## mail

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## Contact us

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## C 091 A Characteristics

| General Characteristics                         | Standard                             | Characteristics   |   |                |              |                |           |                     |                |                     |             |
|---|--------------------------------------|---|---|----------------|--------------|----------------|-----------|---------------------|----------------|---------------------|-------------|
| Number of contacts                              |                                      | 2 <sup>1)</sup> + 3   | 4   | 5              | 5 Stereo     | 6              | 7         | 7                   | 8              | 12                  | 14          |
| View on termination side of male contact insert |                                      |   |   |                |              |                |           |                     |                |                     |             |
| Contact arrangement                             | DIN EN<br>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 60130-92)                        | $\checkmark$  | $\checkmark$  |                | $\checkmark$ | $\checkmark$   |           | $\checkmark$        | $\checkmark$   |                     |             |
| Electrical Characteristics                      |                                      |   |   |                |              |                |           |                     |                |                     |             |
| Rated voltage <sup>3)</sup>                     | IEC 60664-1                          |   | $\begin{array}{cccc} 300 \ \forall \simeq & 300 \ \forall \simeq & 100 \ \forall \simeq & 300 \ \forall \simeq \\ (100 \ \forall \simeq) & (63 \ \forall \simeq) & (32 \ \forall \simeq) & (63 \ \forall \simeq) \end{array}$ |                |              |                |           | 100 V ≃<br>(32 V ≃) |                | 150 V ≃<br>(32 V ≃) |             |
| Rated voltage                                   | UL 1977                              | 250 V   |   |                |              |                |           | 60 V                |                |                     |             |
| Rated impulse withstand voltage <sup>3)</sup>   | IEC 60664-1                          |   |   |                |              |                |           | 200 V<br>00 V)      |                |                     |             |
| Pollution degree <sup>3)</sup>                  | IEC 60664-1                          | 1 (2)   |   |                |              |                |           |                     |                |                     |             |
| Installation category                           | IEC 60664-1                          | I   |   |                |              |                |           |                     |                |                     |             |
| Insulation group                                | IEC 60664-1                          | $II, 400 \le CTI \le 600$   |   |                |              |                |           |                     |                |                     |             |
| Current rating                                  | IEC 60512-5-2<br>UL 1977             | 5 A / + 40 °C / + 104 °F3 A / + 40 °C /please refer also to current derating curves page 59+ 104 °F   |   |                |              |                |           |                     |                |                     |             |
| Insulation resistance                           | IEC 60512-3-1                        | > 10 <sup>10</sup> Ω <sup>4</sup> )   |   |                |              |                |           |                     |                |                     |             |
| Contact resistance                              | IEC 60512-2-1                        | < 5 m Ω   |   |                |              |                |           |                     |                |                     |             |
| Climatic Characteristics                        |                                      |   |   |                |              |                |           |                     |                |                     |             |
| Climatic category                               | IEC 60068-1                          | 40 / 100 / 56   |   |                |              |                |           |                     |                |                     |             |
| Temperature range                               | IEC 60068-1                          | - 40 °C + 100 °C / - 40 °F + 212 °F   |   |                |              |                |           |                     |                |                     |             |
| Mechanical Characteristics                      |                                      |   |   |                |              |                |           |                     |                |                     |             |
| 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 |           |                     | 60 N<br>220.oz |                     | ) N<br>).oz |
| Mechanical operation                            | IEC 60512-9-1                        | Silver ≥ 500 mating cycles<br>Gold ≥ 1000 mating cycles   |   |                |              |                |           |                     |                |                     |             |
| Materials                                       |                                      |   |   |                |              |                |           |                     |                |                     |             |
| Housing material                                |                                      | coupling ring brass, strain relief, die cast, nickel plated   |   |                |              |                |           |                     |                |                     |             |
| Dielectric material                             |                                      | thermoplastic   |   |                |              |                |           |                     |                |                     |             |
| Contact plating                                 |                                      | silver plated / gold plated <sup>5)</sup>   |   |                |              |                |           |                     |                |                     |             |
| Further Characteristics                         |                                      |   |   |                |              |                |           |                     |                |                     |             |
| Termination technique                           |                                      |   |   |                |              | solder         | , crimp   |                     |                |                     |             |
| Wire gauge                                      |                                      | $\label{eq:solder:} \begin{array}{l} \text{solder:} \le 0,5 \ \text{mm}^2 \ / \ 20 \ \text{AWG} \\ \text{crimp:} \ 2 - 6 \ \text{pol} \ (\text{excluding} \ 5S): \ 0,09 - 1,00 \ \text{mm}^2 \ / \ 28 - 18 \ \text{AWG} \\ \text{crimp:} \ 5S, \ 7, \ 7S \ \text{and} \ 8 - \text{pol}.: \ 0,09 - 0,75 \ \text{mm}^2 \ / \ 28 - 20 \ \text{AWG} \\ \end{array} \begin{array}{l} \text{solder:} \le 0,25 \ \text{mm}^2 \ / \ 24 \ \text{AWG} \\ \text{crimp:} \ 0,09 - 0,25 \ \text{mm}^2 \\ / \ 28 - 24 \ \text{AWG} \end{array}$ |   |                |              |                |           |                     |                |                     |             |
| Flammability                                    |                                      | UL 94 V0  |   |                |              |                |           |                     |                |                     |             |
| Locking system                                  | IEC 60130-9<br>DIN EN<br>61076-2-106 | metal screw coupling; tightening torque 0,7 Nm  |   |                |              |                |           |                     |                |                     |             |

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

<sup>1)</sup> 2 contact version: contact loading 1+3

<sup>2)</sup> Edition 2000-05

 $^{\scriptscriptstyle 3)}$  values in brackets are according to DIN EN 61076-2-106

 $^{\rm 4)}$  under operating conditions >10  $^{\rm 8}\,\Omega$ 

<sup>5)</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