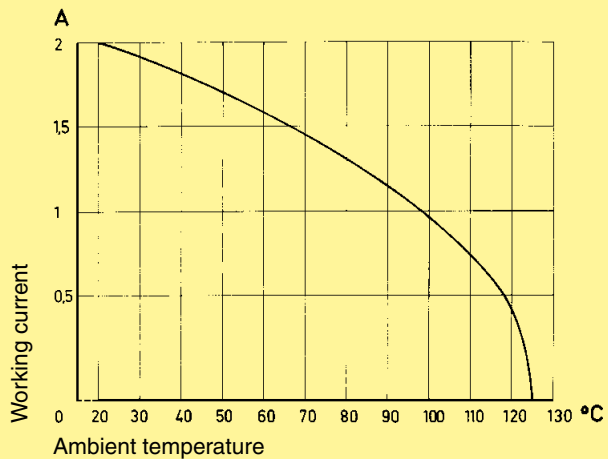


Number of contacts	16-96
Contact spacing (mm)	2.54
Working current see current carrying capacity chart	2 A max. 1 A with insulation displacement 40 A max. type M
Clearance	≥ 1.2 mm
Creepage	≥ 1.2 mm
Working voltage	according to the safety regulations of the equipment Explanations see chapter 00
The working 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 ¹² Ω for standard articles ≥ 10 ¹¹ 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 ² 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 ¹⁾
¹⁾ 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

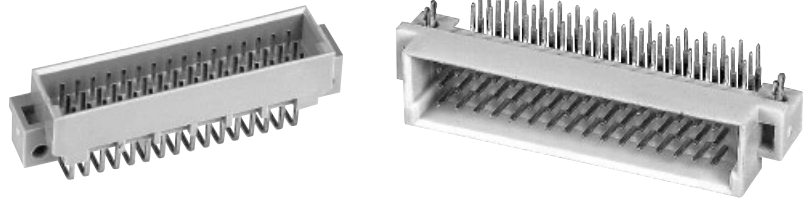
The locking levers provide security for the mated connectors. Fast and simple disconnection is possible (see application examples, pages 01.64 ff).

Fitting and removing crimp contacts

see technical characteristics chapter 03

Number of contacts

48, 32, 16



Male 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
Male connector with angled solder pins	48		09 23 148 7921	09 23 148 6921	09 23 148 2921	
			09 23 348 7921 ^{b)}	09 23 148 6921 222 ^{f)} 09 23 348 6921 ^{b)}	09 23 348 2921 ^{b)}	
	SMC	48		09 23 148 7919	09 23 148 6919 ^{d)} 09 23 348 6919 ^{b)d)}	
	SMC	32		09 23 132 7921 09 23 332 7921 ^{b)}	09 23 132 6921 09 23 332 6921 ^{b)}	09 23 132 2921 09 23 332 2921 ^{b)}
					09 23 132 6919 ^{d)} 09 23 332 6919 ^{b)d)}	
	16			09 23 116 6931 09 23 316 6931 ^{b)}	09 23 116 2931	
	46 + 2▲		09 23 148 7951	09 23 148 6951 09 23 348 6951 ^{b)}		
Male connector with straight solder pins	48		09 23 148 7922	09 23 148 6922	09 23 148 2922	
	SMC	48			09 23 148 6920 ^{d)}	
	SMC	32		09 23 132 7922	09 23 132 6922	09 23 132 2922
					09 23 132 6920 ^{d)}	

▲ Male connectors with 2 leading contacts [(0.8 mm) pos. a1 and a16]. Lagging pins on request.

