

PTU 2,5 BU - Feed-through terminal block



3209520

<https://www.phoenixcontact.com/us/products/3209520>

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Feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, connection method: Push-in connection, Rated cross section: 2.5 mm², cross section: 0.14 mm² - 4 mm², connection method: Screw connection, Rated cross section: 2.5 mm², cross section: 0.14 mm² - 4 mm², mounting: NS 35/7,5, NS 35/15, color: blue

Your advantages

- In addition to the testing option in the double function shaft, all terminal blocks provide an additional test pick-off
- The compact design and front connection enable wiring in a confined space
- The Push-in connection terminal blocks are characterized by the system features of the CLIPLINE complete system and by easy and tool-free wiring of conductors with ferrules or solid conductors
- The push-in connection is used inside the control cabinet and the universal screw connection is used on the end customer side

Commercial data

Item number	3209520
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE22
Product key	BE2219
GTIN	4055626057248
Weight per piece (including packing)	8.222 g
Weight per piece (excluding packing)	7.2 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	Hybrid 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

Type of additional hybrid connection	UT 2,5
Number of connections per level	2
Nominal cross section	2.5 mm ²

Level 1 below 1

Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.14 mm ² ... 4 mm ²
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross-section flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross-section, flexible [AWG]	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 2.5 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm ² ... 2.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ²
Nominal current	24 A
Maximum load current	24 A (with 4 mm ² conductor cross-section)
Nominal voltage	800 V
Nominal cross section	2.5 mm ²

Level 1 below 1

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 ... 0.6 Nm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.14 mm ² ... 4 mm ²
Cross section AWG	26 ... 12 (converted acc. to IEC)

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Conductor cross-section flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross-section, flexible [AWG]	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 2.5 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm ² ... 2.5 mm ²
2 conductors with same cross section, solid	0.14 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible	0.14 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.14 mm ² ... 1.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
Nominal current	24 A
Maximum load current	24 A (with 4 mm ² conductor cross-section)
Nominal voltage	800 V
Nominal cross section	2.5 mm ²

Level 1 below 1 Connection cross sections directly pluggable

Conductor cross-section rigid	0.34 mm ² ... 4 mm ²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm ² ... 2.5 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.34 mm ² ... 2.5 mm ²

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	53.5 mm
Depth on NS 35/7,5	42.8 mm
Depth on NS 35/15	50.3 mm

Material specifications

Color	blue (RAL 5015)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °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
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
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Result	Test passed
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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

Result	Test passed
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Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross-section/weight	0.14 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

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):2022-06
Spectrum	Long life test category 2, bogie-mounted
Frequency	$f_1 = 5$ Hz to $f_2 = 250$ Hz
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12g

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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 ... 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
	IEC 60947-7-1

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/3209520>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	600 V	20 A	26 - 12	-
C	600 V	20 A	26 - 12	-

 cUL Recognized Approval ID: FILE E 60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	600 V	20 A	26 - 12	-
C	600 V	20 A	26 - 12	-
D	600 V	5 A	26 - 12	-

 EAC Approval ID: RU C-DE.BL08.B.00644				
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 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	600 V	20 A	26 - 12	-
C	600 V	20 A	26 - 12	-
D	600 V	5 A	26 - 12	-

 EAC Approval ID: KZ7500651131219505				
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Classifications

ECLASS

ECLASS-13.0	27250201
ECLASS-15.0	27250201

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
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)
SCIP	54089c9c-43da-425a-816d-4aba503b7365

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