

SC 4/ 1-L - COMBI coupling

3042599

<https://www.phoenixcontact.com/us/products/3042599>

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COMBI coupling, nom. voltage: 800 V, nominal current: 32 A, number of connections: 2, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 4 mm², cross section: 0.08 mm² - 6 mm², color: gray

Your advantages

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

Commercial data

Item number	3042599
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2145
GTIN	4046356012737
Weight per piece (including packing)	5.57 g
Weight per piece (excluding packing)	5.57 g
Customs tariff number	85366990
Country of origin	PL

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Technical data

Notes

General

Note	With a free-hanging connection, an insulating foil has to be placed between the plug connection and electrically conductive surfaces.
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Product properties

Product type	Terminal coupling
Area of application	Railway industry
	Machine building
	Plant engineering
Number of positions	1
Pitch	6.2 mm
Number of connections	2
Number of rows	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	1.02 W

Connection data

Nominal cross section	4 mm ²
Connection method	Spring-cage connection
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A4
Connection in acc. with standard	IEC 61984
Conductor cross-section rigid	0.08 mm ² ... 6 mm ²
Cross section AWG	28 ... 10 (converted acc. to IEC)
Conductor cross-section flexible	0.08 mm ² ... 4 mm ²
Conductor cross-section, flexible [AWG]	28 ... 12 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 4 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm ² ... 4 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1 mm ²
Nominal cross section	4 mm ²
Nominal current	32 A
Maximum load current	32 A (with 6 mm ² conductor cross-section)
Nominal voltage	800 V

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Dimensions

Width	6.2 mm
End cover width	3.2 mm
Height	48.6 mm
Depth	22.3 mm
Pitch	6.2 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

Electrical tests

Surge voltage test

Result	Test passed
Short-time withstand current 4 mm ²	0.48 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes
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Mechanical tests

Attachment on the carrier

Result	Test passed
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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):2018-05
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

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

Diagram



Circuit diagram



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Approvals

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 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	600 V	30 A	28 - 10	-
C	600 V	30 A	28 - 10	-

 EAC 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	0.028 kg CO2e
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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com