

## DIN-Signal C096MS-3,0C1-2-V2-cod

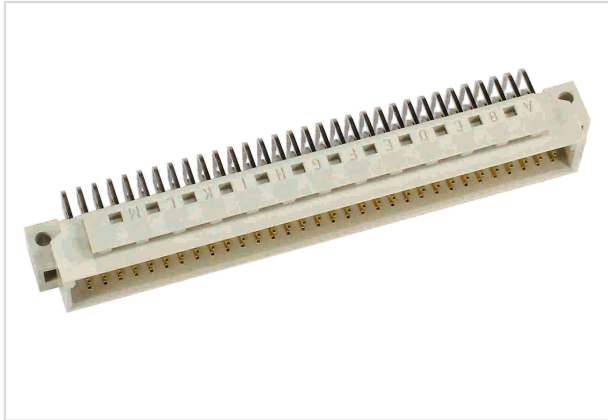


Image is for illustration purposes only. Please refer to product description.

|                    |                                                                                       |
|--------------------|---------------------------------------------------------------------------------------|
| Part number        | 09 03 696 6951                                                                        |
| Specification      | DIN-Signal C096MS-3,0C1-2-V2-cod                                                      |
| HARTING eCatalogue | <a href="https://b2b.harting.com/09036966951">https://b2b.harting.com/09036966951</a> |

### Identification

|                            |                |
|----------------------------|----------------|
| Category                   | Connectors     |
| Series                     | DIN 41612      |
| Identification             | Type C         |
| Element                    | Male connector |
| Description of the contact | Angled         |
| Features                   | lead-free      |

### Version

|                       |                                               |
|-----------------------|-----------------------------------------------|
| Termination method    | Wave soldering termination                    |
| Connection type       | Motherboard to daughtercard                   |
|                       | Extender card                                 |
|                       | PCB to cable                                  |
| Number of contacts    | 96                                            |
| Contact configuration | Rows a, b and c, positions 1, 2, ... , 31, 32 |
| Leading contact       | a1                                            |
|                       | a32                                           |
| Coding                | Coding with loss of contacts                  |
|                       | Side coding                                   |
| PCB fixing            | With fixing flange                            |

### Technical characteristics

|                                    |         |
|------------------------------------|---------|
| Contact rows                       | 3       |
| Contact spacing (termination side) | 2.54 mm |
| Contact spacing (mating side)      | 2.54 mm |



Pushing Performance

## Technical characteristics

|                                  |                                                                 |
|----------------------------------|-----------------------------------------------------------------|
| Rated current                    | 2 A                                                             |
| Rated current                    | Rated current measured at 20 °C, see derating curve for details |
| Clearance distance               | ≥1.2 mm                                                         |
| Creepage distance                | ≥1.2 mm                                                         |
| Insulation resistance            | >10 <sup>12</sup> Ω                                             |
| Contact resistance               | ≤20 mΩ                                                          |
| Limiting temperature             | -55 ... +125 °C                                                 |
| Insertion and withdrawal force   | ≤90 N                                                           |
| Performance level                | 2<br>acc. to IEC 60603-2                                        |
| Mating cycles                    | ≥400                                                            |
| Test voltage U <sub>r.m.s.</sub> | 1 kV                                                            |
| Isolation group                  | IIIa (175 ≤ CTI < 400)                                          |
| Hot plugging                     | No                                                              |

## Material properties

|                                           |                                                                |
|-------------------------------------------|----------------------------------------------------------------|
| Material (insert)                         | Thermoplastic resin, glass-fibre filled                        |
| Colour (insert)                           | RAL 7032 (pebble grey)                                         |
| Material (contacts)                       | Copper alloy                                                   |
| Surface (contacts)                        | Noble metal over Ni Mating side<br>Sn over Ni Termination side |
| Material flammability class acc. to UL 94 | V-0                                                            |
| RoHS                                      | compliant                                                      |
| ELV status                                | compliant                                                      |
| China RoHS                                | e                                                              |
| REACH Annex XVII substances               | No                                                             |
| REACH ANNEX XIV substances                | No                                                             |
| REACH SVHC substances                     | No                                                             |
| California proposition 65                 | Yes                                                            |
| California proposition 65 substances      | Nickel<br>Lead<br>Antimony trioxide                            |

## Specifications and approvals

|                |             |
|----------------|-------------|
| Specifications | IEC 60603-2 |
|----------------|-------------|

