## Number of contacts
160

## Contact spacing (mm)
2.54

## Working current
1 A at 70 °C
and all contacts
are loaded

see current carrying capacity chart

## Clearance and creepage distances

| minimal clearance and creepage distance | | distance in mm | | |
|---|---|---|---|---|
| | | rows a, b, c | rows z, d | female angled |
| between two rows | clearance | 1.2 | 1.2 | 0.6 |
| | creepage | 1.2 | 1.2 | 0.6 |
| between two contacts (in a row) | clearance | 1.2 | 1.0 | 0.8 |
| | creepage | 1.2 | 1.0 | 0.8 |

## Working voltage
The working voltage also depends on the clearance and creepage dimensions of the pcb itself and the associated wiring

according to the safety regulations of the equipment
Explanations see chapter 00

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

## Contact resistance
rows a, b, c ≤ 20 mΩ
rows z, d ≤ 30 mΩ

## Insulation resistance
≥ $10^{10}$ Ω acc. to IEC 60512-2

## Temperature range
– 55 °C … + 125 °C
for press-in termination – 40 °C … + 105 °C
acc. to IEC 60512-11

During reflow soldering max. + 240 °C for 20 s
for SMC connectors

The higher temperature limit includes the local ambient and heating effects of the contacts under load

## Electrical termination
Solder pins for pcb termination Ø 1.0 ± 0.1 mm according to IEC 60326-3
Crimp terminal 0.09 - 0.50 mm²
Compliant press-in terminations

pcb thickness ≥ 1.6 mm
Recommended pcb holes for press-in technology
See recommendation page 00.25
in acc. to EN 60352-5

## Insertion and withdrawal force
≤ 160 N

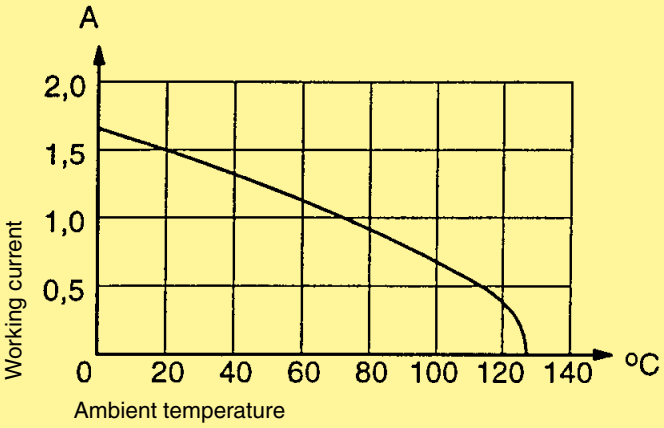
## Materials
Mouldings
- Liquid Cristal Polymer (LCP), for male connectors, straight female connectors, UL 94-V0
- Thermoplastic resin glass-fibre filled, UL 94-V0

Contacts Copper alloy

## Contact surface
Contact zone Plated acc. to performance level[1)]

## Current carrying capacity chart
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, non 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




With selective loading higher currents can be transmitted. The requirements according to VITA 1.7 are fulfilled.

## har-bus® 64 with switches
Deviating technical characteristics for the switching elements.

| minimal clearance and creepage distance | | distance in mm |
|---|---|---|
| | | switching positions |
| between two rows | clearance | 0.5 |
| | creepage | 0.7 |
| between two contacts (in a row) | clearance | 0.5 |
| | creepage | 0.7 |

