



C 091 D+

- **Screw locking according to IEC 61076-2-106**
- **Metal locking ring**
- **2 - 8, 12 and 14 positions for crimp and solder**
- **IP 68**
- **Internal strain relief**
- **Male and female cable connectors straight and angled**
- **Male and female receptacles see C091D**
- **UL registered under file number E 63 093 UL**
- **Reduced Assembling Time**
- **Easy and reliable assembly**
- **Outer cable diameter up to 10,5mm**
- **360° shielding (resistance 30db)**

C 091 D+ Characteristics

| General Characteristics | Standard | Characteristics | | | | | | | | | |
|---|-----------------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|---------------|---|-----------|
| Number of contacts | | 3 | 4 | 5 | 5 | 6 | 7 | 7 | 8 | 12 | 14 |
| View on termination side of male contact insert | | | | | | | | | | | |
| Contact arrangement | DIN EN 61076-2-106 | 03-a ✓ | 04-a ✓ | 05-a ✓ | 05-b ✓ | 06-a ✓ | 07-a ✓ | 07-b ✓ | 08-a ✓ | 12-a ✓ | 14-a ✓ |
| Contact arrangement | IEC 60130-9 ¹⁾ | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | | |
| Electrical Characteristics | | | | | | | | | | | |
| Rated voltage ²⁾ | IEC 60664-1 | 150 V ≈ | | | 100 V ≈ | | | | 32 V ≈ | | |
| Rated impulse withstand voltage ²⁾ | IEC 60664-1 | 2500 V | | | 1500 V | | | | 800 V | | |
| Pollution degree ²⁾ | IEC 60664-1 | 3 ³⁾ | | | | | | | | | |
| Installation category | IEC 60664-1 | III | | | | | | | | | |
| Insulation group | IEC 60664-1 | II | | | | | | | | | |
| Current rating | IEC 60512-5-2 UL 1977 | 10 A / + 40 °C | | | 7 A / + 40 °C | | | | 3 A / + 40 °C | | |
| Insulation resistance | IEC 60512-3-1 | > 10 ¹⁰ Ω ⁴⁾ | | | | | | | | | |
| Contact resistance | IEC 60512-2-1 | < 5 m Ω | | | | | | | | | |
| Climatic Characteristics | | | | | | | | | | | |
| Climatic category | IEC 60668-1 | 40 / 100 / 21 | | | | | | | | | |
| Temperature range | IEC 60668-1 | - 40 °C ... + 100 °C | | | | | | | | | |
| Salt Spray Resistance | DIN IEC 60068-2-11, Test Ka | 720h | | | | | | | | | |
| Mechanical Characteristics | | | | | | | | | | | |
| IP-degree | IEC 60529 | IP68 (in mated condition) | | | | | | | | | |
| Insertion and withdrawal forces | IEC 60512-13-2 | 25 N 90.oz | 30 N 110.oz | 35 N 125.oz | 50 N 180.oz | 50 N 180.oz | 60 N 220.oz | 50 N 180.oz | | | |
| Mechanical operation | IEC 60512-9-1 | Silver ≥ 500 mating cycles Gold ≥ 1000 mating cycles | | | | | | | | | |
| Materials | | | | | | | | | | | |
| Housing material | | Zinc die cast, nickel plated | | | | | | | | | |
| Dielectric material | | thermoplastic | | | | | | | | | |
| Sealing material | | chloroprene | | | | | | | | | |
| Contact plating | | silver plated / gold plated ⁵⁾ | | | | | | | | | |
| Further Characteristics | | | | | | | | | | | |
| Termination technique | | solder, crimp | | | | | | | | | |
| Wire gauge | | solder: ≤ 0,5 mm ² / 20 AWG crimp: 2 - 6 pol (excluding 5S): 0,09 - 1,00 mm ² / 28 - 18 AWG crimp: 5S, 7, 7S and 8-pol.: 0,09 - 0,75 mm ² / 28 - 20 AWG | | | | | | | | solder: ≤ 0,25 mm ² / 24 AWG crimp: 0,09-0,25 mm ² / 28 - 24 AWG | |
| Flammability | | UL 94 V0 | | | | | | | | | |
| Locking system | IEC 60130-9 | metal screw coupling; tightening torque 0,5 - 0,7 Nm | | | | | | | | | |

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

¹⁾ Edition 2000-05

²⁾ values in brackets are according to DIN EN 61076-2-106

³⁾ designed acc. pollution degree 2; can be used under pollution degree 3 when the rules of IEC 60644-1 are fulfilled

