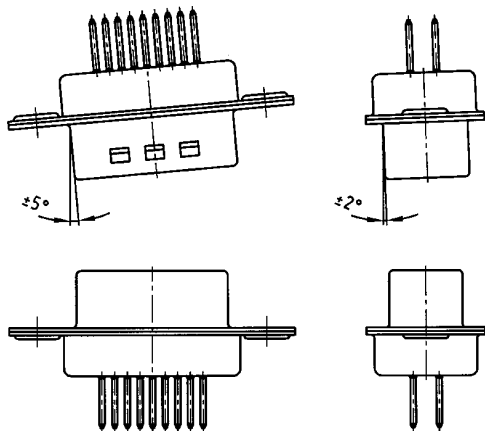
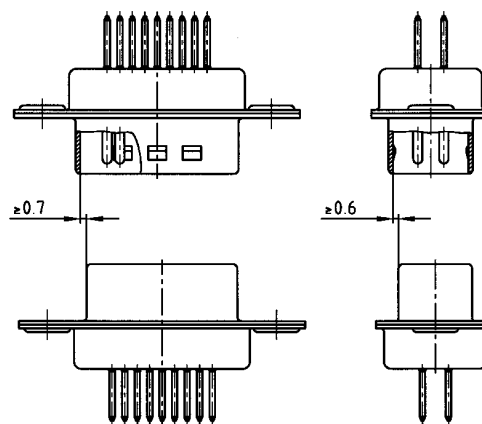


# MATING CONDITIONS

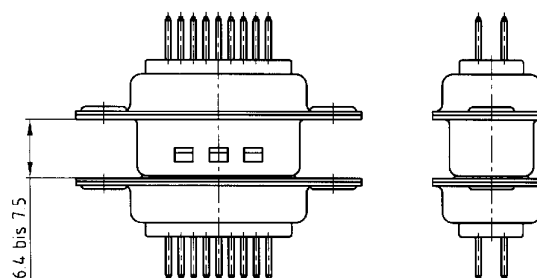
Float mount tolerance guide



Rigid mount tolerance guide

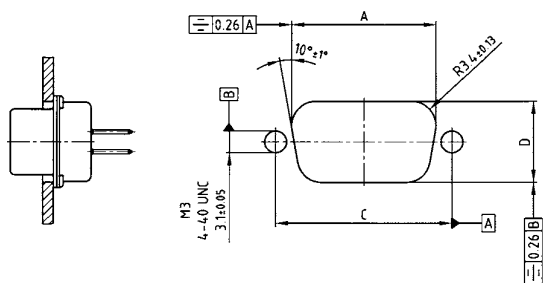


Rigid mount vertical to tolerance guide

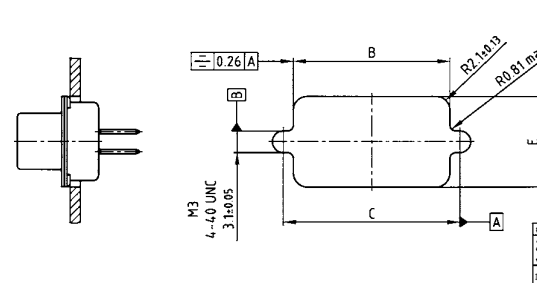


## PANEL CUT-OUT

Rear panel mounting



Front panel mounting



| Shell size | A ± 0,13 | B ± 0,13 | C ± 0,13 | D ± 0,13 | E ± 0,13 |
|------------|----------|----------|----------|----------|----------|
| 9          | 15       | 20.50    | 22.20    | 25.00    | 11.40    |
| 15         | 26       | 28.80    | 30.50    | 33.30    | 11.40    |
| 25         | 44       | 42.50    | 44.30    | 47.04    | 11.40    |
| 37         | 62       | 59.10    | 60.70    | 63.50    | 11.40    |
| 50         | 78       | 56.30    | 58.30    | 61.10    | 14.10    |

# PART NUMBER CREATOR

2 4 1 A 1011 O X

**Product Line**

**Design**

- 1 = Plug connector, standard DWV
- 2 = Socket connector, standard DWV
- 5 = Plug connector, high DWV
- 6 = Socket connector, high DWV
- 7\* = Plug connector, ultra high DWV
- 8\* = Socket connector, ultra high DWV

\*on request

**Quality class for contacts**

- A = Quality class 3 / 50 mating cycles
- B = Quality class 2 / 200 mating cycles
- C = Quality class 1 / 500 mating cycles

**Serial number**

**Design**

- OX = Standard design

**Filter connectors for higher DWV**

Increasing requirements, with respect to higher DWV for filter connectors, have induced us to carry out advanced development in this direction. CONEC is capable of delivering filter connectors with DWV of 1500 VDC.

