

QTC 2,5 - Feed-through terminal block



3206416

<https://www.phoenixcontact.com/us/products/3206416>

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Feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, number of connections: 2, connection method: Quick connection, Rated cross section: 2.5 mm², 1 level, cross section: 0.5 mm² - 2.5 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Compact design
- Tested for railway applications

Commercial data

Item number	3206416
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE03
Product key	BE3111
GTIN	4017918976033
Weight per piece (including packing)	10.207 g
Weight per piece (excluding packing)	10.16 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	Feed-through terminal block
Product family	QTC
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
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
Frequency of connections with the same cross section	100
Nominal cross section	2.5 mm ²

1 level

Material wire insulation	PVC / PE
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.5 mm ² ... 2.5 mm ²
Cross section AWG	20 ... 14 (converted acc. to IEC)
Conductor cross section flexible	0.5 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	20 ... 14 (converted acc. to IEC)
Nominal current	24 A
Maximum load current	24 A (with a 2.5 mm ² conductor cross section)
Nominal voltage	800 V
Nominal cross section	2.5 mm ²

Ex data

Rated data (ATEX/IECEx)

Identification	Ⓔ II 2 GD Ex eb IIC Gb
Operating temperature range	-45 °C ... 90 °C
Ex-certified accessories	3206568 D-QTC 2,5
	3206209 ATP-QTC

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List of bridges	1204517 SZF 1-0,6X3,5
	3022276 CLIPFIX 35-5
	3022218 CLIPFIX 35
	Plug-in bridge / FBS 2-6 / 3030336
	Plug-in bridge / FBS 3-6 / 3030242
	Plug-in bridge / FBS 4-6 / 3030255
	Plug-in bridge / FBS 5-6 / 3030349
	Plug-in bridge / FBS 10-6 / 3030271
Bridge data	21 A (2.5 mm ²)
	40 K (23.6 A / 2,5 mm ²)
	550 V
	352 V
	220 V
	275 V
	500 V
	(Permanent)

Ex level General

Rated voltage	550 V
Rated current	21 A
Maximum load current	21 A
Contact resistance	0.9 mΩ

Ex connection data General

Nominal cross section	2.5 mm ²
Rated cross section AWG	14
Connection capacity rigid	0.5 mm ² ... 2.5 mm ²
Connection capacity AWG	20 ... 14
Connection capacity flexible	0.5 mm ² ... 2.5 mm ²
Connection capacity AWG	20 ... 14
Frequency of connections with the same cross section	100

Dimensions

Width	6.2 mm
End cover width	2.2 mm
Height	62.6 mm
Depth on NS 35/7,5	39.3 mm
Depth on NS 35/15	46.8 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA

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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

Cable/line

Wire diameter incl. insulation	≤ 3.8 mm
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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
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 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

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Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.5 mm ² / 0.3 kg
	2.5 mm ² / 0.7 kg
Result	Test passed

Environmental and real-life conditions

Aging

Temperature cycles	192
Result	Test passed

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Long life test category 1, class B, body mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	1.857 (m/s ²) ² /Hz
Acceleration	0.8g
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	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 ... 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, 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 60947-7-1
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Mounting

Mounting type	NS 35/7,5
	NS 35/15

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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3206416>

 CSA Approval ID: 2030668				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	15 A	20 - 14	-
Use group C				
	600 V	15 A	20 - 14	-

 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	15 A	20 - 14	-
Use group C				
	600 V	15 A	20 - 14	-

 ClassNK Approval ID: 09 ME 139				
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ABS Approval ID: 22-2196825-PDA				
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DNV Approval ID: TAE000014H				
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 IECEx Approval ID: IECExKIWA19.0011U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	550 V	21 A	-	0.5 - 2.5

 ATEX Approval ID: KIWA19ATEX0019U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Type examination certificate	550 V	21 A	-	0.5 - 2.5

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CCC

Approval ID: 2020322313000625



UKCA-EX

Approval ID: CSAE 22UKEX1429U

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Classifications

ECLASS

ECLASS-13.0	27250101
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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
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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