

# UK 3 N GN - Feed-through terminal block



0719142

<https://www.phoenixcontact.com/us/products/0719142>

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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 mm<sup>2</sup>, cross section: 0.2 mm<sup>2</sup> - 4 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, NS 32, color: green

## Commercial data

Item number	0719142
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE12
Product key	BE1211
GTIN	4017918591526
Weight per piece (including packing)	7.342 g
Weight per piece (excluding packing)	7.74 g
Customs tariff number	85369010
Country of origin	CN

## 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 <sup>2</sup>

### 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 <sup>2</sup> ... 4 mm <sup>2</sup>
Cross section AWG	24 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Cross-section with insertion bridge, rigid	4 mm <sup>2</sup>
Cross-section with insertion bridge, flexible	2.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup>
Nominal current	24 A
Maximum load current	32 A (with 4 mm <sup>2</sup> conductor cross section)
Nominal voltage	800 V
Nominal cross section	2.5 mm <sup>2</sup>

### Ex data

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## Rated data (ATEX/IECEX)

Identification	⊕ 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 <sup>2</sup>
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 <sup>2</sup>
Ex temperature increase	40 K (24 A / 2.5 mm <sup>2</sup> )
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 <sup>2</sup>
Rated cross section AWG	14
Connection capacity rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Connection capacity AWG	24 ... 12
Connection capacity flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Connection capacity AWG	24 ... 14
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with the same cross-section AWG rigid	24 ... 16
2 conductors with same cross section, stranded	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with the same cross-section AWG flexible	24 ... 16

## Dimensions

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Width	5.2 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	green
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

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 2.5 mm <sup>2</sup>	0.3 kA
Short-time withstand current 4 mm <sup>2</sup>	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

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## 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 <sup>2</sup> / 0.2 kg
	2.5 mm <sup>2</sup> / 0.7 kg
	4 mm <sup>2</sup> / 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 <sup>2</sup> ) <sup>2</sup> /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 +70°C)
Ambient temperature (assembly)	-5 °C ... 70 °C

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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 32

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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

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