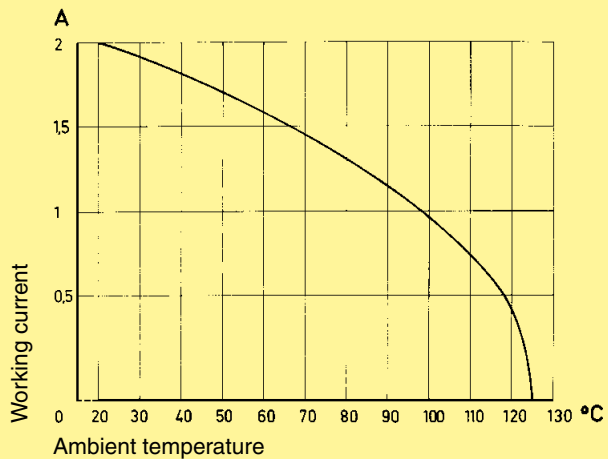


Number of contacts	16-96
Contact spacing (mm)	2.54
Working current see current carrying capacity chart	2 A max. 1 A with insulation displacement 40 A max. type M
Clearance	≥ 1.2 mm
Creepage	≥ 1.2 mm
Working voltage	according to the safety regulations of the equipment Explanations see chapter 00
The working voltage also depends on the clearance and creepage dimensions of the pcb itself, and the associated wiring	
Test voltage $U_{r.m.s.}$	1 kV
Contact resistance	≤ 20 mΩ
Insulation resistance	≥ 10 <sup>12</sup> Ω for standard articles ≥ 10 <sup>11</sup> Ω for special NFF articles (with part-no. ending 222)
Temperature range	- 55 °C ... + 125 °C - 40 °C ... + 105 °C for press-in connector
The higher temperature limit includes the local ambient and heating effects of the contacts under load	
During reflow soldering	max. + 240 °C for 15 s for SMC connectors
Degree of protection for crimp terminal	IP 20 according to DIN 40 050
Electrical termination	
Male and female connector	Solder pins for pcb connections Ø 1.0 ± 0.1 mm according to IEC 60 326-3 wrap posts 0.6 x 0.6 mm diagonal 0.79-0.86 mm Crimp terminal 0.09-0.5 mm <sup>2</sup> Insulation displacement connection AWG 28/7
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 60 352-5
Insertion and withdrawal force	16way ≤ 15 N 20way ≤ 20 N 30way ≤ 30 N 32way ≤ 30 N 48way ≤ 45 N 64way ≤ 60 N 96way ≤ 90 N
Materials	
Mouldings	Thermoplastic resin, glass-fibre filled, UL 94-V0
Contacts	Copper alloy
Contact surface	
Contact zone	Selectively plated according to performance level <sup>1)</sup>
<sup>1)</sup> Explanation performance levels see chapter 00	
Mating conditions see chapter 00	

## 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, 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 60 512



## Pin shroud for male and female connectors with 0.6 x 0.6 mm pins

A secure interfacing system for signals from the rear of 19" racks to connectors with wrap posts 0.6 x 0.6 mm is possible with the use of a pin shroud.

The pin shroud protects the wrap posts on the rear side of the rack and can be screwed to the printed circuit board (screw fixing) or can be pressed onto the pins (press-in fixing).

After assembly the rear ends of the wire wrap posts become the mating areas of a type C resp. type 2C male connector.

This system can now accept:

- female connectors type C
- female connectors type 2C
- female connectors type R
- female connectors type 2R

The locking levers provide security for the mated connectors. Fast and simple disconnection is possible (see application examples, pages 01.64 ff).

## Fitting and removing crimp contacts

see technical characteristics chapter 03

Number of contacts

# 78+2, 60+4, 42+6, 24+8

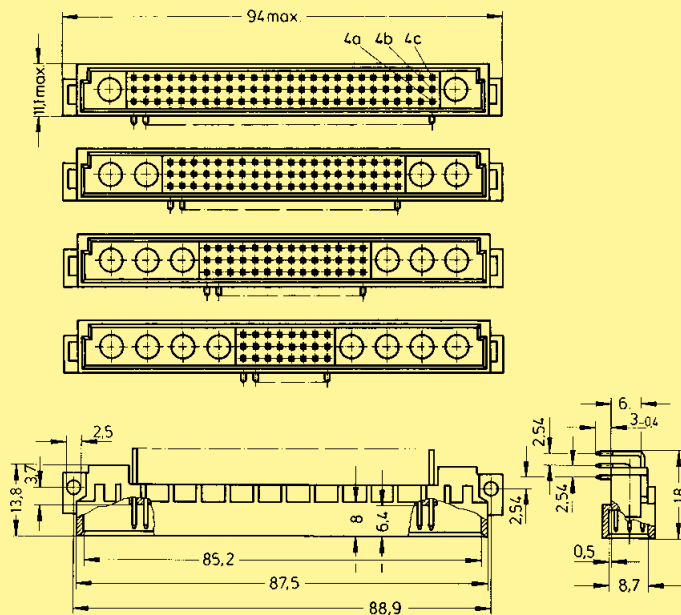


Male connectors

Identification	Number of contacts	Contact arrangement	Part No.	Performance levels according to IEC 60603-2. Explanation chapter 00		
				3	2	1
Male connector with angled solder pins (without special contacts)*	78 + 2		09 03 178 7901	09 03 178 6901 09 03 178 6901 222 <sup>f)</sup> 09 03 378 6901 <sup>b)</sup>	09 03 178 2901 09 03 378 2901 <sup>b)</sup>	
	60 + 4		09 03 160 7901	09 03 160 6901	09 03 160 2901	
	42 + 6		09 03 142 7901	09 03 142 6901	09 03 142 2901	
	24 + 8		09 03 124 7901	09 03 124 6901 09 03 124 6901 222 <sup>f)</sup>	09 03 124 2901	

