

MUTTB 2,5 - Mini feed-through terminal block



3249013

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Mini feed-through terminal block, nom. voltage: 500 V, nominal current: 22 A, connection method: Screw connection, Rated cross section: 2.5 mm², cross section: 0.2 mm² - 4 mm², mounting type: NS 15, NS 35/7,5, NS 35/15, color: gray

Your advantages

- Fixed bridges and test sockets can be used on both levels
- 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

Commercial data

Item number	3249013
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	*****
Product key	BE1164
GTIN	4055626405087
Weight per piece (including packing)	13.215 g
Weight per piece (excluding packing)	9.99 g
Customs tariff number	85369010
Country of origin	PL

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Technical data

Product properties

Product type	Miniature terminal block
Number of positions	2
Number of connections	4
Number of rows	2
Potentials	2

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Maximum power dissipation for nominal condition	0.77 W
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Connection data

Number of connections per level	2
Nominal cross section	2.5 mm ²
Screw thread	M3
Tightening torque	0.5 ... 0.6 Nm
Stripping length	7 mm ... 9 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.2 mm ² ... 4 mm ²
Cross section AWG	24 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm ² ... 2.5 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 1.5 mm ²
2 conductors with the same cross-section AWG rigid	24 ... 16 (converted acc. to IEC)
2 conductors with same cross section, flexible	0.2 mm ² ... 1.5 mm ²
2 conductors with the same cross-section AWG flexible	24 ... 16 (converted acc. to IEC)
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.2 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	22 A (with a 2.5 mm ² conductor cross section)
Maximum load current	28 A (with 4 mm ² conductor cross-section)
Nominal voltage	500 V
Nominal cross section	2.5 mm ²

Ex data

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Rated data (ATEX/IECEX)

Identification	Ex II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3249016 D-MUTTB 2,5
	1462738 DP-MUTTB 2,5
	1205053 SZS 0,6X3,5
	3022263 CLIPFIX 15
	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	19 A / 2.5 mm²
Ex temperature increase	40 K (19 A / 2.5 mm²)
Rated voltage	275 V
for bridging with bridge	275 V
- At bridging between non-adjacent terminal blocks	220 V
Rated insulation voltage	250 V
output	(Permanent)

Ex level General

Rated current	19 A (2.5 mm²)
Maximum load current	24 A (4 mm²)

Ex connection data

Torque range	0.5 Nm ... 0.6 Nm
Connection capacity rigid	0.2 mm² ... 4 mm²
Connection capacity AWG	24 ... 12
Connection capacity flexible	0.2 mm² ... 2.5 mm²
Connection capacity AWG	24 ... 14
2 conductors with same cross section, solid	0.2 mm² ... 1.5 mm²
2 conductors with the same cross-section AWG rigid	24 ... 16
2 conductors with same cross section, stranded	0.2 mm² ... 1.5 mm²
2 conductors with the same cross-section AWG flexible	24 ... 16
output	(Permanent)

Ex level Level 1

Contact resistance	0.42 mΩ
output	(Permanent)

Ex level Level 2

Contact resistance	0.27 mΩ
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Dimensions

Width	5.2 mm
Height	63.5 mm
Depth	50.8 mm
Depth on NS 15	51.6 mm
Depth on NS 35/7,5	52.3 mm
Depth on NS 35/15	59.8 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
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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	1.89 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes
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Mechanical tests

Mechanical strength

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Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 35/7,5
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.2 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

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2022-06
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):2022-06
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, 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 %

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Permissible humidity (storage/transport)
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30 % ... 70 %

Standards and regulations

Connection in acc. with standard

IEC 60947-7-1

Mounting

Mounting type

NS 15

NS 35/7,5

NS 35/15

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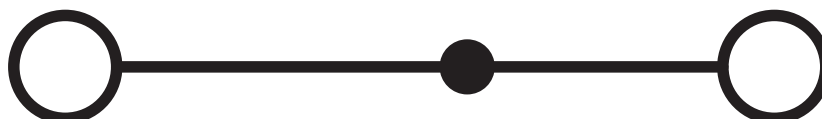


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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/3249013>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	150 V	20 A	24 - 12	-
Use group C	150 V	20 A	24 - 12	-
Use group D	300 V	10 A	24 - 12	-

 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	150 V	20 A	24 - 12	-
Use group C	150 V	20 A	24 - 12	-
Use group F	500 V	20 A	24 - 12	-
Use group D	300 V	10 A	24 - 12	-

DNV Approval ID: TAE00003J4				
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 CCC Approval ID: 2020322313000629				
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 IECEx Approval ID: IECEx SEV13.0012U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	275 V	19 A	-	0.2 - 2.5
Only rigid conductors	275 V	24 A	-	0.2 - 4

 ATEX Approval ID: SEV13ATEX0178U				
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	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	275 V	19.5 A	-	0.2 - 2.5
Only rigid conductors	275 V	24 A	-	0.2 - 4

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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250102

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	f52764f6-a24f-4ca5-94b0-7adcd952806e

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