Other contact arrangements on request

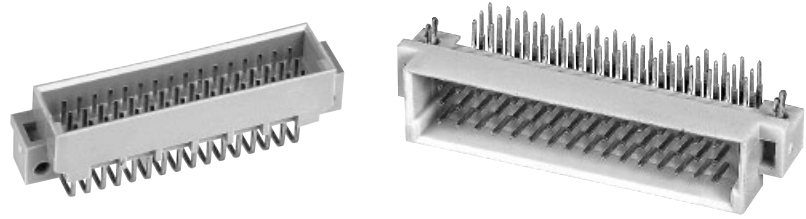
^{b)} Connectors with snap-in clips see chapter 00

^{d)} CTI > 400

^{f)} Railway classification NFF 16-101, Smoke index: F1, Flammability class: I2

Number of contacts

48, 32, 16



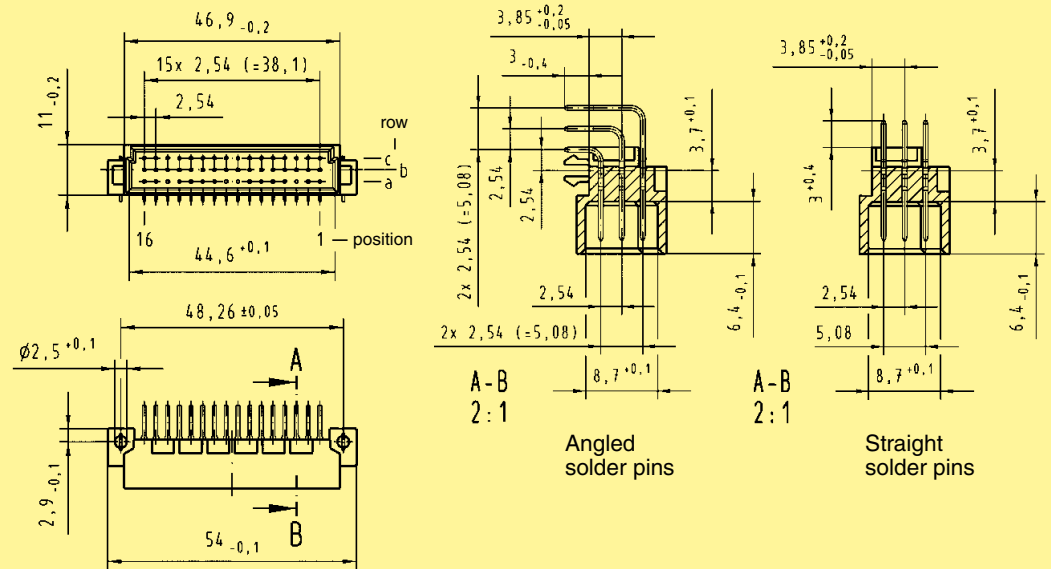
Male connectors

Identification

Drawing

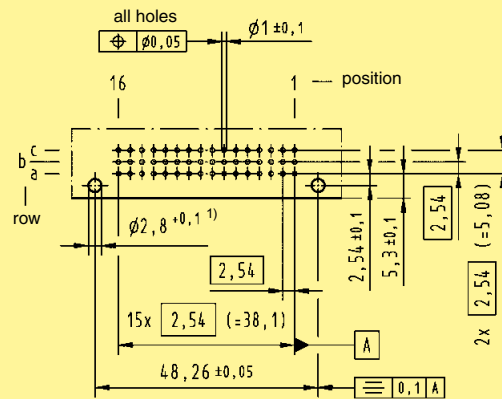
Dimensions in mm

Dimensions

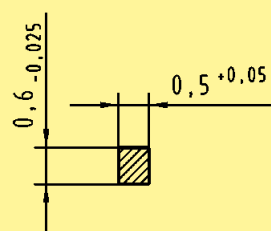


Board drillings

Mounting side



Cross section of solder terminations



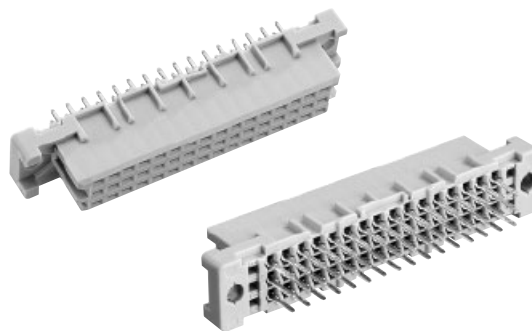
Cross area (A) of contacts row a, b, c: A = 0.29 - 0.33 mm²

