

# COMBI receptacle - SC 2,5/ 1-L OG



3042190

<https://www.phoenixcontact.com/de/produkte/3042190>

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COMBI receptacle, nom. voltage: 500 V, nominal current: 24 A, connection method: Spring-cage connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup> - 4 mm<sup>2</sup>, color: orange

## Your advantages

- The ST-COMBI couplings for self-assembly provide solutions that users can implement themselves
- Tested for railway applications
- The coupling is assembled directly on site by snapping together single-position coupling elements

## Commercial Data

Item number	3042190
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	A1 - Reihenklemmen
Product Key	BE2145
GTIN	4055626139821
Weight per Piece (including packing)	2,847 g
Weight per Piece (excluding packing)	2,5 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
Area of application	Railway industry
	Machine building
	Plant engineering
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>
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 61984
Conductor cross section solid	0.08 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.08 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	28 ... 14 (converted acc. to IEC)
Flexible conductor cross section flexible (ferrule, w/o 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 current	24 A
Maximum load current	24 A (with 4 mm <sup>2</sup> conductor cross section)
Nominal voltage	500 V
Nominal cross section	2.5 mm <sup>2</sup>

### Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	21.8 mm
Length	37.2 mm

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Pitch	5.2 mm
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## Material specifications

Color	orange
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

## 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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## Mechanical tests

### Attachment on the carrier

DIN rail/fixing support	Metal wall 6 mm
Test force setpoint	1 N
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):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 ... 105 °C (max. short-term operating temperature RTI Elec.)
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 (storage/transport)	30 % ... 70 %

## Standards and regulations

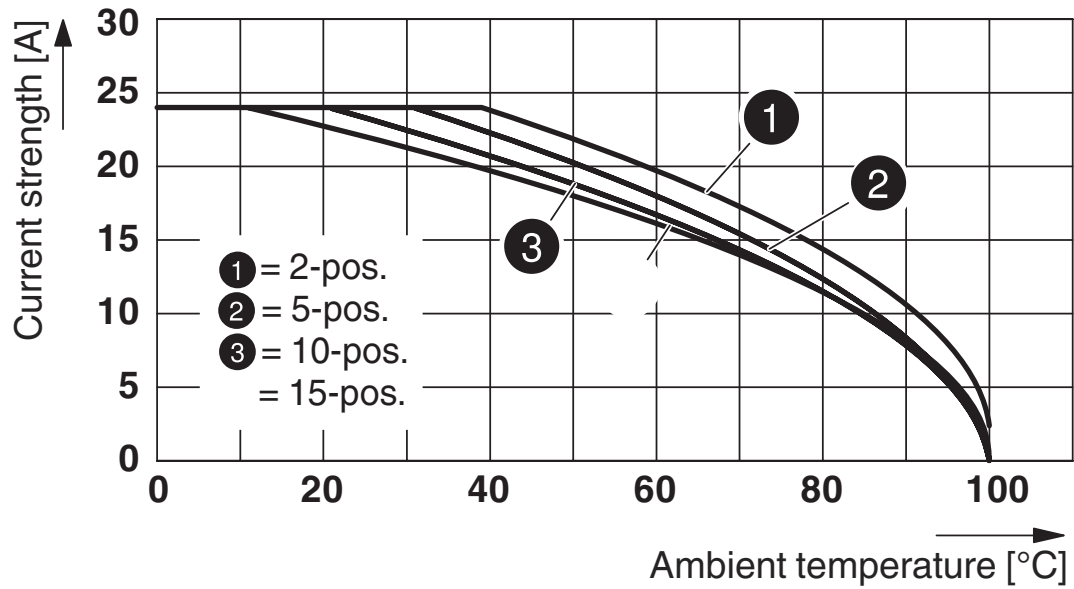
Connection in acc. with standard	IEC 61984
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## Mounting

Assembly instructions	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

Diagram



Circuit diagram



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## Approvals



**EAC**

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



**RS**

Approval ID: 22.44.01.00083.250



**BV**

Approval ID: 27721/B0 BV

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
			-	-



**cULus Recognized**

Approval ID: E60425

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B				
	300 V	20 A	28 - 12	-
Use group C				
	300 V	20 A	28 - 12	-

**DNV**

Approval ID: TAE00001CS

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
			-	-

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## Classifications

### ECLASS

ECLASS-9.0	27141106
ECLASS-10.0.1	27141106
ECLASS-11.0	27141106

### ETIM

ETIM 8.0	EC001284
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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