DIN power male connector - NFF

RoHS compliant

General information

Design	IEC 60603-2	types: MH 24+7, 21+5 male
No. of contacts	**Signal:** 21 or 24	**Power:** 5 or 7
Contact spacing	2,54 mm x 5,08 mm	
Test voltage	**Signal:** 1550V	**Power:** 3100V
Contact resistance	**Signal:** max. 15mOhm	**Power:** max. 8 mOhm
Insulation resistance	min. 10^{11}Ohm	
Working current	**Signal:** 6A at 20°C	**Power:** 15A at 20°C
Temperature range	-55°C ... +125°C	
Termination technology	solder pins, faston	
Clearance	**Signal:** min. 1,6 mm	**Power:** min. 4,5 mm
Creepage	**Signal:** min. 3,0 mm	**Power:** min. 8,0 mm
Insertion and withdrawal force	max. 85N	
Mating cycles	- PL1 acc. to IEC 60603-2 =>	500 mating cycles
	- PL2 acc. to IEC 60603-2 =>	400 mating cycles
	- PL3 acc. to IEC 60603-2 =>	50 mating cycles
UL file	E102079	
RoHS - compliant	Yes	
Leadfree	Yes	
Hot plugging	No	

Insulator material

Material	PA (Polyamid, glass fiber reinforcement 25%)
Colour	RAL 7035 (light grey)
UL classification	UL 94-V0
Material group acc. to IEC 60664-1	II (400 ≤ CTI < 600)
NFF classification	I2, F1

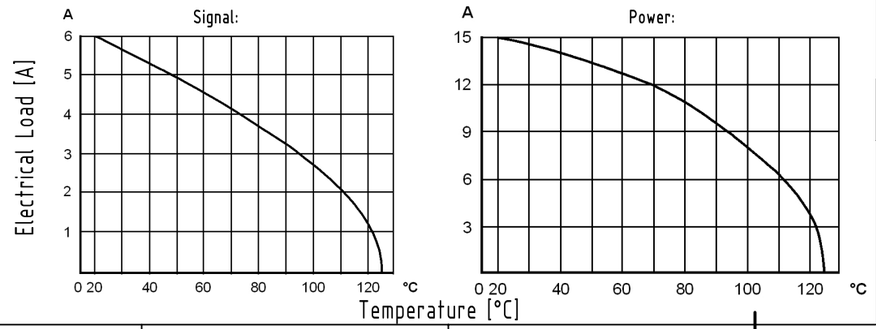
Contact material

Contact material	Copper alloy	
Plating termination zone	**Signal:** Sn over Ni	**Power:** Sn over Ag over Ni
Plating contact zone	**Signal:** Au over PdNi over Ni	**Power:** Ag 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



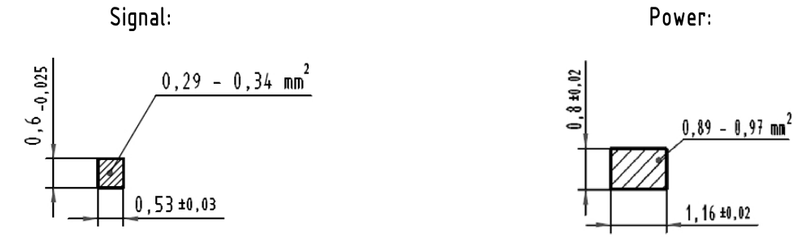
Soldering instructions

The connectors should be protected when being soldered in a dip, flow or film soldering baths. Otherwise, they might become contaminated as a result of soldering operations or deformed as a result of overheating.

(1) For prototypes and short runs protect the connectors with an industrial adhesive tape, e.g. Tesaband 4331 (www.tesa.de). Cover the underside of the connector moulding and the adjacent parts of the pcb as well as the open sides of the connector. This will prevent heat and gases of the soldering apparatus from damaging the connector. About 140 + 5 mm of the tape should suffice.

(2) For large series a jig is recommended. Its protective cover with a fast action mechanical locking device shields the connectors from gas and heat generated by the soldering apparatus. As an additional protection a foil can be used for covering the parts that should not be soldered.

Cross section of solder pins



All Dimensions in mm Original Size DIN A3	Scale 1:1	Free size tol.			Ref. Sub. DS 09 06 122 00 01 / 500000076069 / 2014-09-12
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