⁴⁾ under operating conditions >10⁹ Ω

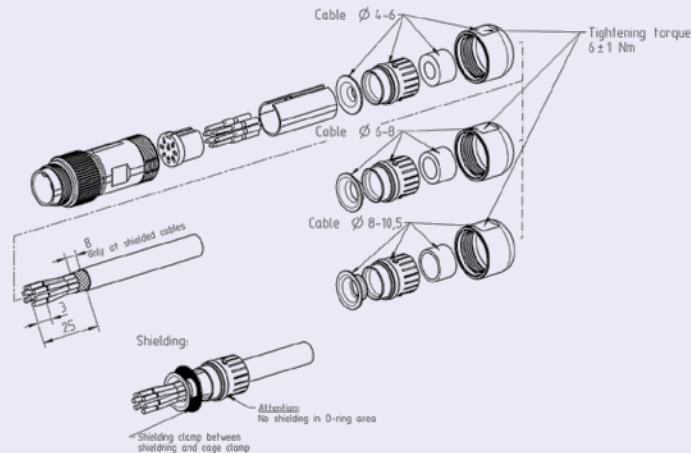
⁵⁾ Remark for gold plated contacts: In order to avoid brittle inter-metallic connections, gold-plated terminals have to be tin-plated in the solder area.

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

C 091 D+ Male cable connector

| No. of cont. | Part Number solder termination | | Part Number crimp termination | Drawing | Figure | |
|--|---------------------------------|---------------------------------|---------------------------------|-------------------------------------|--------|----------------------------------|
| | silver plating | gold plating ¹⁾ | | | | |
| (Please order crimp contacts separately, see page 56) | | | | | | |
| 3 | C091 31H003 100 4 ³⁾ | C091 31H003 200 4 ³⁾ | C091 11H003 000 4 ³⁾ | <p>for cable diameter 4-6 mm</p> | | |
| 4 | C091 31H004 100 4 | C091 31H004 200 4 | C091 11H004 000 4 | | | |
| 5 | C091 31H005 100 4 ³⁾ | C091 31H005 200 4 ³⁾ | C091 11H005 000 4 ³⁾ | | | |
| 5S ²⁾ | C091 31H105 100 4 ³⁾ | C091 31H105 200 4 ³⁾ | C091 11H105 000 4 ³⁾ | | | |
| 6 | C091 31H006 100 4 ³⁾ | C091 31H006 200 4 ³⁾ | C091 11H006 000 4 ³⁾ | | | |
| 7 | C091 31H007 100 4 ³⁾ | C091 31H007 200 4 ³⁾ | C091 11H007 000 4 ³⁾ | | | |
| 7 ²⁾ | C091 31H107 100 4 ³⁾ | C091 31H107 200 4 ³⁾ | C091 11H107 000 4 ³⁾ | | | |
| 8 | C091 31H008 100 4 | C091 31H008 200 4 | C091 11H008 000 4 | | | |
| 12 | C091 31H012 100 4 ³⁾ | C091 31H012 200 4 ³⁾ | C091 11H012 000 4 ³⁾ | | | |
| 14 | C091 31H014 100 4 ³⁾ | C091 31H014 200 4 ³⁾ | C091 11H014 000 4 ³⁾ | | | |
| 3 | C091 31H003 101 4 ³⁾ | C091 31H003 201 4 ³⁾ | C091 11H003 001 4 ³⁾ | | | <p>for cable diameter 6-8 mm</p> |
| 4 | C091 31H004 101 4 | C091 31H004 201 4 | C091 11H004 001 4 | | | |
| 5 | C091 31H005 101 4 ³⁾ | C091 31H005 201 4 ³⁾ | C091 11H005 001 4 ³⁾ | | | |
| 5S ²⁾ | C091 31H105 101 4 ³⁾ | C091 31H105 201 4 ³⁾ | C091 11H105 001 4 ³⁾ | | | |
| 6 | C091 31H006 101 4 ³⁾ | C091 31H006 201 4 ³⁾ | C091 11H006 001 4 ³⁾ | | | |
| 7 | C091 31H007 101 4 ³⁾ | C091 31H007 201 4 ³⁾ | C091 11H007 001 4 ³⁾ | | | |
| 7 ²⁾ | C091 31H107 101 4 ³⁾ | C091 31H107 201 4 ³⁾ | C091 11H107 001 4 ³⁾ | | | |
| 8 | C091 31H008 101 4 | C091 31H008 201 4 | C091 11H008 001 4 | | | |
| 12 | C091 31H012 101 4 ³⁾ | C091 31H012 201 4 ³⁾ | C091 11H012 001 4 ³⁾ | | | |
| 14 | C091 31H014 101 4 ³⁾ | C091 31H014 201 4 ³⁾ | C091 11H014 001 4 ³⁾ | | | |
| 3 | C091 31H003 102 4 ³⁾ | C091 31H003 202 4 ³⁾ | C091 11H003 002 4 ³⁾ | <p>for cable diameter 8-10,5 mm</p> | | |
| 4 | C091 31H004 102 4 | C091 31H004 202 4 | C091 11H004 002 4 | | | |
| 5 | C091 31H005 102 4 ³⁾ | C091 31H005 202 4 ³⁾ | C091 11H005 002 4 ³⁾ | | | |
| 5S ²⁾ | C091 31H105 102 4 ³⁾ | C091 31H105 202 4 ³⁾ | C091 11H105 002 4 ³⁾ | | | |
| 6 | C091 31H006 102 4 ³⁾ | C091 31H006 202 4 ³⁾ | C091 11H006 002 4 ³⁾ | | | |
| 7 | C091 31H007 102 4 ³⁾ | C091 31H007 202 4 ³⁾ | C091 11H007 002 4 ³⁾ | | | |
| 7 ²⁾ | C091 31H107 102 4 ³⁾ | C091 31H107 202 4 ³⁾ | C091 11H107 002 4 ³⁾ | | | |
| 8 | C091 31H008 102 4 | C091 31H008 202 4 | C091 11H008 002 4 | | | |
| 12 | C091 31H012 102 4 ³⁾ | C091 31H012 202 4 ³⁾ | C091 11H012 002 4 ³⁾ | | | |
| 14 | C091 31H014 102 4 ³⁾ | C091 31H014 202 4 ³⁾ | C091 11H014 002 4 ³⁾ | | | |

