General Information

- **Design**: IEC 61076-4-113, type: har-bus 64 transition connector
- **No. of contacts**: max. 160
- **Contact spacing**: 2.54mm
- **Test voltage**: 1000V
- **Contact resistance**: max. 25mΩ
- **Insulation resistance**: min. 10GΩ
- **Wiring current**: 1A at 70°C (see derating diagram)
- **Temperature range**: -55°C to +75°C
- **Termination technology**: solder pins
- **Clearance & creepage**: 0.6mm between the rows, 0.8mm between two contacts in a row
- **Insertion and withdrawal force**: max. 160N
- **PCB thickness**: min. 1.6mm
- **Mating cycles**: PL, 1 acc. to IEC 61076-4-113, 500 mating cycles
- **UL file**: E102699
- **RoHS compliant**: Yes
- **Leadfree**: Yes

Insulator material

- **Material**: PBT (thermoplastics, glass fibre reinforcement 30%)
- **Colour**: RAL 9002 (grey)
- **UL classification**: UL 94-V0
- **Material group acc. to IEC 60664-1**: Hya TFS + C1 ≤ 400
- **NF classification**: 13, F4

Contact material

- **Contact material**: Copper alloy
- **Plating termination zone**: Sn over Ni
- **Plating contact zone**: Ag over Ni

Derating diagram acc. to IEC 60522-3 (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 60522-3.

With selective loading higher currents can be transmitted. The requirements according to VITA 17 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 pins

Recommended plated hole diameter: \( \phi \times \phi 0.1mm \)

Row 2a: A = 0.18mm\(^2\) - 0.22mm\(^2\)

Row b, c, d: A = 0.19mm\(^2\) - 0.22mm\(^2\)