

PP-H 2,5/10 - Plug

3209950

<https://www.phoenixcontact.com/us/products/3209950>

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Plug, nom. voltage: 500 V, nominal current: 24 A, number of connections: 10, number of positions: 10, connection method: Push-in connection, Rated cross section: 2.5 mm², 1 level, cross section: 0.14 mm² - 4 mm², color: gray

Your advantages

- Large-surface labeling option
- The Push-in technology COMBI plugs for self-assembly provide solutions that users can implement themselves
- Tested for railway applications

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 3209950 |
| Packing unit | 25 pc |
| Minimum order quantity | 25 pc |
| Sales key | BE22 |
| Product key | BE2244 |
| GTIN | 4046356366847 |
| Weight per piece (including packing) | 33.94 g |
| Weight per piece (excluding packing) | 30.996 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

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Technical data

Notes

| | |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notes on operation | COMBI connectors are connectors without switching power in accordance with IEC 61984 and can be connected or disconnected without load or voltage when used as intended |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Product properties

| | |
|-----------------------|-------------------|
| Product type | Terminal plug |
| Area of application | Railway industry |
| | Machine building |
| | Plant engineering |
| Number of positions | 10 |
| Pitch | 5.2 mm |
| Number of connections | 10 |
| Number of rows | 1 |
| Potentials | 1 |

Insulation characteristics

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

Electrical properties

| | |
|-------------------------------------------------|--------|
| Rated surge voltage | 6 kV |
| Maximum power dissipation for nominal condition | 0.77 W |

Connection data

| | |
|---------------------------------|---------------------|
| Number of connections per level | 10 |
| Nominal cross section | 2.5 mm ² |

1 level

| | |
|-------------------------------------------------------------------------------------------|----------------------------------------------|
| Connection method | Push-in connection |
| Stripping length | 8 mm ... 10 mm |
| Internal cylindrical gage | A3 |
| Connection in acc. with standard | IEC 61984 |
| Conductor cross-section rigid | 0.14 mm ² ... 4 mm ² |
| Cross section AWG | 26 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section, flexible [AWG] | 26 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm ² ... 2.5 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.14 mm ² ... 2.5 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² |
| Nominal cross section | 2.5 mm ² |
| Nominal current | 24 A |

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| | |
|----------------------|-------------------------------------------------------|
| Maximum load current | 24 A (with 4 mm ² conductor cross-section) |
| Nominal voltage | 500 V |

1 level Connection cross sections directly pluggable

| | |
|-------------------------------------------------------------------|----------------------------------------------|
| Conductor cross-section rigid | 0.34 mm ² ... 4 mm ² |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm ² ... 2.5 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.34 mm ² ... 2.5 mm ² |

Dimensions

| | |
|--------|---------|
| Width | 52 mm |
| Height | 15.8 mm |
| Depth | 40.2 mm |
| Pitch | 5.2 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 |
| 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 |
| 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 |

Mechanical properties

Mechanical data

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

Environmental and real-life conditions

Ambient conditions

| | |
|-----------------------------------------|---------------------------------------------------------------------------|
| Ambient temperature (operation) | -60 °C (max. operating temperature see derating curve) |
| 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 % |

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| | |
|------------------------------------------|---------------|
| Permissible humidity (storage/transport) | 30 % ... 70 % |
|------------------------------------------|---------------|

Standards and regulations

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

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Drawings

Schematic diagram



Diagram



Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3209950>

|  CSA Approval ID: 158887 | | | | |
|---------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| C | | | | |
| | 300 V | 20 A | 26 - 12 | - |

|  cULus Recognized Approval ID: E60425 | | | | |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| C | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| D | | | | |
| | 600 V | 5 A | 26 - 12 | - |

|  LR Approval ID: LR2371832TA | | | | |
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|  NK Approval ID: 14ME0912 | | | | |
|------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|  BV Approval ID: 25278/C1 BV | | | | |
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

| ABS Approval ID: 21-2192245-PDA | | | | |
|-------------------------------------------|--|--|--|--|
|-------------------------------------------|--|--|--|--|

| DNV Approval ID: TAE000010T | | | | |
|---------------------------------------|--|--|--|--|
|---------------------------------------|--|--|--|--|

|  EAC 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 | 0.347 kg CO2e |
|---------|---------------|

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