81 | 62.81 |
| 26 | 52.43 | 42.16 | 38.23 | 2.54 x 12 = 30.48 | 65.43 | 70.43 |
| 34 | 62.59 | 52.32 | 48.39 | 2.54 x 16 = 40.64 | 75.59 | 80.59 |
| 40 | 70.21 | 59.94 | 56.01 | 2.54 x 19 = 48.26 | 83.21 | 88.21 |
| 50 | 82.91 | 72.64 | 68.71 | 2.54 x 24 = 60.96 | 95.91 | 100.91 |
| 60 | 95.61 | 85.34 | 81.41 | 2.54 x 29 = 73.66 | 108.61 | 113.61 |
| 64 | 100.69 | 90.42 | 86.49 | 2.54 x 31 = 78.74 | 113.69 | 118.69 |

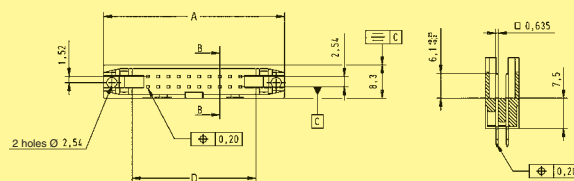
Marking
No. 1 contact



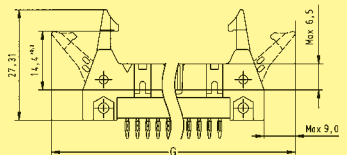
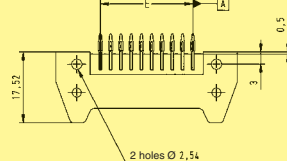
Short levers



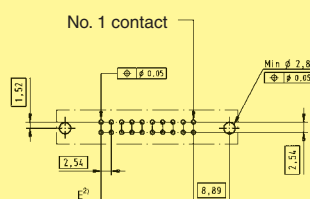
Long levers



Section B-B



Board drillings



1) No polarization slot for 10 or 14 way male header

2) Pitch tolerance: ± 0.1

Number of contacts 6, 10, 14, 16, 20, 26, 34, 40, 50, 60, 64

Contact arrangement straight

Contact length 5.5 mm

Approvals IEC 60 603-13
DIN EN 60 603-13
D 2632
BT 224
NFC 93-428 (HE 10)



UL recognized: E102079
comply with MIL DTL 83 503

Pitch 2.54 mm [0.100"]

Working current 1 A

Test voltage $U_{r.m.s.}$ 1 kV

Contact resistance $\leq 20 \text{ m}\Omega$
Insulation resistance $\geq 10^9 \Omega$

Temperature range -55 °C ... + 105 °C
The maximum temperature includes heating of contacts and ambient temperature

Press-in

Diameter of pcb plated through holes $\varnothing 1.0^{+0.09}_{-0.06} \text{ mm}$

Recommended pcb holes for press-in process
Hole: $\varnothing 1.12 - 1.15 \text{ mm}$
Cu : 25 – 75 μm
Sn : 5 – 15 μm

Pcb thickness 1.6 – 3.2 mm

Materials

Moulding Thermoplastic resin (PBT)
UL 94-V0

Contact surface

Contact zone gold-plated according to performance level¹⁾

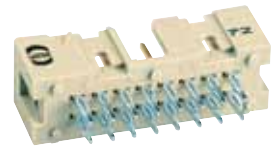
Insertion and withdrawal forces

| Number of contacts | Maximum force [N] | |
|--------------------|---------------------------|---------------------|
| | Performance level 1 and 2 | Performance level 3 |
| 6 | 12 | 18 |
| 10 | 20 | 30 |
| 14 | 28 | 42 |
| 16 | 32 | 48 |
| 20 | 40 | 60 |
| 26 | 52 | 78 |
| 34 | 68 | 102 |
| 40 | 80 | 120 |
| 50 | 100 | 150 |
| 60 | 120 | 180 |
| 64 | 128 | 192 |

¹⁾ Performance level 3 as per IEC 60 603-13, ≥ 50 mating cycles, no gas test
Performance level 2 as per IEC 60 603-13, ≥ 250 mating cycles, 4 days gas test
as per MIL DTL 83 503, $> 0.76 \mu\text{m Au}$ (30 μ inch), other performance levels on request

Number of contacts

6-64



Low-profile male header, straight press-in pins

Identification No. of contacts Part No. Drawing Dimensions in mm

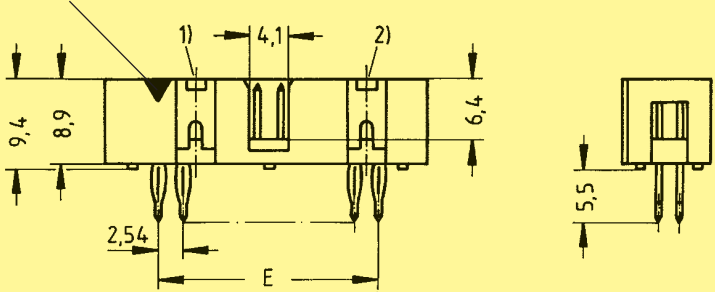
Low-profile male header with straight press-in terminations
Length: 5.5 mm

| | | |
|----|-----------|-------|
| 6 | 09 18 506 | └ 329 |
| 10 | 09 18 510 | └ 329 |
| 14 | 09 18 514 | └ 329 |
| 16 | 09 18 516 | └ 329 |
| 20 | 09 18 520 | └ 329 |
| 26 | 09 18 526 | └ 329 |
| 34 | 09 18 534 | └ 329 |
| 40 | 09 18 540 | └ 329 |
| 50 | 09 18 550 | └ 329 |
| 60 | 09 18 560 | └ 329 |
| 64 | 09 18 564 | └ 329 |

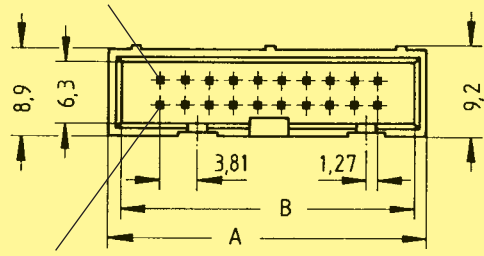
| No. of contacts | A | B | E |
|-----------------|------|-------|-------------------|
| 6 | 15.2 | 12.78 | 2.54 x 2 = 5.08 |
| 10 | 20.3 | 17.86 | 2.54 x 4 = 10.16 |
| 14 | 25.4 | 22.94 | 2.54 x 6 = 15.24 |
| 16 | 27.9 | 25.48 | 2.54 x 7 = 17.78 |
| 20 | 33.0 | 30.56 | 2.54 x 9 = 22.86 |
| 26 | 40.6 | 38.18 | 2.54 x 12 = 30.48 |
| 34 | 50.8 | 48.34 | 2.54 x 16 = 40.64 |
| 40 | 58.4 | 55.96 | 2.54 x 19 = 48.26 |
| 50 | 71.3 | 68.66 | 2.54 x 24 = 60.96 |
| 60 | 84.0 | 81.36 | 2.54 x 29 = 73.66 |
| 64 | 89.1 | 86.44 | 2.54 x 31 = 78.74 |

