

## Feed-through terminal block - PT 2,5-QUATTRO - 3209578

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Feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, connection method: Push-in connection, number of connections: 4, cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 26 - 12, width: 5.2 mm, height: 35.3 mm, color: gray, mounting type: NS 35/7,5, NS 35/15

### Your advantages

- ✓ 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 pc
Minimum order quantity	50 pc
GTIN	 4 046356 329859
GTIN	4046356329859
Weight per Piece (excluding packing)	10.430 g
Custom tariff number	85369010
Country of origin	Germany

### Technical data

#### General

Number of levels	1
Number of connections	4
Potentials	1
Nominal cross section	2.5 mm <sup>2</sup>
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Area of application	Railway industry

## Feed-through terminal block - PT 2,5-QUATTRO - 3209578

### Technical data

#### General

	Machine building
	Plant engineering
	Process industry
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.77 W
Designation	Level 1 above 1+2 below 1+2
Maximum load current	28 A (with 4 mm <sup>2</sup> conductor cross section, rigid)
Nominal current I <sub>N</sub>	24 A (with 2.5 mm <sup>2</sup> conductor connection cross section)
Nominal voltage U <sub>N</sub>	800 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	9.8 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	2 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 <sup>2</sup> / 0.2 kg
	2.5 mm <sup>2</sup> / 0.7 kg
	4 mm <sup>2</sup> / 0.9 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.14 mm <sup>2</sup>
Tractive force setpoint	10 N
Conductor cross section tensile test	2.5 mm <sup>2</sup>
Tractive force setpoint	50 N
Conductor cross section tensile test	4 mm <sup>2</sup>
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
Requirements, voltage drop	≤ 3.2 mV
Result of temperature-rise test	Test passed

## Feed-through terminal block - PT 2,5-QUATTRO - 3209578

### Technical data

#### General

Short circuit stability result	Test passed
Conductor cross section short circuit testing	2.5 mm <sup>2</sup>
Short-time current	0.3 kA
Conductor cross section short circuit testing	4 mm <sup>2</sup>
Short-time current	0.48 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
Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2018-05
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz
ASD level	1.857 (m/s <sup>2</sup> ) <sup>2</sup> /Hz
Acceleration	0,8 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):2018-05
Shock form	Half-sine
Acceleration	5g
Shock duration	30 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))	125 °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)	27,5 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

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### Technical data

#### Dimensions

Width	5.2 mm
End cover width	2.2 mm
Length	72.2 mm
Height	35.3 mm
Height NS 35/7,5	36.8 mm
Height NS 35/15	44.3 mm

#### Connection data

Connection	1 level
Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG min.	26
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	4 mm <sup>2</sup>
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 <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	2.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm <sup>2</sup>
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
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

#### Environmental Product Compliance

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

### Drawings

## Feed-through terminal block - PT 2,5-QUATTRO - 3209578

Circuit diagram



### Classifications

#### eCl@ss

eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

#### ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	EC000897
ETIM 6.0	EC000897
ETIM 7.0	EC000897

#### UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410

### Approvals

#### Approvals

##### Approvals

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

##### Ex Approvals

IECEX / ATEX / UL Recognized / cUL Recognized / EAC Ex / cULus Recognized


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### Approvals


#### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE00003JE
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NK	<b>ClassNK</b>	<a href="http://www.classnk.or.jp/hp/en/">http://www.classnk.or.jp/hp/en/</a>	14ME0912
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CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	20 A	20 A	
mm <sup>2</sup> /AWG/kcmil	26-12	26-12	

BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	25278/B0 BV
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LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	14/20056
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NK	<b>ClassNK</b>	<a href="http://www.classnk.or.jp/hp/en/">http://www.classnk.or.jp/hp/en/</a>	14ME0913
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ABS		<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	16-HG1591536-PDA
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	20 A	20 A	
mm <sup>2</sup> /AWG/kcmil	26-12	26-12	


<https://www.phoenixcontact.com/gb/products/3209578>





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### Approvals

cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	20 A	20 A	
mm <sup>2</sup> /AWG/kcmil	26-12	26-12	

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DE1-61341
Nominal voltage UN	800 V		
mm <sup>2</sup> /AWG/kcmil	0.2-2.5		

VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40032222
Nominal voltage UN	800 V		
Nominal current IN	24 A		
mm <sup>2</sup> /AWG/kcmil	0.2-2.5		

EAC		RU C- DE.AI30.B.01102
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cULus Recognized	
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