

UK 3 N BU - Feed-through terminal block



3001514

<https://www.phoenixcontact.com/ca/products/3001514>

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Feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, number of connections: 2, connection method: Screw connection, Rated cross section: 2.5 mm², cross section: 0.2 mm² - 4 mm², mounting type: NS 32, NS 35/15, NS 35/7,5, color: blue

Your advantages

- Universal foot which can be used on NS 35... and NS 32... DIN rails
- The UK universal screw terminal block series has the typical features which are decisive for practical applications
- Potential distribution via fixed bridges in the terminal center or insertion bridges in the clamping space

Commercial data

Item number	3001514
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE01
Product key	BE1211
Catalog page	Page 459 (C-1-2019)
GTIN	4017918089962
Weight per piece (including packing)	7.408 g
Weight per piece (excluding packing)	6.701 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	Feed-through terminal block
Number of connections	2
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	0.77 W

Connection data

Number of connections per level	2
Nominal cross section	2.5 mm ²

Level 1 above 1 below 1

Screw thread	M3
Tightening torque	0.6 ... 0.8 Nm
Stripping length	8 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.2 mm ² ... 4 mm ²
Cross section AWG	24 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm ² ... 1.5 mm ²
Cross-section with insertion bridge, rigid	4 mm ²
Cross-section with insertion bridge, flexible	2.5 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible	0.2 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1 mm ²
Nominal current	24 A
Maximum load current	32 A (with 4 mm ² conductor cross section)
Nominal voltage	800 V
Nominal cross section	2.5 mm ²

Ex data

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Rated data (ATEX/IECEX)

Identification	Ex II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3003020 D-UK 4/10
	3006027 D-UK 16
	3004210 ATP-UK 5-MTK
	1212587 SF-SL 0,6X3,5-100 S-VDE
	1201442 E/UK
List of bridges	Fixed bridge / FBR 2-5-EX / 0716129
	Fixed bridge / FBR 10-5-EX / 2303226
	Fixed bridge / FBR 80-5-EX / 3000942
Bridge data	18.5 A / 2.5 mm ²
List of bridges	Insertion bridge / EBL 2- 5 / 2303145
	Insertion bridge / EBL 3- 5 / 2303158
	Insertion bridge / EBL 4- 5 / 2303161
	Insertion bridge / EBL 5- 5 / 2303174
	Insertion bridge / EBL 6- 5 / 2303190
	Insertion bridge / EBL 10- 5 / 2303132
Bridge data	20 A / 2.5 mm ²
Ex temperature increase	40 K (24 A / 2.5 mm ²)
Rated voltage	690 V
- At bridging between non-adjacent terminal blocks	176 V
Rated insulation voltage	630 V
output	(Permanent)

Ex level General

Rated current	21.5 A
Maximum load current	27.5 A
Contact resistance	0.5 mΩ

Ex connection data General

Torque range	0.6 Nm ... 0.8 Nm
Nominal cross section	2.5 mm ²
Rated cross section AWG	14
Connection capacity rigid	0.2 mm ² ... 4 mm ²
Connection capacity AWG	24 ... 12
Connection capacity flexible	0.2 mm ² ... 2.5 mm ²
Connection capacity AWG	24 ... 14
2 conductors with same cross section, solid	0.2 mm ² ... 1.5 mm ²
2 conductors with the same cross-section AWG rigid	24 ... 16
2 conductors with same cross section, stranded	0.2 mm ² ... 1.5 mm ²
2 conductors with the same cross-section AWG flexible	24 ... 16

Dimensions

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Width	5.2 mm
End cover width	1.8 mm
Height	42.5 mm
Depth on NS 32	52 mm
Depth on NS 35/7,5	47 mm
Depth on NS 35/15	54.5 mm

Material specifications

Color	blue
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	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm ²	0.3 kA
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

Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.2 mm ² / 0.2 kg
	2.5 mm ² / 0.7 kg
	4 mm ² / 0.9 kg
Result	Test passed

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 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /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
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 ... 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

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	+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 32
	NS 35/15
	NS 35/7,5

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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ca/products/3001514>

DNV

Approval ID: TAE00001CT



CSA

Approval ID: 13631

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	600 V	20 A	28 - 12	-



IECEE CB Scheme

Approval ID: NL-39956_A1

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	800 V	24 A	-	- 2.5



cULus Recognized

Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	600 V	20 A	28 - 12	-
Use group C	600 V	20 A	28 - 12	-
Use group F	800 V	20 A	28 - 12	-



KEMA-KEUR

Approval ID: 71-119849

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	800 V	24 A	-	- 2.5



ATEX

Approval ID: KEMA98ATEX1651U



cUL Recognized

Approval ID: E192998

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	300 V	20 A	28 - 12	-

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EAC Ex
Approval ID: RU C-DE.HA91.B.00066

	GL Approval ID: 98876-96 HH			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
EEx e II part certificate	690 V	23 A	-	- 2.5



IECEx
Approval ID: IECEx KEM 06.0034U

	UL Recognized Approval ID: E192998			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	300 V	20 A	28 - 12	-



CCC
Approval ID: 2020322313000623

	DNV GL-EX Approval ID: TAE00003K6			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
EEx e II part certificate	440 V	32 A	-	- 2.5

cULus Recognized

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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

ETIM

ETIM 8.0	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
Exemption	6(c)
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)

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