

Number of contacts

Type F	48, 32
Type FM	45
Type 2F	max. 24

Contact spacing (mm)

5.08

Working current

6 A max.

see current carrying capacity chart

Clearance

≥ 1.6 mm

Creepage

≥ 3.0 mm

Working voltage

The working voltage also depends on the clearance and creepage dimensions on the pcb itself and the associated wiring according to the safety regulations of the equipment Explanations see chapter 00

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

1.55 kV (contact-contact)
2.5 kV (contact-ground)

Contact resistance

≤ 15 mΩ for wire wrap and solder connections
≤ 20 mΩ including crimp connections

Insulation resistance

≥ 10¹² Ω

Temperature range

- 65 °C ... + 125 °C

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

Degree of protection for crimp terminal IP 20

according to DIN 40 050

Electrical termination

Male connector

Solder pins for pcb connections Ø 1 ± 0.1 mm according to IEC 60 326-3
Wrap posts 1 x 1 mm diagonal 1.34-1.45 mm
Crimp terminal 0.09-1.5 mm²

Female connector

Wrap posts 1 x 1 mm diagonal 1.34-1.45 mm
Solder pins for pcb connections Ø 1 ± 0.1 mm according to IEC 60 326-3
Angled solder pins 1 x 1 mm for pcb connections Ø 1.6 ± 0.1 mm
Solder lugs
Crimp terminal 0.09-1.5 mm²

Distributor

Crimp terminal 0.09-1.5 mm²

Insertion and withdrawal force

48 way ≤ 75 N
45 way ≤ 70 N
32 way ≤ 50 N
24 way ≤ 37 N

Materials

Mouldings

Thermoplastic resin, glass-fibre filled, UL 94-V0

Contacts

Copper alloy

Contact surface

Contact zone: selectively gold-plated according to performance level¹⁾
Termination zone: tinned

¹⁾ Explanation of performance levels see chapter 00

Mating conditions

see chapter 00

Coding systems

see page 02.34

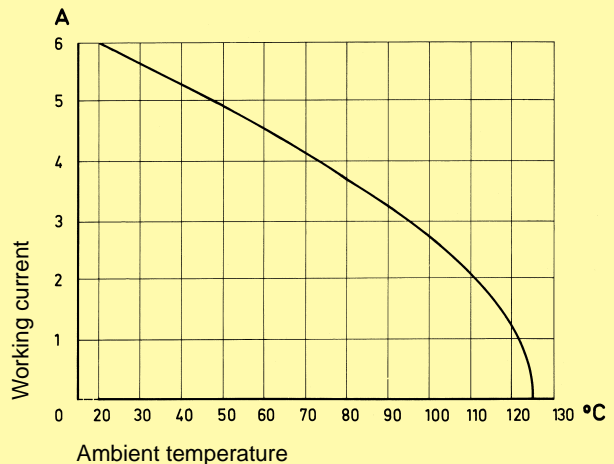
Mounting clips

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

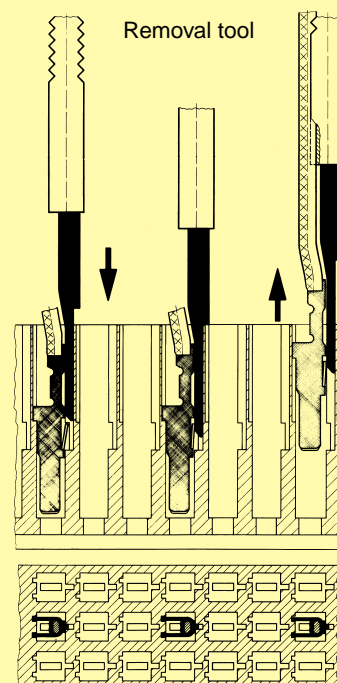


Fitting the crimp contacts

After crimping the wires onto the contacts with the help of a crimping tool or an automatic crimping machine the contacts should be correctly oriented and inserted into the cavities of the connector moulding in the required configuration. They snap into position and are firmly held in place. A light pull on the wire assures the correct tensile strength of the contact. When using stranded wires with a gauge below 0.37 mm² an insertion tool is necessary.

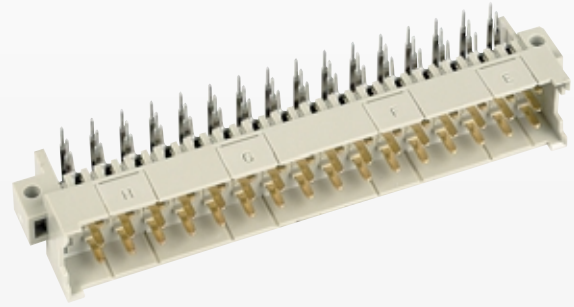
Removing the crimp contacts

The removal tool is inserted into a slot on the side of the respective crimp cavity. This action compresses the contact retaining spring therefore the contact can then be easily withdrawn using a light pull on the wire. This action will cause no damage to the contact/wire which can be repositioned/refitted as necessary. The drawing demonstrates the crimp removal procedure (max. 5x).



