

MPT 2,5 - Mini feed-through terminal block



3248125

<https://www.phoenixcontact.com/pc/products/3248125>

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Mini feed-through terminal block, nom. voltage: 500 V, nominal current: 24 A, number of connections: 2, number of positions: 1, connection method: Push-in connection, 1 level, Rated cross section: 2.5 mm², cross section: 0.14 mm² - 4 mm², mounting type: NS 15, color: gray

Your advantages

- Space saving thanks to compact design and mounting option on a 15 mm DIN rail
- Clear arrangement thanks to marking of all terminal points
- Easy potential distribution thanks to standardized plug-in bridges
- Tested for railway applications

Commercial data

Item number	3248125
Packing unit	50 pc
Minimum order quantity	50 pc
Product key	BE2261
Catalog page	Page 97 (C-1-2019)
GTIN	4046356768764
Weight per piece (including packing)	5.674 g
Weight per piece (excluding packing)	5.607 g
Customs tariff number	85369010
Country of origin	PL

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Technical data

Product properties

Product type	Miniature terminal block
Area of application	Railway industry
	Machine building
	Plant engineering
Number of positions	1
Number of connections	2
Number of rows	1
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 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
Rated cross section AWG	12

1 level

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 ... 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 (with a 2.5 mm ² conductor cross section)
Maximum load current	27 A (with 4 mm ² conductor cross section)
Nominal voltage	500 V
Nominal cross section	2.5 mm ²

1 level 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

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Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm ² ... 2.5 mm ²
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Ex data

Rated data (ATEX/IECEX)

Identification	Ex II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3248140 D-MPT 2,5
	1204504 SZF 0-0,4X2,5
	3022263 CLIPFIX 15
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 A / 2.5 mm ²
Ex temperature increase	40 K (20 A / 2.5 mm ²)
Rated voltage	440 V
for bridging with bridge	440 V
- At bridging between non-adjacent terminal blocks	352 V
- At cut-to-length bridging	220 V
- At cut-to-length bridging with cover	440 V
Rated insulation voltage	400 V
output	(Permanent)

Ex level General

Rated current	20.5 A
Maximum load current	24 A
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
Connection capacity flexible	0.14 mm ² ... 2.5 mm ²
Connection capacity AWG	26 ... 14

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	36 mm
Depth	32.1 mm
Depth on NS 15	32.8 mm

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Material specifications

Color	gray
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	7.3 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	1.89 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 15
Test force setpoint	1 N
Result	Test passed

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Test for conductor damage and slackening

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):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 +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 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/pc/products/3248125>

DNV

Approval ID: TAE00003J4



CSA

Approval ID: 2030668

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	20 A	26 - 12	-
Use group C				
	300 V	20 A	26 - 12	-
Use group D				
	600 V	5 A	26 - 12	-



IECEE CB Scheme

Approval ID: DE1-62773

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



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	Cross section mm^2
Use group B				
	300 V	20 A	26 - 12	-
Use group C				
	300 V	20 A	26 - 12	-
Use group D				
	600 V	5 A	26 - 12	-



LR

Approval ID: LR2004293TA



BV

Approval ID: 38194/B0 BV

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VDE Zeichengenehmigung

Approval ID: 40040312



IECEx

Approval ID: IECEx SEV14.0010U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	440 V	20.5 A	-	0.14 - 2.5
Only rigid conductors	440 V	20.5 A	-	0.14 - 4



ATEX

Approval ID: SEV14ATEX0140U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	440 V	20.5 A	-	0.14 - 2.5
Only rigid conductors	440 V	20.5 A	-	0.14 - 4



CCC

Approval ID: 2020322313000629



UKCA-EX

Approval ID: CML 22UKEX1228U

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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

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%
EF3.0 Climate Change	
CO2e kg	0.032 kg CO2e

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