

Knife disconnect terminal block - PT 2,5-TWIN-MTB - 3210170

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Knife disconnect terminal block, nom. voltage: 400 V, nominal current: 16 A, connection method: Push-in connection, cross section: 0.14 mm² - 4 mm², AWG: 26 - 12, length: 81.9 mm, width: 5.2 mm, color: gray, mounting: NS 35/7,5, NS 35/15, nom. voltage: 400 V

Why buy this product

- ✓ 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 compact design and front connection enable wiring in a confined space
- ✓ In addition to the testing facility in the double function shaft, all terminal blocks provide an additional test connection
- ✓ Tested for railway applications

Key Commercial Data

Packing unit	50 STK
GTIN	
GTIN	4046356693745

Technical data

General

Number of levels	1
Number of connections	3
Potentials	1
Nominal cross section	2.5 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Area of application	Railway industry
	Machine building
	Plant engineering
Rated surge voltage	6 kV
Degree of pollution	3

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Technical data

General

Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.77 W
Maximum load current	16 A (with 4 mm ² conductor cross section)
Nominal current I _N	16 A
Nominal voltage U _N	400 V
Open side panel	Yes
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Surge voltage test setpoint	7.3 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.89 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	0.14 mm ² / 0.2 kg
	2.5 mm ² / 0.7 kg
	4 mm ² / 0.9 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.14 mm ²
Tractive force setpoint	10 N
Conductor cross section tensile test	2.5 mm ²
Tractive force setpoint	50 N
Conductor cross section tensile test	4 mm ²
Tractive force setpoint	60 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	1 N
Result of voltage-drop test	Test passed
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	2.5 mm ²
Short-time current	0.3 kA
Result of thermal test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Proof of thermal characteristics (needle flame) effective duration	30 s
Result of aging test	Test passed

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Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2008-03
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	3.12 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
Shock form	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Static insulating material application in cold	-60 °C
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
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
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
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

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Length	81.9 mm
Height	35.2 mm
Height NS 35/7,5	36.7 mm
Height NS 35/15	44.2 mm

Connection data

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Technical data

Connection data

Connection method	Push-in connection
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section AWG min.	26
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	2.5 mm ²
Min. AWG conductor cross section, flexible	26
Max. AWG conductor cross section, flexible	14
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	2.5 mm ²
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm ²
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3

Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
Flammability rating according to UL 94	V0
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Circuit diagram



Approvals

Approvals

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Approvals

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UL Recognized / cUL Recognized / VDE Zeichengenehmigung / IECCEB Scheme / CSA / GL / BV / LR / EAC / cULus Recognized

Ex Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	D	B	C
Nominal voltage UN	600 V	300 V	300 V
Nominal current IN	5 A	16 A	16 A
mm ² /AWG/kcmil	26-12	26-12	26-12


cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	D	B	C
Nominal voltage UN	600 V	300 V	300 V
Nominal current IN	5 A	16 A	16 A
mm ² /AWG/kcmil	26-12	26-12	26-12

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40037618
Nominal voltage UN		400 V	
Nominal current IN		16 A	
mm ² /AWG/kcmil		0.2-2.5	

IECCEB Scheme		http://www.iecee.org/	DE1-52329_M2
Nominal voltage UN		400 V	
Nominal current IN		16 A	
mm ² /AWG/kcmil		2.5	


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Approvals


CSA		http://www.csagroup.org/services-industries/product-listing/		13631
	D	B	C	
Nominal voltage UN	600 V	300 V	300 V	
Nominal current IN	5 A	16 A	16 A	
mm ² /AWG/kcmil	26-12	26-12	26-12	

GL		http://exchange.dnv.com/tari/	6195714 HH
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BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	25278/B0 BV
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LR		http://www.lr.org/en	14/20056
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EAC			RU C- DE.AI30.B.01102
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	
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