



# DIN Signal har-bus 64 female connector

## General information

Design	IEC 61076-4-113	type: har-bus 64 female
No. of contacts	max. 160	
Contact spacing	2,54mm	
Test voltage	1000V	
Contact resistance	max. 20mOhm for rows a, b, c	max. 30mOhm for rows d, z
Insulation resistance	min. 10 <sup>10</sup> Ohm	
Working current	1A at 70°C (see derating diagram)	
Temperature range	-40°C ... +105°C (due to limitations of PCB material)	
Termination technology	press-in	

Clearance & creepage		minimum distance		
		rows a, b, c	rows d, z	
between 2 rows	clearance	1,2mm	1,2mm	
	creepage	1,2mm	1,2mm	
	between 2 contacts in a row	clearance	1,2mm	1,0mm
		creepage	1,2mm	1,0mm

Insertion and withdrawal force	max. 160N
PCB thickness	min. 1,6mm
Mating cycles	acc. to performance level, see table below
UL file	E102079
RoHS - compliant	Yes
Leadfree	Yes

## Insulator material

Material	LCP (Liquid Cristal Polymer)
Colour	nature
UL classification	UL 94-V0
Material group acc. to IEC 60664-1	IIIa (175 ≤ CTI < 400)

## Contact material

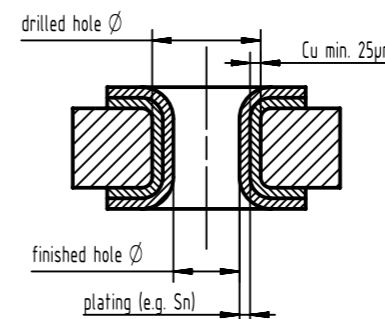
Contact material	Copper alloy
Plating termination zone	Ni
Plating contact zone I	acc. to performance level, see table below
Plating contact zone II (termination side)	acc. to performance level, see table below

performance level	mating cycles		plating contact zone I plating contact zone II	
	acc. to IEC 61076-4-113	complementary acc. to IEC 61076-4-113	row d,z	row a,b,c
1	500		<b>Au over Ni</b>	<b>Au over PdNi over Ni</b>
2	250		<b>Au over Ni</b>	<b>Au over PdNi over Ni</b>
3		50	<b>Au over Ni</b>	<b>Au over PdNi over Ni</b>
Au30		500	min. 0,76µm (30pinch) <b>Au over Ni</b>	
Au50		500	min. 1,27µm (50pinch) <b>Au over Ni</b>	

Standard plating options highlighted in bold, other plating options are available on request.

## 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.



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

## Assembly instructions

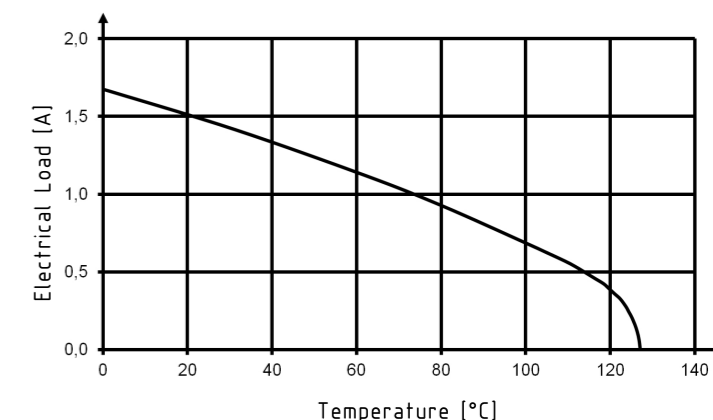
It is highly recommended to use HARTING press-in tools to ensure a reliable press-in process. Please refer to the catalogue for tools, machines and further information about the press-in process.



## 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

With selective loading higher currents can be transmitted. The requirements according to VITA 1.7 are fulfilled.



	All Dimensions in mm Original Size DIN A3	Scale 1:1	Free size tol.	Ref. Sub.
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