Board drillings

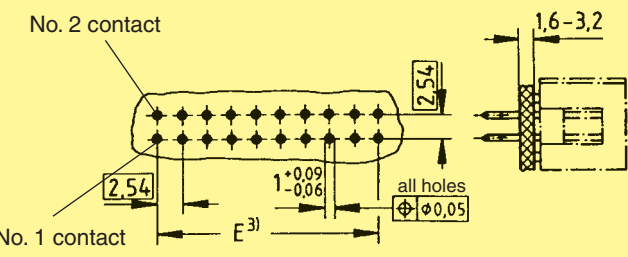
Marking No. 1 contact



No. 2 contact

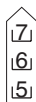


No. 1 contact



1) No polarization slot for 6, 10 or 14 way
2) No polarization slot for 6 way
3) Pitch tolerance: ± 0.1

For Performance Level 3 please specify digit
For Performance Level 2 please specify digit
> 0.76 µm Au (30 µinch) on request



Not normally kept in stock

Number of contacts 6, 10, 14, 16, 20, 26, 30*, 34, 40, 50, 60, 64

Contact arrangement straight, angled

Contact length 2.9 mm

Approvals IEC 60 603-13
DIN EN 60 603-13
D 2632
BT 224
NFC 93-428 (HE 10)

comply with MIL DTL 83503

Pitch 2.54 mm [0.100"]

Working current 1 A

Working voltage 500 V
for pollution degree 1

Test voltage $U_{r.m.s.}$ 1 kV

Contact resistance $\leq 20 \text{ m}\Omega$
Insulation resistance $\geq 10^9 \Omega$

Temperature range -55 °C ... + 125 °C
during reflow soldering max. + 240 °C for 60 s
The higher temperature limit includes the local ambient and heating effect of the contacts under load

Terminations For pcb hole $\varnothing 1 \pm 0.1 \text{ mm}$
DIN IEC 52 141
Diagonal: 0.79 mm

Materials
Moulding Thermoplastic resin (PCT)
UL 94-V0

Contact surface
Contact zone gold-plated according to performance level¹⁾

Options on request

Colour of connectors black

For pick & place process Tape & Reel packaging
with/without vacuum cover
Tube packaging
with/without vacuum cover



Insertion and withdrawal forces

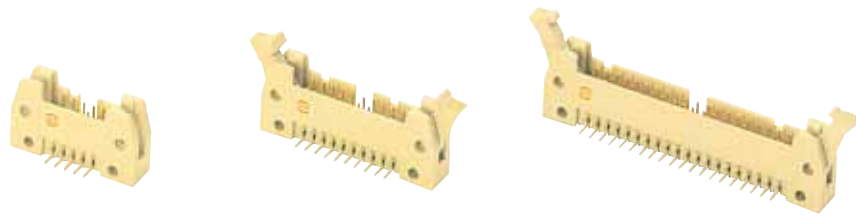
| Number of contacts | Maximum force [N] | |
|--------------------|---------------------------|---------------------|
| | Performance level 1 and 2 | Performance level 3 |
| 6 | 12 | 18 |
| 10 | 20 | 30 |
| 14 | 28 | 42 |
| 16 | 32 | 48 |
| 20 | 40 | 60 |
| 26 | 52 | 78 |
| 30 | 60 | 90 |
| 34 | 68 | 102 |
| 40 | 80 | 120 |
| 50 | 100 | 150 |
| 60 | 120 | 180 |
| 64 | 128 | 192 |



¹⁾ Performance level 3 as per IEC 60 603-13, ≥ 50 mating cycles, no gas test
Performance level 2 as per IEC 60 603-13, ≥ 250 mating cycles, 4 days gas test
as per MIL DTL 83503, $> 0.76 \mu\text{m Au}$ (30 μ inch), other performance levels on request

Number of contacts

6-64



SMC male header with angled solder pins

| Identification | No. of contacts | Part No. | | | | | |
|---|-----------------|----------------|-------|-------------------|-------|------------------|-------|
| | | Without levers | | With short levers | | With long levers | |
| SMC male header with angled solder pins Length: 2.9 mm | 6 | 09 19 506 | └ 923 | 09 19 506 | └ 913 | 09 19 506 | └ 903 |
| | 10 | 09 19 510 | └ 923 | 09 19 510 | └ 913 | 09 19 510 | └ 903 |
| | 14 | 09 19 514 | └ 923 | 09 19 514 | └ 913 | 09 19 514 | └ 903 |
| | 16 | 09 19 516 | └ 923 | 09 19 516 | └ 913 | 09 19 516 | └ 903 |
| | 20 | 09 19 520 | └ 923 | 09 19 520 | └ 913 | 09 19 520 | └ 903 |
| | 26 | 09 19 526 | └ 923 | 09 19 526 | └ 913 | 09 19 526 | └ 903 |
| | 34 | 09 19 534 | └ 923 | 09 19 534 | └ 913 | 09 19 534 | └ 903 |
| | 40 | 09 19 540 | └ 923 | 09 19 540 | └ 913 | 09 19 540 | └ 903 |
| | 50 | 09 19 550 | └ 923 | 09 19 550 | └ 913 | 09 19 550 | └ 903 |
| | 60 | 09 19 560 | └ 923 | 09 19 560 | └ 913 | 09 19 560 | └ 903 |
| | 64 | 09 19 564 | └ 923 | 09 19 564 | └ 913 | 09 19 564 | └ 903 |

SEK

30 contacts and kinked version on request

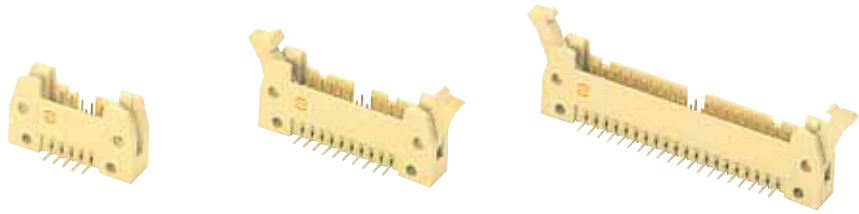
* Not normally kept in stock
 For accessories see page 08.54
 For dimensions see page 08.45

For performance level 3 please specify digit
 For performance level 2 please specify digit
 > 0.76 µm Au (30 µinch) on request



Number of contacts

6-64



SMC male header with angled solder pins

Identification

Drawing

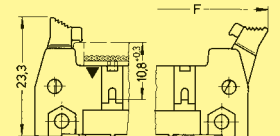
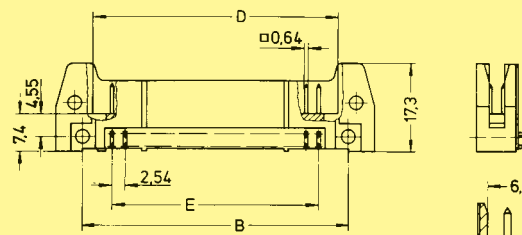
Dimensions in mm

