

# CP 2,5-4L-Z - Connector housing



3041943

<https://www.phoenixcontact.com/us/products/3041943>

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Connector housing, nom. voltage: 250 V, nominal current: 10 A, number of connections: 4, number of positions: 4, connection method: Crimp connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, mounting type: Plug-in mounting, color: gray

## Your advantages

- Can be labeled at each terminal point
- Four feed-through levels
- Design width of just 5.2 mm

## Commercial data

Item number	3041943
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2144
GTIN	4017918975302
Weight per piece (including packing)	2.116 g
Weight per piece (excluding packing)	1.749 g
Customs tariff number	85389099
Country of origin	DE

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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 plug
Number of positions	4
Number of connections	4
Number of rows	1
Potentials	4

#### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Electrical properties

Rated surge voltage	4 kV
Maximum power dissipation for nominal condition	0.77 W

### Connection data

Number of connections per level	4
Nominal cross section	2.5 mm <sup>2</sup>
Connection method	Crimp connection
Stripping length	10 mm
Connection in acc. with standard	IEC 61984
Conductor cross-section rigid	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Cross section AWG	20 ... 14 (converted acc. to IEC)
Conductor cross-section flexible	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section, flexible [AWG]	20 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Nominal cross section	2.5 mm <sup>2</sup>
Nominal current	10 A
Maximum load current	10 A (with a 2.5 mm <sup>2</sup> conductor cross-section)
Nominal voltage	250 V

### Dimensions

Width	5.2 mm
Height	23.5 mm
Depth	13 mm
Drill hole spacing	6.15 mm

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## 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

Result	Test passed
Short-time withstand current 1 mm <sup>2</sup>	0.12 kA
Result	Test passed

### Power-frequency withstand voltage

Test voltage setpoint	1.5 kV
Result	Test passed

## Mechanical properties

### Mechanical data

Open side panel	No
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### Technical data

Drill hole spacing	6.15 mm
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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

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## Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2022-06
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

Mounting type	Plug-in mounting
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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3041943>

 <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	10 A	20 - 14	-
D	300 V	10 A	20 - 14	-

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

### ECLASS

ECLASS-13.0	27440202
ECLASS-15.0	27440202

### ETIM

ETIM 10.0	EC000437
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### UNSPSC

UNSPSC 21.0	31261500
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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	0.021 kg CO2e
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