DIN power male connector

RoHS compliant

General information

Design	IEC 60603-2	types: F9, FM male
No. of contacts	max. 9 for F9, 21+24 for FM	
Contact spacing	5,08 mm	
Test voltage	1550V	
Contact resistance	max. 15mOhm	
Insulation resistance	min. 10^{12}Ohm	
Working current	max. 6A at 20°C (see derating diagram)	
Temperature range	-55°C ... +125°C	
Termination technology	solder pins, crimp	
Clearance	min. 1,6 mm	
Creepage	min. 3,0 mm	
Insertion and withdrawal force	9-pole max. 14N 45-pole max. 70N	
Mating cycles	- PL1 acc. to IEC 60603-2 => - PL2 acc. to IEC 60 603-2 =>	500 mating cycles 400 mating cycles
UL file	E102079	
RoHS - compliant	Yes	
Leadfree	Yes	
Hot plugging	No	

Insulator material

Material	PBT (thermoplastics, glass fiber reinforcement 30%)	
Colour	RAL 7032 (grey)	
UL classification	UL 94-V0	
Material group acc. to IEC 60664-1	IIIa (175 ≤ CTI < 400)	
NFF classification	I3, F4	

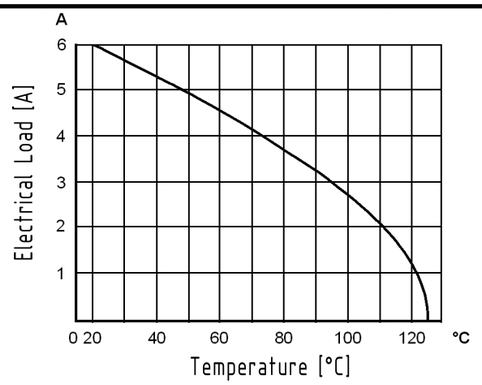
Contact material

Contact material	Copper alloy	
Plating termination zone	Sn over Ni for solder	Ni for crimp
Plating contact zone	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



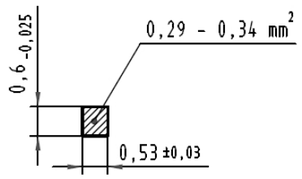
Soldering instructions

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.

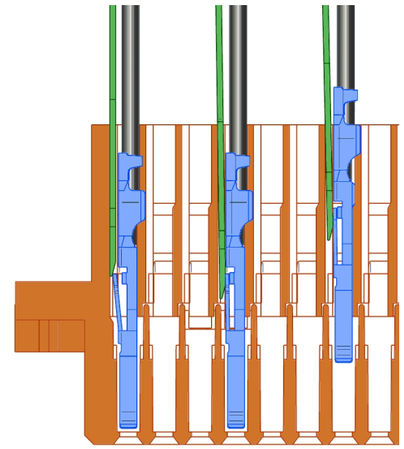
Cross section of solder pins



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 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).



All Dimensions in mm
Original Size DIN A3

Scale 1:1 | Free size tol. | Ref. Sub. DS 09 06 120 00 02 / ECO1557 / 28.04.11

Department EC PD - DE

HARTING Electronics GmbH
D-32339 Espelkamp

Created by	Inspected by	Standardisation	Date	State
HAGEMEYERE	TADJE	HOFFMANN	2014-09-12	Final Release

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Doc-Key / ECM-Nr.: 100580644/UGD/000/A500000076069

Type: DS | Number: 09061200002 | Rev.: A | Page: 1/1

A3

Mouser Electronics

Authorized Distributor

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- Техническая поддержка проекта;
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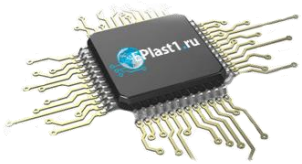

Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.