DIN Signal up to 2 A

## Dimensions

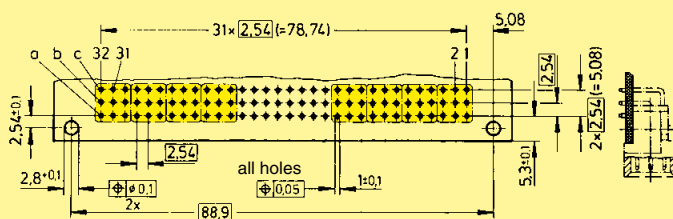


Angled solder pins

Order high current, high voltage, coaxial and fibre optic contacts separately, see pages 01.38 ff

## Board drillings

Mounting side



Board drillings depend on type and special contact loading

Dimensions in mm

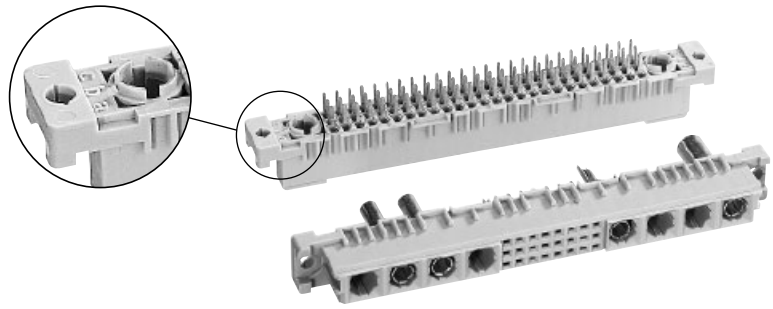
\* Pre-loaded with special contacts on request

<sup>b)</sup> Connectors with snap-in clips see chapter 00

<sup>f)</sup> Railway classification NFF 16-101, Smoke index: F1, Flammability class: I2

Number of contacts

# 78+2, 60+4, 42+6, 24+8

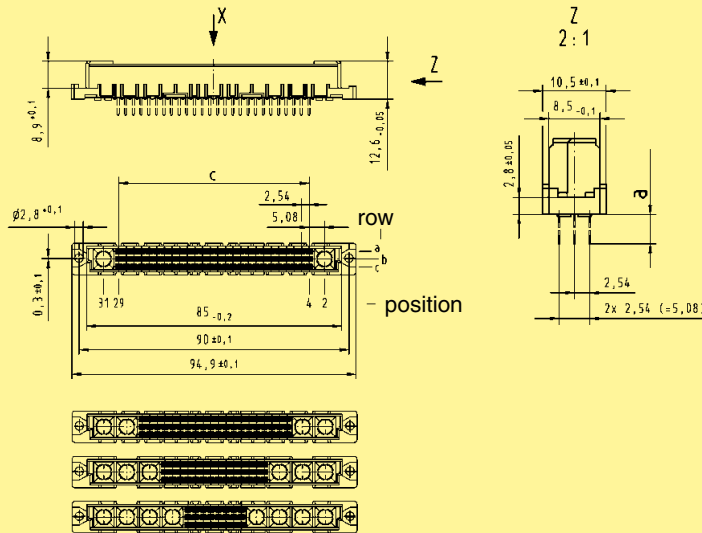


Female connectors

DIN Signal  
up to 2 A

Identification	Number of contacts	Contact arrangement	Part No.	Performance levels according to IEC 60603-2. Explanation chapter 00	
			3	2 1	
Female connector with solder pins 2.9 mm (without special contacts)	78 + 2		Performance level 3 on request	09 03 278 6804	
	60 + 4			09 03 260 6804	
	42 + 6			09 03 242 6804	
	24 + 8			09 03 224 6804	
Female connector with solder pins 4.5 mm (without special contacts)	78 + 2			09 03 278 6805	
	60 + 4			09 03 278 6805 222 <sup>f)</sup>	
	42 + 6			09 03 260 6805	
	24 + 8			09 03 242 6805	
Female connector with press-in pins 4.5 mm (without special contacts)	78 + 2			09 03 278 6850	09 03 278 2850
	60 + 4			09 03 260 6850	
	42 + 6			09 03 242 6850	
	24 + 8			09 03 224 6850	

## Dimensions

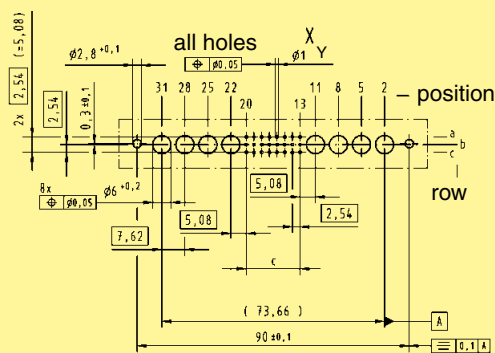


a	
2.9	Solder pins
4.5	Press-in pins
4.5	Press-in pins

Order high current, high voltage, coaxial and fibre optic contacts separately, see pages 01.38 ff

## Board drillings

Mounting side



	Y
Solder	1 ± 0.1
Press-in	see recommendation page 00.25

Type	c
78 + 2	25 x 2.54 = 63.5
60 + 4	19 x 2.54 = 48.26
42 + 6	13 x 2.54 = 33.02
24 + 8	7 x 2.54 = 17.78

Dimensions in mm

Other contact arrangements on request

<sup>f)</sup> Railway classification NFF 16-101, Smoke index: F1, Flammability class: I2