

## C 091 B Characteristics

| General Characteristics                         | Standard                  | Characteristics  |                |                |                |                |                |                |           |   |           |
|---|---------------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|-----------|---|-----------|
| Number of contacts                              |                           | 3  | 4              | 5              | 5 Stereo       | 6              | 7              | 7              | 8         | 12  | 14        |
| View on termination side of male contact insert |                           |  |                |                |                |                |                |                |           |   |           |
| Contact arrangement                             | DIN EN 61076-2-106        | 03-a<br>✓  | 04-a<br>✓      | 05-a<br>✓      | 05-b<br>✓      | 06-a<br>✓      | 07-a<br>✓      | 07-b<br>✓      | 08-a<br>✓ | 12-a<br>✓   | 14-a<br>✓ |
| Contact arrangement                             | IEC 60130-9 <sup>1)</sup> | ✓  | ✓              |                | ✓              | ✓              |                | ✓              | ✓         |   |           |
| <b>Electrical Characteristics</b>               |                           |  |                |                |                |                |                |                |           |   |           |
| Rated voltage                                   | IEC 60664-1               | 300 V ≈  |                |                | 100 V ≈        | 300 V ≈        |                |                | 150 V ≈   |   |           |
| Rated voltage                                   | UL 1977                   | 250 V  |                |                |                |                |                |                |           | 60 V  |           |
| Rated impulse withstand voltage                 | IEC 60664-1               | 1500 V   |                |                | 1200 V         | 1500 V         |                |                | 1200 V    |   |           |
| Pollution degree                                | IEC 60664-1               | 1  |                |                |                |                |                |                |           |   |           |
| Installation category                           | IEC 60664-1               | I  |                |                |                |                |                |                |           |   |           |
| Insulation group                                | IEC 60664-1               | II, 400 ≤ CTI < 600  |                |                |                |                |                |                |           |   |           |
| Current rating                                  | IEC 60512-5-2<br>UL 1977  | 5 A / + 40 °C / + 104 °F<br>please refer also to current derating curves page 59   |                |                |                |                |                |                |           | 3 A / + 40 °C / + 104 °F  |           |
| Insulation resistance                           | IEC 60512-3-1             | > 10 <sup>10</sup> Ω <sup>2)</sup>   |                |                |                |                |                |                |           |   |           |
| Contact resistance                              | IEC 60512-2-1             | < 5 m Ω  |                |                |                |                |                |                |           |   |           |
| <b>Climatic Characteristics</b>                 |                           |  |                |                |                |                |                |                |           |   |           |
| Climatic category                               | IEC 60668-1               | 40 / 100 / 56  |                |                |                |                |                |                |           |   |           |
| Temperature range                               | IEC 60668-1               | - 40 °C ... + 100 °C / - 40 °F ... + 212 °F  |                |                |                |                |                |                |           |   |           |
| <b>Mechanical Characteristics</b>               |                           |  |                |                |                |                |                |                |           |   |           |
| IP-degree                                       | IEC 60529                 | IP 40  |                |                |                |                |                |                |           |   |           |
| Insertion and withdrawal forces                 | IEC 60512-13-2            | 25 N<br>90.oz  | 30 N<br>110.oz | 35 N<br>125.oz | 50 N<br>180.oz | 55 N<br>200.oz | 60 N<br>220.oz | 50 N<br>180.oz |           |   |           |
| Mechanical operation                            | IEC 60512-9-1             | Silver ≥ 500 mating cycles<br>Gold ≥ 1000 mating cycles  |                |                |                |                |                |                |           |   |           |
| <b>Materials</b>                                |                           |  |                |                |                |                |                |                |           |   |           |
| Housing material                                |                           | die cast, nickel plated  |                |                |                |                |                |                |           |   |           |
| Dielectric material                             |                           | thermoplastic  |                |                |                |                |                |                |           |   |           |
| Contact plating                                 |                           | silver plated / gold plated <sup>3)</sup>  |                |                |                |                |                |                |           |   |           |
| <b>Further Characteristics</b>                  |                           |  |                |                |                |                |                |                |           |   |           |
| Termination technique                           |                           | solder, crimp  |                |                |                |                |                |                |           |   |           |
| Wire gauge                                      |                           | solder: ≤ 0,5 mm <sup>2</sup> / 20 AWG<br>crimp: 2 - 6 pol (excluding 5S): 0,09 - 1,00 mm <sup>2</sup> / 28 - 18 AWG<br>crimp: 5S, 7, 7S and 8-pol.: 0,09 - 0,75 mm <sup>2</sup> / 28 - 20 AWG |                |                |                |                |                |                |           | solder: ≤ 0,25 mm <sup>2</sup> / 24 AWG<br>crimp: 0,09-0,25 mm <sup>2</sup> / 28 - 24 AWG |           |
| Flammability                                    |                           | UL 94 V0   |                |                |                |                |                |                |           |   |           |
| Locking system                                  |                           | bayonet  |                |                |                |                |                |                |           |   |           |

**Caution:** Do not connect or disconnect under load. Metal housing parts shall be securely incorporated to protected ground.

<sup>1)</sup> Edition 2000-05

<sup>2)</sup> under operating conditions >10<sup>8</sup> Ω

<sup>3)</sup> Remark for gold plated contacts: In order to avoid brittle inter-metallic connections, gold-plated terminals have to be tin-plated in the solder area.

IEC 60 664 ≙ DIN VDE 0110; IEC 60 512-x ≙ DIN EN 60 512-x; IEC 60 130-9 ≙ DIN EN 60 130-9; IEC 61076-2-106 ≙ DIN EN 61076-2-106