

## Ground modular terminal block - ST 4-TWIN-PE - 3031416

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Ground modular terminal block, Connection method: Spring-cage connection, Cross section: 0.08 mm<sup>2</sup> - 6 mm<sup>2</sup>, AWG: 28 - 10, Width: 6.2 mm, Color: green-yellow, Mounting type: NS 35/7,5, NS 35/15

### Why buy this product

- Additional labeling options
- Low contact resistance
- Corrosion-free terminal points
- Tested for railway applications
- Green-yellow housing



### Key Commercial Data

Packing unit	50 STK
GTIN	 4 017918 186883
GTIN	4017918186883
Weight per Piece (excluding packing)	14.980 g
Custom tariff number	85369010
Country of origin	Germany

### Technical data

#### General

Number of levels	1
Number of connections	3
Potentials	1
Nominal cross section	4 mm <sup>2</sup>
Color	green-yellow
Insulating material	PA
Flammability rating according to UL 94	V0
Area of application	Railway industry

# Ground modular terminal block - ST 4-TWIN-PE - 3031416

## 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
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
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))	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

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## Technical data

### General

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
End cover width	2.2 mm
Length	71.5 mm
Height NS 35/7,5	36.5 mm
Height NS 35/15	44 mm

### Connection data

Note	Please observe the current carrying capacity of the DIN rails.
Connection method	Spring-cage connection
Connection in acc. with standard	IEC 60947-7-2
Conductor cross section solid min.	0.08 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	10
Conductor cross section flexible min.	0.08 mm <sup>2</sup>
Conductor cross section flexible max.	4 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	28
Max. AWG conductor cross section, flexible	12
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.	4 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.	4 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	1 mm <sup>2</sup>
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	0.08 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	10
Conductor cross section flexible min.	0.08 mm <sup>2</sup>
Conductor cross section flexible max.	4 mm <sup>2</sup>
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A4

### Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-2

# Ground modular terminal block - ST 4-TWIN-PE - 3031416

## Technical data

### Standards and Regulations

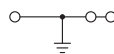
Flammability rating according to UL 94	V0
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### Environmental Product Compliance

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

## Drawings

Circuit diagram



## Classifications

### eCl@ss

eCl@ss 4.0	27141118
eCl@ss 4.1	27141118
eCl@ss 5.0	27141118
eCl@ss 5.1	27141118
eCl@ss 6.0	27141141
eCl@ss 7.0	27141141
eCl@ss 8.0	27141141
eCl@ss 9.0	27141141

### ETIM

ETIM 2.0	EC000901
ETIM 3.0	EC000901
ETIM 4.0	EC000901
ETIM 5.0	EC000901
ETIM 6.0	EC000901

### UNSPSC

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

## Approvals

### Approvals

# Ground modular terminal block - ST 4-TWIN-PE - 3031416

## Approvals

### Approvals

CSA / UL Recognized / VDE Gutachten mit Fertigungsüberwachung / cUL Recognized / LR / BV / RS / KR / NK / EAC / EAC / DNV GL / DNV GL / cULus Recognized

### Ex Approvals

IECEX / ATEX / EAC Ex

### Approval details

CSA		<a href="http://www.csagroup.org/services/testing-and-certification/certified-product-listing/">http://www.csagroup.org/services/testing-and-certification/certified-product-listing/</a>	13631
mm <sup>2</sup> /AWG/kcmil		28-10	

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
mm <sup>2</sup> /AWG/kcmil		28-10	

VDE Gutachten mit Fertigungsüberwachung		<a href="http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx">http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx</a>	40010329
mm <sup>2</sup> /AWG/kcmil		0.2-4	
Nominal current IN		32 A	

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
mm <sup>2</sup> /AWG/kcmil		28-10	

LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	04/20034
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BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	13403/B0 BV
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## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Approvals

RS		<a href="http://www.rs-head.spb.ru/en/index.php">http://www.rs-head.spb.ru/en/index.php</a>	11.04057.250
KR		<a href="http://www.krs.co.kr/eng/main/main.aspx">http://www.krs.co.kr/eng/main/main.aspx</a>	HMB17372-EL002
NK		<a href="http://www.classnk.or.jp/hp/en/">http://www.classnk.or.jp/hp/en/</a>	09 ME 140
EAC			EAC-Zulassung
EAC			7500651.22.01.00246
DNV GL		<a href="https://www.dnvgl.com/">https://www.dnvgl.com/</a>	E-13345 (E-9232)
DNV GL		<a href="https://www.dnvgl.com/">https://www.dnvgl.com/</a>	TAE00001CS
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>	

### Accessories

#### Accessories

#### DIN rail

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 7.5 mm, width 35 mm, length: 2000 mm

## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, material: Steel, unperforated, height 7.5 mm, width 35 mm, length: 2 m

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DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119



DIN rail 35 mm (NS 35)

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DIN rail - NS 35/ 7,5 WH UNPERF 2000MM - 1204122



DIN rail 35 mm (NS 35)

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DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704



DIN rail, unperforated, Width: 35 mm, Height: 7.5 mm, Length: 2000 mm, Color: silver

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DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421



DIN rail, material: Galvanized, perforated, height 7.5 mm, width 35 mm, length: 2 m

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## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



DIN rail, material: Galvanized, unperforated, height 7.5 mm, width 35 mm, length: 2 m

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DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, material: Copper, unperforated, height 7.5 mm, width 35 mm, length: 2 m

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End cap - NS 35/ 7,5 CAP - 1206560



DIN rail end piece, for DIN rail NS 35/7.5

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DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 15 mm, width 35 mm, length: 2000 mm

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DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714



DIN rail, material: Steel, unperforated, height 15 mm, width 35 mm, length: 2 m

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## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602



