

# PPC 6-NS/1-L - COMBI coupling



3000689

<https://www.phoenixcontact.com/us/products/3000689>

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COMBI coupling, nom. voltage: 1000 V, nominal current: 41 A, number of connections: 2, number of positions: 1, connection method: Push-in connection, 1 level, Rated cross section: 6 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 10 mm<sup>2</sup>, mounting type: NS 35/15, NS 35/7,5, color: gray

## Your advantages

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

## Commercial data

Item number	3000689
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE22
Product key	BE2245
Catalog page	Page 351 (C-1-2019)
GTIN	4046356751827
Weight per piece (including packing)	9.511 g
Weight per piece (excluding packing)	9.19 g
Customs tariff number	85366990
Country of origin	PL

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## Technical data

### Product properties

Product type	Terminal coupling
Area of application	Railway industry
	Machine building
	Plant engineering
Number of positions	1
Pitch	8.2 mm
Number of connections	2
Number of rows	1
Potentials	1

### Data management status

Article revision	02
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### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	1.31 W

### Connection data

Nominal cross section	6 mm <sup>2</sup>
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#### 1 level

Stripping length	12 mm
Internal cylindrical gage	A5
Connection in acc. with standard	IEC 61984
Conductor cross section rigid	0.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Cross section AWG	20 ... 8 (converted acc. to IEC)
Conductor cross section flexible	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	20 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Nominal current	41 A
Maximum load current	41 A (with 6 mm <sup>2</sup> conductor cross section)
Nominal voltage	1000 V
Nominal cross section	6 mm <sup>2</sup>

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1 level Connection cross sections directly pluggable

Conductor cross section rigid	1 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Conductor cross-section flexible (ferrule without plastic sleeve)	1 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	1 mm <sup>2</sup> ... 6 mm <sup>2</sup>

## Dimensions

Width	8.2 mm
End cover width	2.2 mm
Height	43 mm
Depth on NS 15	38 mm
Depth on NS 35/7,5	38 mm
Depth on NS 35/15	45.5 mm
Pitch	8.2 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	9.8 kV
Result	Test passed
Short-time withstand current 6 mm <sup>2</sup>	0.72 kA
Result	Test passed

### Power-frequency withstand voltage

Test voltage setpoint	4.26 kV
Result	Test passed

## Mechanical properties

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## Mechanical data

Open side panel	Yes
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## Mechanical tests

### Attachment on the carrier

DIN rail/fixing support	NS 35
Test force setpoint	5 N
Result	Test passed
Note	In order to guarantee the leading and lagging PE contact, a PE contact (Art. No. 3000692) has to be installed on the outer positions from and including five positions.

## Environmental and real-life conditions

### Needle-flame test

Time of exposure	30 s
Result	Test passed

### Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Service 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, no longer than 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 %

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## Standards and regulations

Connection in acc. with standard	IEC 61984
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## Mounting

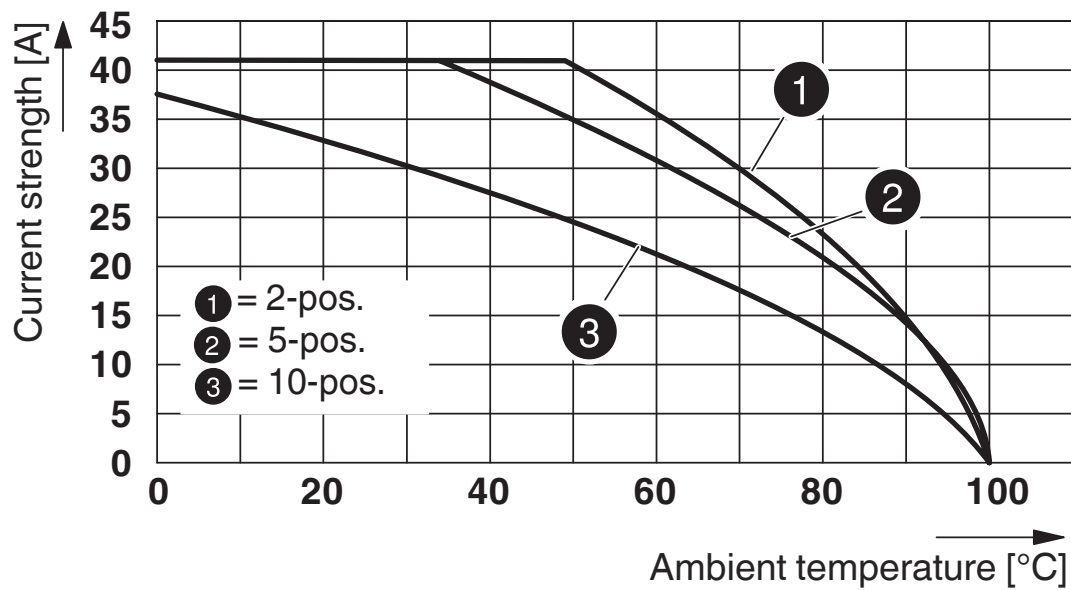
Mounting type	NS 35/15
	NS 35/7,5
Assembly note	Use of a parallel pressing tool is recommended for easy latching of the COMBI connector and coupling elements for self-assembly

## Drawings

Circuit diagram



Diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3000689>

### DNV

Approval ID: TAE000015D



### CSA

Approval ID: 13631

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	600 V	36 A	20 - 8	-
Use group C	600 V	36 A	20 - 8	-



### IECEE CB Scheme

Approval ID: DE1-64372\_B1\_B2

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	1000 V	-	-	-



### EAC

Approval ID: RU C-DE.BL08.B.00511



### cULus Recognized

Approval ID: E60425



### VDE Zeichengenehmigung

Approval ID: 40043445

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	1000 V	-	-	0.5 - 6



### cULus Recognized

Approval ID: E60425

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## Classifications

### ECLASS

ECLASS-11.0	27141151
ECLASS-12.0	27141151
ECLASS-13.0	27250306

### ETIM

ETIM 9.0	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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