



|  |   |                 |                     |
|--|---|-----------------|---------------------|
|  | 19<br>(19-a)  | Ag              | C091 31C019 100 2 U |
|  |   | Au              | C091 31C019 200 2 U |
|  | 14<br>(14-b)  | Ag              | C091 31C114 100 2 U |
|  |   | Au              | C091 31C114 200 2 U |
|  | 14<br>(14-a)  | Ag              | C091 31C014 100 2 U |
|  |   | Au              | C091 31C014 200 2 U |
|  | 12<br>(12-a)  | Ag              | C091 31C012 100 2 U |
|  |   | Au              | C091 31C012 200 2 U |
|  | 8<br>(08-a)   | Ag              | C091 31C008 100 2 U |
|  |   | Au              | C091 31C008 200 2 U |
|  | 7<br>(07-b)   | Ag              | C091 31C107 100 2 U |
|  |   | Au              | C091 31C107 200 2 U |
|  | 7<br>(07-a)   | Ag              | C091 31C007 100 2 U |
|  |   | Au              | C091 31C007 200 2 U |
|  | 6<br>(6-a)  | Ag              | C091 31C006 100 2 U |
|  |   | Au              | C091 31C006 200 2 U |
|  | 5<br>(05-b)   | Ag              | C091 31C105 100 2 U |
|  |   | Au              | C091 31C105 200 2 U |
|  | 5<br>(05-a)   | Ag              | C091 31C005 100 2 U |
|  |   | Au              | C091 31C005 200 2 U |
|  | 4<br>(04-a)   | Ag              | C091 31C004 100 2 U |
|  |   | Au              | C091 31C004 200 2 U |
|  | 3<br>(03-a)   | Ag              | C091 31C003 100 2 U |
|  |   | Au              | C091 31C003 200 2 U |
| <b>Contact arrangement View on mating side</b> |   |                 |                     |
|  | Number of contacts (Contact arrangement acc DIN EN 61076-2-106) | contact plating | Part number         |

|   |                                |  |      |                |          |                 |      |                               |      |              |          |                          |      |  |
|---|--------------------------------|--|------|----------------|----------|-----------------|------|-------------------------------|------|--------------|----------|--------------------------|------|--|
| Number of contacts                            | Standard                       | 3  | 4    | 5              | 5        | 6               | 7    | 7                             | 8    | 12           | 14       | 14                       | 19   |  |
| Contact arrangement                           | IEC 61076-2-106                | 03-a   | 04-a | 05-a           | 05-b     | 06-a            | 07-a | 07-b                          | 08-a | 12-a         | 14-a     | 14-b                     | 19-a |  |
| Contact arrangement                           | IEC 60130-9 <sup>1)</sup>      | yes  |      | no             |          | yes             |      | no                            |      | no           |          |                          |      |  |
| Rated voltage <sup>2)</sup>                   | IEC 60664-1                    | 300 V (100 V)  |      | 300 V (63 V)   |          | 100 V (32 V)    |      | 300 V (63 V)                  |      | 100 V (32 V) |          | 150 V (32 V) 60 V (32 V) |      |  |
| Rated voltage                                 | UL 1977                        | 250V   |      |                |          |                 |      |                               |      | 60V          |          |                          |      |  |
| Rated impulse withstand voltage <sup>2)</sup> | IEC 60664-1                    | 1500 V (1500 V)                                      |      | 1200 V (800 V) |          | 1500 V (1500 V) |      | 1200 V (800 V)                |      |              |          |                          |      |  |
| Pollution degree <sup>2)</sup>                | IEC 60664-1                    | 1 (3 <sup>3)</sup> )                                 |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| Installation category                         | IEC 60664-1                    | I  |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| Insulation group                              | IEC 60664-1                    | II, 400 ≤ CTI < 600                                  |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| Current rating                                | IEC 60512-5-2 UL 1977          | 10A/+40°C  |      |                | 7A/+40°C |                 |      |                               |      |              | 3A/+40°C |                          |      |  |
| Insulation resistance                         | IEC 60512-3-1                  | >10 <sup>10</sup> Ohm <sup>4)</sup>                  |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| Contact resistance                            | IEC 60512-2-1                  | <5mOhm   |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| Climatic category                             | IEC 60668-1                    | 40 / 100 / 56  |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| Temperatur range                              | IEC 60668-1                    | -40°C...+100°C / -40°F...+212°F                      |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| Salt spray resistance                         | DIN IEC 60068-2-11, test Ka    | 720h   |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| IP degree                                     | IEC 60529                      | IP 69K / IP 67 / IP 65 (in mated condition)          |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| Insertion and withdrawal force                | IEC 60512-13-2                 | 25N  | 30N  | 35N            | 35N      | 50N             | 55N  | 55N                           | 60N  | 50N          | 50N      | 50N                      | 60N  |  |
| mechanical operation                          | IEC 60512-9-1                  | Silver ≥500 mating cycles / Gold ≥1000 mating cycles |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| housing material                              |                                | brass and / or zinc die cast, nickel plated          |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| dielectric material                           |                                | thermoplastic  |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| sealing material                              |                                | Chloroprene  |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| contacts                                      |                                | silver or gold plated                                |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| termination technique                         |                                | solder   |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| wire gauge                                    |                                | ≤0,5mm <sup>2</sup> / 20 AWG                         |      |                |          |                 |      | ≤0,35mm <sup>2</sup> / 22 AWG |      |              |          |                          |      |  |
| flamability                                   |                                | UL 94 V0   |      |                |          |                 |      |                               |      |              |          |                          |      |  |
| locking system                                | IEC 60130-9 DIN EN 61076-2-106 | metal screw coupling; tightening torque 0,7 - 1,5 Nm |      |                |          |                 |      |                               |      |              |          |                          |      |  |

|   |                                    |  |        |  |
|---|------------------------------------|--|--------|--|
| Gewicht (errechnet) / Calc WT: 15,562 g | Zul. Abw./Tolerances:              | Maßstab / Scale: 2:1                                     | A3     |  |
| Prüfmaß / Testdimension                 | ISO 2768-c                         | CUSTOMER DRAWING   |        |  |
| Teileindex / Partindexnumber:           |                                    | Male receptacle rear mounting                            |        |  |
| Bagatelle change: 23.02.2021 MCARLE     |                                    | Ers. f. l. Replacement for: M-C091 31CXXX X00 2 U Rev.01 |        |  |
| Gez. Drawn: 10.06.2020 MCARLE           | Gepr. Checked: 11.01.2021 MBERTSCH | Amphenol Tuchel Industrial GmbH                          |        |  |
| Status: Released                        |                                    | Blatt / Sheet: 1   |        |  |
|   |                                    | 1 Bl.  |        |  |
| Index                                   | Änderung / Description             | Datum / Date   | Name   |  |
| 02                                      | 202000083                          | 26.10.2020   | MCARLE |  |

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<sup>1)</sup> Edition 2000-05  
<sup>2)</sup> values in brackets are according to DIN EN 61076-2-106  
<sup>3)</sup> designed acc. pollution degree 2, can be used under pollution degree 3 when the rules of IEC 60644-1 are fulfilled  
<sup>4)</sup> under operating conditions >10<sup>8</sup> Ohm  
 Do not connect or disconnect under load. Metal housing parts shall be securely incorporated to protected ground.  
 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.  
 All technical data have been measured in a laboratory environment and can be different during practical usage of the product. Any product information is for descriptive usage only and not legally binding, particularly the information does not constitute or provide any legal guaranties ("Beschaffenheitsgarantie" or "Haltbarkeitsgarantie").