

Clearance & creepage distance

## har-bus®64 male connector



1,2 mm 1,2 mm





Design	IEC 61076-4-113 ty	pe: har-bus®	64 male		
No. of contacts	max. 160				
Contact spacing	2,54 mm				
Test voltage	1000V				
Contact resistance	≤ 20 mOhm for rows a, b, c		≤ 30 mOh	m for rows	z, d
Insulation resistance	<u>≥</u> 10 <sup>12</sup> Ohm				
Working current	1 A@70℃ (see derating diag	gram)			
Temperature range	-55℃ +125℃				
Termination technology	solder				
	minim	num distance	rows	rows	
	minim	ium distance	a, b, c	d, z	
				i	1

between 2 rows

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	between 2	clearance	1,2 mm	1,0 mm	
	contacts in a row	creepage	1,2 mm	1,0 mm	
Insertion and withdrawal force	<u>&lt;</u> 160N				
PCB thickness	<u>≥</u> 1,6mm				
Mating cycles	- PL1 acc. to IEC 6107	′6-4-113 =>	500 matin	g cycles	
Mating cycles	- PL2 acc. to IEC 61076-4-113 =>		250 mating cycles		

PCB thickness	<u>&gt;</u> 1,6mm		
Mating cycles	- PL1 acc. to IEC 61076-4-113 =>	500 mating cycles	
	- PL2 acc. to IEC 61076-4-113 =>	250 mating cycles	
UL file	E102079		
RoHS - compliant	Yes		
Leadfree	Yes		

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

Contact material		
Contact material	Copper alloy	
Plating termination zone	Sn over Ni	
Plating contact zone	Au over Ni	

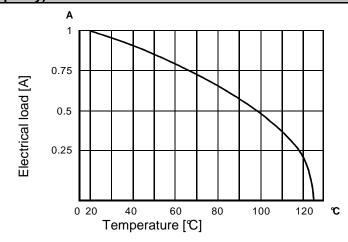
## Derating diagram acc. to IEC 60512-5 (Current carrying capacity)

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 IEC 60512-5

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

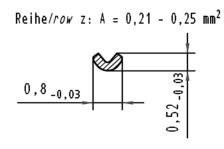


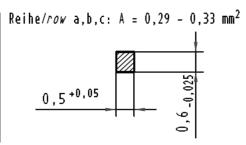
## **Soldering instructions**

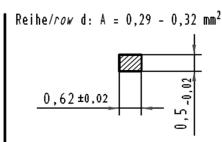
The connectors should be protected when being soldered in a dip, flow or film soldering baths. Otherwise, they might become contaminated as a result of soldering operations or deformed as a result of overheating.

- (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 terminations**







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	Technical data sheet
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ARTING	har-bus ® 64 male connector
	DS 02 01 120 02 01
& Co. KG	03 02 01 120 02 01