

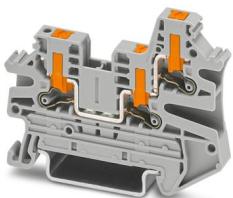
PTV 2,5-TWIN - Feed-through terminal block



1078966

<https://www.phoenixcontact.com/us/products/1078966>

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Feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, number of connections: 3, connection method: Push-in connection, Rated cross section: 2.5 mm², cross section: 0.14 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Time-saving conductor connection thanks to tool-free direct-connection technology
- Convenient plugging with lower insertion force
- High conductor pull-out forces due to the spring design
- Vibration-resistant and maintenance-free conductor connection
- Full flexibility thanks to the standardized CLIPLINE complete bridging, marking, and testing accessories
- Compact wiring of three conductors in a single terminal block
- Optimized for manual and automated wiring

Commercial data

Item number	1078966
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE23
Product key	BE2312
GTIN	4055626797076
Weight per piece (including packing)	8.38 g
Weight per piece (excluding packing)	7.396 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Notes

General

Note	The max. load current must not be exceeded by the total current of all connected conductors.
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Product properties

Product type	Multi-conductor terminal block
Product family	PTV
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Number of connections	3
Number of rows	1
Potentials	1

Insulation characteristics

Ovvoltage 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	3
Nominal cross section	2.5 mm ²
Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
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 ... 4 mm ²
Conductor cross-section, flexible [AWG]	26 ... 12 (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 ... 1.5 mm ²
Nominal current	24 A (with 2.5 mm ² conductor connection cross section)
Maximum load current	28 A (with 4 mm ² conductor cross-section, rigid)
Nominal voltage	800 V

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Nominal cross section	2.5 mm ²
Connection cross sections directly pluggable	
Conductor cross-section rigid	0.5 mm ² ... 4 mm ²
Conductor cross-section, rigid [AWG]	20 ... 12 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	1.5 mm ² ... 2.5 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	1.5 mm ² ... 2.5 mm ²

Ex data

Rated data (ATEX/IECEx)

Identification	Ex II 2 G Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	1088747 D-PTV 2,5/4-TWIN 1083618 DS-PTV 2,5/4 3024481 ATP-ST 6 1204517 SZF 1-0,6X3,5 3022276 CLIPFIX 35-5
List of bridges	Plug-in bridge / FBS 2-5 / 3030161 Plug-in bridge / FBS 3-5 / 3030174 Plug-in bridge / FBS 4-5 / 3030187 Plug-in bridge / FBS 5-5 / 3030190 Plug-in bridge / FBS 10-5 / 3030213 Plug-in bridge / FBS 20-5 / 3030226 Plug-in bridge / FBS 50-5 / 3038930
Bridge data	20.5 A (2.5 mm ²)
Ex temperature increase for bridging with bridge	40 K (21.1 A / 2.5 mm ²) 550 V
- At bridging between non-adjacent terminal blocks	352 V
- At cut-to-length bridging	275 V
- At cut-to-length bridging with cover	275 V
- At cut-to-length bridging with partition plate	550 V
Rated insulation voltage output	500 V (Permanent)

Ex level General

Rated voltage	550 V
Rated current	20.5 A (2.5 mm ²)
Maximum load current	24.5 A (4 mm ²)
Contact resistance	0.8 mΩ

Ex connection data General

Nominal cross section	2.5 mm ²
Rated cross section AWG	14
Connection capacity rigid	0.14 mm ² ... 4 mm ²
Connection capacity AWG	26 ... 12

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Connection capacity flexible	0.14 mm ² ... 4 mm ²
Connection capacity AWG	26 ... 12

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	60 mm
Depth	45.7 mm
Depth on NS 35/7,5	47.2 mm
Depth on NS 35/15	54.7 mm

Material specifications

Color	gray (RAL 7042)
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	
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

Mechanical tests

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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

Rotation speed	10 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):2018-05
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
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2018-05
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;
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	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/1078966>

		CSA		
		Approval ID: 158887		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG
B		600 V	20 A	26 - 12
C		600 V	20 A	26 - 12

		IECEE CB Scheme		
		Approval ID: DE1-67139		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG
keine		800 V	24 A	-

		EAC		
		Approval ID: RU C-DE.BL08.B.00644		

		cULus Recognized		
		Approval ID: E60425		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG
B		600 V	20 A	26 - 12
C		600 V	20 A	26 - 12
F		800 V	20 A	26 - 12

		VDE Zeichengenehmigung		
		Approval ID: 40056318		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG
keine		800 V	24 A	-

		IECEx		
		Approval ID: IECExPTB20.0037U		

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IECEx

Approval ID: IECExPTB20.0037U



ATEX

Approval ID: PTB20ATEX1016U



CCC

Approval ID: 2021122313114374



UKCA-EX

Approval ID: CSAE 22UKEX1099U



EAC Ex

Approval ID: KZ 7500525010101950

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Classifications

ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	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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