SMC male header

| No. of contacts | A | B | D | E | F | G |
|-----------------|-------|-------|-------|-------------------|-------|-------|
| 6 | 26.9 | 16.76 | 12.45 | 2.54 x 2 = 5.08 | 36.9 | 40.3 |
| 10 | 32.0 | 21.84 | 17.53 | 2.54 x 4 = 10.16 | 42.0 | 45.4 |
| 14 | 37.1 | 26.92 | 22.61 | 2.54 x 6 = 15.24 | 47.1 | 50.4 |
| 16 | 39.6 | 29.46 | 25.15 | 2.54 x 7 = 17.78 | 49.6 | 53.0 |
| 20 | 44.7 | 34.54 | 30.23 | 2.54 x 9 = 22.86 | 54.7 | 58.1 |
| 26 | 52.3 | 42.16 | 37.85 | 2.54 x 12 = 30.48 | 62.3 | 65.7 |
| 34 | 62.5 | 52.32 | 48.01 | 2.54 x 16 = 40.64 | 72.5 | 75.8 |
| 40 | 70.1 | 59.94 | 55.63 | 2.54 x 19 = 48.26 | 80.1 | 83.5 |
| 50 | 82.8 | 72.64 | 68.33 | 2.54 x 24 = 60.96 | 92.8 | 96.2 |
| 60 | 95.5 | 85.34 | 81.03 | 2.54 x 29 = 73.66 | 105.5 | 108.9 |
| 64 | 100.6 | 90.42 | 86.11 | 2.54 x 31 = 78.74 | 110.6 | 113.9 |

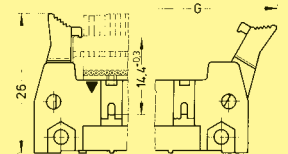
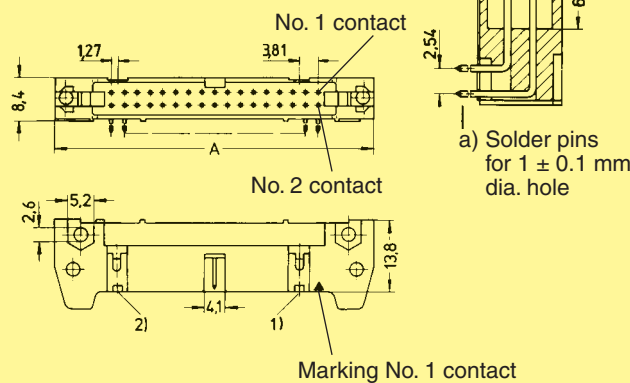
Short levers

for use with female connector without strain relief clamp

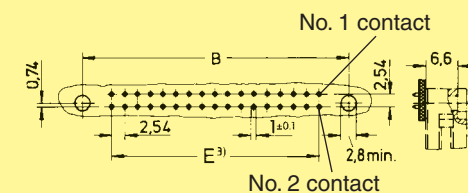


Long levers

for use with female connector with strain relief clamp



Board drillings



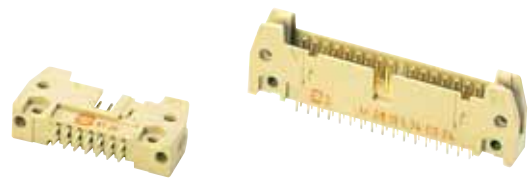
¹⁾ No polarization slot for 6, 10 or 14 way male header

²⁾ No polarization slot for 6 way male header

³⁾ Pitch tolerance: ± 0.1

Number of contacts

6-64



SMC male header with straight solder pins

| Identification | No. of contacts | Part No. | | | | | |
|---|-----------------|----------------|-------|-------------------|-------|------------------|-------|
| | | Without levers | | With short levers | | With long levers | |
| SMC male header with straight solder pins Length: 2.9 mm | 6 | 09 19 506 | └ 924 | 09 19 506 | └ 914 | 09 19 506 | └ 904 |
| | 10 | 09 19 510 | └ 924 | 09 19 510 | └ 914 | 09 19 510 | └ 904 |
| | 14 | 09 19 514 | └ 924 | 09 19 514 | └ 914 | 09 19 514 | └ 904 |
| | 16 | 09 19 516 | └ 924 | 09 19 516 | └ 914 | 09 19 516 | └ 904 |
| | 20 | 09 19 520 | └ 924 | 09 19 520 | └ 914 | 09 19 520 | └ 904 |
| | 26 | 09 19 526 | └ 924 | 09 19 526 | └ 914 | 09 19 526 | └ 904 |
| | 34 | 09 19 534 | └ 924 | 09 19 534 | └ 914 | 09 19 534 | └ 904 |
| | 40 | 09 19 540 | └ 924 | 09 19 540 | └ 914 | 09 19 540 | └ 904 |
| | 50 | 09 19 550 | └ 924 | 09 19 550 | └ 914 | 09 19 550 | └ 904 |
| | 60 | 09 19 560 | └ 924 | 09 19 560 | └ 914 | 09 19 560 | └ 904 |
| | 64 | 09 19 564 | └ 924 | 09 19 564 | └ 914 | 09 19 564 | └ 904 |

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30 contacts on request

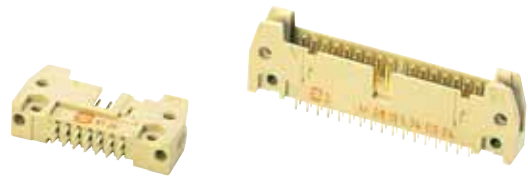
* Not normally kept in stock
 For accessories see page 08.54
 For dimensions see page 08.47

For performance level 3 please specify digit
 For performance level 2 please specify digit
 > 0.76 µm Au (30 µinch) on request



Number of contacts

6-64



SMC male header with straight solder pins

Identification

Drawing

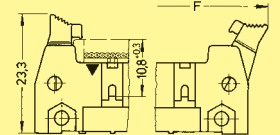
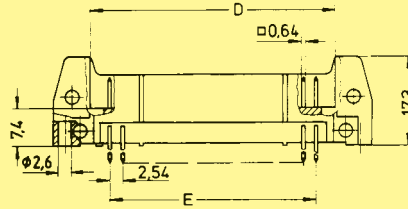
Dimensions in mm

SMC male header

| No. of contacts | A | C | D | E | F | G |
|-----------------|-------|-------|-------|-------------------|-------|-------|
| 6 | 26.9 | 22.86 | 12.45 | 2.54 x 2 = 5.08 | 36.9 | 40.3 |
| 10 | 32.0 | 27.94 | 17.53 | 2.54 x 4 = 10.16 | 42.0 | 45.4 |
| 14 | 37.1 | 33.02 | 22.61 | 2.54 x 6 = 15.24 | 47.1 | 50.4 |
| 16 | 39.6 | 35.56 | 25.15 | 2.54 x 7 = 17.78 | 49.6 | 53.0 |
| 20 | 44.7 | 40.64 | 30.23 | 2.54 x 9 = 22.86 | 54.7 | 58.1 |
| 26 | 52.3 | 48.26 | 37.85 | 2.54 x 12 = 30.48 | 62.3 | 65.7 |
| 34 | 62.5 | 58.42 | 48.01 | 2.54 x 16 = 40.64 | 72.5 | 75.8 |
| 40 | 70.1 | 66.04 | 55.63 | 2.54 x 19 = 48.26 | 80.1 | 83.5 |
| 50 | 82.8 | 78.74 | 68.33 | 2.54 x 24 = 60.96 | 92.8 | 96.2 |
| 60 | 95.5 | 91.44 | 81.03 | 2.54 x 29 = 73.66 | 105.5 | 108.9 |
| 64 | 100.6 | 96.52 | 86.11 | 2.54 x 31 = 78.74 | 110.6 | 113.9 |