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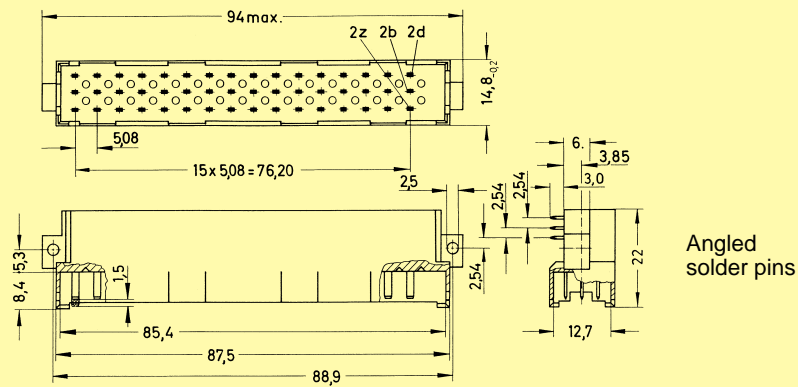


Male connectors

Identification	Number of contacts	Contact arrangement	Part No.	Performance levels according to DIN 41 612. Explanation chapter 00		
				3	2	1
Male connector with angled solder pins	48		09 06 148 7901	09 06 148 6901	09 06 148 2901	
	32		09 06 132 7901	09 06 132 6901	09 06 132 2901	
	32		09 06 132 7931	09 06 132 6931	09 06 132 2931	
	47 + 1		09 06 148 7921	09 06 148 6921	09 06 148 2921	
	31 + 1		09 06 132 7921	09 06 132 6921	09 06 132 2921	
	46 + 2			09 06 148 6925	09 06 148 2925	

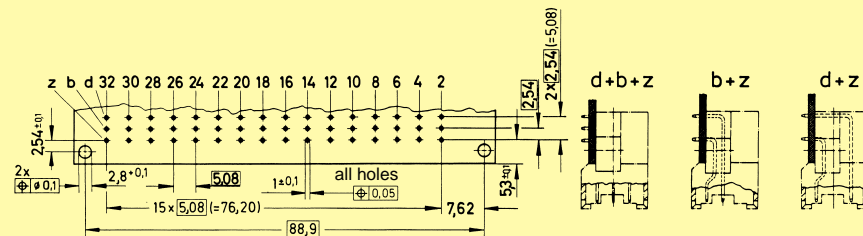
Types signal to 6 A

Dimensions



Angled solder pins

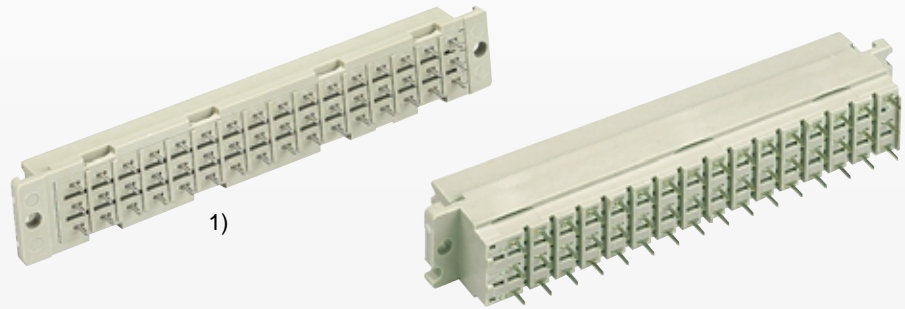
Board drillings



Dimensions in mm

Number of contacts

48, 32



Female connectors

Types signal to 6 A

Identification	Number of contacts	Contact arrangement	Part No.	Performance levels according to DIN 41 612. Explanation chapter 00		
				3	2	1
Female connector with solder pins 3.2 mm	48		09 06 248 7848 09 06 248 7833 ¹⁾	09 06 248 6848 09 06 248 6833 ¹⁾	09 06 248 2848 09 06 248 2833 ¹⁾	
	32		09 06 232 7848 09 06 232 7833 ¹⁾	09 06 232 6848 09 06 232 6833 ¹⁾	09 06 232 2848 09 06 232 2833 ¹⁾	
	32		09 06 232 7858 09 06 232 7893 ¹⁾	09 06 232 6858 09 06 232 6893 ¹⁾	09 06 232 2858 09 06 232 2893 ¹⁾	
Female connector with solder pins 4.5 mm	48		09 06 248 7835 09 06 248 7834 ¹⁾	09 06 248 6835 09 06 248 6834 ¹⁾	09 06 248 2835 09 06 248 2834 ¹⁾	
	32		09 06 232 7835 09 06 232 7834 ¹⁾	09 06 232 6835 09 06 232 6834 ¹⁾	09 06 232 2835 09 06 232 2834 ¹⁾	
	32		09 06 232 7845 09 06 232 7894 ¹⁾	09 06 232 6845 09 06 232 6894 ¹⁾	09 06 232 2845 09 06 232 2894 ¹⁾	
Female connector with wrap posts 22 mm	48		09 06 248 7821	09 06 248 6821	09 06 248 2821	
	32		09 06 232 7821	09 06 232 6821	09 06 232 2821	
	32		09 06 232 7831	09 06 232 6831	09 06 232 2831	
Female connector with solder lugs	open solder lug 	48		09 06 248 7823	09 06 248 6823	09 06 248 2823
		32		09 06 232 7823	09 06 232 6823	09 06 232 2823
		32		09 06 232 7843	09 06 232 6843	09 06 232 2843
	closed solder lug 	48		09 06 248 7853	09 06 248 6853	09 06 248 2853
		32		09 06 232 7853	09 06 232 6853	09 06 232 2853
		32		09 06 232 7863	09 06 232 6863	09 06 232 2863
Female connector with press-in pins	Part Nos. and variants see chapter 04					