

# SC 4/ 5 - COMBI coupling

3042489

<https://www.phoenixcontact.com/us/products/3042489>

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COMBI coupling, nom. voltage: 800 V, nominal current: 32 A, number of connections: 2, number of positions: 5, connection method: Spring-cage connection, Rated cross section: 4 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup> - 6 mm<sup>2</sup>, color: gray

## Your advantages

- Standard strain relief can be used
- Tested for railway applications

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 3042489       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | BE02          |
| Product key                          | BE2145        |
| GTIN                                 | 4046356012621 |
| Weight per piece (including packing) | 26.79 g       |
| Weight per piece (excluding packing) | 26.79 g       |
| Customs tariff number                | 85366990      |
| Country of origin                    | PL            |

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## Technical data

### Notes

#### General

|      |   |
|------|---|
| Note | With a free-hanging connection, an insulating foil has to be placed between the plug connection and electrically conductive surfaces. |
|------|---|

### Product properties

|                       |                   |
|-----------------------|-------------------|
| Product type          | Terminal coupling |
| Area of application   | Railway industry  |
|                       | Machine building  |
|                       | Plant engineering |
| Number of positions   | 5                 |
| Pitch                 | 6.2 mm            |
| Number of connections | 2                 |
| Number of rows        | 1                 |

#### Insulation characteristics

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

### Electrical properties

|   |        |
|---|--------|
| Rated surge voltage                             | 8 kV   |
| Maximum power dissipation for nominal condition | 1.02 W |

### Connection data

|   |   |
|---|---|
| Nominal cross section   | 4 mm <sup>2</sup>                                     |
| Connection method   | Spring-cage connection                                |
| Stripping length  | 8 mm ... 10 mm  |
| Internal cylindrical gage   | A4  |
| Connection in acc. with standard  | IEC 61984   |
| Conductor cross-section rigid   | 0.08 mm <sup>2</sup> ... 6 mm <sup>2</sup>            |
| Cross section AWG   | 28 ... 10 (converted acc. to IEC)                     |
| Conductor cross-section flexible  | 0.08 mm <sup>2</sup> ... 4 mm <sup>2</sup>            |
| Conductor cross-section, flexible [AWG]   | 28 ... 12 (converted acc. to IEC)                     |
| Conductor cross-section flexible (ferrule without plastic sleeve)                         | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>            |
| Flexible conductor cross-section (ferrule with plastic sleeve)                            | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>            |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup>             |
| Nominal cross section   | 4 mm <sup>2</sup>                                     |
| Nominal current   | 32 A  |
| Maximum load current  | 32 A (with 6 mm <sup>2</sup> conductor cross-section) |
| Nominal voltage   | 800 V   |

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## Dimensions

|                 |         |
|-----------------|---------|
| Width           | 31 mm   |
| End cover width | 3.2 mm  |
| Height          | 48.6 mm |
| Depth           | 22.3 mm |
| Pitch           | 6.2 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          |
| 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     |
| 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     |
| 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

### Surge voltage test

|  |             |
|--|-------------|
| Result   | Test passed |
| Short-time withstand current 4 mm <sup>2</sup> | 0.48 kA     |
| Result   | Test passed |

### Power-frequency withstand voltage

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 2 kV        |
| Result                | Test passed |

## Mechanical properties

### Mechanical data

|                 |     |
|-----------------|-----|
| Open side panel | Yes |
|-----------------|-----|

## Mechanical tests

### Attachment on the carrier

|        |             |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

## Environmental and real-life conditions

### Needle-flame test

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

## Oscillation/broadband noise

|                        |  |
|------------------------|--|
| Specification          | DIN EN 50155 (VDE 0115-200):2018-05              |
| Spectrum               | Long life test category 1, class B, body mounted |
| Frequency              | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$   |
| ASD level              | $0.964 \text{ (m/s}^2\text{)}^2\text{/Hz}$       |
| Acceleration           | 0.58g  |
| Test duration per axis | 5 h  |
| Test directions        | X-, Y- and Z-axis                                |
| Result                 | Test passed                                      |

## Shocks

|                                |                                   |
|--------------------------------|-----------------------------------|
| Pulse shape                    | Half-sine                         |
| Acceleration                   | 5g                                |
| Shock duration                 | 30 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 ... 110 °C  |
| 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  |
| Ambient temperature (actuation)          | -5 °C ... 70 °C  |
| Permissible humidity (operation)         | 20 % ... 90 % (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.) |
| Permissible humidity (storage/transport) | 30 % ... 70 %  |

## Standards and regulations

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

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## Drawings

Diagram



Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3042489>

|  <b>cULus Recognized</b><br>Approval ID: E60425 |                       |                       |                   |                      |
|--|-----------------------|-----------------------|-------------------|----------------------|
|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
| B  | 600 V                 | 30 A                  | 28 - 10           | -                    |
| C  | 600 V                 | 30 A                  | 28 - 10           | -                    |

|  <b>EAC</b><br>Approval ID: KZ7500651131219505 |  |
|---|--|
|---|--|

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27250306 |
| ECLASS-15.0 | 27250306 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC002021 |
|-----------|----------|

### 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% |
|-------------------------------------|----------------------------|

### EF3.1 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 0.146 kg CO2e |
|---------|---------------|

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)