DIN Signal
up to 2 A

¹⁾ Recommendation for variants with clip: Drillings can be enlarged up to 3.1 mm ϕ to reduce standard mounting force

Number of contacts

48, 32



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	48			09 23 248 6824 09 23 248 6824 222 ^{f)} 09 23 448 6824 ^{b)}	09 23 248 2824	
		SMC		09 23 248 6841 ^{d)}		
	32			09 23 232 6824 09 23 432 6824 ^{b)}		
		SMC		09 23 232 6841 ^{d)}		
Female connector with solder pins 4.5 mm	48			09 23 248 6825 09 23 248 6825 222 ^{f)} 09 23 448 6825 ^{b)}	09 23 248 2825	
		SMC		09 23 248 6829 ^{d)}		
	32		09 23 232 7825	09 23 232 6825		
		SMC		09 23 232 6829 ^{d)}		
Female connector with solder pins 13 mm	48			09 23 248 6421		
Female connector with press-in pins 3.7 mm	48			09 23 248 6866		
Female connector with press-in pins 4.5 mm	48			09 23 248 6850 09 23 248 6850 222 ^{f)}	09 23 248 2850	
	32			09 23 232 6850		
Female connector with wrap posts ¹⁾ 13 mm	48			09 23 248 6821		
Female connector with solder lugs 5.2 mm	32			09 23 232 6823		
Female connector with crimp contacts	48		Part numbers and variants see page 01.27			

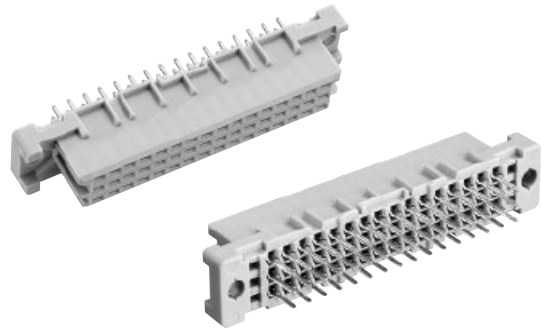
01
30

Other contact arrangements on request
¹⁾ To be used only for wire wrap termination
^{b)} Connectors with snap-in clips see chapter 00

^{d)} CTI > 400
^{f)} Railway classification NFF 16-101, Smoke index: F1, Flammability class: I2

