

# PPC 2,5/1-L - COMBI coupling



3000653

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COMBI coupling, nom. voltage: 500 V, nominal current: 24 A, number of connections: 1, number of positions: 1, connection method: Push-in connection, Rated cross section: 2.5 mm<sup>2</sup>, 1 level, cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, color: gray

## Your advantages

- For secure and space-saving accommodation of plug-in contacts in cable ducts and distributor shafts
- The Push-in technology COMBI couplings for self-assembly provide solutions that users can implement themselves

## Commercial data

Item number	3000653
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE22
Product key	BE2245
GTIN	4046356676687
Weight per piece (including packing)	3.712 g
Weight per piece (excluding packing)	3.66 g
Customs tariff number	85366990
Country of origin	PL

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## Technical data

### Product properties

Product type	Terminal coupling
Number of positions	1
Pitch	5.2 mm
Number of connections	1
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

Nominal cross section	2.5 mm <sup>2</sup>
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#### 1 level

Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3 B3
Connection in acc. with standard	IEC 61984
Conductor cross-section rigid	0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section, flexible [AWG]	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup>
Nominal cross section	2.5 mm <sup>2</sup>
Nominal current	24 A (observe derating)
Maximum load current	24 A (with a 2.5 mm <sup>2</sup> conductor cross-section)
Nominal voltage	500 V

#### 1 level Connection cross sections directly pluggable

Conductor cross-section rigid	0.34 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Flexible conductor cross-section (ferrule with plastic sleeve)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>

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## Dimensions

Width	5.2 mm
Height	20.5 mm
Depth	41 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))	125 °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)	27,5 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

### Surge voltage test

Test voltage setpoint	7.3 kV
Result	Test passed
Short-time withstand current 2.5 mm <sup>2</sup>	0.3 kA
Result	Test passed

### Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

## Mechanical properties

### Mechanical data

Open side panel	Yes
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## Environmental and real-life conditions

### Needle-flame test

Time of exposure	30 s
Result	Test passed

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## Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
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

Specification	DIN EN 50155 (VDE 0115-200):2008-03
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 (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
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## Mounting

Assembly note	Use of a parallel pressing tool is recommended for easy latching of the COMBI connector and coupling elements for self-assembly
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## Drawings

### Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3000653>

 <b>CSA</b> Approval ID: 13631				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B	300 V	20 A	26 - 12	-
C	300 V	20 A	26 - 12	-

 <b>cULus Recognized</b> Approval ID: E60425				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B	300 V	20 A	26 - 12	-
C	300 V	20 A	26 - 12	-

 <b>EAC</b> Approval ID: KZ7500651131219505				
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## Classifications

### ECLASS

ECLASS-13.0	27250306
ECLASS-15.0	27250306

### ETIM

ETIM 10.0	EC002021
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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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### EF3.1 Climate Change

CO2e kg	0.03 kg CO2e
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