



# DIN power female connector



## General information

Design	IEC 60603-2	types: F
No. of contacts	max. 48	
Contact spacing	5,08 mm	3,81mm between rows
Test voltage	1550V contact/contact	2500V contact/ground
Contact resistance	max. 15 mOhm	
Insulation resistance	min. 10 <sup>10</sup> Ohm	
Working current	6A at 20°C (see derating diagram)	
Temperature range	-55°C ... +125°C	
Termination technology	crimp	
Clearance	min. 1,6 mm	
Creepage	min. 3,0 mm	
Insertion and withdrawal force	24-pole max. 37N	32-pole max. 50N
	45-pole max. 70N	48-pole max. 75N
Mating cycles	- PL1 acc. to IEC 60603-2 =>	500 mating cycles
	- PL2 acc. to IEC 60603-2 =>	400 mating cycles
UL file	E102079	
RoHS - compliant	Yes	
Leadfree	Yes	
Hot plugging	No	

## Insulator material

Material	PC (thermoplastics, glass fiber reinforcement 20%)
Colour	RAL 7032 (grey)
UL classification	UL 94-V0
Material group acc. to IEC 60664-1	IIIa (175 ≤ CTI < 400)
NFF classification	I2, F1

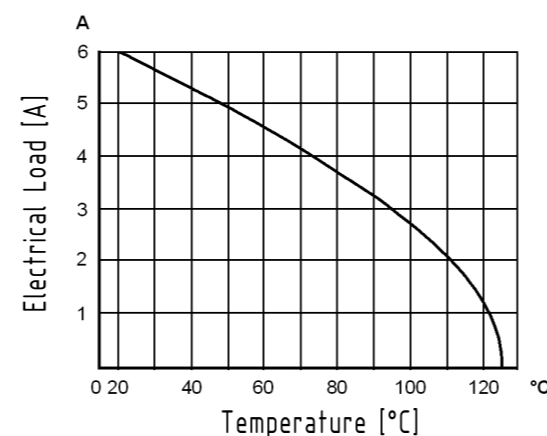
## Contact material

Contact material	Copper alloy
Plating termination zone	Ni
Plating contact zone	PL1: Au over PdNi over Ni
	PL2: Au over Ni

## Derating diagram acc. to IEC 60512-5 (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 60512-5



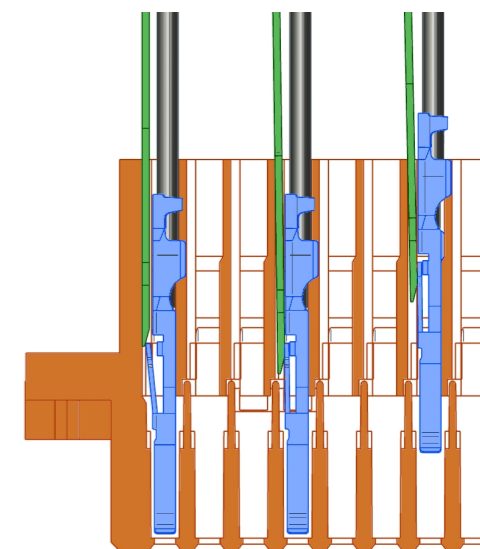
## Installation of crimp contacts

### 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 mm<sup>2</sup> 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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