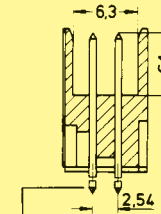
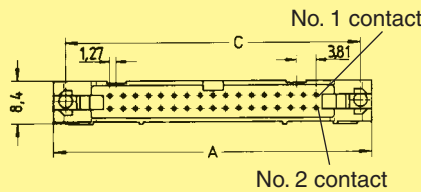
Short levers

for use with female connector without strain relief clamp

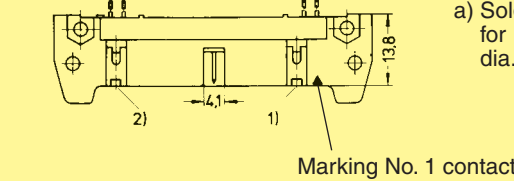
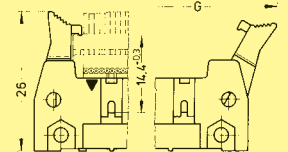


Long levers

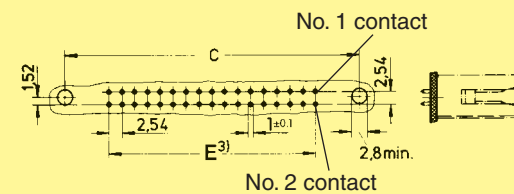
for use with female connector with strain relief clamp



a) Solder pins for 1 ± 0.1 mm dia. hole



Board drillings



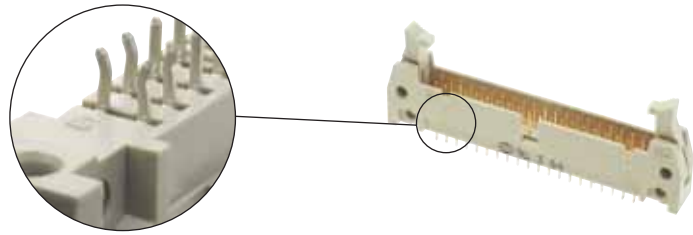
¹⁾ No polarization slot for 6, 10 or 14 way male header

²⁾ No polarization slot for 6 way male header

³⁾ Pitch tolerance: ± 0.1

Number of contacts

6-64



SMC male header with straight solder pins, kinked

| Identification | No. of contacts | Part No. | | | | | |
|---|-----------------|----------------|-------|-------------------|-------|------------------|-------|
| | | Without levers | | With short levers | | With long levers | |
| SMC male header with straight solder pins, kinked Length: 2.9 mm | 6 | 09 19 506 | └ 024 | 09 19 506 | └ 014 | 09 19 506 | └ 004 |
| | 10 | 09 19 510 | └ 024 | 09 19 510 | └ 014 | 09 19 510 | └ 004 |
| | 14 | 09 19 514 | └ 024 | 09 19 514 | └ 014 | 09 19 514 | └ 004 |
| | 16 | 09 19 516 | └ 024 | 09 19 516 | └ 014 | 09 19 516 | └ 004 |
| | 20 | 09 19 520 | └ 024 | 09 19 520 | └ 014 | 09 19 520 | └ 004 |
| | 26 | 09 19 526 | └ 024 | 09 19 526 | └ 014 | 09 19 526 | └ 004 |
| | 34 | 09 19 534 | └ 024 | 09 19 534 | └ 014 | 09 19 534 | └ 004 |
| | 40 | 09 19 540 | └ 024 | 09 19 540 | └ 014 | 09 19 540 | └ 004 |
| | 50 | 09 19 550 | └ 024 | 09 19 550 | └ 014 | 09 19 550 | └ 004 |
| | 60 | 09 19 560 | └ 024 | 09 19 560 | └ 014 | 09 19 560 | └ 004 |
| | 64 | 09 19 564 | └ 024 | 09 19 564 | └ 014 | 09 19 564 | └ 004 |

SEK

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30 contacts on request

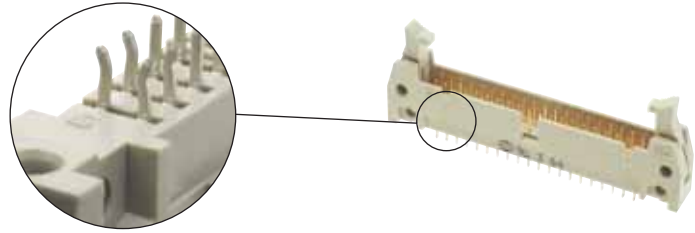
* Not normally kept in stock
 For accessories see page 08.54
 For dimensions see page 08.49

For performance level 3 please specify digit
 For performance level 2 please specify digit
 > 0.76 µm Au (30 µinch) on request



Number of contacts

6-64



SMC male header with straight solder pins, kinked

Identification

Drawing

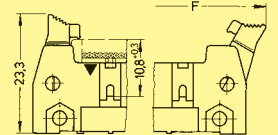
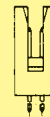
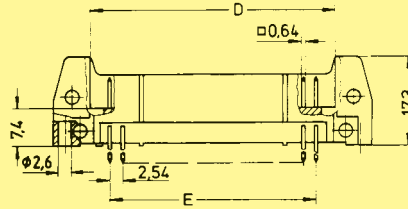
Dimensions in mm

SMC male header

| No. of contacts | A | C | D | E | F | G |
|-----------------|-------|-------|-------|-------------------|-------|-------|
| 6 | 26.9 | 22.86 | 12.45 | 2.54 x 2 = 5.08 | 36.9 | 40.3 |
| 10 | 32.0 | 27.94 | 17.53 | 2.54 x 4 = 10.16 | 42.0 | 45.4 |
| 14 | 37.1 | 33.02 | 22.61 | 2.54 x 6 = 15.24 | 47.1 | 50.4 |
| 16 | 39.6 | 35.56 | 25.15 | 2.54 x 7 = 17.78 | 49.6 | 53.0 |
| 20 | 44.7 | 40.64 | 30.23 | 2.54 x 9 = 22.86 | 54.7 | 58.1 |
| 26 | 52.3 | 48.26 | 37.85 | 2.54 x 12 = 30.48 | 62.3 | 65.7 |
| 34 | 62.5 | 58.42 | 48.01 | 2.54 x 16 = 40.64 | 72.5 | 75.8 |
| 40 | 70.1 | 66.04 | 55.63 | 2.54 x 19 = 48.26 | 80.1 | 83.5 |
| 50 | 82.8 | 78.74 | 68.33 | 2.54 x 24 = 60.96 | 92.8 | 96.2 |
| 60 | 95.5 | 91.44 | 81.03 | 2.54 x 29 = 73.66 | 105.5 | 108.9 |
| 64 | 100.6 | 96.52 | 86.11 | 2.54 x 31 = 78.74 | 110.6 | 113.9 |