Number of contacts

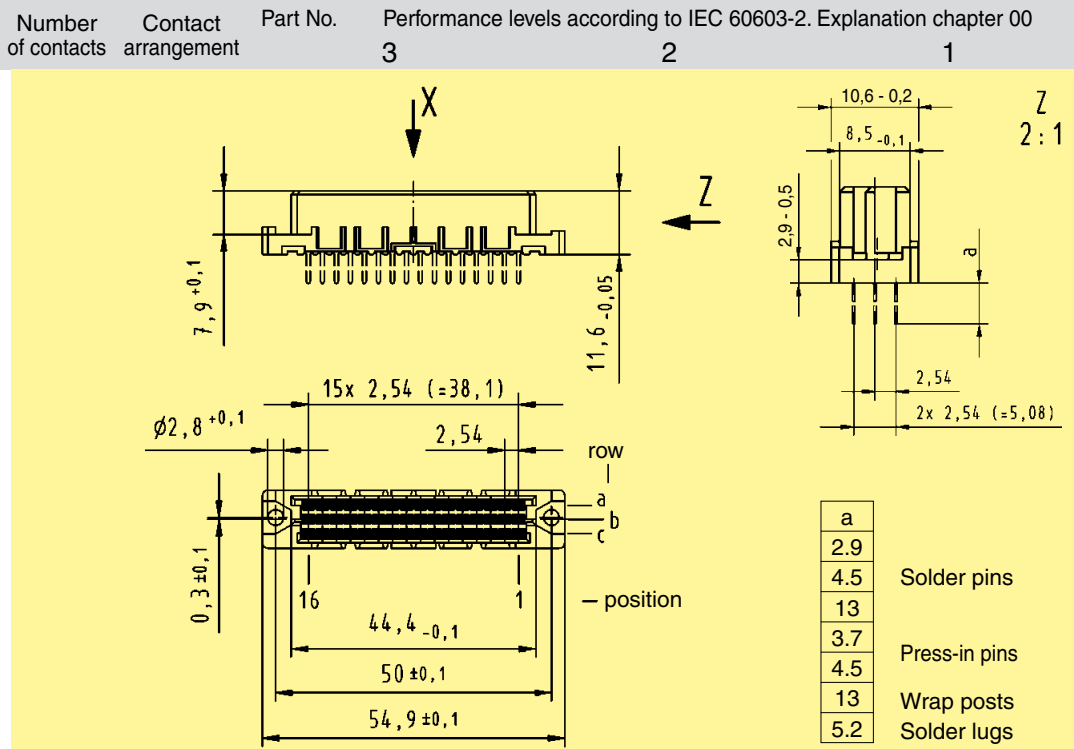
48, 32



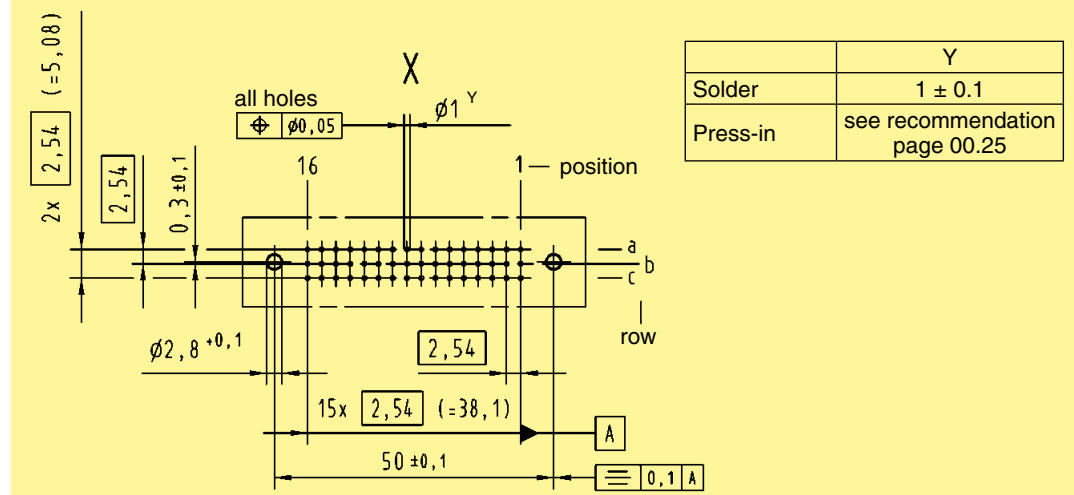
Female connectors

Identification Number of contacts Contact arrangement Part No. Performance levels according to IEC 60603-2. Explanation chapter 00

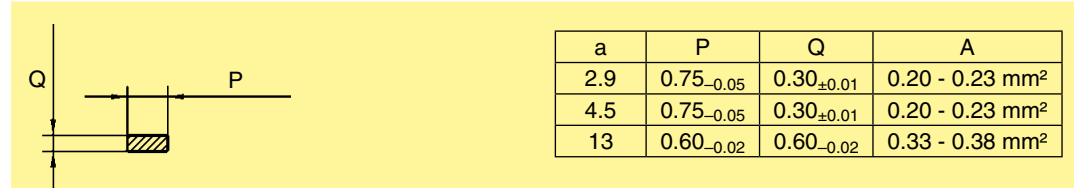
Dimensions



Board drillings
Mounting side



Cross section of solder terminations



Cross area (A) of contacts

Dimensions in mm

DIN Signal up to 2 A