DIN rail 35 mm (NS 35)

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DIN rail - NS 35/15 WH UNPERF 2000MM - 1204135



DIN rail 35 mm (NS 35)

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DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, deep drawn, high profile, unperforated, 1.5 mm thick, material: aluminum, height 15 mm, width 35 mm, length 2000 mm

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DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599



DIN rail, material: Galvanized, perforated, height 15 mm, width 35 mm, length: 2 m

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DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586



DIN rail, material: Galvanized, unperforated, height 15 mm, width 35 mm, length: 2 m

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## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, material: Copper, unperforated, 1.5 mm thick, height 15 mm, width 35 mm, length: 2 m

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End cap - NS 35/15 CAP - 1206573



DIN rail end piece, for DIN rail NS 35/15

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DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798



DIN rail, unperforated, Width: 35 mm, Height: 15 mm, Length: 2000 mm, Color: silver

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### Documentation

Mounting material - ST-IL - 3039900

Operating decal for the ST terminal block



### End block

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

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## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

End clamp - CLIPFIX 35-5 - 3022276



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

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End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

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End clamp - E/UK - 1201442



End clamp, Width: 9.5 mm, Height: 35.3 mm, Length: 50.5 mm, Color: gray

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End clamp - E/UK 1 - 1201413



End clamps, for supporting the ends of double-level and three-level terminal blocks, width: 10 mm, color: gray

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End cover

End cover - D-ST 4-TWIN - 3030491



End cover, Length: 71.5 mm, Width: 2.2 mm, Height: 29 mm, Color: gray

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## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

Cover segment - DS-ST 4 - 3036615



Cover segment, Length: 87 mm, Height: 36.5 mm, Color: gray

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### Insulating sleeve

Insulating sleeve - ISH 4/0,5 - 3002885



Insulating sleeve, Color: gray

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Insulating sleeve - ISH 4/1,0 - 3002898



Insulating sleeve, Color: black

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### Jumper

Plug-in bridge - FBSR 2-6 - 3033715



Plug-in bridge, Pitch: 6.2 mm, Number of positions: 2, Color: red

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Plug-in bridge - FBSR 3-6 - 3001594



Plug-in bridge, Pitch: 6.2 mm, Number of positions: 3, Color: red

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## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

Plug-in bridge - FBSR 4-6 - 3001595



Plug-in bridge, Pitch: 6.2 mm, Number of positions: 4, Color: red

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Plug-in bridge - FBSR 5-6 - 3001596



Plug-in bridge, Pitch: 6.2 mm, Number of positions: 5, Color: red

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Plug-in bridge - FBSR 10-6 - 3033716



Plug-in bridge, Pitch: 6.2 mm, Number of positions: 10, Color: red

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### Labeled terminal marker

Zack marker strip - ZB 6 CUS - 0824992



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

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Zack marker strip - ZB 6,LGS:FORTL.ZAHLEN - 1051016



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

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## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

#### Zack marker strip - ZB 6,QR:FORTL.ZAHLEN - 1051029



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

#### Zack marker strip - ZB 6,LGS:GLEICHE ZAHLEN - 1051032



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed horizontally: Identical numbers 1 or 2, etc. up to 100, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

#### Marker for terminal blocks - ZB 6,LGS:L1-N,PE - 1051414



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

#### Marker for terminal blocks - ZB 6,LGS:U-N - 1051430



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed horizontally: U, V, W, N, GND, U, V, W, N, GND, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

#### Marker for terminal blocks - UC-TM 6 CUS - 0824589



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

#### Marker for terminal blocks - UCT-TM 6 CUS - 0829602



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

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#### Zack Marker strip, flat - ZBF 6 CUS - 0825027



Zack Marker strip, flat, Strip, can be ordered: Strip, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

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#### Marker for terminal blocks - UC-TMF 6 CUS - 0824646



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 5.1 mm

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#### Marker for terminal blocks - UCT-TMF 6 CUS - 0829665



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.4 x 4.7 mm

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#### Zack Marker strip, flat - ZBF 6,LGS:FORTL.ZAHLEN - 0808749



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

Zack Marker strip, flat - ZBF 6,QR:FORTL.ZAHLEN - 0808765



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

Zack Marker strip, flat - ZBF 6,LGS:GERADE ZAHLEN - 0810834



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 2 - 20, 22 - 40, etc. up to 82 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

Zack Marker strip, flat - ZBF 6,LGS:UNGERADE ZAHLEN - 0810876



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

### Partition plate

Partition plate - ATP-ST-TWIN - 3030789



Partition plate, Length: 76.6 mm, Width: 2 mm, Height: 45 mm, Color: gray

### Screwdriver tools

Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip



## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

Screwdriver - ST-BW - 1207608



Actuation tool, for all 2.5 mm<sup>2</sup> - 4.0 mm<sup>2</sup> spring-cages

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### Short-circuit connector

Short-circuit connector - FBSRH 2-6 - 3033812



Short-circuit connector, Pitch: 6.2 mm, Number of positions: 2, Color: red

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### Terminal marking

Zack marker strip - ZB 6:UNBEDRUCKT - 1051003



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

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Marker for terminal blocks - UC-TM 6 - 0818085



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

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Marker for terminal blocks - UCT-TM 6 - 0828736



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

## Ground modular terminal block - ST 4-TWIN-PE - 3031416

### Accessories

#### Zack Marker strip, flat - ZBF 6:UNBEDRUCKT - 0808710



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

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#### Marker for terminal blocks - UC-TMF 6 - 0818140



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 5.1 mm

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#### Marker for terminal blocks - UCT-TMF 6 - 0828746



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.4 x 4.7 mm

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### Test plug terminal block

#### Reducing plug - RPS - 0201647



Reducing plug, Color: gray