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## Disconnect terminal block - QTC 2,5-TG - 3206490

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Disconnect terminal block, nom. voltage: 400 V, nominal current: 20 A, connection method: Quick connection, cross section: 0.5 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, AWG: 20 - 14, length: 82.5 mm, width: 6.2 mm, color: gray, mounting: NS 35/7,5, NS 35/15, nom. voltage: 400 V

### Why buy this product

- Tested for railway applications
- The P-CO(3) component plug is used to accommodate different components such as resistors or diodes
- The P-DI (2) isolating plug can be used in all disconnect terminal blocks. Following disconnection, the P-DI can be "parked" back to front in the basic terminal block.
- The insulated P-FIX (1) feed-through connector enables the installation of a feed-through terminal of the same shape
- Triple bridge shaft enables individual potential distribution and supply

### Key Commercial Data

Packing unit	50 STK
GTIN	
GTIN	4046356057677

### Technical data

#### General

Note	Current and voltage are determined by the plug used.
Number of levels	1
Number of connections	2
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
	Machine building
	Plant engineering
Rated surge voltage	6 kV

# Disconnect terminal block - QTC 2,5-TG - 3206490

## Technical data

### General

Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Connection in acc. with standard	IEC 60947-7-1
Nominal current $I_N$	20 A
Maximum load current	20 A (with a 2.5 mm <sup>2</sup> conductor cross section)
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	67.5 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	0.5 mm <sup>2</sup> / 0.3 kg
	2.5 mm <sup>2</sup> / 0.7 kg
Tensile test result	Test passed
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
Result of aging test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
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 1, class B, body mounted
Test frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	0.02 g <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

# Disconnect terminal block - QTC 2,5-TG - 3206490

## Technical data

### General

Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
Shock form	Half-sine
Acceleration	5 g
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))	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	6.2 mm
Length	82.5 mm
Height NS 35/7,5	39.3 mm
Height NS 35/15	46.8 mm

### Connection data

Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	14
Connection method	Quick connection
Max. wire diameter incl. insulation	3.8 mm
Material wire insulation	PVC / PE
Structure of individual litz in acc. with VDE 0295 / smallest wire diameter	VDE 0295 Cl.1-5

### Standards and Regulations

# Disconnect terminal block - QTC 2,5-TG - 3206490

## Technical data

### 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

CSA / UL Recognized / cUL Recognized / BV / ABS / NK / LR / DNV GL / cULus Recognized

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### Ex Approvals

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### Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	D	B	C
Nominal voltage UN	600 V	300 V	300 V
Nominal current IN	5 A	15 A	15 A
mm <sup>2</sup> /AWG/kcmil	20-14	20-14	20-14

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## Approvals

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
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	D		B	C
Nominal voltage UN	300 V	300 V	300 V	150 V
Nominal current IN	10 A	15 A	15 A	15 A
mm <sup>2</sup> /AWG/kcmil	20-14	20-14	20-14	20-14

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
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	D		B	C
Nominal voltage UN	300 V	300 V	300 V	150 V
Nominal current IN	10 A	15 A	15 A	15 A
mm <sup>2</sup> /AWG/kcmil	20-14	20-14	20-14	20-14

BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	20148/A0 BV
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ABS		<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	16-HG1589079-PDA
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NK		<a href="http://www.classnk.or.jp/hp/en/">http://www.classnk.or.jp/hp/en/</a>	09 ME 139
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LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	15/20023
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DNV GL	<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>		TAE000014H
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cULus 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>	
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