Assembly instruction

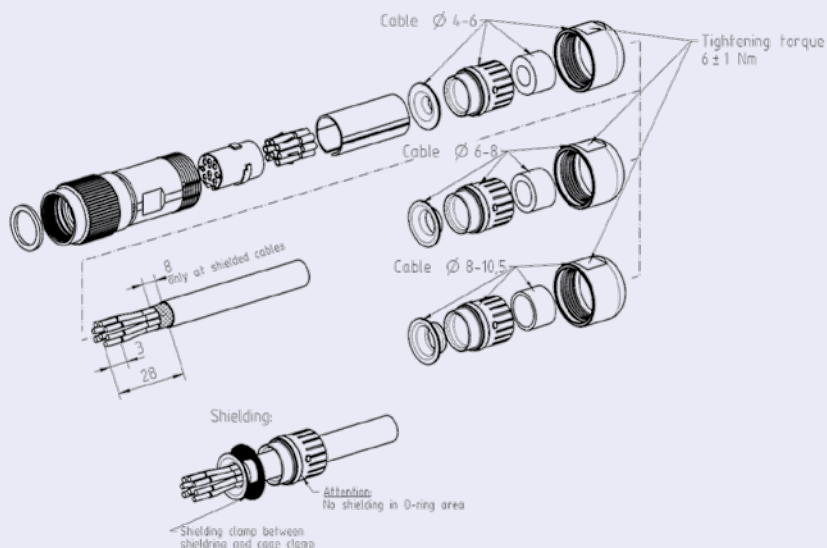


C091D+ connectors are fully interchangeable with C091D connectors.
 Receptacles to mate with C091D+ can be found in section C091D.

