har-bus®64 female connector angled

RoHS compliant

General information

Design	IEC 61076-4-113	type: har-bus®64 extender card connector
No. of contacts	max. 160	
Contact spacing	2,54 mm	
Test voltage	1000 V	
Contact resistance	max. 20 mOhm	max. 30 mOhm for rows z, d
Insulation resistance	min. 10^{12} Ohm	
Working current	1 A at 70°C (see derating diagram)	
Temperature range	-55°C ... +125°C	
Temperature range for reflow soldering	max. 20 s @ 240°C	
Termination technology	solder pins	
Clearance & creepage distance	0,6 mm between the rows 0,8 mm between two contacts in a row	
Insertion and withdrawal force	max. 160 N	
PCB thickness	min. 1,6 mm	
Mating cycles	PL 1 acc. to IEC 61076-4-113	500 mating cycles
UL file	E102079	
RoHS - compliant	Yes	
Leadfree	Yes	

Insulator material

	Termination side	Mating side	PCB
Material	PBT (GF 30%)	LCP (GF 30%)	FR4
Colour	RAL 7032 (grey)	nature	green
UL classification	UL 94-V0	UL 94-V0	-
Material group acc. to IEC 60664-1	IIIa (175 ≤ CTI < 400)	IIIa (175 ≤ CTI < 400)	-
NFF classification	I3, F4	-	-

Contact material

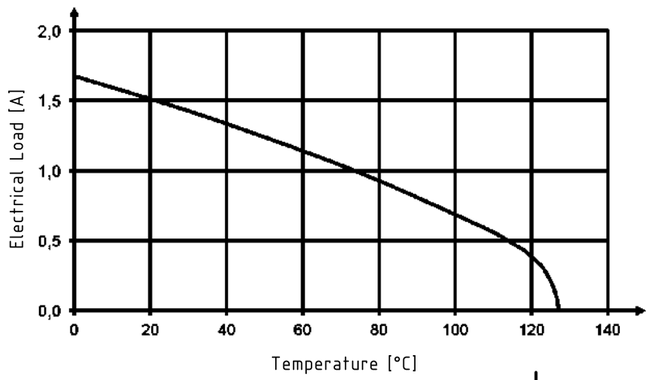
Contact material	Copper alloy
Plating termination zone	Sn over Ni
Plating contact zone	Au over Ni

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 DIN IEC 60512-5

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



Soldering instructions

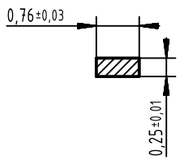
The connectors should be protected when being soldered in a dip, flow or film soldering bath. Otherwise, they might become contaminated as a result of soldering operations or deformed as a result of overheating.

(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.

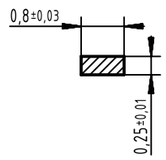
(2) For large series a jig is recommended. Its protective cover with a fast action mechanical locking device shields the connectors from gas and heat generated by the soldering apparatus. As an additional protection a foil can be used for covering the parts that should not be soldered.

Cross section of solder terminations

Row a, z



Row b, c, d



Recommended plated hole diameter: 1 mm ± 0,1

All Dimensions in mm Original Size DIN A3	Scale 1:1	Free size tol.		Ref. Sub. DS 02 07 220 02 01 Mod. EC01482 2011-04-21	
Department EC PD - DE	Created by THIELEMANN	Inspected by TADJE	Standardisation KOHLER	Date 2014-07-17	State Final Release
HARTING Electronics GmbH D-32339 Espelkamp	Title har-bus®64 female connector angled				Doc-Key / ECM-Nr. 1005800001/UGD/000/A 500000076063
	Type DS	Number 02072200201		Rev. A	Page 1/1

A3