The various DWV ratings are as follows:

- 1 Standard DWV .....300/424 VDC
- 2 High DWV.....707 VDC
- 3 Ultra high DWV.....1000/1500 VDC (on request)

Furthermore, the filter connector can be designed for ultra high DWV of up to 2500 VDC at 10/700 pulse voltage. Filter connectors so designed fulfill the standards established according to CE requirements, i.e. 1414 VDC. For example, capacity ratings range from 180 pF to 1300 pF for standard series.

For special capacitance values consult factory.

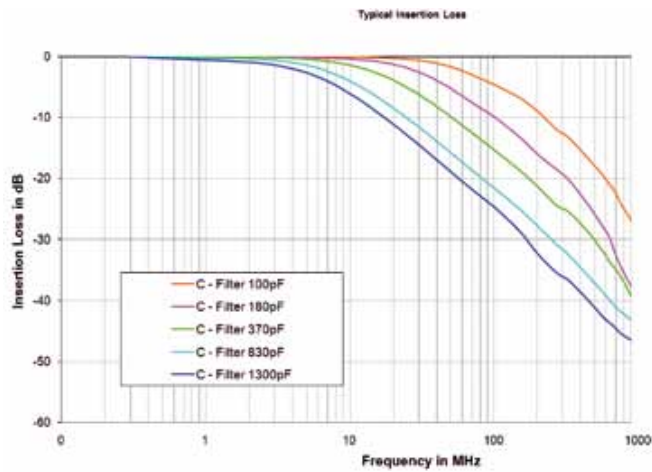
# TECHNICAL DATA

| Materials  | Filter D-SUB Standard<br>9, 15, 25, 37 and 50 position   | Filter D-SUB High Density<br>15, 25, 44, 62 and 78 position                |
|--|--|--|
| Insulator  | Polyester GF UL94 V-0  |  |
| Contacts   | CU alloy   |  |
| Contact plating  | Gold plated over nickel, solder area tin plated  |  |
| Shell  | Steel tin plated / brass tin plated  |  |
| Mechanical and electrical characteristics                                    |  |  |
| Dielectric with standing voltage   | <ul style="list-style-type: none"> <li>• Standard 424 VDC</li> <li>• Standard 300 VDC (for -T-Filter)</li> <li>• High DWV 707 VDC</li> <li>• Ultra high DWV 1500 VDC*</li> <li>• Ultra high DWV 1000 VDC* (for -T-Filter)<br/>*on request</li> </ul> | <ul style="list-style-type: none"> <li>• Standard 300 VDC</li> </ul>       |
| Working voltage  | <ul style="list-style-type: none"> <li>• Standard 100 VDC*</li> <li>• High DWV 100 VDC*</li> <li>• Ultra high DWV 200 VDC*</li> </ul> *Depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)   | <ul style="list-style-type: none"> <li>• Standard 100 VDC*</li> </ul>      |
| Contact resistance   | Max. 10 mΩ prior to stressing, Δ R max. 10 mΩ after stressing per DIN 41652, Part 2  |  |
| Insulation resistance  | ≥ 1GΩ  |  |
| Current rating   | 7.5 A (UL) / 5 A (CSA,VDE)   | 3 A (UL,VDE) / 2.5 A (CSA)   |
| Voltage surge 10/700μs   | Standard 300 V<br>High Voltage 500 V   | Standard 300 V   |
| Mating and unmating forces   | 9 pos. ≤ 30 N<br>15 pos. ≤ 50 N<br>25 pos. ≤ 83 N<br>37 pos. ≤ 123 N<br>50 pos. ≤ 167 N  | 15 pos. ≤ 50 N<br>26 pos. ≤ 83 N<br>44 pos. ≤ 110 N<br>62 pos. ≤ 170 N     |
| Temperature working range  | -25°C to +105°C  | -25°C to +85°C   |
| Humidity   | 40°C / 85% relative humidity / RH  |  |
| Capacitor values<br>For other capacitance values please contact the factory. | 180 pF ± 20% tolerance<br>370 pF ± 20% tolerance<br>830 pF ± 20% tolerance<br>1300 pF ± 20% tolerance<br>other capacitor values on request   | 180 pF ± 20% tolerance<br>370 pF ± 20% tolerance<br>830 pF ± 20% tolerance |
| Quality class  | A = Quality class 3 = 50 mating cycles<br>B = Quality class 2 = 200 mating cycles<br>C = Quality class 1 = 500 mating cycles   |  |

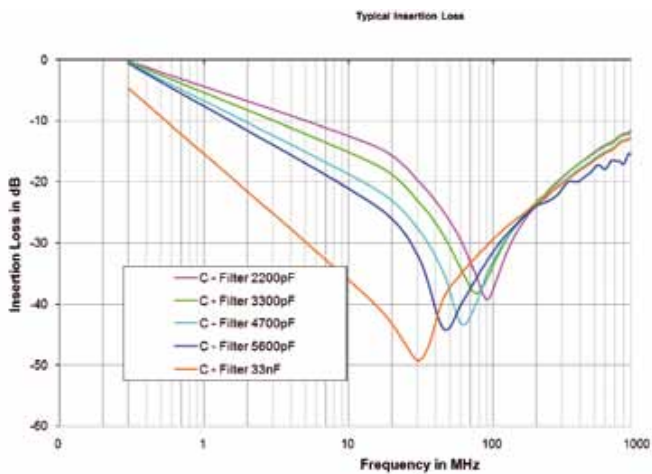
Technical alterations are subject to change without notice.

