

# FC 4-PCB/6 - Connector



1080100

<https://www.phoenixcontact.com/sg/products/1080100>

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PCB header, 6-pos.

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1080100       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | *****         |
| Product key                          | BE643X        |
| GTIN                                 | 4055626801353 |
| Weight per piece (including packing) | 28.74 g       |
| Weight per piece (excluding packing) | 22.22 g       |
| Customs tariff number                | 85366990      |
| Country of origin                    | PL            |

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## Technical data

### Product properties

|                     |      |
|---------------------|------|
| Product type        | Plug |
| Number of positions | 6    |
| Number of rows      | 1    |
| Potentials          | 6    |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Electrical properties

|                                                 |        |
|-------------------------------------------------|--------|
| Rated surge voltage                             | 4 kV   |
| Maximum power dissipation for nominal condition | 0.77 W |

### Connection data

|                         |                     |
|-------------------------|---------------------|
| Nominal cross section   | 2.5 mm <sup>2</sup> |
| Rated cross section AWG | 14                  |

### Level 1

|                                         |                                             |
|-----------------------------------------|---------------------------------------------|
| Connection in acc. with standard        | IEC 61984                                   |
| Conductor cross section rigid           | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Cross section AWG                       | 20 ... 14 (converted acc. to IEC)           |
| Conductor cross section flexible        | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section, flexible [AWG] | 20 ... 14 (converted acc. to IEC)           |
| Nominal current                         | 15 A                                        |
| Maximum load current                    | 15 A                                        |
| Nominal voltage                         | 320 V                                       |

### Dimensions

|        |         |
|--------|---------|
| Width  | 53.4 mm |
| Height | 29.1 mm |
| Depth  | 34.3 mm |

### Material specifications

|                                                                         |                 |
|-------------------------------------------------------------------------|-----------------|
| Color                                                                   | gray (RAL 7042) |
| Flammability rating according to UL 94                                  | V0              |
| Insulating material group                                               | I               |
| Insulating material                                                     | PA              |
| Static insulating material application in cold                          | -60 °C          |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °C          |
| Relative insulation material temperature index (Elec., UL 746 B)        | 130 °C          |
| Fire protection for rail vehicles (DIN EN 45545-2) R22                  | HL 1 - HL 3     |

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|                                                         |             |
|---------------------------------------------------------|-------------|
| Fire protection for rail vehicles (DIN EN 45545-2) R23  | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24  | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R26  | HL 1 - HL 3 |
| Calorimetric heat release NFPA 130 (ASTM E 1354)        | 28 MJ/kg    |
| Surface flammability NFPA 130 (ASTM E 162)              | passed      |
| Specific optical density of smoke NFPA 130 (ASTM E 662) | passed      |
| Smoke gas toxicity NFPA 130 (SMP 800C)                  | passed      |

## Electrical tests

|                                                  |             |
|--------------------------------------------------|-------------|
| Short-time withstand current 2.5 mm <sup>2</sup> | 0.01 kA     |
| Result                                           | Test passed |

## Mechanical properties

### Mechanical data

|                 |    |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

## Environmental and real-life conditions

### Service life

|                             |     |
|-----------------------------|-----|
| Insertion/withdrawal cycles | 100 |
|-----------------------------|-----|

### Needle-flame test

|                  |             |
|------------------|-------------|
| Time of exposure | 30 s        |
| Result           | Test passed |

### Oscillation/broadband noise

|                 |                                       |
|-----------------|---------------------------------------|
| Specification   | DIN EN 60255-21-1:1996-05 (following) |
| Frequency       | 10 Hz ... 150 Hz                      |
| Acceleration    | 1g (84.2 Hz ... 150 Hz)               |
| Test directions | X-, Y- and Z-axis                     |
| Result          | Test passed                           |

### Shocks

|                                |                                       |
|--------------------------------|---------------------------------------|
| Specification                  | DIN EN 60255-21-1:1996-05 (following) |
| Pulse shape                    | Half-sine                             |
| Acceleration                   | 30g                                   |
| Shock duration                 | 11 ms                                 |
| Number of shocks per direction | 3                                     |
| Test directions                | X-, Y- and Z-axis (pos. and neg.)     |
| Result                         | Test passed                           |

### Ambient conditions

|                                         |                                                                           |
|-----------------------------------------|---------------------------------------------------------------------------|
| Ambient temperature (operation)         | -60 °C ... 105 °C (max. short-term operating temperature RTI Elec.)       |
| Ambient temperature (storage/transport) | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C) |
| Ambient temperature (assembly)          | -5 °C ... 70 °C                                                           |

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|                                          |                 |
|------------------------------------------|-----------------|
| Ambient temperature (actuation)          | -5 °C ... 70 °C |
| Permissible humidity (storage/transport) | 30 % ... 70 %   |

## Standards and regulations

|                                  |           |
|----------------------------------|-----------|
| Connection in acc. with standard | IEC 61984 |
|----------------------------------|-----------|

## Mounting

|               |              |
|---------------|--------------|
| Mounting type | PCB mounting |
|---------------|--------------|

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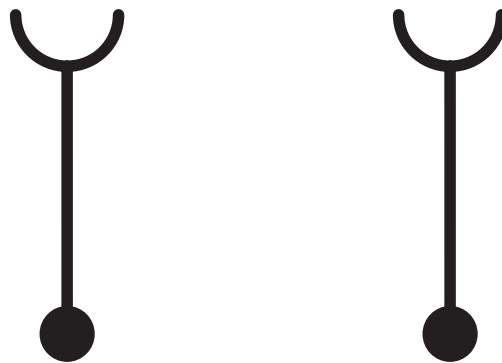
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## Drawings

### Circuit diagram



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## Approvals

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**CSA**

Approval ID: 13631



**cULus Recognized**

Approval ID: E60425



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27141133 |
| ECLASS-12.0 | 27141133 |
| ECLASS-13.0 | 27250301 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000886 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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## Environmental product compliance

### EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

### China RoHS

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|                                        | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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