## Contact resistance
Switching elements ≤ 60 mΩ

## Insertion and withdrawal force
Complete connector ≤ 180 N



1) Explanation performance levels see chapter 00

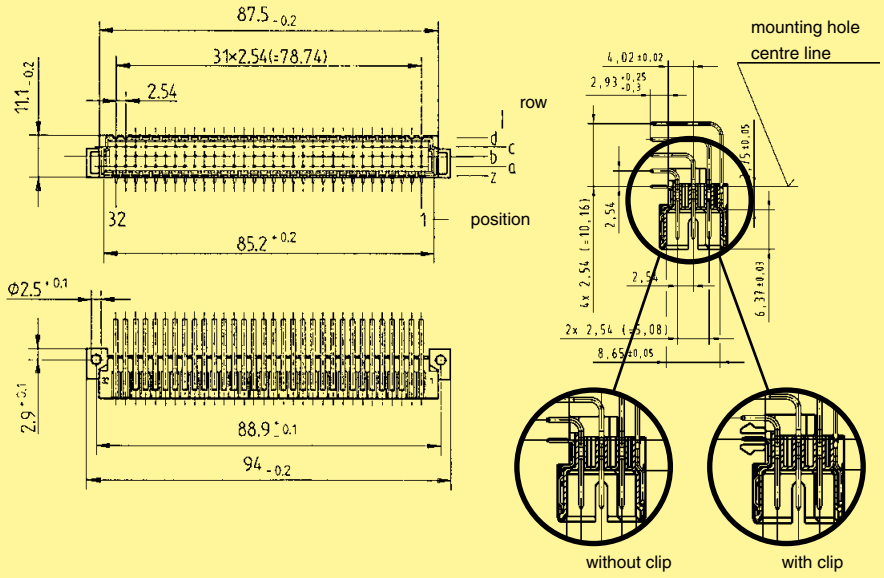
Number of contacts

# 160

## Male connectors, angled, SMC compatible

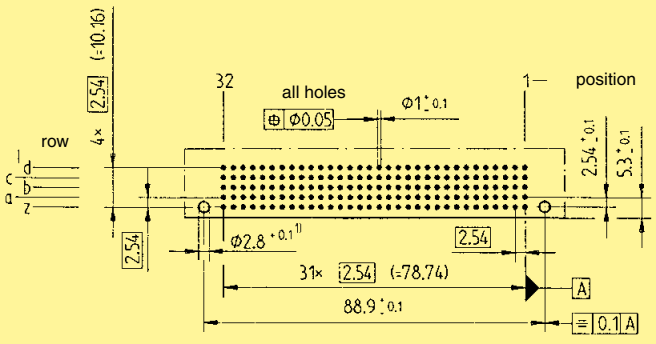
| Identification | Number of contacts | Contact arrangement | Part No. Performance levels according to IEC 61 076-4-113 Explanation chapter 00 2 | 1 |
|---|---|---|---|---|
| Male connector* without retention clip | 160 | z, a, b, c, d | 02 01 160 2101 | 02 01 160 1101<br>02 01 160 1105[2] |
| with retention clip | 160 | z, a, b, c, d | 02 01 160 2102 | 02 01 160 1102<br>02 01 160 1106[2] |

### Dimensions



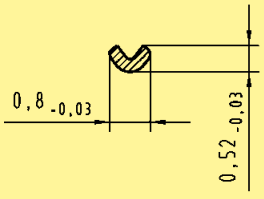

### Board drillings

Mounting side

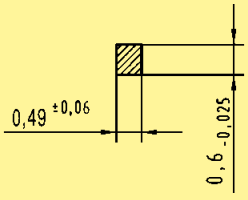



### Cross section of solder terminations

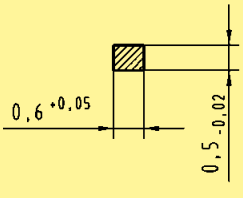
Row z:
A = 0.21 - 0.25 mm²




Rows a, b, c:
A = 0.25 - 0.33 mm²




Row d:
A = 0.29 - 0.32 mm²




A = cross area of contacts

Dimensions in mm

* Pre-leading contacts at positions d1, d2, d31 and d32

[1] Recommendation for variants with clip: Drillings can be enlarged up to 3.1 mm ø to reduce standard mounting force (see chapter 00)

[2] Special variant with min. 1.27 µm (50 µinch) Au and SnPb on termination