DIN Power female low profile

RoHS 2011/65/EU

General information

Design	complementary to IEC 60603-2, type: H female low profile	
No. of contacts	15	
Contact spacing	5,08mm or 2.54/ 10,16mm between the rows	
Test voltage	3100V	
Contact resistance	max. 8mOhm	
Insulation resistance	min. 10^{12}Ohm	
Working current	15A at 20°C (see derating diagram)	
Temperature range	-55°C ... +125°C	
Termination technology	press-in	
Clearance	min. 4mm between contact termination pins	
Creepage	min. 8,0mm	
Insertion and withdrawal force	15-pole max. 90N	
Mating cycles	PL 1 acc. to IEC 60603-2	500 mating cycles
	PL 2 acc. to IEC 60603-2	400 mating cycles
	PL 3 acc. to IEC 60603-2	50 mating cycles
UL file	E102079	
RoHS - compliant	Yes	
Hot plugging	No	

Insulator material

Material	PBT (thermoplastics, glass fiber reinforcement 30%)
Color	RAL 7032 (light grey)
UL classification	UL 94-V0
Material group acc. IEC 60664-1	II (400 < CTI < 600)
NFF classification	I3, F4

Contact material

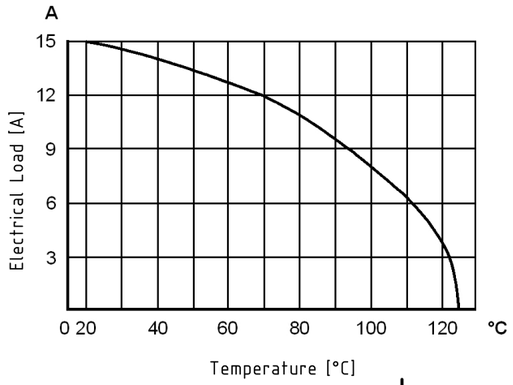
Contact material	Copper alloy
Plating termination zone	Ni
Plating contact zone	Ag

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.

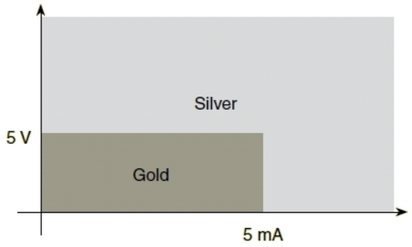
The current capacity curve is valid for continuous, non interrupted current loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60512-5



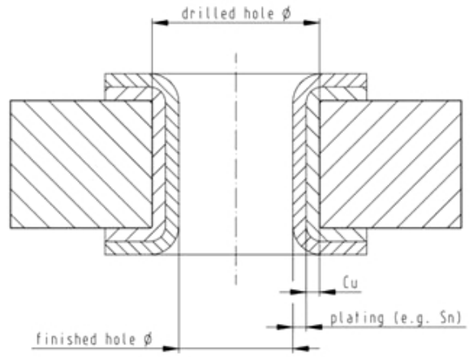
Low currents and voltages

Type H standard contacts have a silver plated surface. This precious metal has excellent conductive properties. In the course of a contact's lifetime,the silver surface generates a black oxide layer due to its affinity to sulphur. This layer is smooth and very thin and is partly interrupted when the contacts are mated and unmated, thus guaranteeing very low contact resistances. In the case of very low currents or voltages small changes to the transmitted signal may be encountered. In systems where such a change to the transmitted signal could lead to faulty functions and also in extremely aggressive environments,HARTING recommend the use of gold plated contacts.
Below is a table derived from actual experiences.



Recommended configuration of plated through holes for press-in termination

In addition to the hot-air-level (HAL), other PCB surfaces are getting more important. Due to their different properties
- such as mechanical strength and coefficient of friction
- we recommend the following configuration of PCB through holes.



Tin plated PCB (HAL) acc. to EN 60352-5	Drilled hole Ø	1,15±0,025 mm
	Cu	min. 25 µm
	Sn	max. 15 µm
	plated hole Ø	0,94 - 1,09 mm
Chemical tin plated PCB	Drilled hole Ø	1,15±0,025 mm
	Cu	min. 25 µm
	Sn	min. 0,8 µm
	plated hole Ø	1,00 - 1,10 mm
Gold /Nickel plated PCB	Drilled hole Ø	1,15±0,025 mm
	Cu	min. 25 µm
	Ni	3-7 µm
	Au	0,05-0,12 µm
	plated hole Ø	1,00 - 1,10 mm

Assembly instruction

It is higly recommended to use HARTING press-in tools to ensure a reliable press-in process.
Please refer to the catalogue for tools, machines and further information about the press-in process.

All Dimensions in mm
Original Size DIN A3

Scale 1:1

Free size tol.

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HARTING Electronics GmbH

D-32339 Espelkamp

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Page: 1/1

A3

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