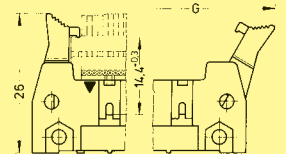
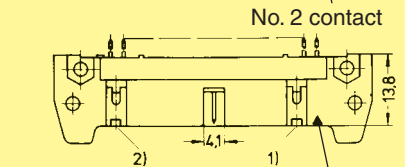
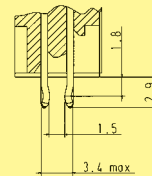
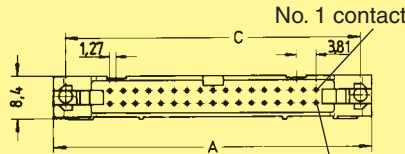
Short levers

for use with female connector without strain relief clamp



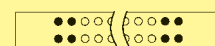
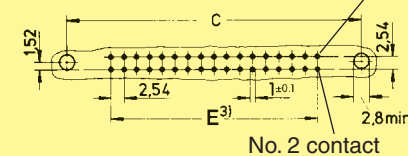
Long levers

for use with female connector with strain relief clamp



Marking No. 1 contact

No. 1 contact



Board drillings

● Kinked contact: pcb thickness from 1.50 to 1.94 mm after Cu + Sn plating with non-remelted through holes \varnothing 0.80 to \varnothing 0.95 mm. Max. insertion force = 125 N. Min. retention force = 6 N.

○ Non-kinked contact: Solder pins for pcb connections \varnothing 1 ± 0.1 mm as per IEC 60603-13.

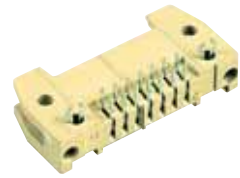
¹⁾ No polarization slot for 6, 10 or 14 way male header

²⁾ No polarization slot for 6 way male header

³⁾ Pitch tolerance: ± 0.1

Number of contacts

6-64



SMC male header with angled solder pins and board lock

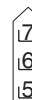
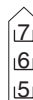
| Identification | No. of contacts | Part No. | | | | | |
|--|-----------------|----------------|--------|-------------------|--------|------------------|--------|
| | | Without levers | | With short levers | | With long levers | |
| <p>SMC male header with angled solder pins and pcb board lock</p> <p>Length: 2.9 mm for 1.6 mm pcb thickness</p> <p>To hold the connector on the pcb before the soldering process, two board locks have been added on the male header with angled solder pins.</p> | 6 | 09 19 506 | └ 973* | 09 19 506 | └ 963* | 09 19 506 | └ 953* |
| | 10 | 09 19 510 | └ 973* | 09 19 510 | └ 963* | 09 19 510 | └ 953* |
| | 14 | 09 19 514 | └ 973* | 09 19 514 | └ 963* | 09 19 514 | └ 953* |
| | 16 | 09 19 516 | └ 973* | 09 19 516 | └ 963* | 09 19 516 | └ 953* |
| | 20 | 09 19 520 | └ 973* | 09 19 520 | └ 963* | 09 19 520 | └ 953* |
| | 26 | 09 19 526 | └ 973* | 09 19 526 | └ 963* | 09 19 526 | └ 953* |
| | 34 | 09 19 534 | └ 973* | 09 19 534 | └ 963* | 09 19 534 | └ 953* |
| | 40 | 09 19 540 | └ 973* | 09 19 540 | └ 963* | 09 19 540 | └ 953* |
| | 50 | 09 19 550 | └ 973* | 09 19 550 | └ 963* | 09 19 550 | └ 953* |
| | 60 | 09 19 560 | └ 973* | 09 19 560 | └ 963* | 09 19 560 | └ 953* |
| | 64 | 09 19 564 | └ 973* | 09 19 564 | └ 963* | 09 19 564 | └ 953* |

SEK

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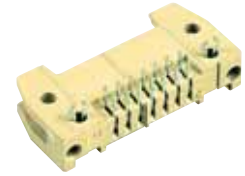
* Not normally kept in stock
30 contacts on request

For performance level 3 please specify digit
For performance level 2 please specify digit
> 0.76 µm Au (30 µinch) on request



Number of contacts

6-64



SMC male header with angled solder pins and board lock

Identification

Drawing

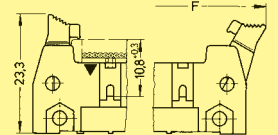
Dimensions in mm

SMC male header

| No. of contacts | A | B | D | E | F | G |
|-----------------|-------|-------|-------|-------------------|-------|-------|
| 6 | 26.9 | 16.76 | 12.45 | 2.54 x 2 = 5.08 | 36.9 | 40.3 |
| 10 | 32.0 | 21.84 | 17.53 | 2.54 x 4 = 10.16 | 42.0 | 45.4 |
| 14 | 37.1 | 26.92 | 22.61 | 2.54 x 6 = 15.24 | 47.1 | 50.4 |
| 16 | 39.6 | 29.46 | 25.15 | 2.54 x 7 = 17.78 | 49.6 | 53.0 |
| 20 | 44.7 | 34.54 | 30.23 | 2.54 x 9 = 22.86 | 54.7 | 58.1 |
| 26 | 52.3 | 42.16 | 37.85 | 2.54 x 12 = 30.48 | 62.3 | 65.7 |
| 34 | 62.5 | 52.32 | 48.01 | 2.54 x 16 = 40.64 | 72.5 | 75.8 |
| 40 | 70.1 | 59.94 | 55.63 | 2.54 x 19 = 48.26 | 80.1 | 83.5 |
| 50 | 82.8 | 72.64 | 68.33 | 2.54 x 24 = 60.96 | 92.8 | 96.2 |
| 60 | 95.5 | 85.34 | 81.03 | 2.54 x 29 = 73.66 | 105.5 | 108.9 |
| 64 | 100.6 | 90.42 | 86.11 | 2.54 x 31 = 78.74 | 110.6 | 113.9 |