C 091 D+ Female cable connector

| No. of cont. | Part Number solder termination | | Part Number crimp termination | Drawing | Figure | |
|--|---------------------------------|---------------------------------|---------------------------------|-------------------------------------|--------|----------------------------------|
| | silver plating | gold plating ¹⁾ | | | | |
| (Please order crimp contacts separately, see page 56) | | | | | | |
| 3 | C091 31D003 100 4 ³⁾ | C091 31D003 200 4 ³⁾ | C091 11D003 000 4 ³⁾ | <p>for cable diameter 4-6 mm</p> | | |
| 4 | C091 31D004 100 4 | C091 31D004 200 4 | C091 11D004 000 4 | | | |
| 5 | C091 31D005 100 4 ³⁾ | C091 31D005 200 4 ³⁾ | C091 11D005 000 4 ³⁾ | | | |
| 5S ²⁾ | C091 31D105 100 4 ³⁾ | C091 31D105 200 4 ³⁾ | C091 11D105 000 4 ³⁾ | | | |
| 6 | C091 31D006 100 4 ³⁾ | C091 31D006 200 4 ³⁾ | C091 11D006 000 4 ³⁾ | | | |
| 7 | C091 31D007 100 4 ³⁾ | C091 31D007 200 4 ³⁾ | C091 11D007 000 4 ³⁾ | | | |
| 7 ²⁾ | C091 31D107 100 4 ³⁾ | C091 31D107 200 4 ³⁾ | C091 11D107 000 4 ³⁾ | | | |
| 8 | C091 31D008 100 4 | C091 31D008 200 4 | C091 11D008 000 4 | | | |
| 12 | C091 31D012 100 4 ³⁾ | C091 31D012 200 4 ³⁾ | C091 11D012 000 4 ³⁾ | | | |
| 14 | C091 31D014 100 4 ³⁾ | C091 31D014 200 4 ³⁾ | C091 11D014 000 4 ³⁾ | | | |
| 3 | C091 31D003 101 4 ³⁾ | C091 31D003 201 4 ³⁾ | C091 11D003 001 4 ³⁾ | | | <p>for cable diameter 6-8 mm</p> |
| 4 | C091 31D004 101 4 | C091 31D004 201 4 | C091 11D004 001 4 | | | |
| 5 | C091 31D005 101 4 ³⁾ | C091 31D005 201 4 ³⁾ | C091 11D005 001 4 ³⁾ | | | |
| 5S ²⁾ | C091 31D105 101 4 ³⁾ | C091 31D105 201 4 ³⁾ | C091 11D105 001 4 ³⁾ | | | |
| 6 | C091 31D006 101 4 ³⁾ | C091 31D006 201 4 ³⁾ | C091 11D006 001 4 ³⁾ | | | |
| 7 | C091 31D007 101 4 ³⁾ | C091 31D007 201 4 ³⁾ | C091 11D007 001 4 ³⁾ | | | |
| 7 ²⁾ | C091 31D107 101 4 ³⁾ | C091 31D107 201 4 ³⁾ | C091 11D107 001 4 ³⁾ | | | |
| 8 | C091 31D008 101 4 | C091 31D008 201 4 | C091 11D008 001 4 | | | |
| 12 | C091 31D012 101 4 ³⁾ | C091 31D012 201 4 ³⁾ | C091 11D012 001 4 ³⁾ | | | |
| 14 | C091 31D014 101 4 ³⁾ | C091 31D014 201 4 ³⁾ | C091 11D014 001 4 ³⁾ | | | |
| 3 | C091 31D003 102 4 ³⁾ | C091 31D003 202 4 ³⁾ | C091 11D003 002 4 ³⁾ | <p>for cable diameter 8-10,5 mm</p> | | |
| 4 | C091 31D004 102 4 | C091 31D004 202 4 | C091 11D004 002 4 | | | |
| 5 | C091 31D005 102 4 ³⁾ | C091 31D005 202 4 ³⁾ | C091 11D005 002 4 ³⁾ | | | |
| 5S ²⁾ | C091 31D105 102 4 ³⁾ | C091 31D105 202 4 ³⁾ | C091 11D105 002 4 ³⁾ | | | |
| 6 | C091 31D006 102 4 ³⁾ | C091 31D006 202 4 ³⁾ | C091 11D006 002 4 ³⁾ | | | |
| 7 | C091 31D007 102 4 ³⁾ | C091 31D007 202 4 ³⁾ | C091 11D007 002 4 ³⁾ | | | |
| 7 ²⁾ | C091 31D107 102 4 ³⁾ | C091 31D107 202 4 ³⁾ | C091 11D107 002 4 ³⁾ | | | |
| 8 | C091 31D008 102 4 | C091 31D008 202 4 | C091 11D008 002 4 | | | |
| 12 | C091 31D012 102 4 ³⁾ | C091 31D012 202 4 ³⁾ | C091 11D012 002 4 ³⁾ | | | |
| 14 | C091 31D014 102 4 ³⁾ | C091 31D014 202 4 ³⁾ | C091 11D014 002 4 ³⁾ | | | |

Assembly instruction



C091D+ connectors are fully intermateable with C091D connectors.
Receptacles to mate with C091D+ can be found in section C091D.