# INSERTION LOSS

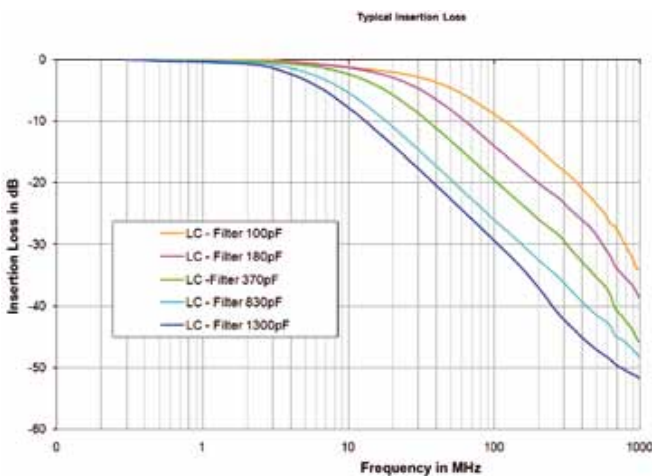
## C-FILTER WITH PLANAR FILTER TECHNOLOGY



## C-FILTER WITH CHIP TECHNOLOGY

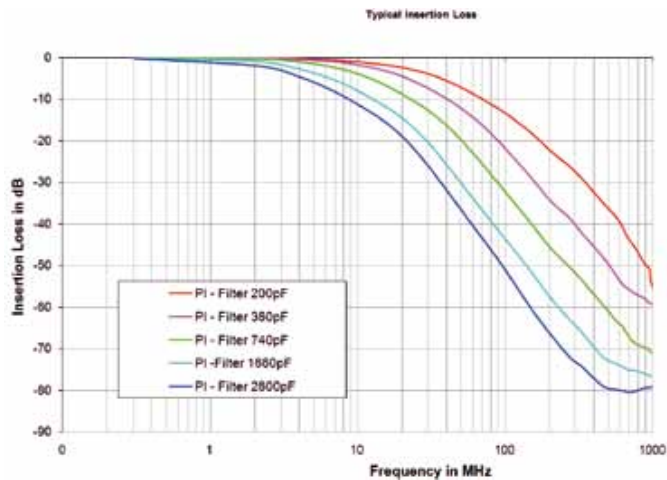


## LC-FILTER WITH PLANAR FILTER TECHNOLOGY



# INSERTION LOSS

## π-FILTER WITH PLANAR FILTER TECHNOLOGY



# SOLDER PROFILE

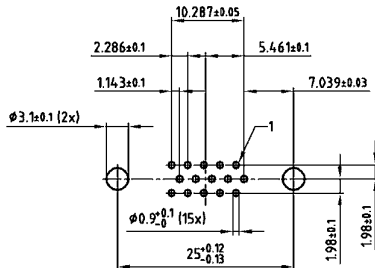
| Connector Type                        | Preheating       |          | Solder terminal dipping parameters |                              |
|---------------------------------------|------------------|----------|------------------------------------|------------------------------|
|                                       | max. Temperature | Duration | max. Solder bath Temperature       | max. Terminal Immersion Time |
| Filter D-SUB                          | 100°C            | 30s      | 260°C                              | 5s                           |
| Combo D-SUB Filter                    | 120°C            | 120s     | 260°C                              | 5s                           |
| Filter D-SUB Water Resistant          | 100°C            | 30s      | 240°C                              | 5s                           |
| Combo D-SUB Water Resistant           | 120°C            | 120s     | 240°C                              | 5s                           |
| D-SUB Water Resistant                 | 120°C            | 120s     | 240°C                              | 5s                           |
| D-SUB Solid Body Type Water Resistant | 150°C            | 180s     | 265°C                              | 8s                           |
| RJ45 Mod. Jack Filtered               | 150°C            | 180s     | 265°C                              | 8s                           |
| Filter Plates                         | 150°C            | 180s     | 265°C                              | 8s                           |

Recommended wave-solder parameters for CONEC connectors.