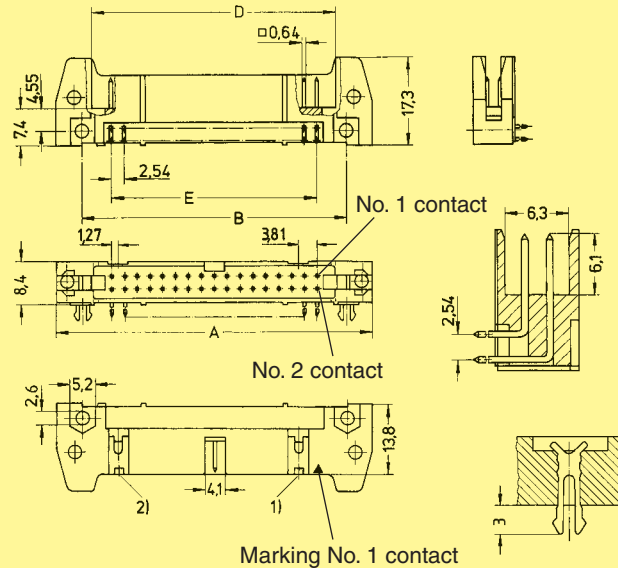
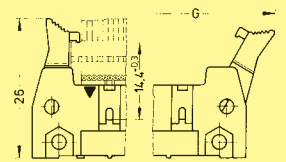
Short levers

for use with female connector without strain relief clamp

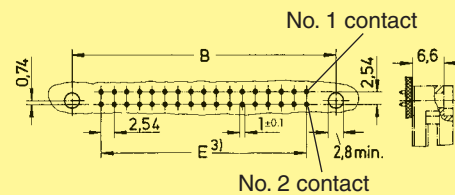


Long levers

for use with female connector with strain relief clamp



Board drillings



For accessories see page 08.54

¹⁾ No polarization slot for 6, 10 or 14 way male header

²⁾ No polarization slot for 6 way male header
³⁾ Pitch tolerance: ± 0.1

Number of contacts

6-64



Tape & Reel packaging
Available on request



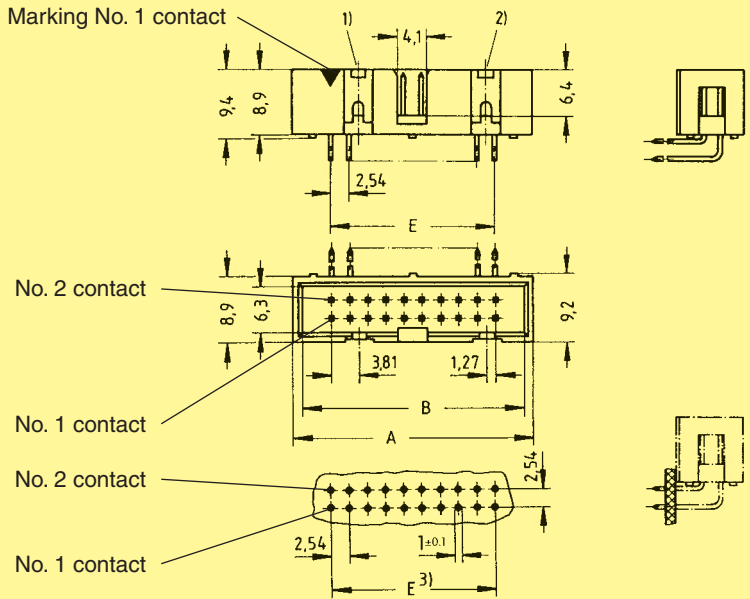
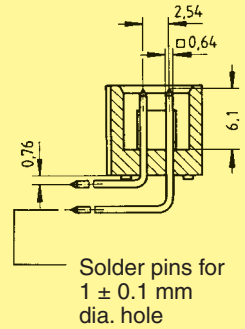
SMC low-profile male header, angled solder pins

Identification No. of contacts Part No. Drawing Dimensions in mm

SMC male header with angled solder pins
Length: 2.9 mm

| | | |
|----|-----------|-------|
| 6 | 09 19 506 | □ 323 |
| 10 | 09 19 510 | □ 323 |
| 14 | 09 19 514 | □ 323 |
| 16 | 09 19 516 | □ 323 |
| 20 | 09 19 520 | □ 323 |
| 26 | 09 19 526 | □ 323 |
| 34 | 09 19 534 | □ 323 |
| 40 | 09 19 540 | □ 323 |
| 50 | 09 19 550 | □ 323 |
| 60 | 09 19 560 | □ 323 |
| 64 | 09 19 564 | □ 323 |

| No. of contacts | A | B | E |
|-----------------|------|-------|-------------------|
| 6 | 15.2 | 12.78 | 2.54 x 2 = 5.08 |
| 10 | 20.3 | 17.86 | 2.54 x 4 = 10.16 |
| 14 | 25.4 | 22.94 | 2.54 x 6 = 15.24 |
| 16 | 27.9 | 25.48 | 2.54 x 7 = 17.78 |
| 20 | 33.0 | 30.56 | 2.54 x 9 = 22.86 |
| 26 | 40.6 | 38.18 | 2.54 x 12 = 30.48 |
| 34 | 50.8 | 48.34 | 2.54 x 16 = 40.64 |
| 40 | 58.4 | 55.96 | 2.54 x 19 = 48.26 |
| 50 | 71.3 | 68.66 | 2.54 x 24 = 60.96 |
| 60 | 84.0 | 81.36 | 2.54 x 29 = 73.66 |
| 64 | 89.1 | 86.44 | 2.54 x 31 = 78.74 |



For performance level 3 please specify digit
For performance level 2 please specify digit
> 0.76 µm Au (30 µinch) on request

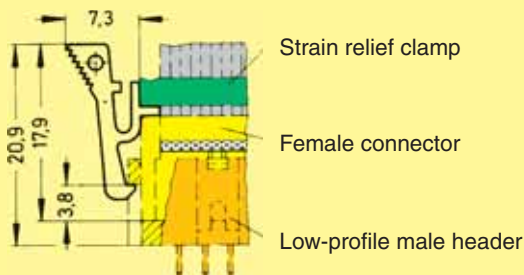


Identification No. of contacts Part No. Drawing Dimensions in mm

Locking lever for female connector with strain relief in conjunction with low-profile male header

When the security of latching is required and space is a premium, these locking levers can be fitted onto the strain relief of the HARTING female connector.

09 18 000 9905⁴⁾



* Not normally kept in stock

¹⁾ No polarization slot for 6, 10 or 14 way male header
²⁾ No polarization slot for 6 way male header

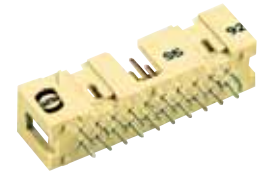
³⁾ Pitch tolerance: ± 0.1
⁴⁾ Order 2 per female connector

Number of contacts

6-64



Tape & Reel packaging
Available on request



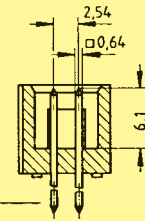
SMC low-profile male header, straight solder pins

| Identification | No. of contacts | Part No. | Drawing | Dimensions in mm |
|----------------|-----------------|----------|---------|------------------|
|----------------|-----------------|----------|---------|------------------|

