

SPB 2,5/ 1-R - Plug

3043161

<https://www.phoenixcontact.com/us/products/3043161>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 2.5 mm², cross section: 0.08 mm²- 4 mm², color: gray

Product description

Connector element right, left housing with engagement pin, right closed with cover

Your advantages

- Plug with bridging option, for use with basic terminal blocks
- The plug with spring-cage connection is assembled directly on site by snapping together single-position plug elements
- The ST-COMBI plugs for self-assembly provide solutions that users can implement themselves

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 3043161 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | BE02 |
| Product key | BE2144 |
| GTIN | 4017918895020 |
| Weight per piece (including packing) | 3.71 g |
| Weight per piece (excluding packing) | 3.653 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

SPB 2,5/ 1-R - Plug



3043161

<https://www.phoenixcontact.com/us/products/3043161>

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 |
| Number of positions | 1 |
| Pitch | 5.2 mm |
| Potentials | 1 |

Insulation characteristics

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

Electrical properties

| | |
|---------------------|------|
| Rated surge voltage | 6 kV |
|---------------------|------|

Connection data

| | |
|---|---|
| Nominal cross section | 2.5 mm ² |
| Connection method | Spring-cage connection |
| Stripping length | 8 mm ... 10 mm |
| Internal cylindrical gage | A3 |
| Connection in acc. with standard | IEC 61984 |
| Conductor cross-section rigid | 0.08 mm ² ... 4 mm ² |
| Cross section AWG | 28 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.08 mm ² ... 2.5 mm ² |
| Conductor cross-section, flexible [AWG] | 28 ... 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 |
| Maximum load current | 24 A (with 4 mm ² conductor cross-section) |
| Nominal voltage | 500 V |

Dimensions

| | |
|--------|--------|
| Width | 5.2 mm |
| Height | 20 mm |
| Depth | 39 mm |
| Length | 20 mm |
| Pitch | 5.2 mm |

SPB 2,5/ 1-R - Plug



3043161

<https://www.phoenixcontact.com/us/products/3043161>

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 |

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

Standards and regulations

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

SPB 2,5/ 1-R - Plug

3043161

<https://www.phoenixcontact.com/us/products/3043161>



Drawings

Schematic diagram





Derating curve for ST 2,5/ 1P, ST 2,5/ 2P, ST 2,5-TWIN/ 1P and for all plug versions SP... .



Derating curve for ST 2,5-TWIN-MT/1P, ST 2,5-TWIN-TG/1P and for all plug versions SP... .



Derating curve for ST 2,5-QUATTRO/2P, ST 2,5-QUATTRO/4P and for all plug versions SP...



Derating curve for STTB 2,5/ 2P, STTB 2,5/ 2P-PV and for all plug versions SP...

SPB 2,5/ 1-R - Plug

3043161

<https://www.phoenixcontact.com/us/products/3043161>



Derating curve for ST 2,5-4L/1P, ST 2,5-4L/2P and for all plug versions SP...

Circuit diagram



SPB 2,5/ 1-R - Plug



3043161

<https://www.phoenixcontact.com/us/products/3043161>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3043161>

|  CSA Approval ID: 13631 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 300 V | 20 A | 28 - 12 | - |
| C | 300 V | 20 A | 28 - 12 | - |
| D | 600 V | 5 A | 28 - 12 | - |

|  IECEE CB Scheme Approval ID: DE1-62736/B1/B2 | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

|  VDE Zeichengenehmigung Approval ID: 40019518 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| Only flexible conductors | 500 V | - | - | 0.2 - 2.5 |
| Only rigid conductors | 500 V | - | - | 0.2 - 4 |

|  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 | - |

| DNV Approval ID: TAE00001CS | | | | |
|---------------------------------------|--|--|--|--|
|---------------------------------------|--|--|--|--|

|  EAC Approval ID: KZ7500651131219505 | | | | |
|---|--|--|--|--|
|---|--|--|--|--|

SPB 2,5/ 1-R - Plug

3043161

<https://www.phoenixcontact.com/us/products/3043161>



SPB 2,5/ 1-R - Plug

3043161

<https://www.phoenixcontact.com/us/products/3043161>



Classifications

ECLASS

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

ETIM

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

UNSPSC

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

SPB 2,5/ 1-R - Plug



3043161

<https://www.phoenixcontact.com/us/products/3043161>

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 | 0.03 kg CO2e |
|---------|--------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

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