DIN power female connector

General information

Design	IEC 60603-2	types: H female
No. of contacts	15	
Contact spacing	5,08 mm / 6,5 mm between the rows	
Test voltage	3100 V	
Contact resistance	≤ 8 mOhm	
Insulation resistance	≥ 10^{12} Ohm	
Working current	15 A@20℃ (see derating diagram)	
Temperature range	-55℃ … +125℃	
Termination technology	cage clamp	
Clearance	min. 4,5 mm	
Creepage	min. 8,0 mm	
Insertion and withdrawal force	15pol. ≤ 90N	
Mating cycles	- PL1 acc. to IEC 60 603-2 =>	500 mating cycles
	- PL2 acc. to IEC 60 603-2 =>	400 mating cycles
	- PL3 acc. to IEC 60 603-2 =>	50 mating cycles
UL file	E102079	
RoHS - compliant	Yes	
Leadfree	Yes	
Hot plugging	No	

Insulator material

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

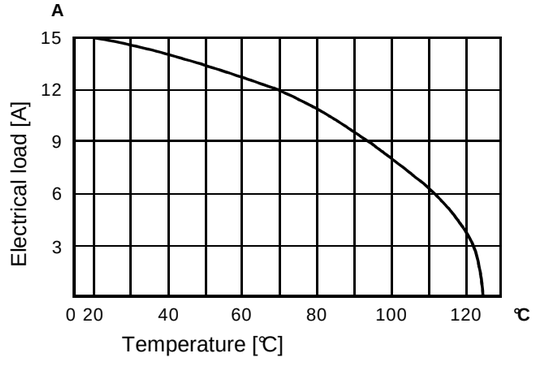
Contact material

Contact material	Copper alloy
Plating termination zone	Ag
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.

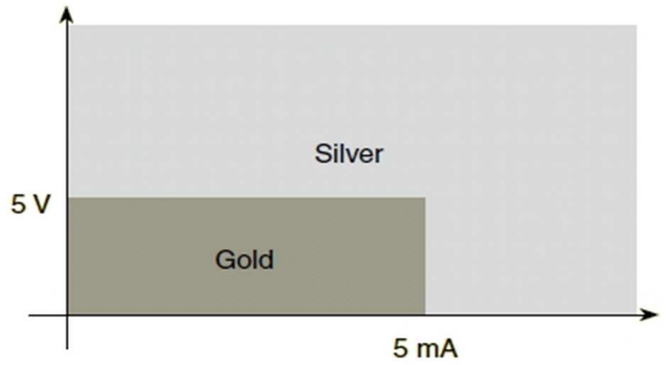
Control and test procedures according to DIN IEC 60512-5



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.



				Date	Name		Technical data sheet
			Detail.	28/04/11	mte		*DIN power female connector*
			Inspec.	28/04/11	TD		
EC01557			Stand.				DS 09 06 210 07 01
Mod.	**Date**	**Name**	**HARTING Electronics GmbH & Co. KG**				