

# UKH 70/4X10 - Potential collective terminal



3213142

<https://www.phoenixcontact.com/pc/products/3213142>

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Potential collective terminal, nom. voltage: 1500 V, nominal current: 192 A, number of connections: 5, number of positions: 1, connection method: Screw connection, cross section: 16 mm<sup>2</sup> - 95 mm<sup>2</sup>, Screw connection, cross section: 1.5 mm<sup>2</sup> - 16 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, NS 35/15-2,3, NS 32, color: gray

## Your advantages

- Reliable cable connection is ensured by three-point centering of the conductor in the prismatic sleeve base
- Low contact resistance of the contact surface due to ribbing
- Screw locking by means of spring-loaded elements in the clamping part

## Commercial data

Item number	3213142
Packing unit	10 pc
Minimum order quantity	1 pc
Product key	BE1311
Catalog page	Page 192 (C-1-2019)
GTIN	4046356813334
Weight per piece (including packing)	140.1 g
Weight per piece (excluding packing)	125.2 g
Customs tariff number	85369010
Country of origin	CN

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## Technical data

### Product properties

Product type	High current terminal block
Number of positions	1
Number of connections	5
Number of rows	1
Potentials	1

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	6.27 W

### Connection data

Number of connections per level	5
Nominal cross section	70 mm <sup>2</sup>
Rated cross section AWG	2/0

### Level 1 above 1

Screw thread	M8
Tightening torque	8 ... 10 Nm
Stripping length	24 mm
Internal cylindrical gage	A11
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	16 mm <sup>2</sup> ... 95 mm <sup>2</sup>
Cross section AWG	4 ... 3/0 (converted acc. to IEC)
Conductor cross section flexible	25 mm <sup>2</sup> ... 70 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	2 ... 2/0 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	16 mm <sup>2</sup> ... 70 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	16 mm <sup>2</sup> ... 70 mm <sup>2</sup>
2 conductors with same cross section, solid	16 mm <sup>2</sup> ... 25 mm <sup>2</sup>
2 conductors with the same cross-section AWG rigid	4 ... 3 (converted acc. to IEC)
2 conductors with same cross section, flexible	16 mm <sup>2</sup> ... 25 mm <sup>2</sup>
2 conductors with the same cross-section AWG flexible	4 ... 3 (converted acc. to IEC)
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	16 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Nominal current	192 A
Maximum load current	192 A (in case of a 70 mm <sup>2</sup> conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal voltage	1500 V DC

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	1000 V AC
Level 1+2+3+4 bottom	
Screw thread	M4
Tightening torque	1.4 ... 1.5 Nm
Stripping length	10 mm
Internal cylindrical gage	A5
Conductor cross section rigid	1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Cross section AWG	16 ... 6 (converted acc. to IEC)
Conductor cross section flexible	1.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	16 ... 6 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	1.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	1.5 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)	1.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with same cross section, solid	1.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with the same cross-section AWG rigid	16 ... 14 (converted acc. to IEC)
2 conductors with same cross section, flexible	1.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with the same cross-section AWG flexible	16 ... 14 (converted acc. to IEC)
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	1.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Nominal current	57 A
Nominal voltage	1500 V DC
	1000 V AC

## Dimensions

Width	20.3 mm
Height	88.5 mm
Depth	79.4 mm
Depth on NS 32	85 mm
Depth on NS 35/7,5	80 mm
Depth on NS 35/15	87.5 mm

## Material specifications

Color	gray
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

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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	9.8 kV
Result	Test passed

### Temperature-rise test

Requirement temperature-rise test	Increase in temperature $\leq 45$ K
Result	Test passed
Short-time withstand current 70 mm <sup>2</sup>	1.2 kA
Result	Test passed

### Power-frequency withstand voltage

Test voltage setpoint	2.2 kV AC
Result	Test passed

## Mechanical properties

### Mechanical data

Open side panel	No
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## Mechanical tests

### Mechanical strength

Result	Test passed
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### Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Test force setpoint	10 N
Result	Test passed

### Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	25 mm <sup>2</sup> / 4.5 kg
	70 mm <sup>2</sup> /10.4 kg
	95 mm <sup>2</sup> /14 kg
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 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	3.12g
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	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

## Ambient conditions

Ambient temperature (operation)	-60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
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 %

## Standards and regulations

Connection in acc. with standard	IEC 60947-7-1
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## Mounting

Mounting type	NS 35/7,5
	NS 35/15
	NS 35/15-2,3
	NS 32

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## Drawings

### Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/3213142>



**CSA**

Approval ID: 13631



**EAC**

Approval ID: RU C-DE.BL08.B.00534



**cULus Recognized**

Approval ID: E60425

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## Classifications

### ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

### ETIM

ETIM 9.0	EC000897
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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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