SMC male header with straight solder pins
Length: 2.9 mm

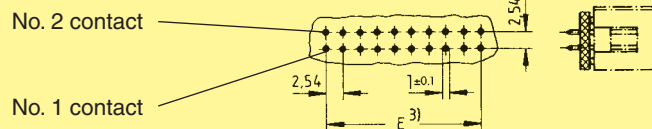
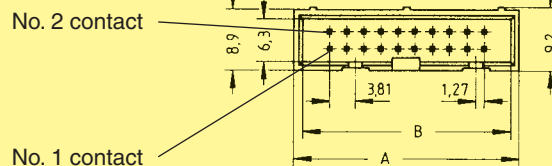
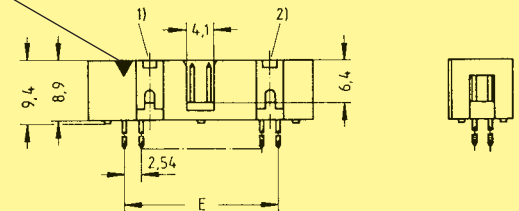
| | | |
|----|-----------|-----|
| 6 | 09 19 506 | 324 |
| 10 | 09 19 510 | 324 |
| 14 | 09 19 514 | 324 |
| 16 | 09 19 516 | 324 |
| 20 | 09 19 520 | 324 |
| 26 | 09 19 526 | 324 |
| 34 | 09 19 534 | 324 |
| 40 | 09 19 540 | 324 |
| 50 | 09 19 550 | 324 |
| 60 | 09 19 560 | 324 |
| 64 | 09 19 564 | 324 |

| No. of contacts | A | B | E |
|-----------------|------|-------|-------------------|
| 6 | 15.2 | 12.78 | 2.54 x 2 = 5.08 |
| 10 | 20.3 | 17.86 | 2.54 x 4 = 10.16 |
| 14 | 25.4 | 22.94 | 2.54 x 6 = 15.24 |
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| 60 | 84.0 | 81.36 | 2.54 x 29 = 73.66 |
| 64 | 89.1 | 86.44 | 2.54 x 31 = 78.74 |



Solder pins for 1 ± 0.1 mm dia. hole

Marking No. 1 contact



For performance level 3 please specify digit 7
For performance level 2 please specify digit 6
> 0.76 µm Au (30 µinch) on request

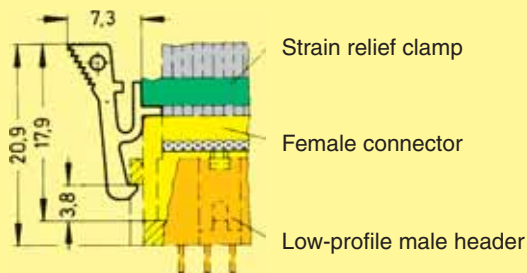


| Identification | No. of contacts | Part No. | Drawing | Dimensions in mm |
|----------------|-----------------|----------|---------|------------------|
|----------------|-----------------|----------|---------|------------------|

Locking lever for female connector with strain relief in conjunction with low-profile male header

When the security of latching is required and space is a premium, these locking levers can be fitted onto the strain relief of the HARTING female connector.

09 18 000 9905⁴⁾



* Not normally kept in stock

¹⁾ No polarization slot for 6, 10 or 14 way male header
²⁾ No polarization slot for 6 way male header

³⁾ Pitch tolerance: ± 0.1
⁴⁾ Order 2 per female connector

Accessories

| Identification | Part No. | Drawing | Dimensions in mm |
|--|--|--|------------------|
| <p>Polarization key</p> <p>1) Part No. comprises 2 keys</p> | <p>09 18 500 9902¹⁾</p> | | |
| <p>Locking lever (snaps into place, can be fitted whenever required)</p> <p>2) Order 2 per male header</p> | <p>Long: 09 19 000 9903²⁾</p> <p>Short: 09 19 000 9904²⁾</p> | <p>Long</p> <p>Short</p> <p>For use with female connector <u>with</u> strain relief clamp</p> <p>For use with female connector <u>without</u> strain relief clamp</p> | |
| <p>Fixing screws for 1.6 mm P.C. board</p> <p>3) Part No. comprises 50 pieces</p> | <p>09 18 000 9906³⁾</p> | | |
| <p>Coding system with loss of contact</p> <p>4) Part No. comprises 6 code pins</p> | <p>Code pin 09 18 000 9901⁴⁾</p> <p>Removal tool for male contacts 09 99 000 0133</p> | <p>To avoid cross-plugging adjacent connectors a coding system is required. A code pin is inserted into the appropriate cavity in the female connector. The corresponding male contact is removed by a special removal tool.</p> | |

SEK

Cables for insulation displacement termination

| Identification | No. of contacts | Part No. | Drawing | Dimensions in mm | | | | | | | |
|---|--|--|---------|------------------|---|---|--|--|--|---------------------------------------|---|
| Flat cable grey UL AWM-style 2651 CSA | 6 9 10 14 15 16 18 20 24 25 26 28 34 37 40 50 60 64 | 09 18 006 700 09 18 009 700 09 18 010 700 09 18 014 700 09 18 015 700 09 18 016 700 09 18 018 700 09 18 020 700 09 18 024 700 09 18 025 700 09 18 026 700 09 18 028 700 09 18 034 700 09 18 037 700 09 18 040 700 09 18 050 700 09 18 060 700 09 18 064 700 | | | | | | | | | |
| | | | | | Length per reel 30.48 m (100 feet) 1 100 m (328 feet) 4 | Conductor material _____ Copper tinned Gauge _____ AWG 28/7 0.089 mm ² Voltage rating _____ 300 V _{r.m.s.} Current rating _____ 1.3 A at 10 °C rise above ambient Capacity unbalanced _____ 45.9 pF/m Impedance unbalanced _____ 105 Ω Propagation delay _____ 4.9 ns/m nominal Insulation material _____ PVC Temperature rating (operating) _____ -20 °C ... + 105 °C Temperature rating (static) _____ -30 °C ... + 105 °C Flammability rating _____ Flame retardant VW-1 Insulation resistance _____ > 10 ⁴ MΩ/km | | | | | |
| | | | | | Flat cable colour coded | 9 10 14 15 16 20 24 25 26 34 37 40 50 60 64 | 09 18 009 7005 09 18 010 7005 09 18 014 7005 09 18 015 7005 09 18 016 7005 09 18 020 7005 09 18 024 7005 09 18 025 7005 09 18 026 7005 09 18 034 7005 09 18 037 7005 09 18 040 7005 09 18 050 7005 09 18 060 7005 09 18 064 7005 | | | | |
| | | | | | | | | | | Length per reel 30.48 m (100 feet) | Colour code sequence (in 10 steps) brown, red, orange, yellow, green, blue, violet, grey, white, black |
| | | | | | | | | | | UL AWM-style 20 130 | Conductor material _____ Copper tinned Gauge _____ AWG 28/7 0.089 mm ² Voltage rating _____ 300 V _{r.m.s.} Conductor resistance _____ 221 mΩ/m Capacity unbalanced _____ 42.7 pF/m Impedance unbalanced _____ 105 Ω Inductance unbalanced _____ 0.68 μH/m Signal delay _____ 4.9 ns/m Insulation material _____ PVC Temperature rating _____ -20 °C ... + 105 °C Flammability rating _____ UL: VW 1 Insulation resistance _____ 10 ⁴ MΩ/km |