## Specifications and approvals

UL / CSA

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

Railway classification

F4/I3 acc. to NFF 16-101/102

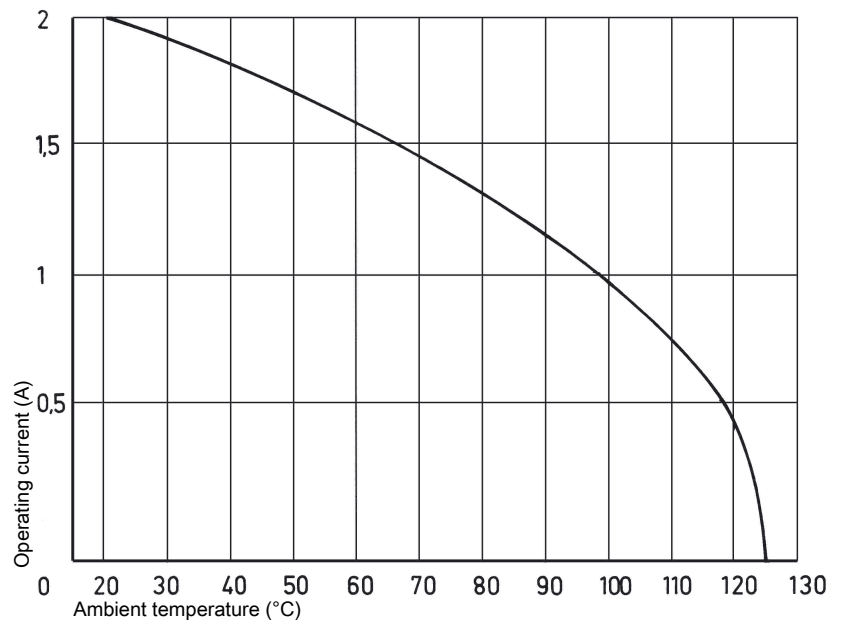
## Commercial data

|                                |                                          |
|--------------------------------|------------------------------------------|
| Packaging size                 | 20                                       |
| Net weight                     | 14.5 g                                   |
| Country of origin              | Germany                                  |
| European customs tariff number | 85366990                                 |
| eCl@ss                         | 27460201 PCB connector (board connector) |

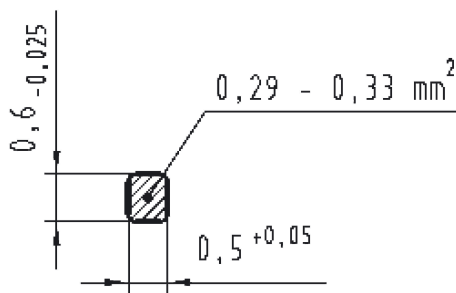
## Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



## Cross section of solder termination

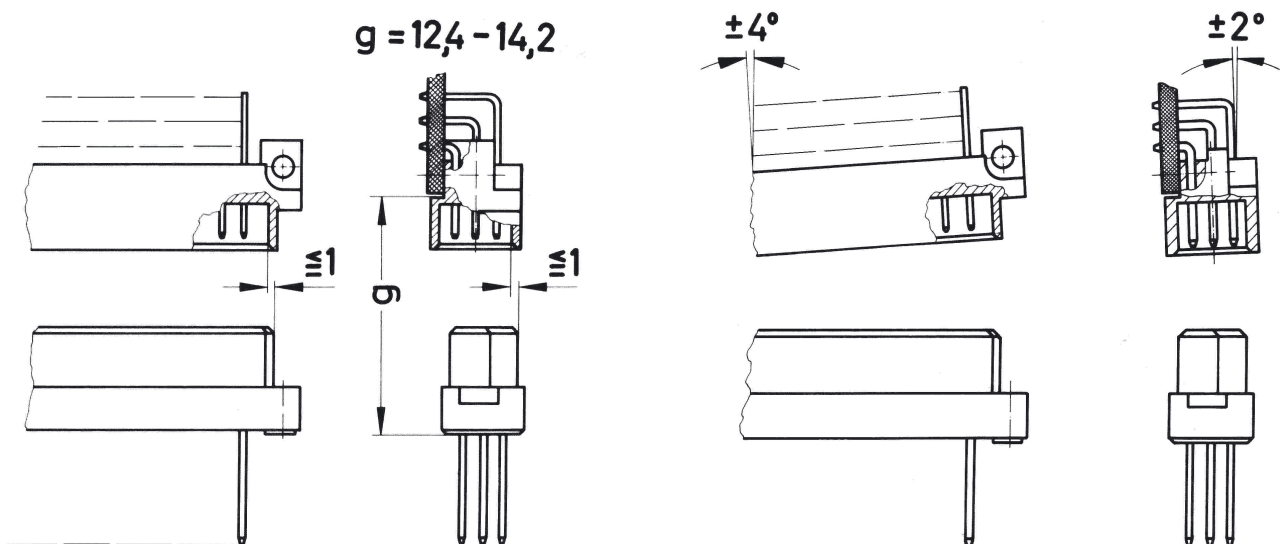


## Soldering instructions

The connectors should be protected when being soldered. 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](http://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.
- 3) For prototypes and short runs the protection described under point 1) can be replaced by a solder protection cap. This cap can be ordered under the part no. 09 02 000 9935.

## Mating conditions



To ensure reliable connections and prevent unnecessary damage, please refer to the application data diagrams. These recommendations are set out in IEC 60603-2.

The connectors should not be coupled and decoupled under electrical load.