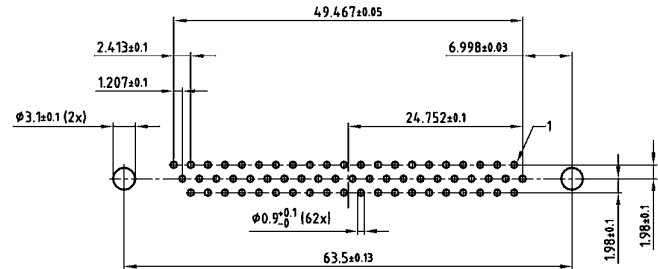
# PCB LAYOUT, D-SUB HIGH DENSITY

Solder pin, straight – Socket connector

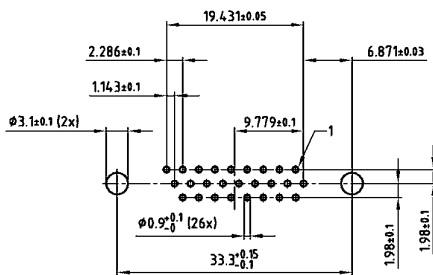
15 POS.



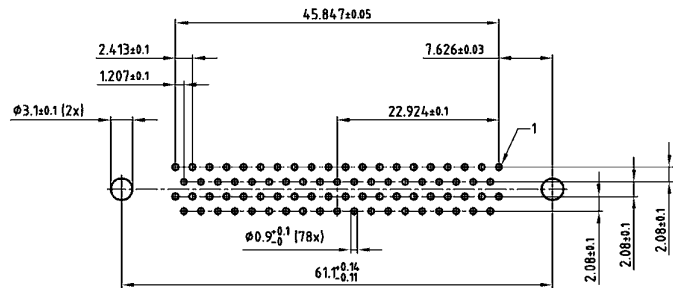
62 POS.



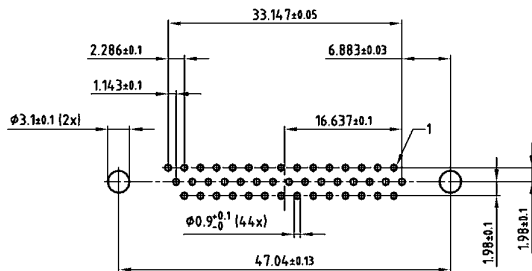
26 POS.



78 POS.



44 POS.

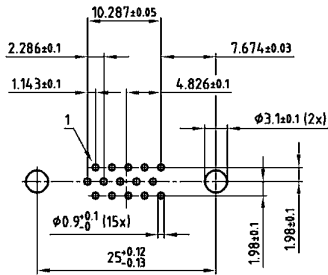


PCB layout Kat1t9A (View: component side)

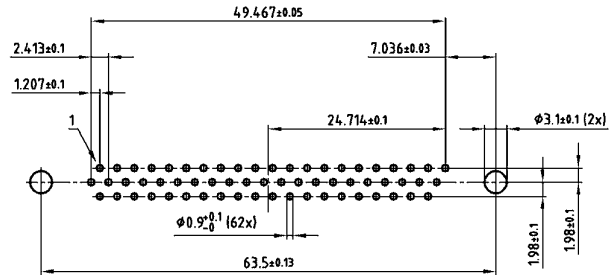
# PCB LAYOUT, D-SUB HIGH DENSITY

Solder pin, straight – Plug connector

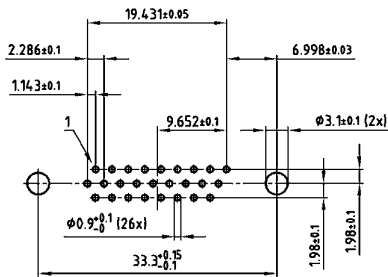
15 POS.



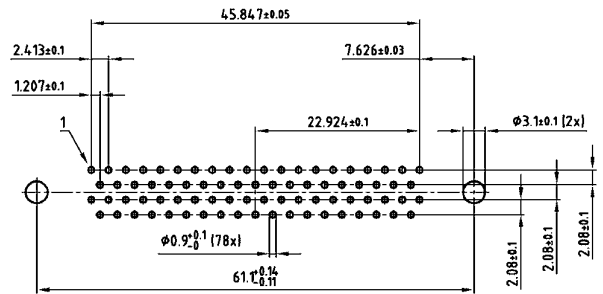
62 POS.



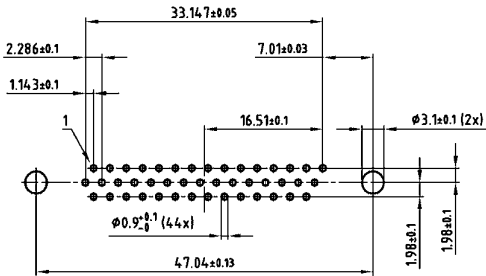
26 POS.



78 POS.



44 POS.



PCB layout Kat1iU0A (View: component side)