SEK

Important: always store reels vertically

Cables for insulation displacement termination

| Identification | No. of contacts | Part No. | Drawing | Dimensions in mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---------|---|---|---|--|------------------------------------|---|---|---|--|--------------------|---|--|---|--|--------------------------------|---|-----------------|----------------|-------------------------|----------|---------|--------------------|---------------------|-------|----------|---------------------|----------|-------|--|-----------------------|-----------------------|--|--|----------------------|----------|----------|--|---------------------|---------|-----------|--|----------------------|-------|------|--|--------------|----------|----------------|--|
| Flat cable twisted pair Length per reel 30.48 m (100 feet) UL AWM-style 20130 | 10 14 16 20 26 34 40 50 60 64 | 09 18 010 7006 09 18 014 7006 09 18 016 7006 09 18 020 7006 09 18 026 7006 09 18 034 7006 09 18 040 7006 09 18 050 7006 09 18 060 7006 09 18 064 7006 | | <table border="1"> <thead> <tr> <th></th> <th>Flat cable twisted pair</th> <th>Round flat cable with screening</th> <th>Round flat cable without screening</th> </tr> </thead> <tbody> <tr> <td>Insulation material</td> <td colspan="3">PVC</td> </tr> <tr> <td>Conductor material</td> <td colspan="3">Copper tinned</td> </tr> <tr> <td>Gauge</td> <td colspan="3">AWG 28/7 0.089 mm²</td> </tr> <tr> <td>Voltage rating</td> <td colspan="3">300 V_{r.m.s.}</td> </tr> <tr> <td>Temperature rating</td> <td colspan="3">-20 °C ... + 105 °C</td> </tr> <tr> <td>Flammability rating</td> <td colspan="3">UL: VW 1</td> </tr> <tr> <td>Insulation resistance</td> <td colspan="3">10⁴ MΩ/km</td> </tr> <tr> <td>Conductor resistance</td> <td>221 mΩ/m</td> <td colspan="2">225 mΩ/m</td> </tr> <tr> <td>Capacity unbalanced</td> <td>49 pF/m</td> <td colspan="2">78.7 pF/m</td> </tr> <tr> <td>Impedance unbalanced</td> <td>105 Ω</td> <td colspan="2">75 Ω</td> </tr> <tr> <td>Signal delay</td> <td>5.2 ns/m</td> <td colspan="2">5.25 ns/m nom.</td> </tr> </tbody> </table> | | Flat cable twisted pair | Round flat cable with screening | Round flat cable without screening | Insulation material | PVC | | | Conductor material | Copper tinned | | | Gauge | AWG 28/7 0.089 mm ² | | | Voltage rating | 300 V _{r.m.s.} | | | Temperature rating | -20 °C ... + 105 °C | | | Flammability rating | UL: VW 1 | | | Insulation resistance | 10 ⁴ MΩ/km | | | Conductor resistance | 221 mΩ/m | 225 mΩ/m | | Capacity unbalanced | 49 pF/m | 78.7 pF/m | | Impedance unbalanced | 105 Ω | 75 Ω | | Signal delay | 5.2 ns/m | 5.25 ns/m nom. | |
| | | | | | | Flat cable twisted pair | Round flat cable with screening | Round flat cable without screening | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Insulation material | PVC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Conductor material | Copper tinned | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Gauge | AWG 28/7 0.089 mm ² | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Voltage rating | 300 V _{r.m.s.} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Temperature rating | -20 °C ... + 105 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Flammability rating | UL: VW 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Insulation resistance | 10 ⁴ MΩ/km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Conductor resistance | 221 mΩ/m | 225 mΩ/m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Capacity unbalanced | 49 pF/m | 78.7 pF/m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Impedance unbalanced | 105 Ω | 75 Ω | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Signal delay | 5.2 ns/m | 5.25 ns/m nom. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Round flat cable with screening (shielding) UL listed PLCC CL2 CSA certified AWM FT-1 | 9 10 14 15 16 20 25 26 34 37 40 50 60 64 | 09 18 009 70 09 18 010 70 09 18 014 70 09 18 015 70 09 18 016 70 09 18 020 70 09 18 025 70 09 18 026 70 09 18 034 70 09 18 037 70 09 18 040 70 09 18 050 70 09 18 060 70 09 18 064 70 | | <table border="1"> <thead> <tr> <th>No. of contacts</th> <th>a</th> <th>b</th> <th>c</th> </tr> </thead> <tbody> <tr> <td>6 to 26</td> <td>19.05</td> <td>19.05</td> <td>38.10</td> </tr> <tr> <td>34 to 64</td> <td>38.10</td> <td>19.05</td> <td>57.15</td> </tr> </tbody> </table> | No. of contacts | a | b | c | 6 to 26 | 19.05 | 19.05 | 38.10 | 34 to 64 | 38.10 | 19.05 | 57.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No. of contacts | a | b | c | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 to 26 | 19.05 | 19.05 | 38.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 34 to 64 | 38.10 | 19.05 | 57.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Length per reel 30.48 m (100 feet) 07 100 m (328 feet) 10* | 9 10 14 15 16 20 25 26 34 37 40 50 60 64 | 09 18 009 70 09 18 010 70 09 18 014 70 09 18 015 70 09 18 016 70 09 18 020 70 09 18 025 70 09 18 026 70 09 18 034 70 09 18 037 70 09 18 040 70 09 18 050 70 09 18 060 70 09 18 064 70 | | <table border="1"> <thead> <tr> <th>No. of contacts</th> <th>a</th> <th>b</th> <th>c</th> </tr> </thead> <tbody> <tr> <td>6 to 26</td> <td>19.05</td> <td>19.05</td> <td>38.10</td> </tr> <tr> <td>34 to 64</td> <td>38.10</td> <td>19.05</td> <td>57.15</td> </tr> </tbody> </table> | | | | | | No. of contacts | a | b | c | 6 to 26 | 19.05 | 19.05 | 38.10 | 34 to 64 | 38.10 | 19.05 | 57.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | No. of contacts | a | b | c | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 6 to 26 | 19.05 | 19.05 | 38.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 34 to 64 | 38.10 | 19.05 | 57.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | without screening (shielding) UL listed PLCC CL2 CSA certified AWM FT-1 | 9 10 14 15 16 20 25 26 34 37 40 50 60 64 | 09 18 009 70 09 18 010 70 09 18 014 70 09 18 015 70 09 18 016 70 09 18 020 70 09 18 025 70 09 18 026 70 09 18 034 70 09 18 037 70 09 18 040 70 09 18 050 70 09 18 060 70 09 18 064 70 | | <table border="1"> <thead> <tr> <th>No. of contacts</th> <th>a</th> <th>b</th> <th>c</th> </tr> </thead> <tbody> <tr> <td>6 to 26</td> <td>19.05</td> <td>19.05</td> <td>38.10</td> </tr> <tr> <td>34 to 64</td> <td>38.10</td> <td>19.05</td> <td>57.15</td> </tr> </tbody> </table> | No. of contacts | a | b | c | 6 to 26 | 19.05 | 19.05 | 38.10 | 34 to 64 | 38.10 | 19.05 | 57.15 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | No. of contacts | a | b | c | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 6 to 26 | 19.05 | 19.05 | 38.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | No. of contacts | a | b | c | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 6 to 26 | 19.05 | 19.05 | 38.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 34 to 64 | 38.10 | 19.05 | 57.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SEK

* Not normally kept in stock
Important: always store reels vertically

