



# DIN signal male connector straight - com



## General information

Design	IEC 60603-2	complementary types R 5-row male, straight
No. of contacts	max. 160	
Contact spacing	2,54 mm	
Test voltage	1000 V	
Contact resistance	max. 15 mOhm	
Insulation resistance	min. 10 <sup>12</sup> Ohm	
Working current	1 A at 70°C	(see derating diagram)
Temperature range	-40°C ... +105°C	(due to limitations of PCB)
Termination technology	press-in	
Clearance & creepage distance	min. 1,2 mm each	
Insertion and withdrawal force	160pol. max. 150 N 128pol. max. 120 N	
Mating cycles	- PL1 acc. to IEC 60603-2 => - PL2 acc. to IEC 60603-2 => - PL3 acc. to IEC 60603-2 =>	500 mating cycles 400 mating cycles 50 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

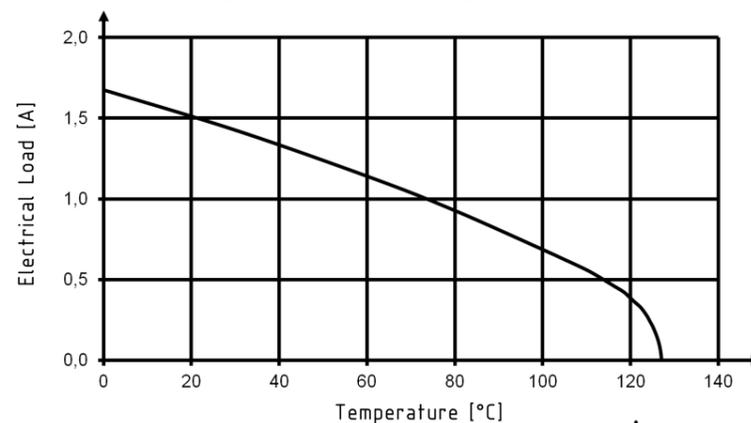
## Contact material

Contact material	Copper alloy
Plating termination zone	Ni
Plating contact zone I	Au over PdNi over Ni S4: 0,06µ Au over 0,7µ PdNi over Ni
Plating contact zone II (termination side)	Au over Ni S4: 0,76µ Au over Ni

## Derating diagram acc. to IEC 60512-5 (Current carrying capacity)

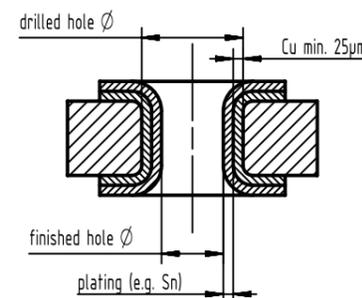
The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals.  
The current capacity curve is valid for continuous, non interrupted current loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60512-5



## 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
	Sn plated hole Ø	max. 15 µm
Chemical tin plated PCB	Drilled hole Ø	1,15±0,025 mm
	Sn plated hole Ø	min. 0,8µm
Gold /Nickel plated PCB	Drilled hole Ø	1,15±0,025 mm
	Ni plated hole Ø	3 - 7 µm
	Au plated hole Ø	0,05 - 0,12 µm
Silver plated PCB	Drilled hole Ø	1,15±0,025 mm
	Ag plated hole Ø	0,1 - 0,3 µm
Copper plated PCB (OSP)	Drilled hole Ø	1,15±0,025 mm
	plated hole Ø	1,00 - 1,10 mm

## Assembly instructions

It is highly 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.

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